

(25)Safety First(Illustration) in Africa(1357-1806)

(25)Safety First(Illustration) in Africa(1357-1806)

Great Zimbabwe was a city in the south-eastern hills of the modern country of Zimbabwe.
It was settled from 1000 AD,



Living with children is the best!



Let's go on a trip!



Let's live here together!



只野敏夫
TADANO TOSHIO

Reference

- | | | |
|--|---|----------------------------------|
| 1 土木工学ハンドブック | 土木学会編 | 技報堂 |
| Civil Engineering Handbook | Edited by Japan Society of Civil Engineers | GIHODO SHUPPAN Co., Ltd. |
| 2 農業土木ハンドブック | 農業土木学会編 | 丸善株式会社 |
| Agricultural civil engineering handbook | Japan Society of Agricultural Civil Engineers | Maruzen Co., Ltd. |
| 3 林業土木ハンドブック | | 千代田出版 |
| Forestry Civil Engineering Handbook | | Chiyoda Publishing Co., Ltd. |
| 4 道路構造令の解説と運用 | (2003) | 社団法人 日本道路協会 |
| Explanation and operation of road structure | | Japan Road Association |
| 5 応用地質用語集 | | 東洋書店 |
| Glossary of applied geological terms | | Toyo Shoten Co., Ltd. |
| 6 実用英和対訳 土木用語辞典 | | 工学出版株式会社 |
| Practical English-Japanese translation Dictionary of civil engineering terms | | Engineering Publishing Co., Ltd. |
| 7 農業土木用語集 | | 東洋書店 |
| Glossary of agricultural civil engineering terms | | Toyo Shoten Co., Ltd. |
| 8 土木施工用語集 | | 東洋書店 |
| Glossary of civil engineering construction terms | | Toyo Shoten Co., Ltd. |
| 9 土木コンクリート用語集 | | 東洋書店 |
| Glossary of civil engineering and concrete terms | | Toyo Book Book Store |
| 10 土木用語辞典 | 東京工学会編 | 工学出版株式会社 |
| Dictionary of civil engineering terms | Edited by Tokyo Engineering Study Group | Engineering Publishing Co., Ltd. |
| 11 図解 土質・基礎用語集 | | 東洋書店 |
| Illustrated Glossary of Soil Characteristics and Basic Terms | | Toyo Shoten Co., Ltd. |
| 12 安全法令ダイジェスト | | 労働新聞社 |
| Safety Law Digest | | Labor Newspaper |

只野敏夫
Tadano Toshio

(S1357) Protective Equipment
(S1358) Protective Equipment
(S1359) Protective Equipment
(S1360) Protective Equipment
(S1361) Protective Equipment
(S1362) Protective Equipment
(S1363) Protective Equipment
(S1364) Protective Equipment
(S1365) Protective Equipment
(S1366) Protective Equipment
(S1367) Protective Equipment
(S1368) Protective Equipment
(S1369) Protective Equipment
(S1370) Protective Equipment
(S1371) Protective Equipment
(S1372) Safety belt
(S1373) Safety belt
(S1374) Safety belt
(S1375) Safety belt
(S1376) Safety belt
(S1377) Safety belt
(S1378) Safety belt
(S1379) Safety belt
(S1380) Safety belt
(S1381) Safety belt
(S1382) Safety belt
(S1383) Safety belt
(S1384) Safety belt
(S1385) Safety belt
(S1386) Safety belt
(S1387) Safety belt
(S1388) Safety belt
(S1389) Safety belt
(S1390) Safety belt

[illegible]

(S1425)	Protective Equipment
(S1426)	Protective Equipment
(S1427)	Protective Equipment
(S1428)	Protective Equipment
(S1429)	Protective Equipment
(S1430)	Protective Equipment
(S1431)	Protective Equipment
(S1432)	Protective Equipment
(S1433)	Protective Equipment
(S1434)	Protective Equipment
(S1435)	Protective Equipment
(S1436)	Protective Equipment
(S1437)	Protective Equipment
(S1438)	Protective Equipment
(S1439)	Protective Equipment
(S1440)	Protective Equipment
(S1441)	Protective Equipment
(S1442)	Protective Equipment
(S1443)	Protective Equipment
(S1444)	Protective Equipment
(S1445)	Protective Equipment
(S1446)	Protective Equipment
(S1447)	Protective Equipment
(S1448)	Protective Equipment
(S1449)	Protective Equipment
(S1450)	Protective Equipment
(S1451)	Protective Equipment
(S1452)	Protective Equipment
(S1453)	Protective Equipment
(S1454)	Protective Equipment
(S1455)	Protective Equipment
(S1456)	Protective Equipment
(S1457)	Protective Equipment
(S1458)	Protective Equipment

[illegible]

(S1459) Protective Equipment
(S1460) Protective Equipment
(S1461) Protective Equipment
(S1462) Protective Equipment
(S1463) Protective Equipment
(S1464) Debris flow
(S1465) Debris flow
(S1466) Debris flow
(S1467) Debris flow
(S1468) Debris flow
(S1469) Debris flow
(S1470) Debris flow
(S1471) Debris flow
(S1472) Debris flow
(S1473) Debris flow
(S1474) Debris flow
(S1475) Loading and Unloading
(S1476) Loading and Unloading
(S1477) Loading and Unloading
(S1478) Loading and Unloading
(S1479) Loading and Unloading
(S1480) Loading and Unloading
(S1481) Loading and Unloading
(S1482) Loading and Unloading
(S1483) Loading and Unloading
(S1484) Buildings
(S1485) Buildings
(S1486) Buildings
(S1487) Buildings
(S1488) Buildings
(S1489) Buildings
(S1490) Buildings
(S1491) Buildings
(S1492) Buildings

[illegible]

(S1493)	Buildings
(S1494)	Buildings
(S1495)	Inspection
(S1496)	Inspection
(S1497)	Inspection
(S1498)	Inspection
(S1499)	Inspection
(S1500)	Inspection
(S1501)	Inspection
(S1502)	Inspection
(S1503)	Inspection
(S1504)	Inspection
(S1505)	Environment Measurements
(S1506)	Environment Measurements
(S1507)	Environment Measurements
(S1508)	Environment Measurements
(S1509)	Environment Measurements
(S1510)	Environment Measurements
(S1511)	Environment Measurements
(S1512)	Environment Measurements
(S1513)	Environment Measurements
(S1514)	Environment Measurements
(S1515)	Environment Measurements
(S1516)	Environment Measurements
(S1517)	Environment Measurements
(S1518)	Environment Measurements
(S1519)	Environment Measurements
(S1520)	Environment Measurements
(S1521)	Bad Weather
(S1522)	Bad Weather
(S1523)	Bad Weather
(S1524)	Bad Weather
(S1525)	Bad Weather
(S1526)	Bad Weather

Buildings
Buildings
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Bad Weather
Bad Weather
Bad Weather
Bad Weather
Bad Weather
Bad Weather
Bad Weather

(S1527)	Bad Weather
(S1528)	Bad Weather
(S1529)	Bad Weather
(S1530)	Bad Weather
(S1531)	Bad Weather
(S1532)	Bad Weather
(S1533)	Bad Weather
(S1534)	Bad Weather
(S1535)	Bad Weather
(S1536)	Bad Weather
(S1537)	Bad Weather
(S1538)	Bad Weather
(S1539)	Bad Weather
(S1540)	Bad Weather
(S1541)	Bad Weather
(S1542)	Bad Weather
(S1543)	Bad Weather
(S1544)	Bad Weather
(S1545)	Bad Weather
(S1546)	Bad Weather
(S1547)	Bad Weather
(S1548)	Bad Weather
(S1549)	Bad Weather
(S1550)	Bad Weather
(S1551)	Bad Weather
(S1552)	Bad Weather
(S1553)	Bad Weather
(S1554)	Bad Weather
(S1555)	Bad Weather
(S1556)	Bad Weather
(S1557)	Bad Weather
(S1558)	Bad Weather
(S1559)	Bad Weather
(S1560)	Bad Weather

[illegible]

(S1595) Labeling
(S1596) Labeling
(S1597) Labeling
(S1598) Labeling
(S1599) Labeling
(S1600) Labeling
(S1601) Labeling
(S1602) Labeling
(S1603) Labeling
(S1604) Labeling
(S1605) Labeling
(S1606) Labeling
(S1607) Labeling
(S1608) Labeling
(S1609) Labeling
(S1610) Labeling
(S1611) Labeling
(S1612) Labeling
(S1613) No Entry
(S1614) No Entry
(S1615) No Entry
(S1616) No Entry
(S1617) No Entry
(S1618) No Entry
(S1619) No Entry
(S1620) No Entry
(S1621) No Entry
(S1622) No Entry
(S1623) No Entry
(S1624) No Entry
(S1625) No Entry
(S1626) No Entry
(S1627) No Entry
(S1628) No Entry

(S1629) No Entry
(S1630) No Entry
(S1631) No Entry
(S1632) No Entry
(S1633) No Entry
(S1634) No Entry
(S1635) No Entry
(S1636) No Entry
(S1637) No Entry
(S1638) No Entry
(S1639) No Entry
(S1640) No Entry
(S1641) No Entry
(S1642) No Entry
(S1643) No Entry
(S1644) No Entry
(S1645) No Entry
(S1646) No Entry
(S1647) No Entry
(S1648) No Entry
(S1649) No Entry
(S1650) No Entry
(S1651) No Entry
(S1652) No Entry
(S1653) No Entry
(S1654) No Entry
(S1655) No Entry
(S1656) No Entry
(S1657) No Entry
(S1658) No Entry
(S1659) No Entry
(S1660) No Entry
(S1661) No Entry
(S1662) No Entry

(S1663) No Entry
(S1664) No Entry
(S1665) No Entry
(S1666) No Entry
(S1667) No Entry
(S1668) No Entry
(S1669) No Entry
(S1670) No Entry
(S1671) Signals
(S1672) Signals
(S1673) Signals
(S1674) Signals
(S1675) Signals
(S1676) Signals
(S1677) Signals
(S1678) Signals
(S1679) Signals
(S1680) Signals
(S1681) Signals
(S1682) Signals
(S1683) Signals
(S1684) Signals
(S1685) Signals
(S1686) Signals
(S1687) Signals
(S1688) Signals
(S1689) Signals
(S1690) Signals
(S1691) Signals
(S1692) Signals
(S1693) Signals
(S1694) Signals
(S1695) Signals
(S1696) Signals

$$(\alpha = 0.05, \text{ normal distribution, } n = 1000000000)$$

Health and Safety Documents

(S1731) Health and Safety Documents
(S1732) Health and Safety Documents
(S1733) Safety terminology
(S1734) Safety terminology
(S1735) Safety terminology
(S1736) Safety terminology
(S1737) Safety terminology
(S1738) Safety terminology
(S1739) Safety terminology
(S1740) Safety terminology
(S1741) Safety terminology
(S1742) Safety terminology
(S1743) Safety terminology
(S1744) Safety terminology
(S1745) Safety terminology
(S1746) Safety terminology
(S1747) Safety terminology
(S1748) Safety terminology
(S1749) Safety terminology
(S1750) Safety terminology
(S1751) Safety terminology
(S1752) Safety terminology
(S1753) Safety terminology
(S1754) Safety terminology
(S1755) Safety terminology
(S1756) Safety terminology
(S1757) Safety terminology
(S1758) Safety terminology
(S1759) Safety terminology
(S1760) Safety terminology
(S1761) Safety terminology
(S1762) Safety terminology
(S1763) Safety terminology
(S1764) Safety terminology

[illegible]

(S1799) Safety terminology
(S1800) Safety terminology
(S1801) Safety terminology
(S1802) Weather definition
(S1803) Weather definition
(S1804) Weather definition
(S1805) Weather definition
(S1806) Weather definition

Safety terminology
Safety terminology
Safety terminology
Weather definition
Weather definition
Weather definition
Weather definition
Weather definition

(S1523)	Bad Weather
(S1524)	Bad Weather
(S1525)	Bad Weather
(S1526)	Bad Weather
(S1527)	Bad Weather
(S1528)	Bad Weather
(S1529)	Bad Weather
(S1530)	Bad Weather
(S1531)	Bad Weather
(S1532)	Bad Weather
(S1533)	Bad Weather
(S1534)	Bad Weather
(S1535)	Bad Weather
(S1536)	Bad Weather
(S1537)	Bad Weather
(S1538)	Bad Weather
(S1539)	Bad Weather
(S1540)	Bad Weather
(S1541)	Bad Weather
(S1542)	Bad Weather
(S1543)	Bad Weather
(S1544)	Bad Weather
(S1545)	Bad Weather
(S1546)	Bad Weather
(S1547)	Bad Weather
(S1548)	Bad Weather
(S1549)	Bad Weather
(S1550)	Bad Weather
(S1551)	Bad Weather
(S1552)	Bad Weather
(S1553)	Bad Weather
(S1554)	Bad Weather
(S1555)	Bad Weather
(S1556)	Bad Weather

[illegible]

(S1557) Bad Weather
(S1558) Bad Weather
(S1559) Bad Weather
(S1560) Bad Weather
(S1484) Buildings
(S1485) Buildings
(S1486) Buildings
(S1487) Buildings
(S1488) Buildings
(S1489) Buildings
(S1490) Buildings
(S1491) Buildings
(S1492) Buildings
(S1493) Buildings
(S1494) Buildings
(S1464) Debris flow
(S1465) Debris flow
(S1466) Debris flow
(S1467) Debris flow
(S1468) Debris flow
(S1469) Debris flow
(S1470) Debris flow
(S1471) Debris flow
(S1472) Debris flow
(S1473) Debris flow
(S1474) Debris flow
(S1505) Environment Measurements
(S1506) Environment Measurements
(S1507) Environment Measurements
(S1508) Environment Measurements
(S1509) Environment Measurements
(S1510) Environment Measurements
(S1511) Environment Measurements
(S1512) Environment Measurements

[illegible]

(S1513) Environment Measurements
(S1514) Environment Measurements
(S1515) Environment Measurements
(S1516) Environment Measurements
(S1517) Environment Measurements
(S1518) Environment Measurements
(S1519) Environment Measurements
(S1520) Environment Measurements
(S1561) Illumination
(S1562) Illumination
(S1563) Illumination
(S1564) Illumination
(S1565) Illumination
(S1566) Illumination
(S1567) Illumination
(S1568) Illumination
(S1569) Illumination
(S1495) Inspection
(S1496) Inspection
(S1497) Inspection
(S1498) Inspection
(S1499) Inspection
(S1500) Inspection
(S1501) Inspection
(S1502) Inspection
(S1503) Inspection
(S1504) Inspection
(S1570) Labeling
(S1571) Labeling
(S1572) Labeling
(S1573) Labeling
(S1574) Labeling
(S1575) Labeling
(S1576) Labeling

Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Environment Measurements
Illumination
Illumination
Illumination
Illumination
Illumination
Illumination
Illumination
Illumination
Illumination
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Inspection
Labeling
Labeling
Labeling
Labeling
Labeling
Labeling
Labeling

(S1611) Labeling
(S1612) Labeling
(S1475) Loading and Unloading
(S1476) Loading and Unloading
(S1477) Loading and Unloading
(S1478) Loading and Unloading
(S1479) Loading and Unloading
(S1480) Loading and Unloading
(S1481) Loading and Unloading
(S1482) Loading and Unloading
(S1483) Loading and Unloading
(S1613) No Entry
(S1614) No Entry
(S1615) No Entry
(S1616) No Entry
(S1617) No Entry
(S1618) No Entry
(S1619) No Entry
(S1620) No Entry
(S1621) No Entry
(S1622) No Entry
(S1623) No Entry
(S1624) No Entry
(S1625) No Entry
(S1626) No Entry
(S1627) No Entry
(S1628) No Entry
(S1629) No Entry
(S1630) No Entry
(S1631) No Entry
(S1632) No Entry
(S1633) No Entry
(S1634) No Entry
(S1635) No Entry

[illegible]

(S1636) No Entry
(S1637) No Entry
(S1638) No Entry
(S1639) No Entry
(S1640) No Entry
(S1641) No Entry
(S1642) No Entry
(S1643) No Entry
(S1644) No Entry
(S1645) No Entry
(S1646) No Entry
(S1647) No Entry
(S1648) No Entry
(S1649) No Entry
(S1650) No Entry
(S1651) No Entry
(S1652) No Entry
(S1653) No Entry
(S1654) No Entry
(S1655) No Entry
(S1656) No Entry
(S1657) No Entry
(S1658) No Entry
(S1659) No Entry
(S1660) No Entry
(S1661) No Entry
(S1662) No Entry
(S1663) No Entry
(S1664) No Entry
(S1665) No Entry
(S1666) No Entry
(S1667) No Entry
(S1668) No Entry
(S1669) No Entry

(S1670) No Entry
(S1671) Signals
(S1357) Protective Equipment
(S1358) Protective Equipment
(S1359) Protective Equipment
(S1360) Protective Equipment
(S1361) Protective Equipment
(S1362) Protective Equipment
(S1363) Protective Equipment
(S1364) Protective Equipment
(S1365) Protective Equipment
(S1366) Protective Equipment
(S1367) Protective Equipment
(S1368) Protective Equipment
(S1369) Protective Equipment
(S1370) Protective Equipment
(S1371) Protective Equipment
(S1411) Protective Equipment
(S1412) Protective Equipment
(S1413) Protective Equipment
(S1414) Protective Equipment
(S1415) Protective Equipment
(S1416) Protective Equipment
(S1417) Protective Equipment
(S1418) Protective Equipment
(S1419) Protective Equipment
(S1420) Protective Equipment
(S1421) Protective Equipment
(S1422) Protective Equipment
(S1423) Protective Equipment
(S1424) Protective Equipment
(S1425) Protective Equipment
(S1426) Protective Equipment
(S1427) Protective Equipment

[illegible]

(S1462) Protective Equipment
(S1463) Protective Equipment
(S1402) Protective Helmet
(S1403) Protective Helmet
(S1404) Protective Helmet
(S1405) Protective Helmet
(S1406) Protective Helmet
(S1407) Protective Helmet
(S1408) Protective Helmet
(S1409) Protective Helmet
(S1410) Protective Helmet
(S1372) Safety belt
(S1373) Safety belt
(S1374) Safety belt
(S1375) Safety belt
(S1376) Safety belt
(S1377) Safety belt
(S1378) Safety belt
(S1379) Safety belt
(S1380) Safety belt
(S1381) Safety belt
(S1382) Safety belt
(S1383) Safety belt
(S1384) Safety belt
(S1385) Safety belt
(S1386) Safety belt
(S1387) Safety belt
(S1388) Safety belt
(S1389) Safety belt
(S1390) Safety belt
(S1391) Safety belt
(S1392) Safety belt
(S1393) Safety belt
(S1394) Safety belt

[illegible]

(S1395) Safety belt
(S1396) Safety belt
(S1397) Safety belt
(S1398) Safety belt
(S1399) Safety belt
(S1400) Safety belt
(S1401) Safety belt
(S1733) Safety terminology
(S1734) Safety terminology
(S1735) Safety terminology
(S1736) Safety terminology
(S1737) Safety terminology
(S1738) Safety terminology
(S1739) Safety terminology
(S1740) Safety terminology
(S1741) Safety terminology
(S1742) Safety terminology
(S1743) Safety terminology
(S1744) Safety terminology
(S1745) Safety terminology
(S1746) Safety terminology
(S1747) Safety terminology
(S1748) Safety terminology
(S1749) Safety terminology
(S1750) Safety terminology
(S1751) Safety terminology
(S1752) Safety terminology
(S1753) Safety terminology
(S1754) Safety terminology
(S1755) Safety terminology
(S1756) Safety terminology
(S1757) Safety terminology
(S1758) Safety terminology
(S1759) Safety terminology

[illegible]

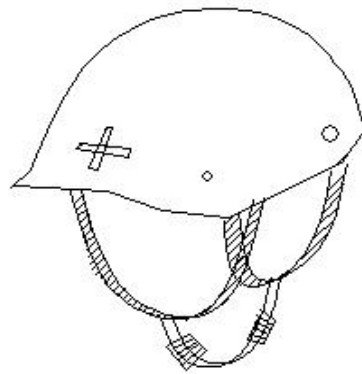
(S1698) Signals
(S1699) Signals
(S1700) Signals
(S1802) Weather definition
(S1803) Weather definition
(S1804) Weather definition
(S1805) Weather definition
(S1806) Weather definition

Signals
Signals
Signals
Weather definition
Weather definition
Weather definition
Weather definition
Weather definition

(S1357) Protective Equipment

(S1357) Protective Equipment

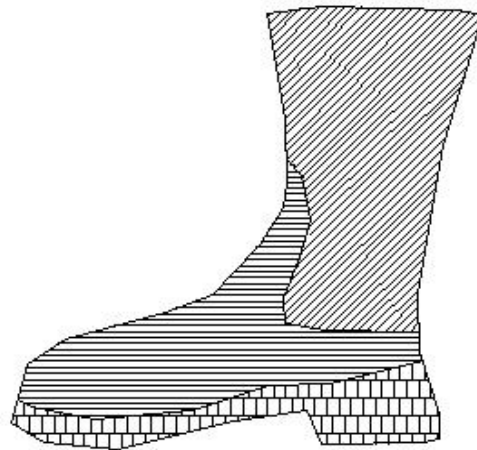
Wearing a protective hat



(S1358) Protective Equipment

(S1358) Protective Equipment

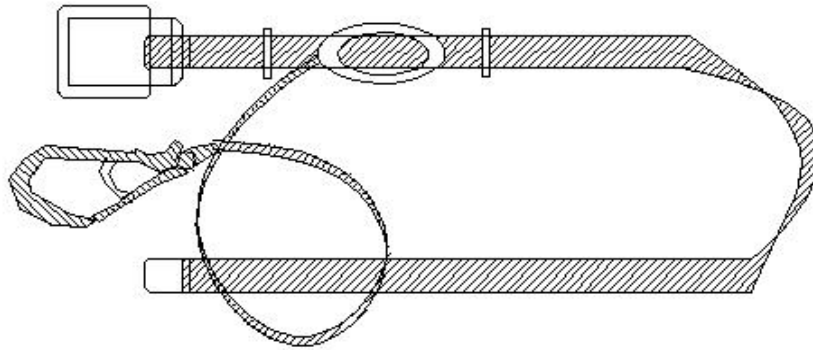
Safety Shoes



(S1359) Protective Equipment

(S1359) Protective Equipment

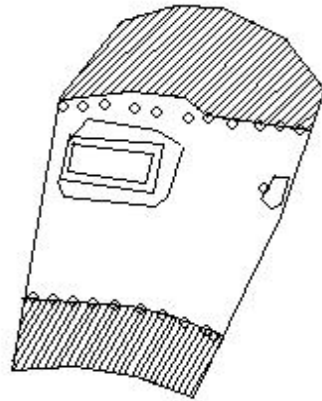
Safety belt



(S1360) Protective Equipment

(S1360) Protective Equipment

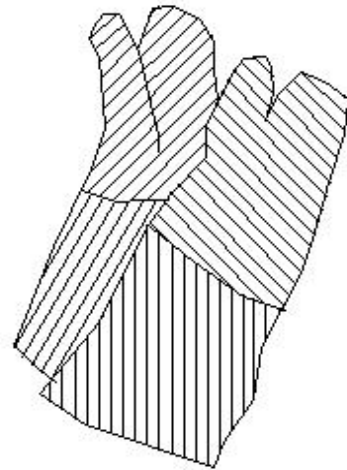
Arc welding light shield



(S1361) Protective Equipment

(S1361) Protective Equipment

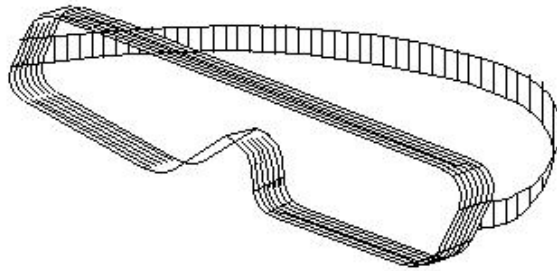
Arc Welding Gloves



(S1362) Protective Equipment

(S1362) Protective Equipment

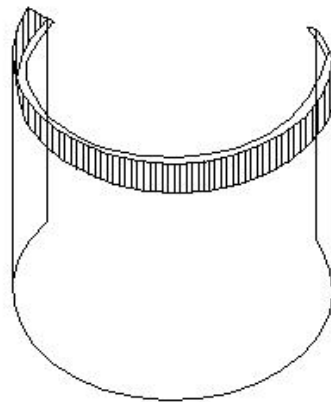
Dustproof Goggles



(S1363) Protective Equipment

(S1363) Protective Equipment

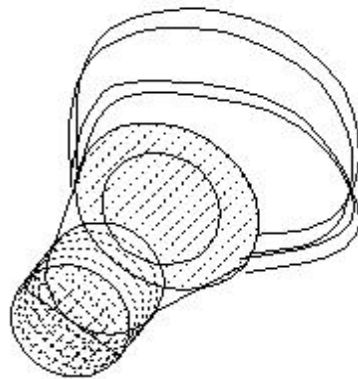
Dustproof goggles (face type)



(S1364) Protective Equipment

(S1364) Protective Equipment

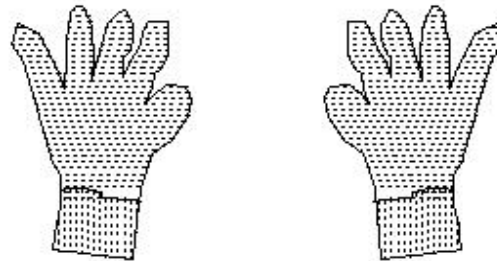
Respiratory protection equipment with electric fan



(S1365) Protective Equipment

(S1365) Protective Equipment

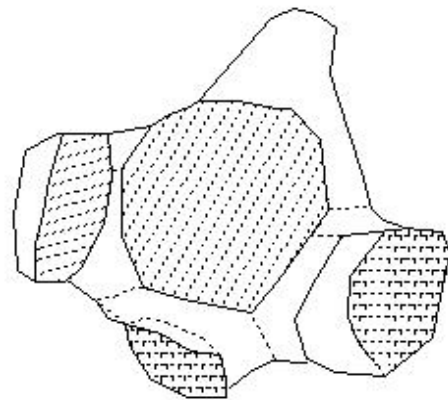
Anti-vibration gloves



(S1366) Protective Equipment

(S1366) Protective Equipment

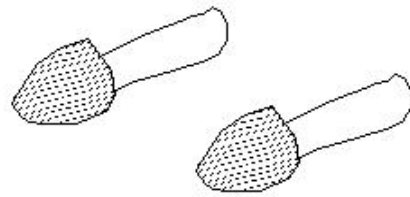
Dustproof mask



(S1367) Protective Equipment

(S1367) Protective Equipment

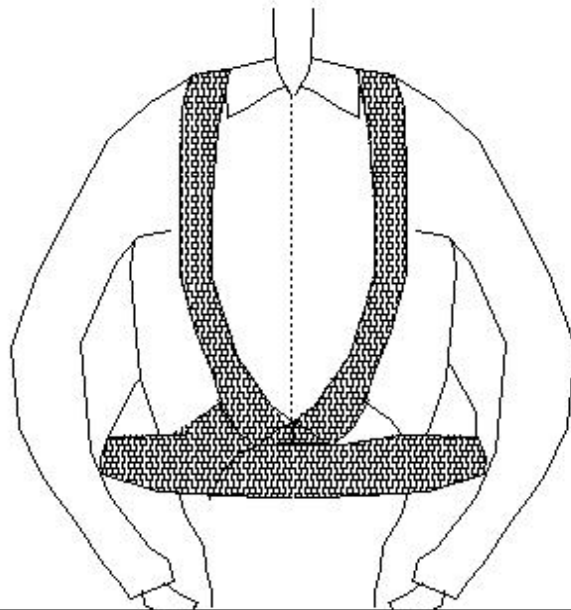
Earplugs



(S1368) Protective Equipment

(S1368) Protective Equipment

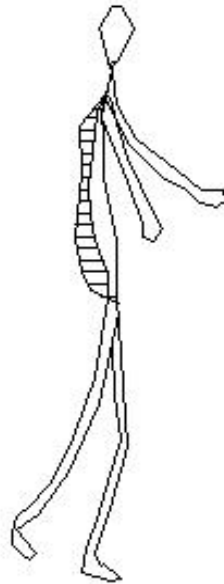
Reflective vest



(S1369) Protective Equipment

(S1369) Protective Equipment

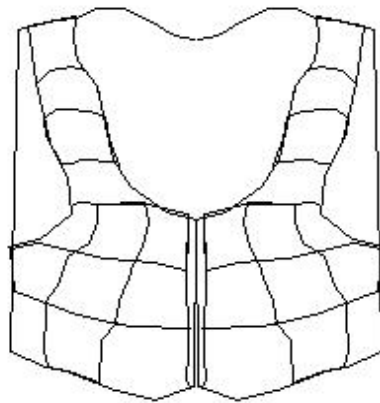
Back protector



(S1370) Protective Equipment

(S1370) Protective Equipment

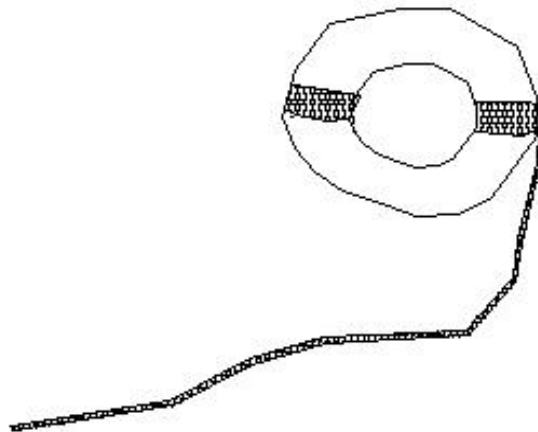
Life jacket



(S1371) Protective Equipment

(S1371) Protective Equipment

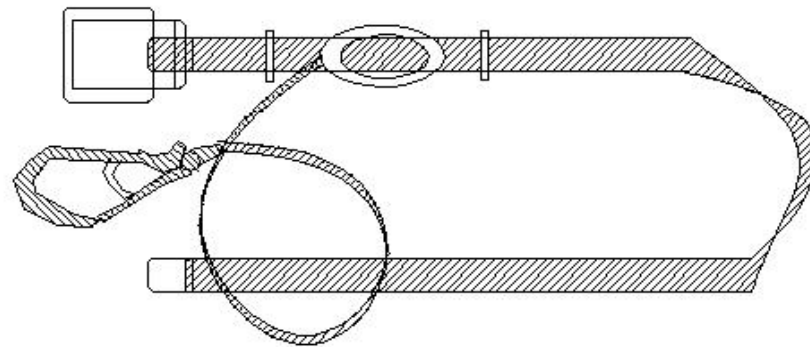
Life ring



(S1372) Safety belt

(S1372) Safety belt

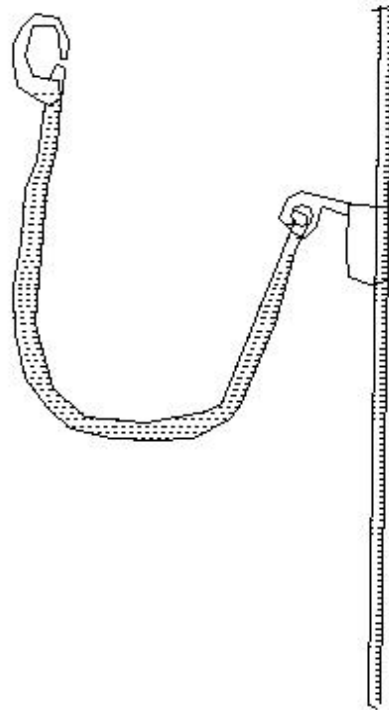
Safety belt



(S1373) Safety belt

(S1373) Safety belt

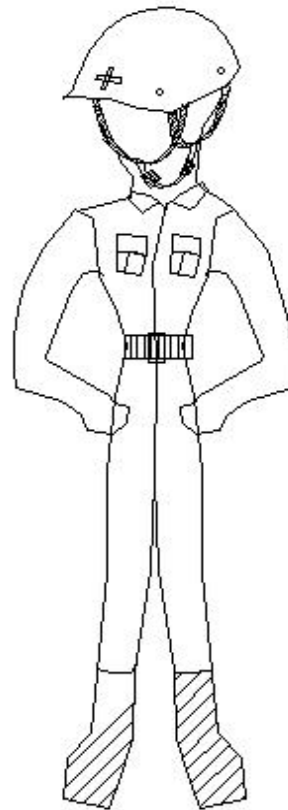
Grip



(S1374) Safety belt

(S1374) Safety belt

How to use a safety belt
To wear the safety belt

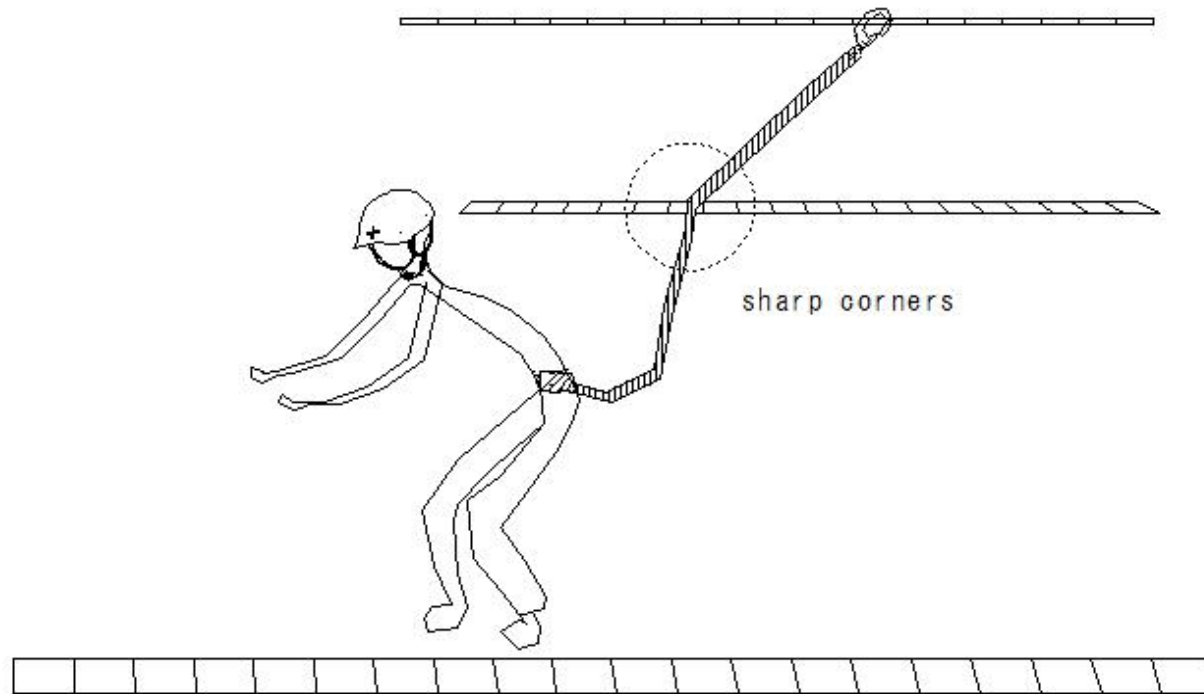


(S1375) Safety belt

(S1375) Safety belt

Safety belt

Attach to a place without sharp corners

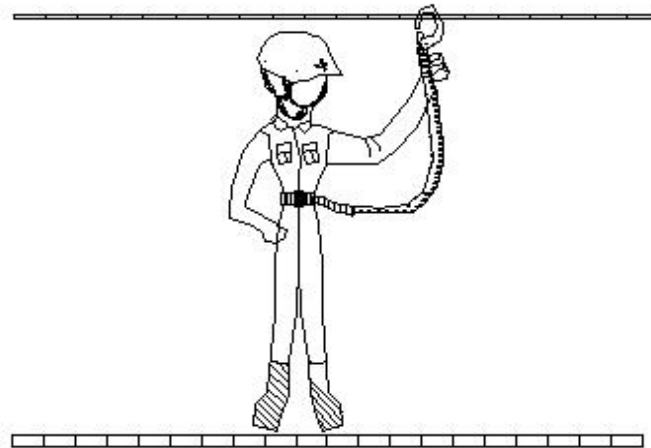


(S1376) Safety belt

(S1376) Safety belt

Safety belt

High position



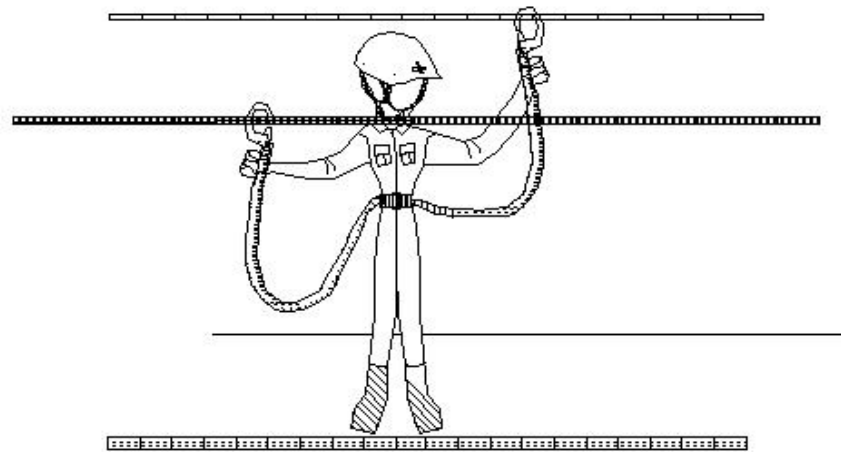
(S1377) Safety belt

(S1377) Safety belt

Safety belt

How to use a double-hanging safety belt

Double-hanging



(S1378) Safety belt

(S1378) Safety belt

Safety belt

Types of safety belts

- ① Waist belt type safety belt: For single-line suspension only
- ② Harness type safety belt: For single-line suspension
- ③ Waist belt type safety belt: For vertical surfaces
- ④ Waist belt type safety belt: For inclined surfaces

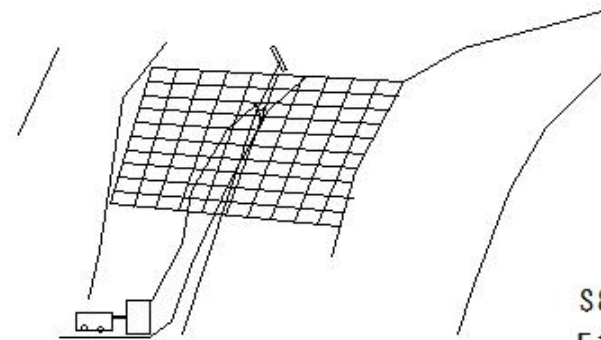
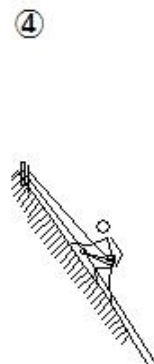
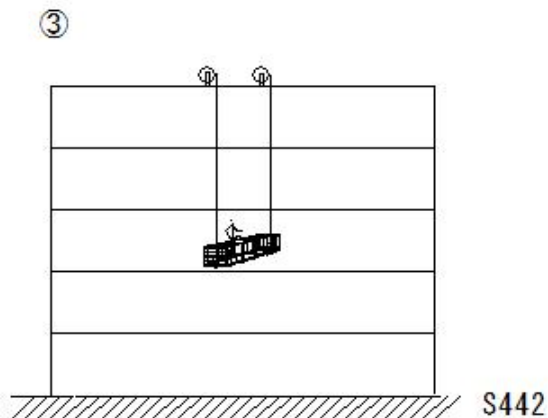
Applications

For general work at height

Full-body harness type safety belt

For cleaning work on the outside of buildings, etc.

For slopes such as slopes



S869
E121

(S1379) Safety belt

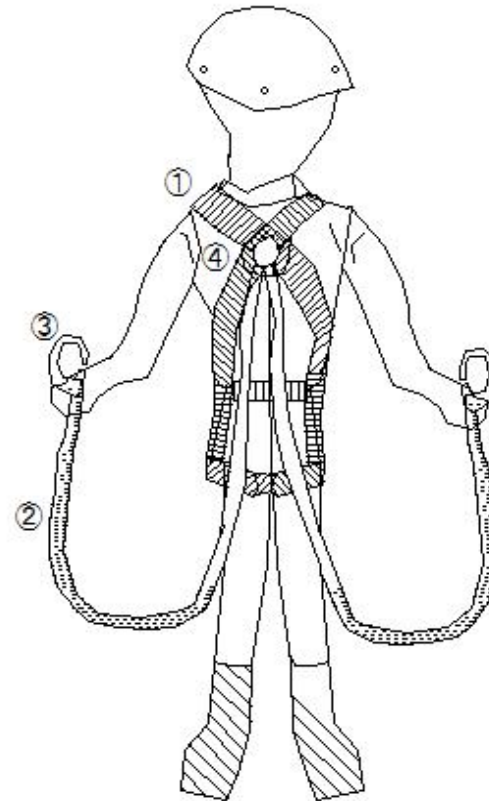
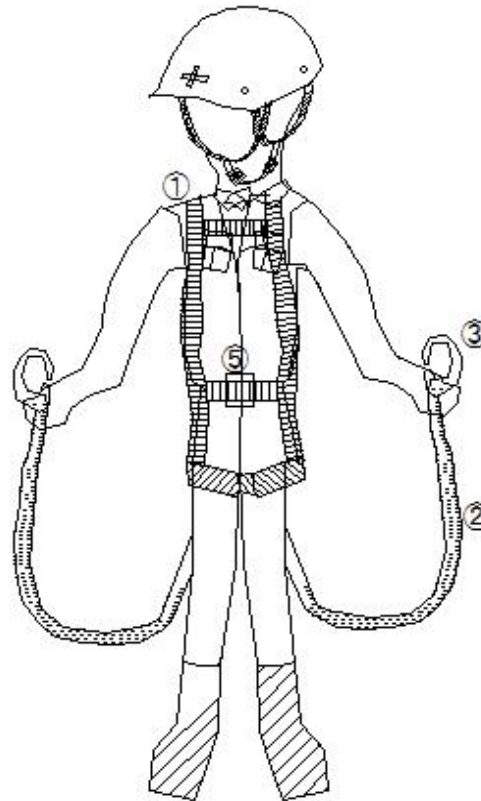
(S1379) Safety belt

Safety belt

○ Expiration date of safety belt: 2 years for ropes, lanyards, and straps, 3 years for other items

Full harness type safety belt

- ① Harness
- ② Lanyard
- ③ Attaching the hook
- ④ D-ring
- ⑤ Buckle



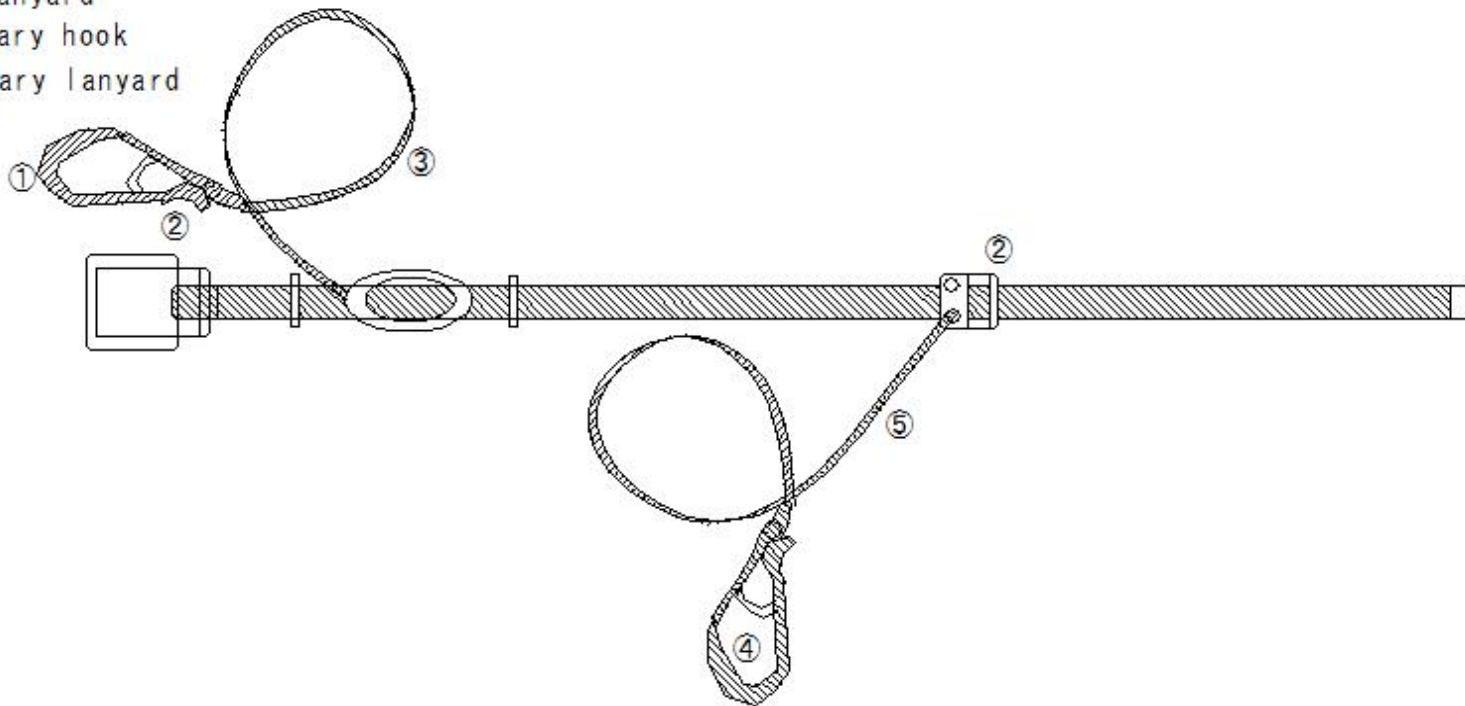
(S1380) Safety belt

(S1380) Safety belt

Safety belt

Two-lanyard safety belt

- ① Main hook
- ② Safety design that does not allow U-shaped hanging
- ③ Main lanyard
- ④ Auxiliary hook
- ⑤ Secondary lanyard



(S1381) Safety belt

(S1381) Safety belt

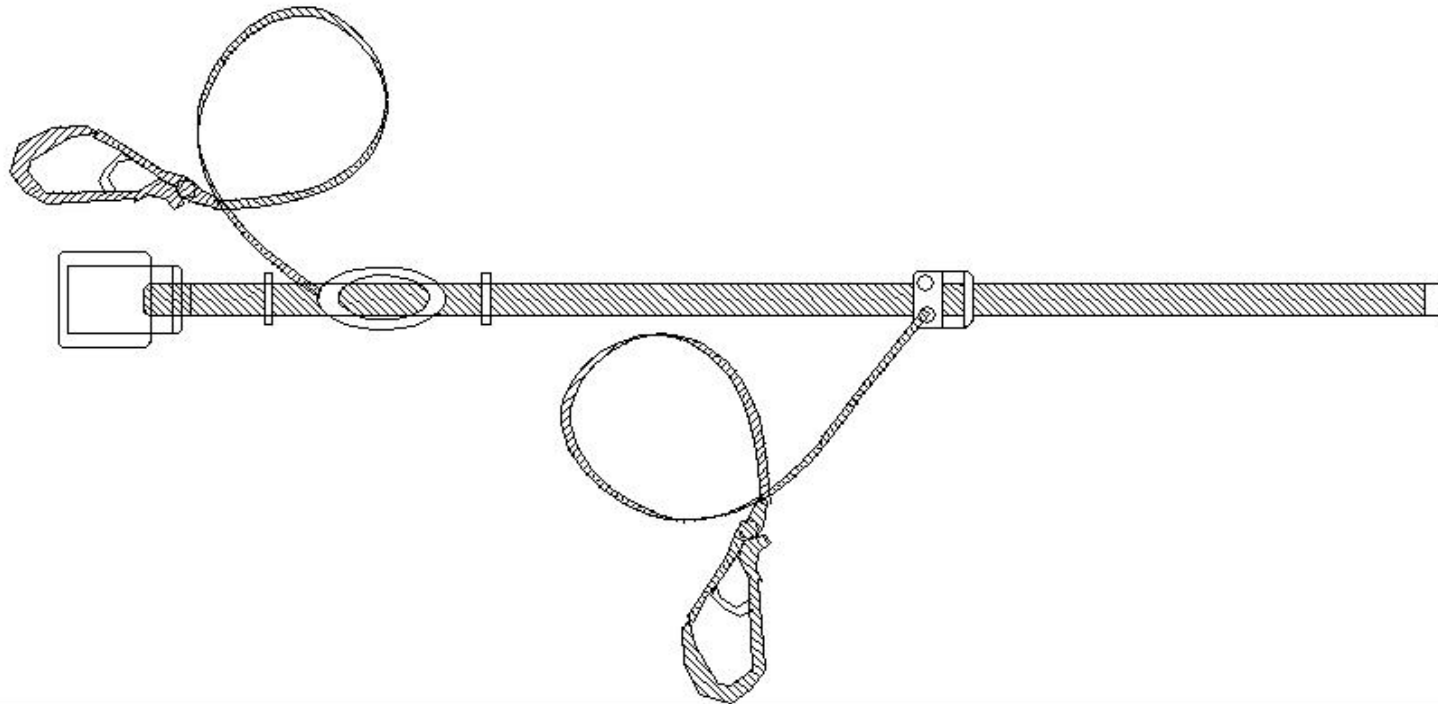
Safety belt disposal standards

Belt

Wear, fray, cut, burnt, melted

Both ends Mid-width

①Wear or chips of 3mm or more



(S1382) Safety belt

(S1382) Safety belt

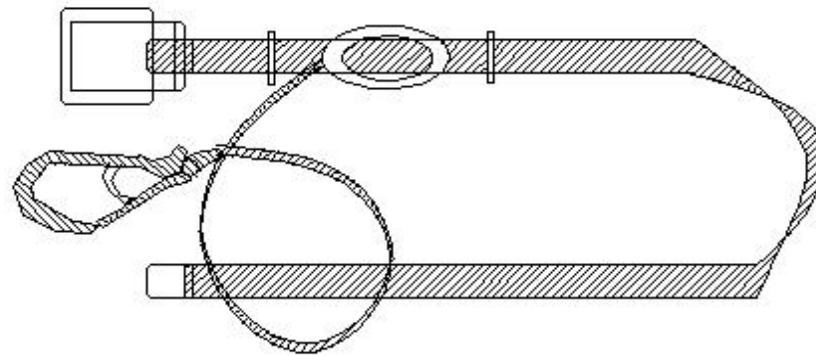
Safety belt disposal standards

Belt

Wear, fray, out, burnt, melted

Both ends Mid-width

② Worn or chipped more than 3mm



(S1383) Safety belt

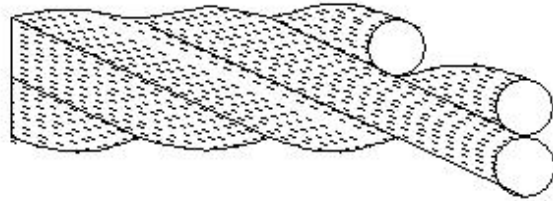
(S1383) Safety belt

Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

③ Three-strand rope



(S1384) Safety belt

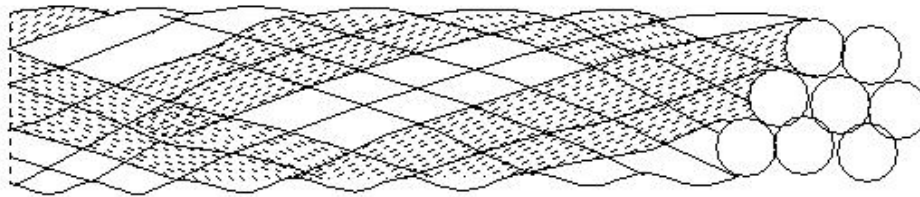
(S1384) Safety belt

Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

④ Eight-strand rope



(S1385) Safety belt

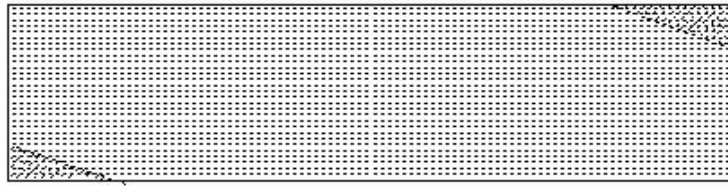
(S1385) Safety belt

Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

⑤ Straps



(S1386) Safety belt

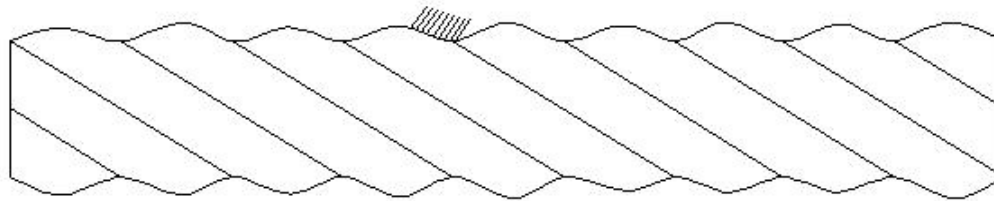
(S1386) Safety belt

Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

⑥ More than 7 yarns cut in one rope



(S1387) Safety belt

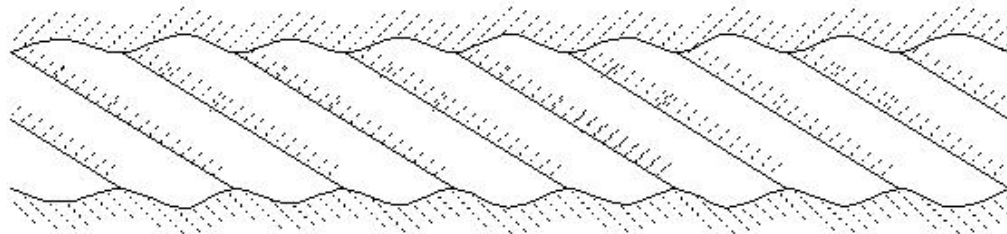
(S1387) Safety belt

Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

⑦ External yarns and those worn down by 7 or more yarns



(S1388) Safety belt

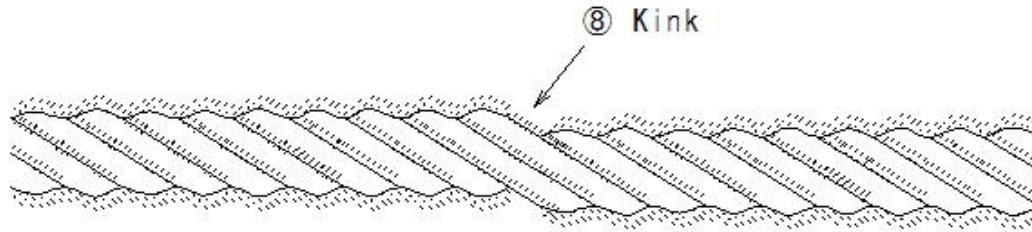
(S1388) Safety belt

Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

⑧ Kinked or deformed by 7 or more yarns



(S1389) Safety belt

(S1389) Safety belt

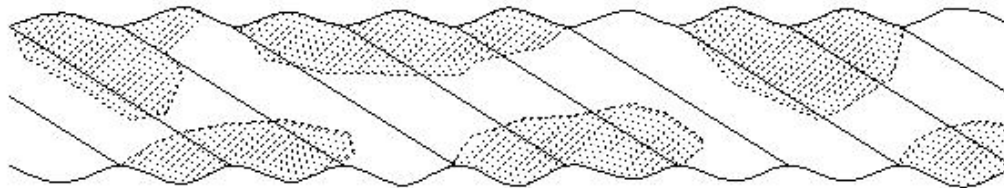
Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

- ⑨ Items that have softened due to paint adhering to them, or that have become discolored due to chemicals adhering to them

⑨ paint or chemicals



(S1390) Safety belt

(S1390) Safety belt

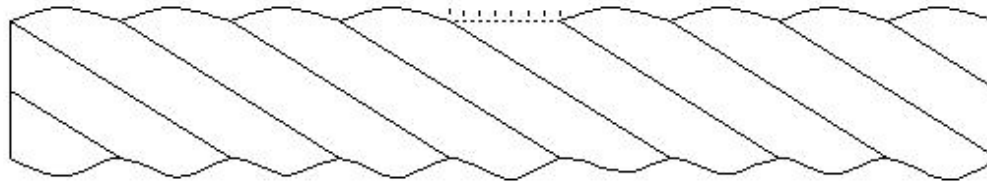
Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

⑩ Melting of 7 or more yarns

⑩ Melting



(S1391) Safety belt

(S1391) Safety belt

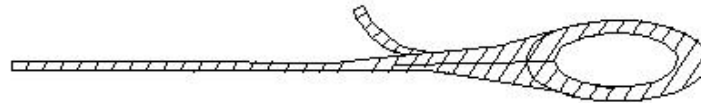
Safety belt disposal standards

Ropes and straps

Wear, fray, cuts, burns, melting

⑪ Anything with even one missing Satsuma weave

⑪ Satsuma weave



(S1392) Safety belt

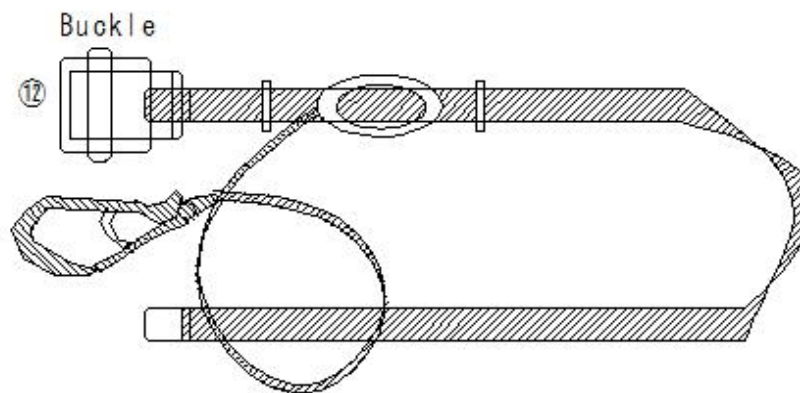
(S1392) Safety belt

Safety belt disposal standards

Buckle

Deformation

⑫ Deformed and not tight enough



(S1393) Safety belt

(S1393) Safety belt

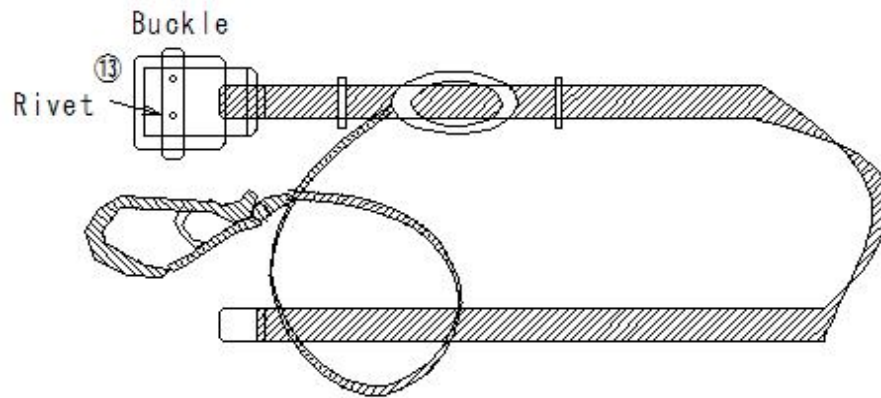
Safety belt disposal standards

Buckle

Wear and damage

⑬ Wear or damage of 1mm or more

Rivet head worn down by 1/2 or more



(S1394) Safety belt

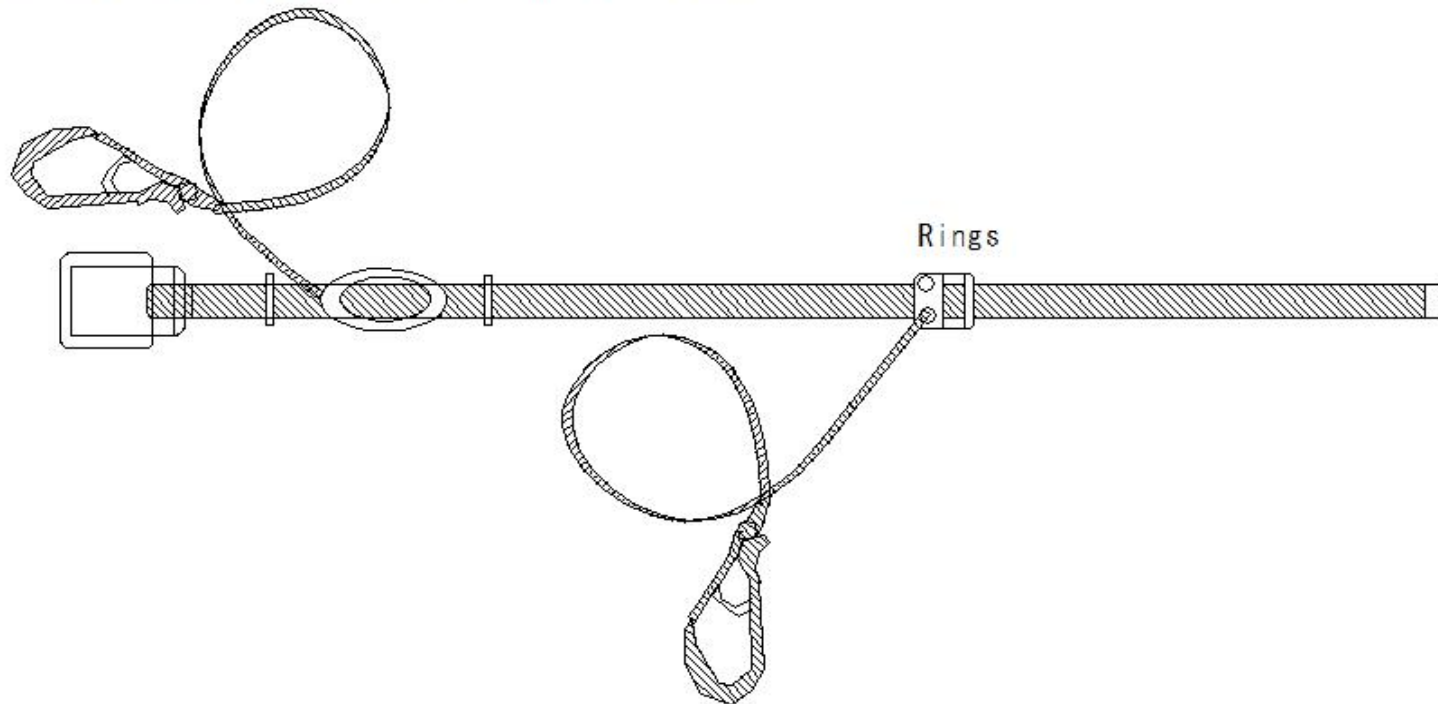
(S1394) Safety belt

Safety belt disposal standards

Rings

Deformation

⑭ Deformation can be confirmed by visual inspection



(S1395) Safety belt

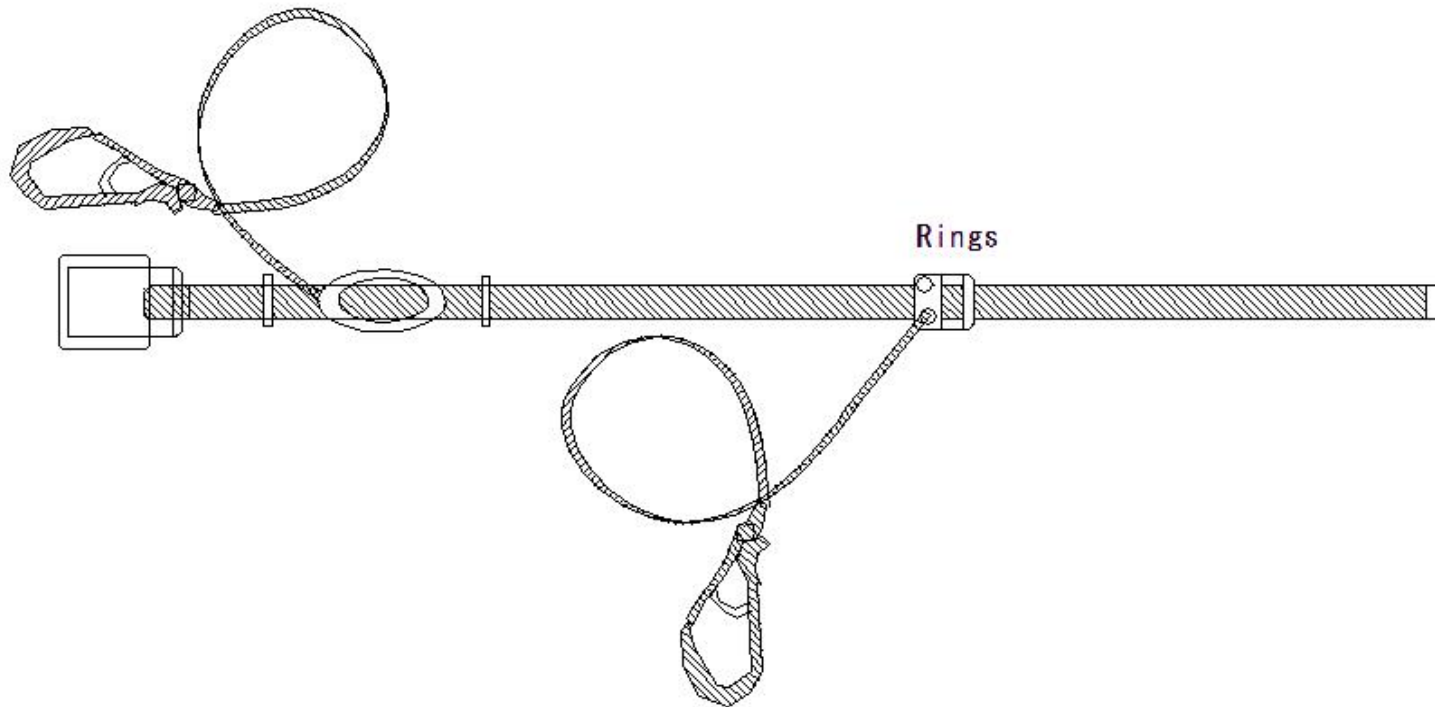
(S1395) Safety belt

Safety belt disposal standards

Rings

Wear and damage

⑮ Wear and damage of 1mm or more



(S1396) Safety belt

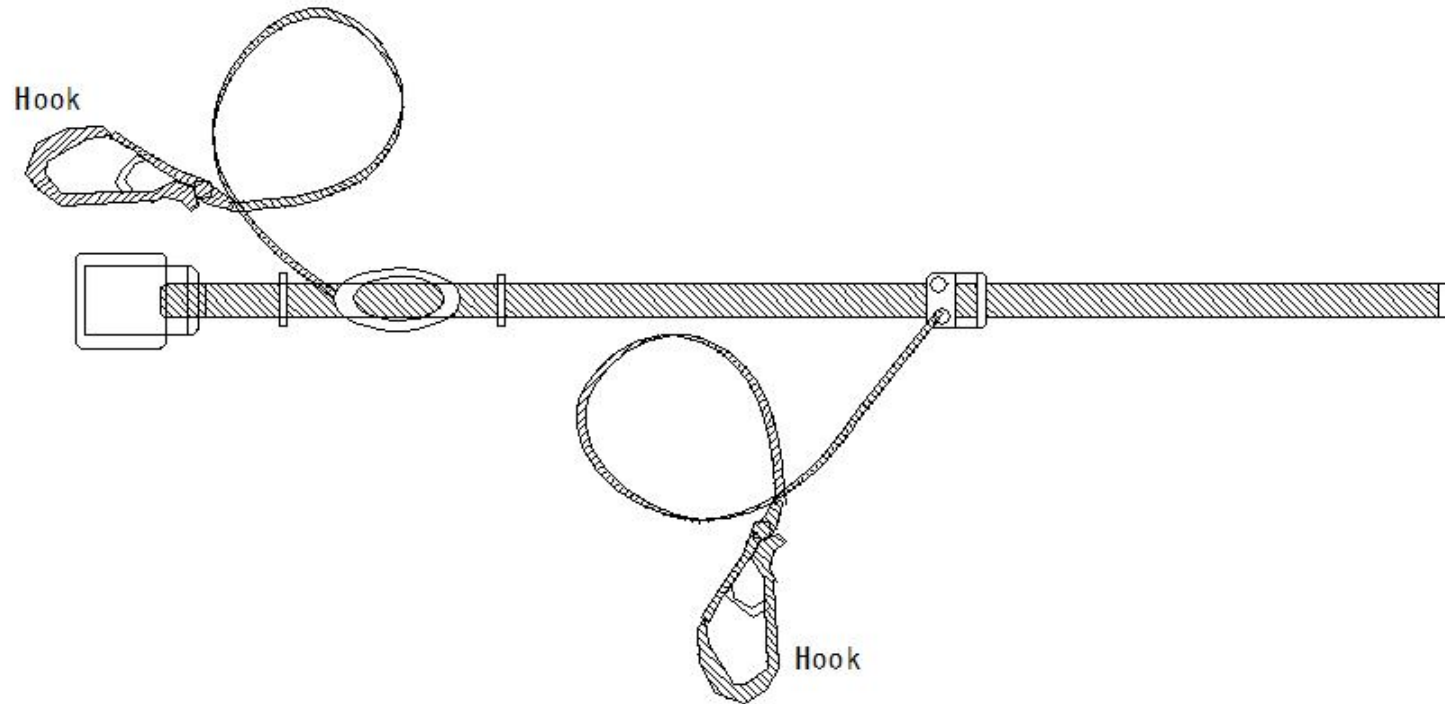
(S1396) Safety belt

Safety belt disposal criteria

Hook

Deformation

⑮ Poor opening and closing of the external release device



(S1397) Safety belt

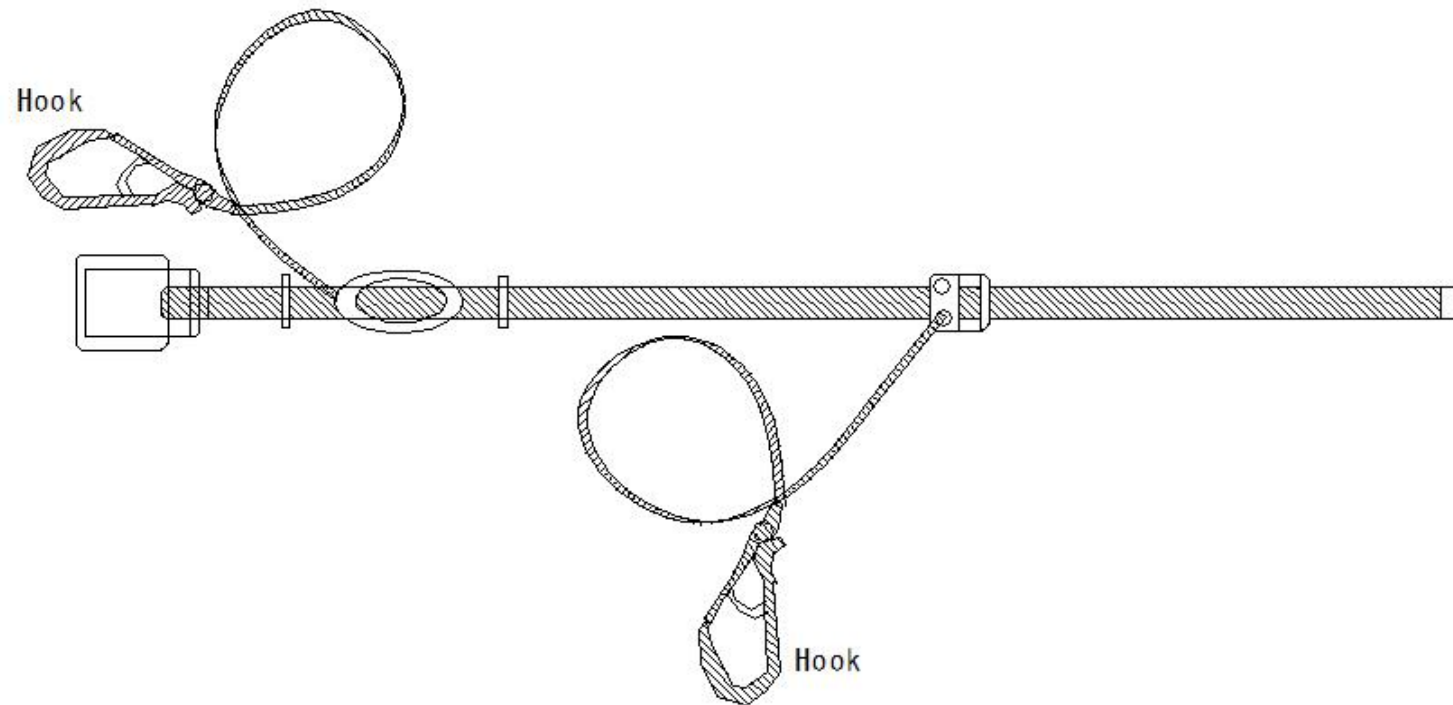
(S1397) Safety belt

Safety belt disposal criteria

Hook

Wear and damage

⑰ Damage on the inside of the hook



(S1398) Safety belt

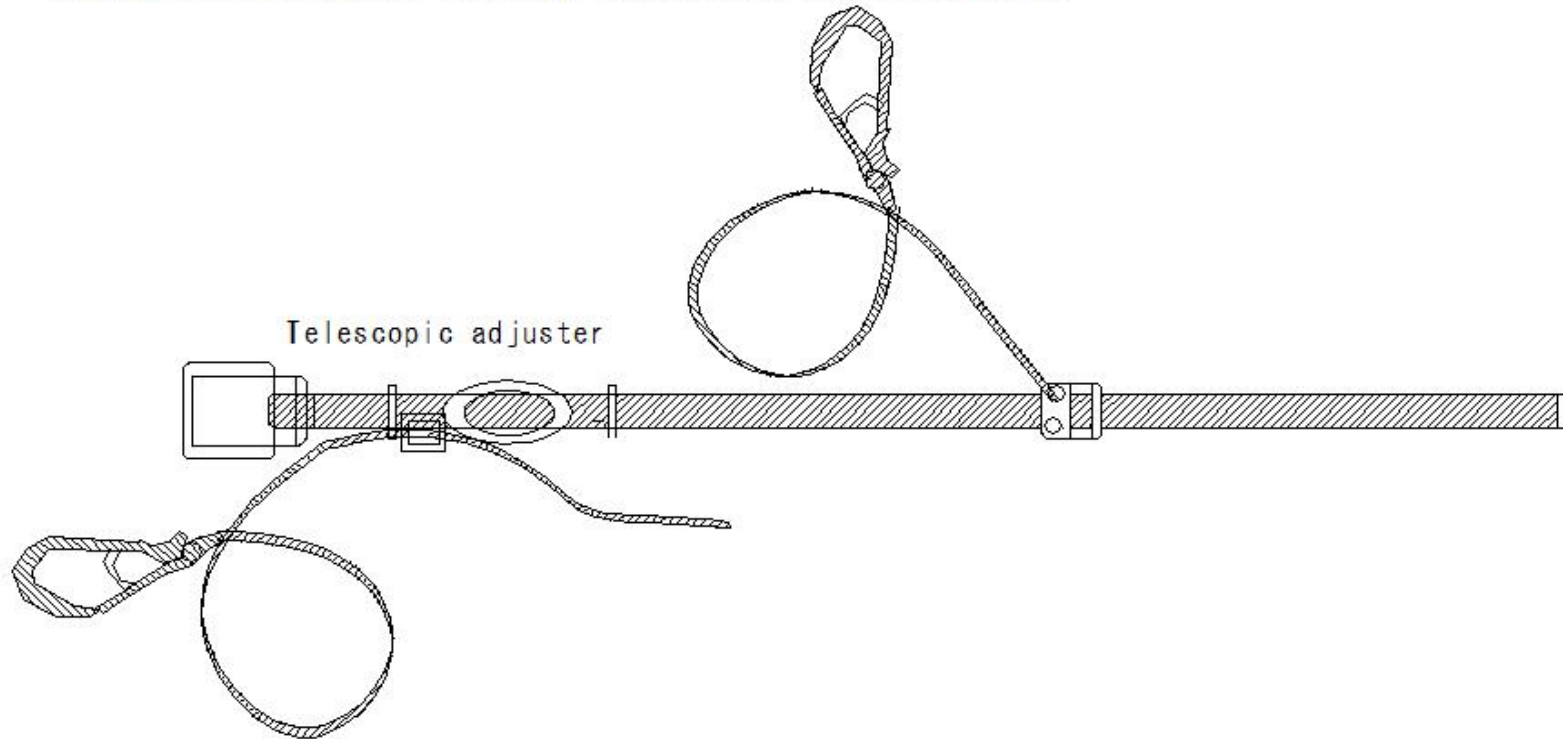
(S1398) Safety belt

Safety belt disposal criteria

Telescopic adjuster

Deformation

⑩ Outer release device with poor opening and closing function



(S1399) Safety belt

(S1399) Safety belt

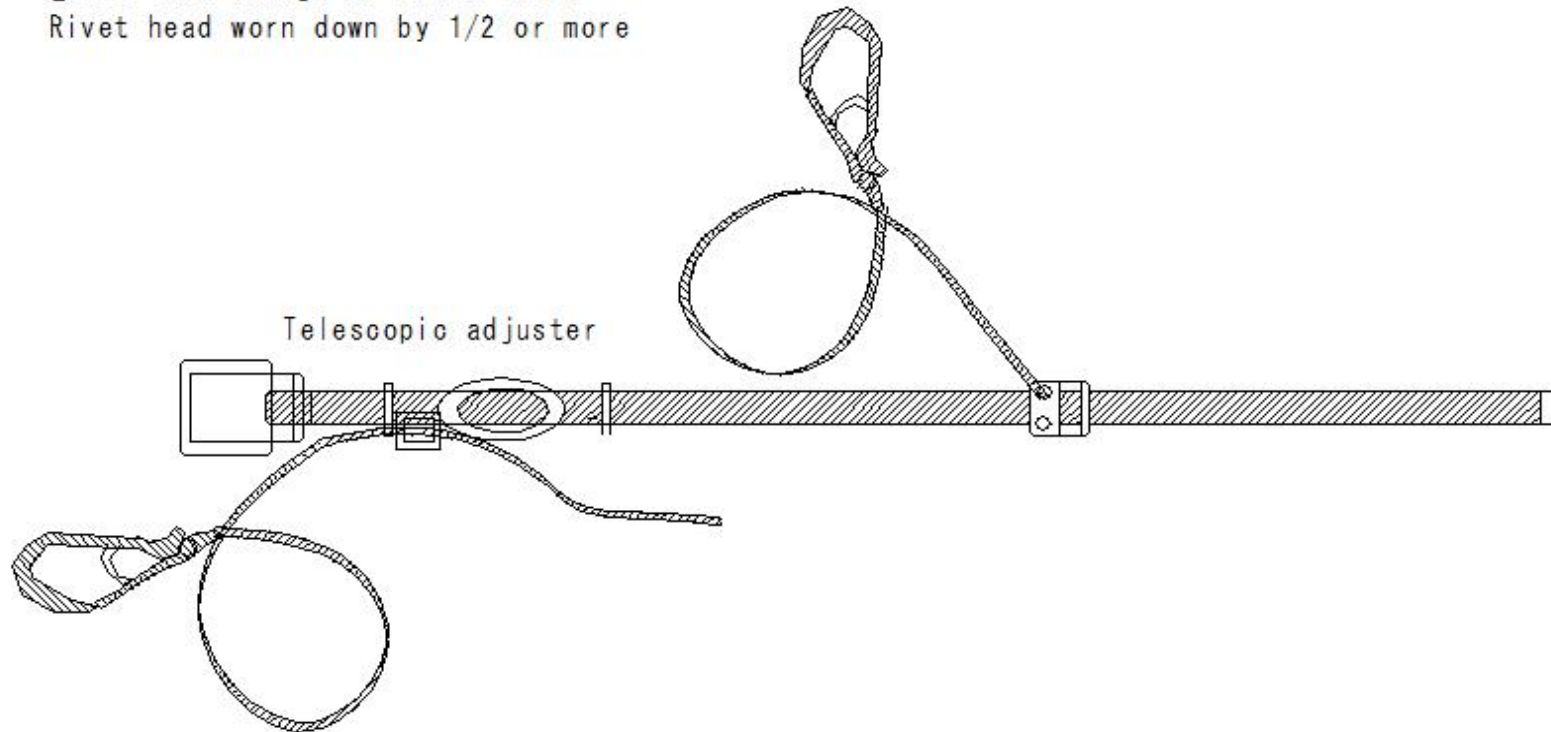
Safety belt disposal criteria

Telescopic adjuster

Wear and damage

⑩ Wear and damage of 1mm or more

Rivet head worn down by 1/2 or more



(S1400) Safety belt

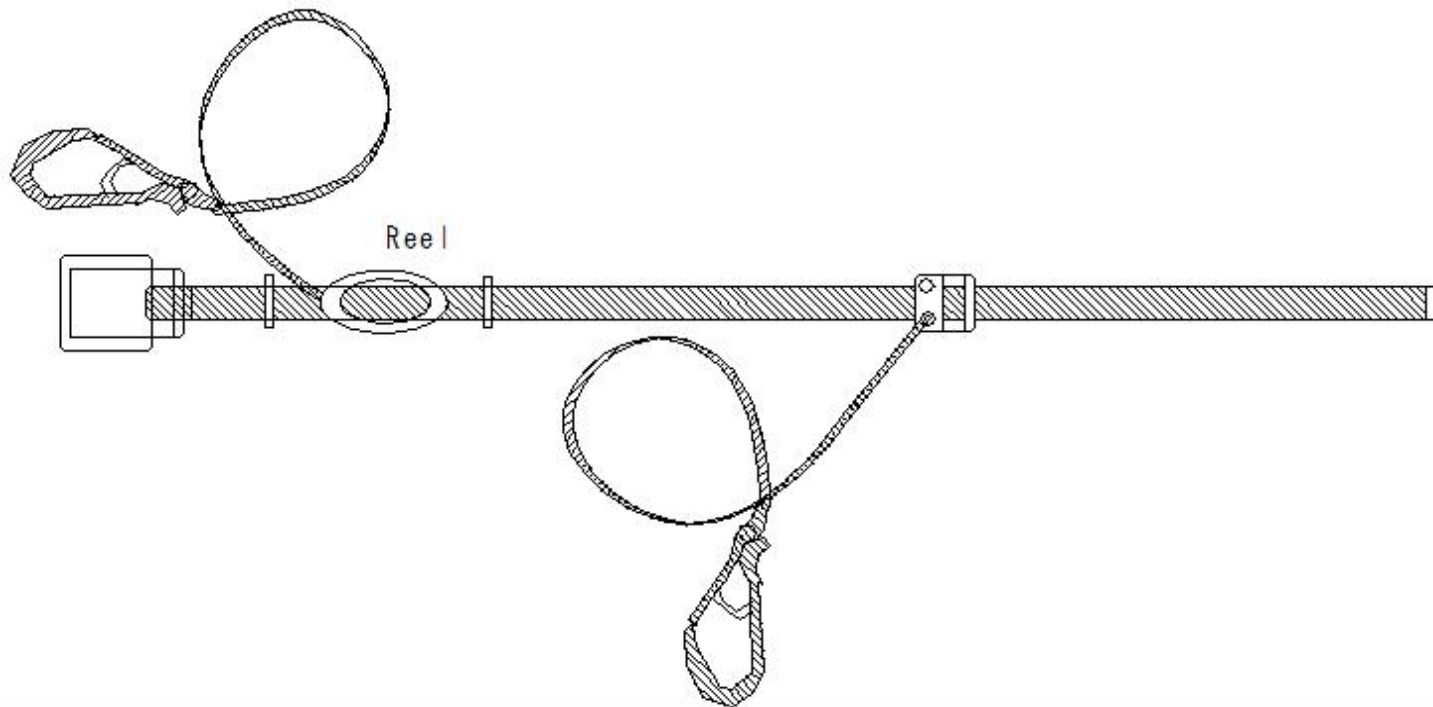
(S1400) Safety belt

Safety belt disposal criteria

Reel

Malfunction

②① Strap cannot be wound or pulled out



(S1401) Safety belt

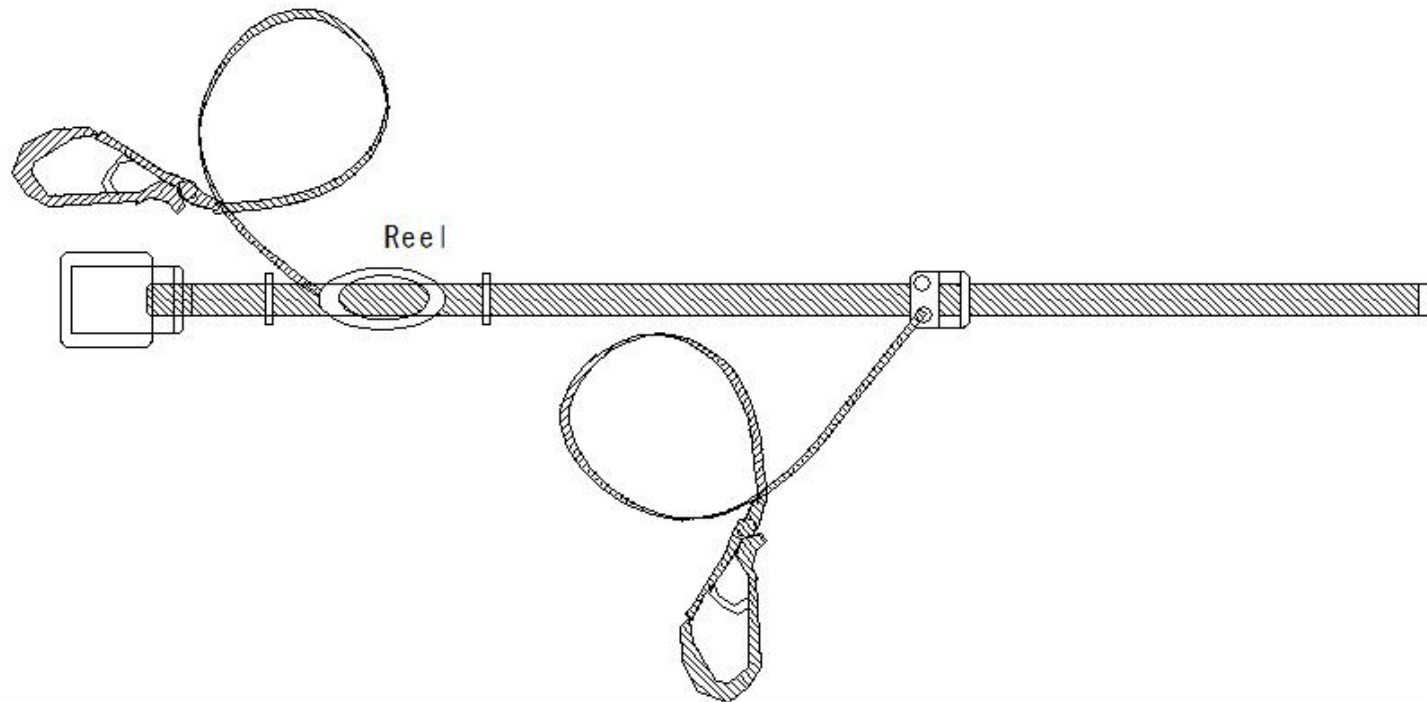
(S1401) Safety belt

Safety belt disposal criteria

Reel

Damage

(20) Belt loop is broken

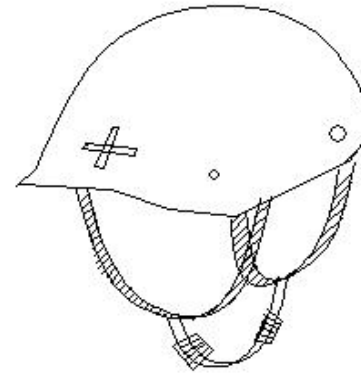
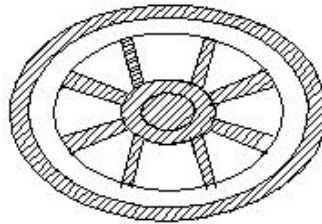
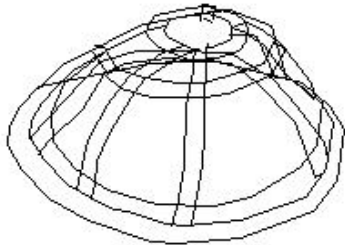


(S1402) Protective Helmet

(S1402) Protective Helmet

Protective Helmet

- ① For flying and falling objects
- ② For protection in the event of a fall
- ③ For electricity: Prevents electric shock to the head when used at voltages of 7,000V or less

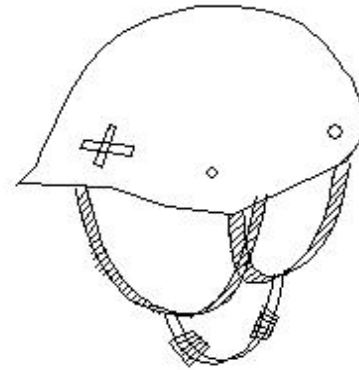
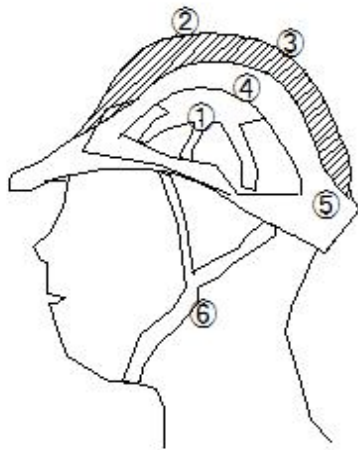


(S1403) Protective Helmet

(S1403) Protective Helmet

Protective Helmet

- ① Hammock
- ② Shock absorbing liner
- ③ Hat body
- ④ Ring strap
- ⑤ Headband
- ⑥ Chin strap



(S1404) Protective Helmet

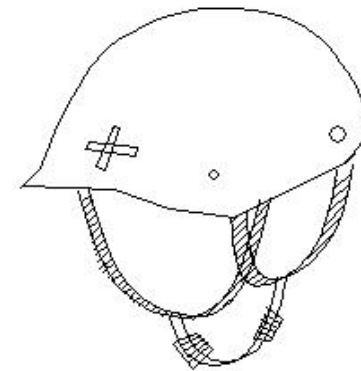
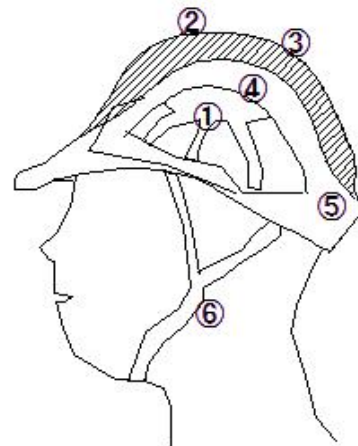
(S1404) Protective Helmet

Protective Helmet

Construction Standards ("Standards for Protective Helmets")

- ① Protective helmet to prevent falling objects: has a helmet body, a wearing body, and a chin strap
- ② Headband: can be adjusted to fit the wearer's head.
- ③ The size of the loops on the wearing body cannot be adjusted.

- ① Hammock
- ② Shock absorbing liner
- ③ Hat body
- ④ Ring strap
- ⑤ Headband
- ⑥ Chin strap



(S1405) Protective Helmet

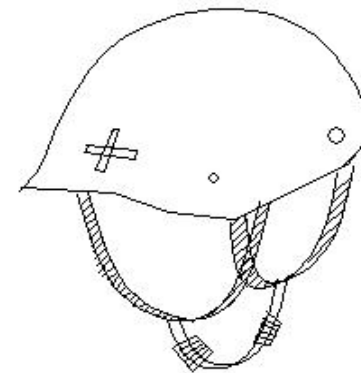
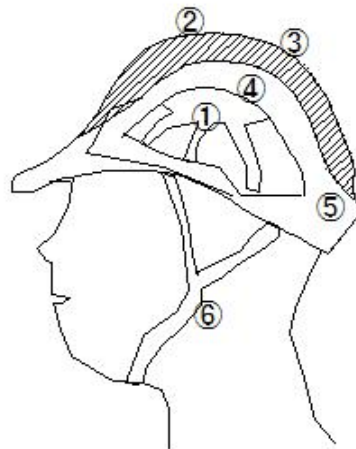
(S1405) Protective Helmet

Protective Helmet

Construction Standards ("Standards for Protective Helmets")

- ① Protective helmets to prevent the danger of falling
- ② Have a helmet body, shock-absorbing liner, and chin strap
- ③ Rivets and other protrusions do not protrude more than 6 mm from the outer surface of the helmet body

- ① Hammock
- ② Shock absorbing liner
- ③ Hat body
- ④ Ring strap
- ⑤ Headband
- ⑥ Chin strap



(S1406) Protective Helmet

(S1406) Protective Helmet

Protective Helmet

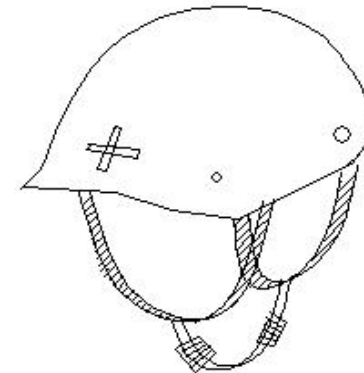
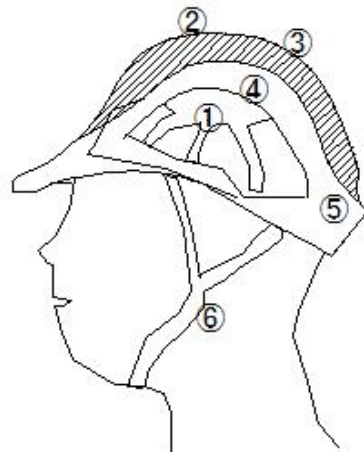
Construction Standards ("Standards for Protective Helmets")

Protective helmets shall display the following information in a conspicuous place

Manufacturer's name

Date of manufacture

- ① Hammock
- ② Shock absorbing liner
- ③ Hat body
- ④ Ring strap
- ⑤ Headband
- ⑥ Chin strap



(S1407) Protective Helmet

(S1407) Protective Helmet

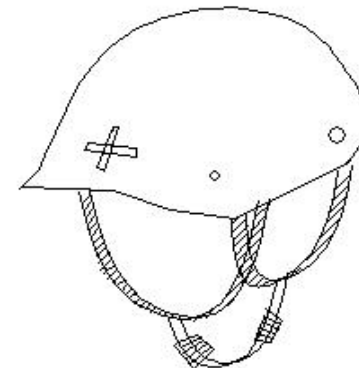
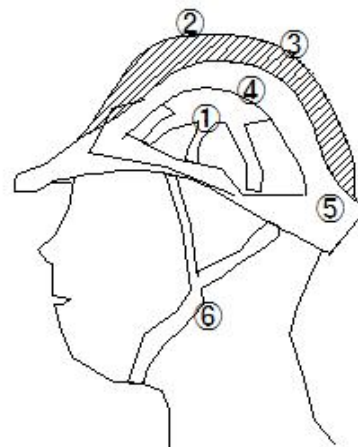
Protective Helmet

Precautions for Use

2. Usage and Inspection

- ① Adjust the headband to fit the size of your head.
- ② Wear the protective helmet straight and deep, do not tilt it back.
- ③ Adjust the chin strap etc. correctly according to the instruction manual.
- ④ The useful life of protective helmets
 - a) within 3 years even if no abnormality is found, for protective helmets made of thermoplastic resins,
 - b) within 5 years for protective helmets made of thermosetting resins such as FRP
 - c) We recommend replacing the wearing body within 1 year.

- ① Hammock
- ② Shock absorbing liner
- ③ Hat body
- ④ Ring strap
- ⑤ Headband
- ⑥ Chin strap



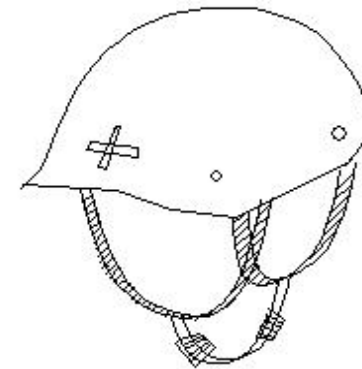
(S1408) Protective Helmet

(S1408) Protective Helmet

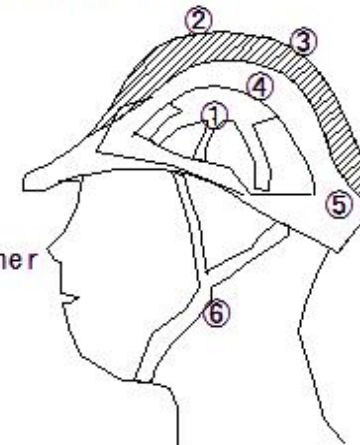
Protective Helmet

Protective Helmet Inspection Checkpoints

- ① Those with chips or cracks on the edge
- ② Those with signs of impact
- ③ Those with many scratches
- ④ Those with heavy dirt
- ⑤ Those with holes other than those made by the manufacturer
- ⑥ Those with protruding glass fibers
- ⑦ Those with cracks in the attachment area to the helmet
- ⑧ Those with significant discoloration
- ⑨ Those with deformations in the attachment area between the helmet body and the helmet
- ⑩ Those with damage, loss, etc.



- ① Hammock
- ② Shock absorbing liner
- ③ Hat body
- ④ Ring strap
- ⑤ Headband
- ⑥ Chin strap



(S1409) Protective Helmet

(S1409) Protective Helmet

Protective Helmet

Protective helmet inspection checkpoints

○How to wear

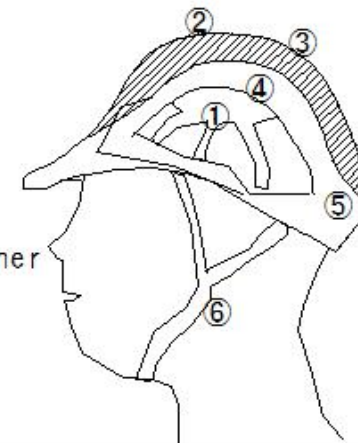
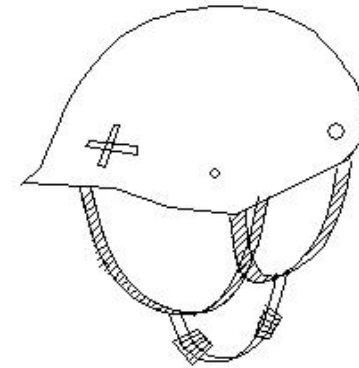
Wear the protective helmet straight and deep

○Adjusting the headband

Fit the headband securely

○Chin strap

Tighten the chin strap securely



- ①Hammock
- ②Shock absorbing liner
- ③Hat body
- ④Ring strap
- ⑤Headband
- ⑥Chin strap

(S1410) Protective Helmet

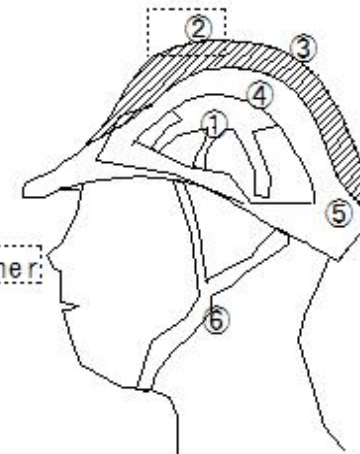
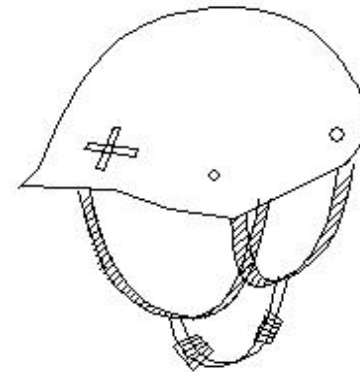
(S1410) Protective Helmet

Protective Helmet

Protective helmet inspection checkpoints

Impact absorbing liner

- ① Those that have been deformed by heat, solvents, etc.
- ② Those that are extremely dirty
- ③ Those with significant scratches or cracks



① Hammock

② Shock absorbing liner

③ Hat body

④ Ring strap

⑤ Headband

⑥ Chin strap

(S1411) Protective Equipment

(S1411) Protective Equipment

Duty to monitor the use of protective equipment

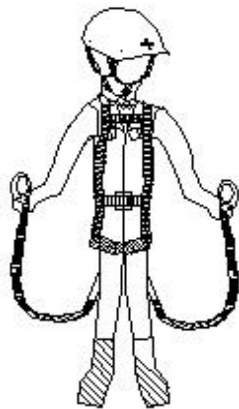
Duty to monitor the use of protective equipment (duties of the work chief and work director)

Article 247 of the Safety and Health Regulations

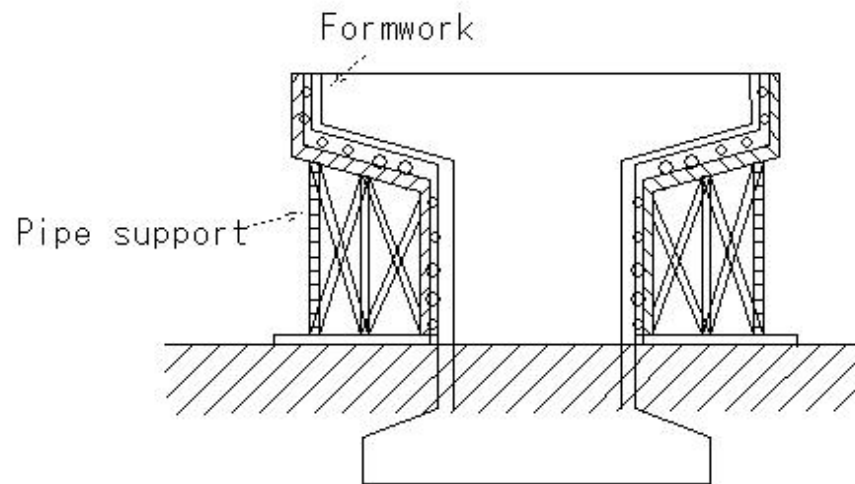
(duties of the work chief for assembling formwork supports, etc.)

Protective helmets and safety harnesses

Monitor the use of fall prevention equipment and protective helmets
that meet required performance during work



S1379



S12
G1025

(S1412) Protective Equipment

(S1412) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

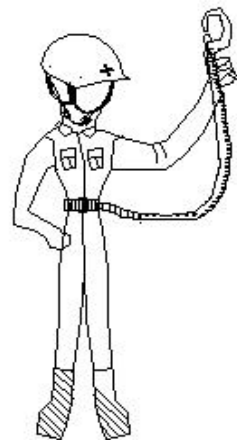
Article 360 of the Safety and Health Regulations

Safety helmets/safety belts

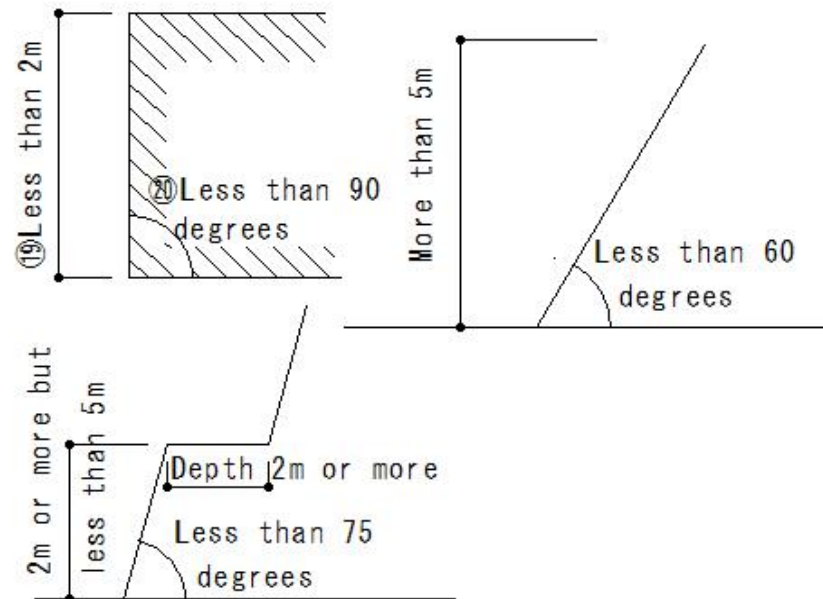
(duties of the excavation chief of natural ground) Height 2m or more

○ Monitor the use of fall prevention equipment and protective helmets.

Chief and work Director



S1376



S924

S913

S12

C1025

(S1413) Protective Equipment

(S1413) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

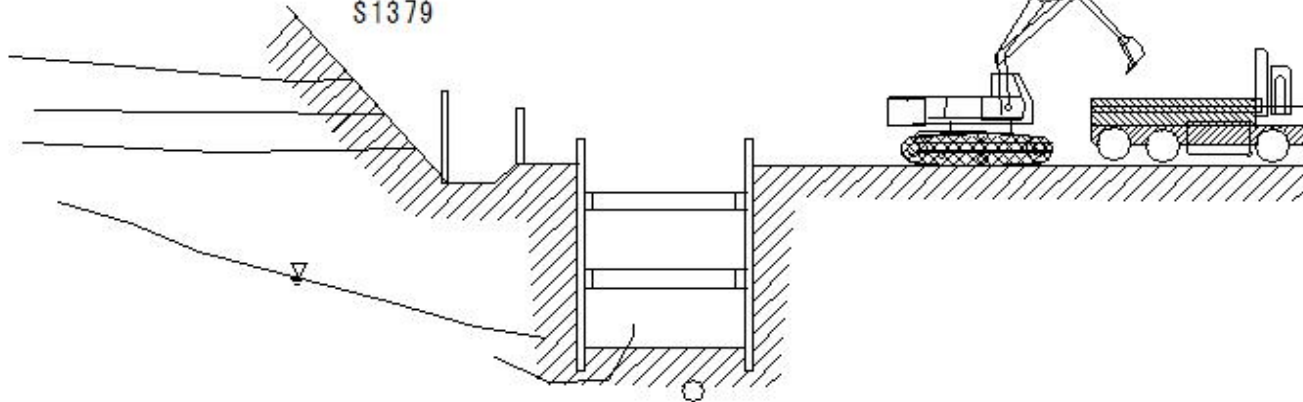
Article 375 of the Safety and Health Regulations

Safety helmets and safety belts

(duties of the work chief of earth retaining structures)

Required performance: Monitor the use of fall prevention equipment and protective helmets.

Chief and work Director



S913
S12
C1025

(S1414) Protective Equipment

(S1414) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 383-3

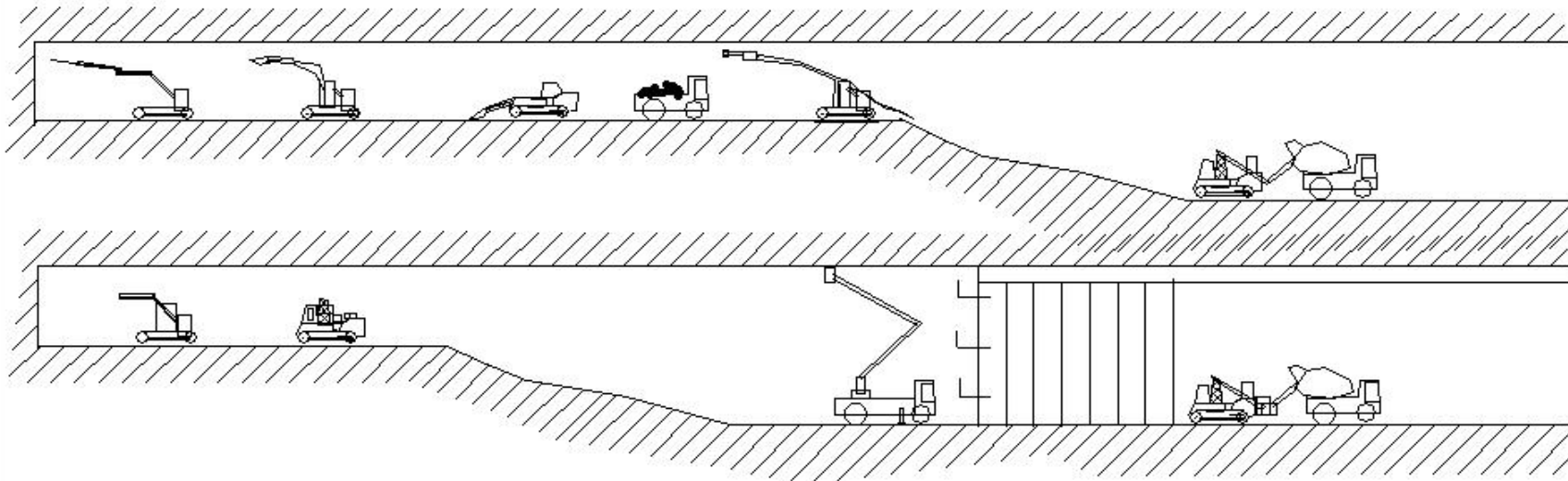
Safety helmets and safety harnesses

(duties of the work chief for excavating tunnels, etc.)



S1379

Chief and work Director



(S1415) Protective Equipment

(S1415) Protective Equipment

Duty to monitor the use of protective equipment

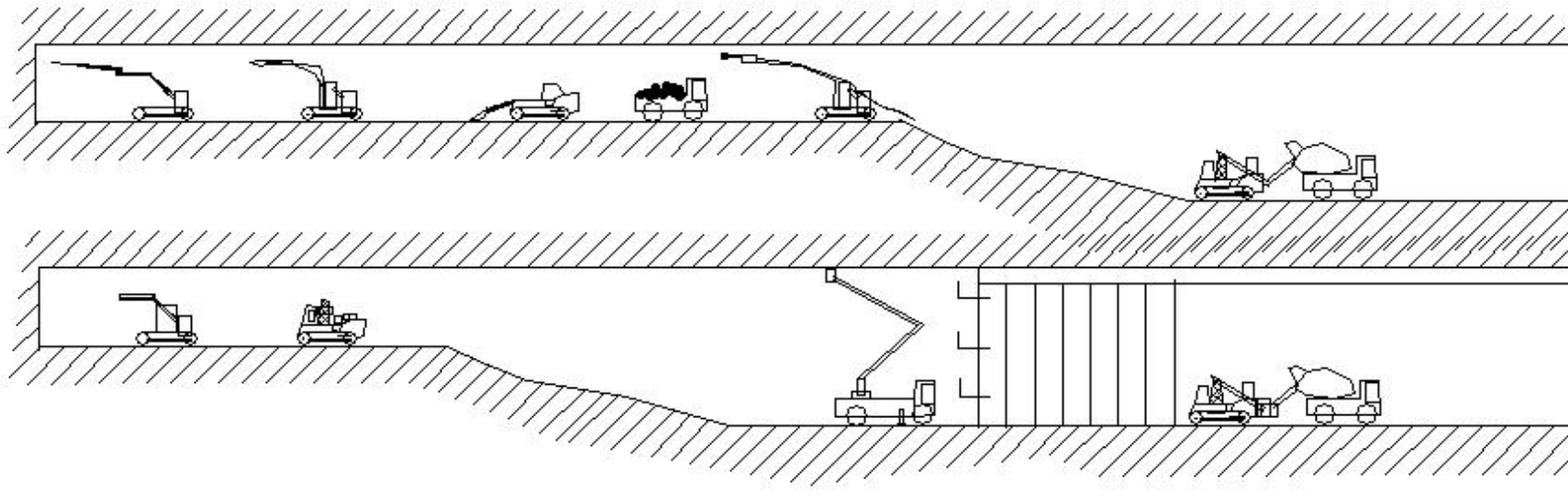
Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 383-5

(duties of the work chief for tunnel lining, etc.)



Chief and work Director



(S1416) Protective Equipment

(S1416) Protective Equipment

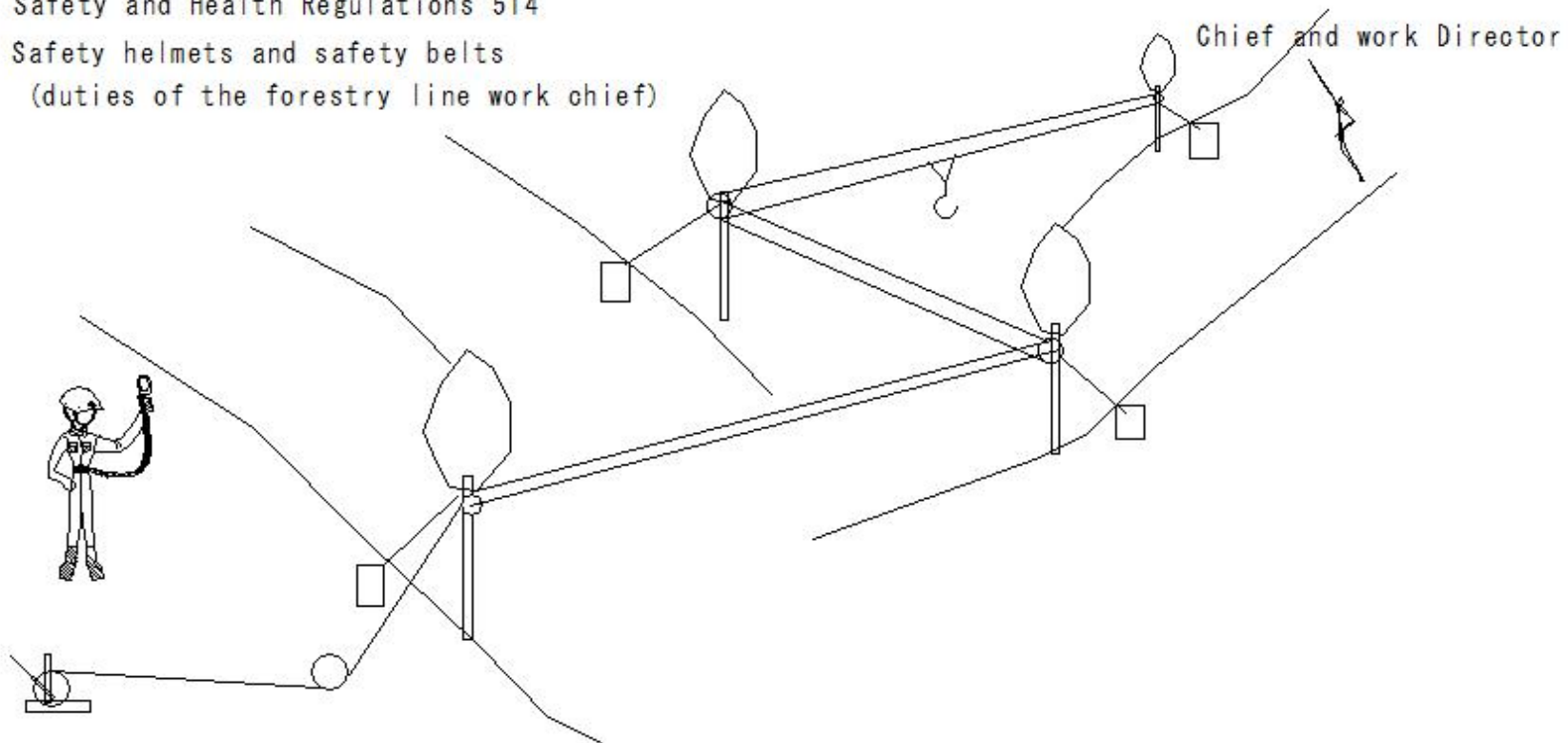
Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 514

Safety helmets and safety belts

(duties of the forestry line work chief)



(S1417) Protective Equipment

(S1417) Protective Equipment

Duty to monitor the use of protective equipment

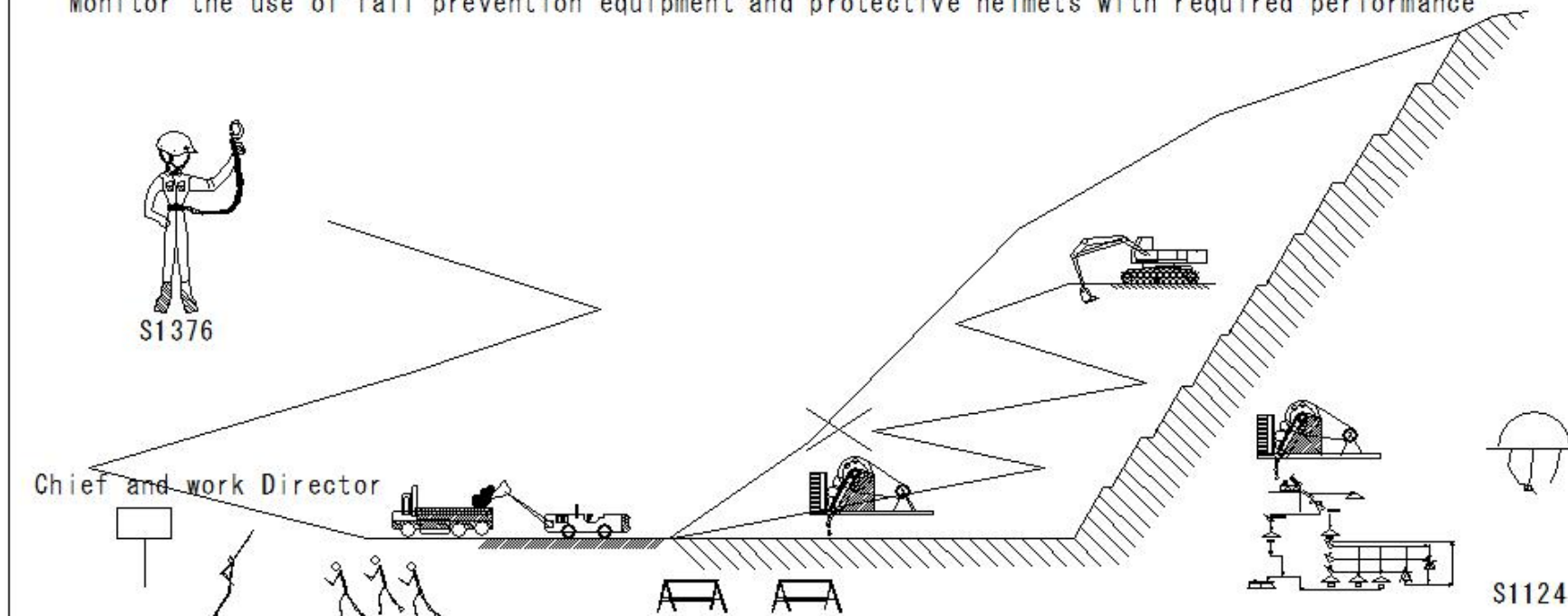
Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 404

Safety helmets and safety harnesses

(duties of the excavation work chief for quarrying)

Monitor the use of fall prevention equipment and protective helmets with required performance



(S1418) Protective Equipment

(S1418) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations No. 566

Safety helmets and safety harnesses

(duties of the work chief for assembling suspended scaffolds and overhanging scaffolds, etc.)

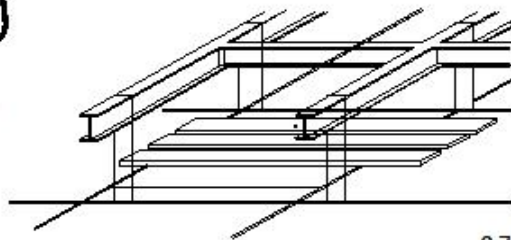
Required performance: Monitor the use of fall prevention equipment and protective helmets.

Chief and work Director



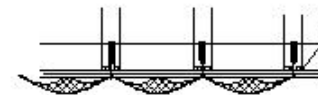
S1379

ladders



suspended scaffolding

S770
S88
S796



Configuration of suspended scaffolding

S797

(S1419) Protective Equipment

(S1419) Protective Equipment

Duty to monitor the use of protective equipment

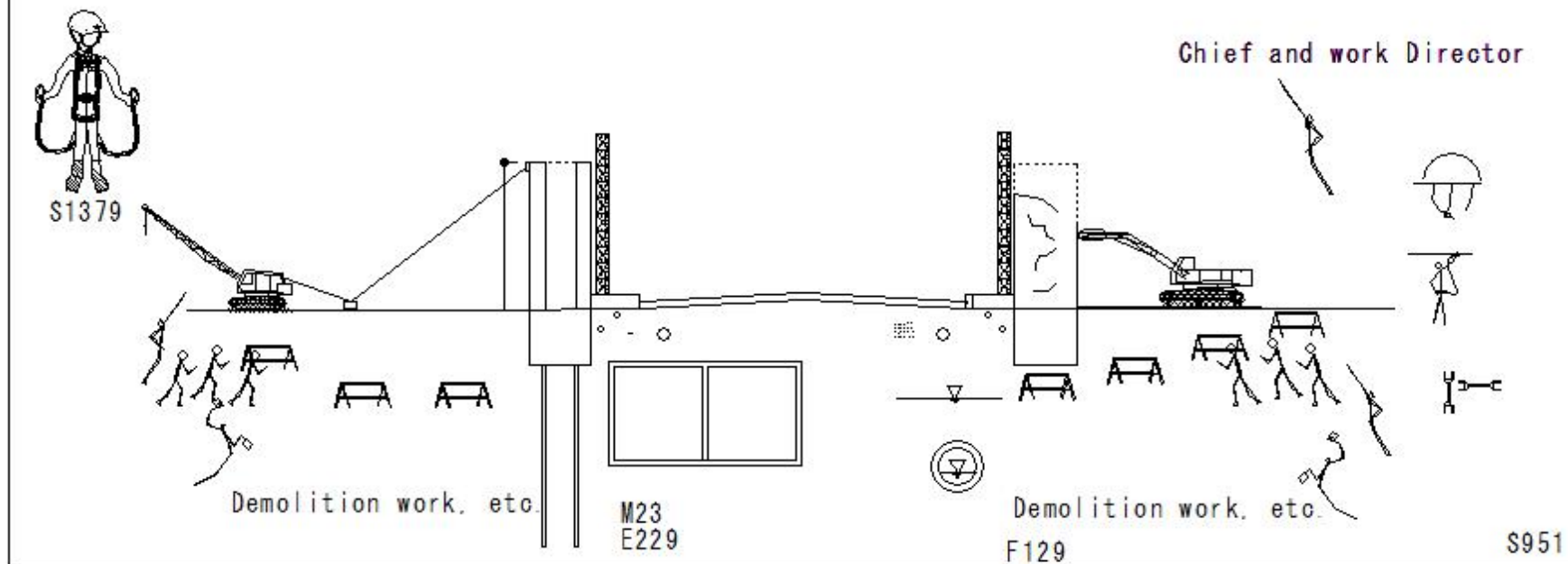
Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 517-5

Safety helmets and safety harnesses

(duties of the work chief for assembling steel frames of buildings, etc.)

○ Required performance: Monitor the use of fall prevention equipment, etc. and protective helmets.



(S1420) Protective Equipment

(S1420) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 517-13

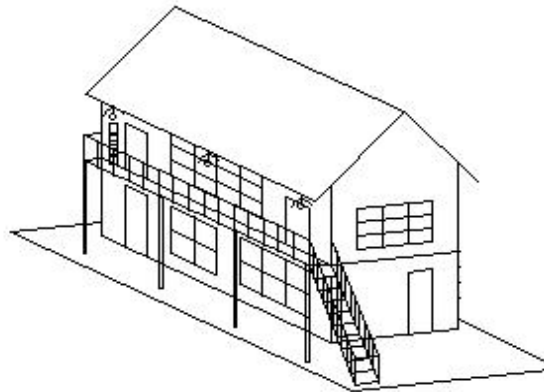
Safety helmets and safety harnesses

Assembling and dismantling wooden buildings 5m or higher

Chief and work Director



S1379



(S1421) Protective Equipment

(S1421) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

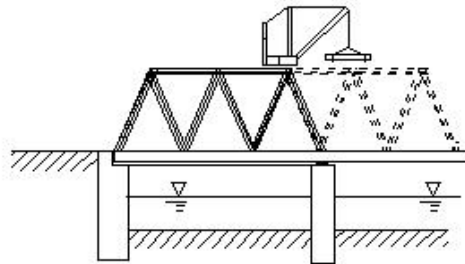
Safety and Health Regulations 517-9

Safety helmets and safety harnesses

Assembling and dismantling steel bridges with heights of 5m or more and spans of 30m or more

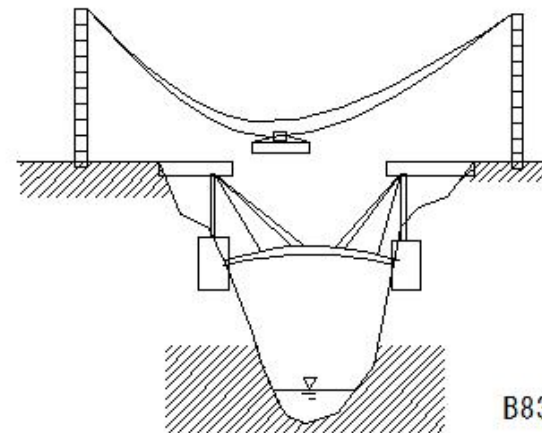


S1379



Bridge (Steel bridge erection)

Chief for steel bridge erection



B83

(S1422) Protective Equipment

(S1422) Protective Equipment

Duty to monitor the use of protective equipment

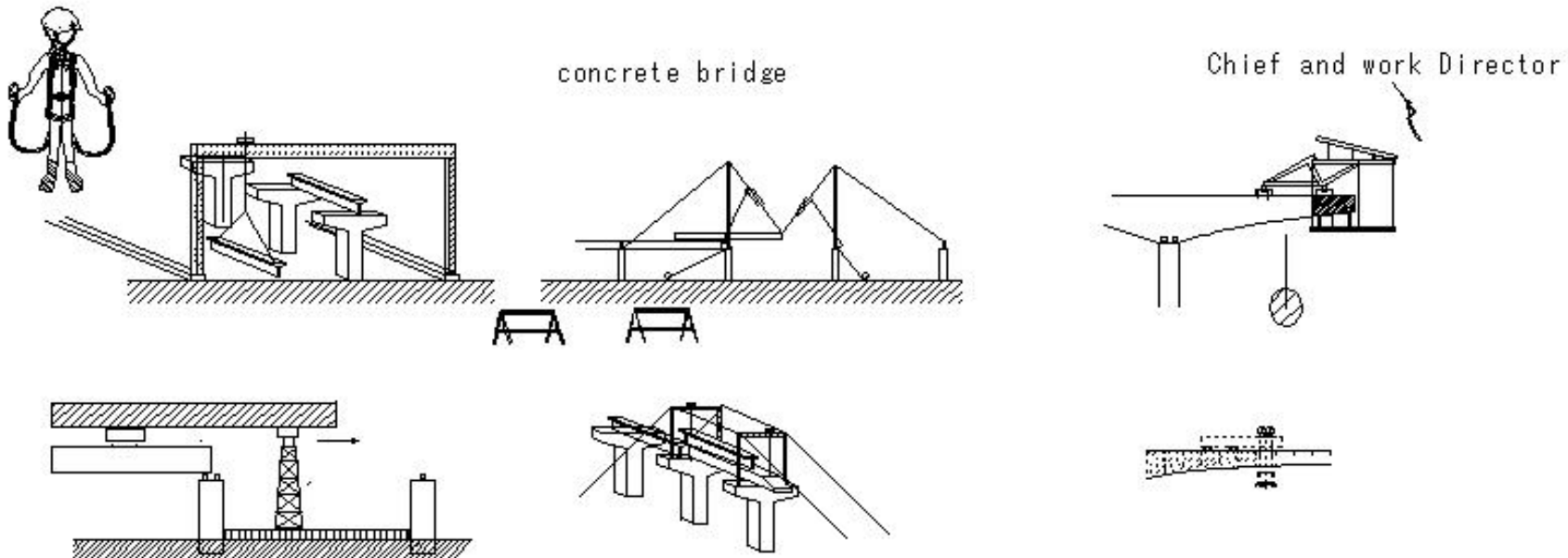
Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 517-23

Safety helmets and safety harnesses

(duties of the work chief for concrete bridge construction, etc.)

Monitor the use of fall prevention equipment and protective helmets with required performance.



(S1423) Protective Equipment

(S1423) Protective Equipment

Duty to monitor the use of protective equipment

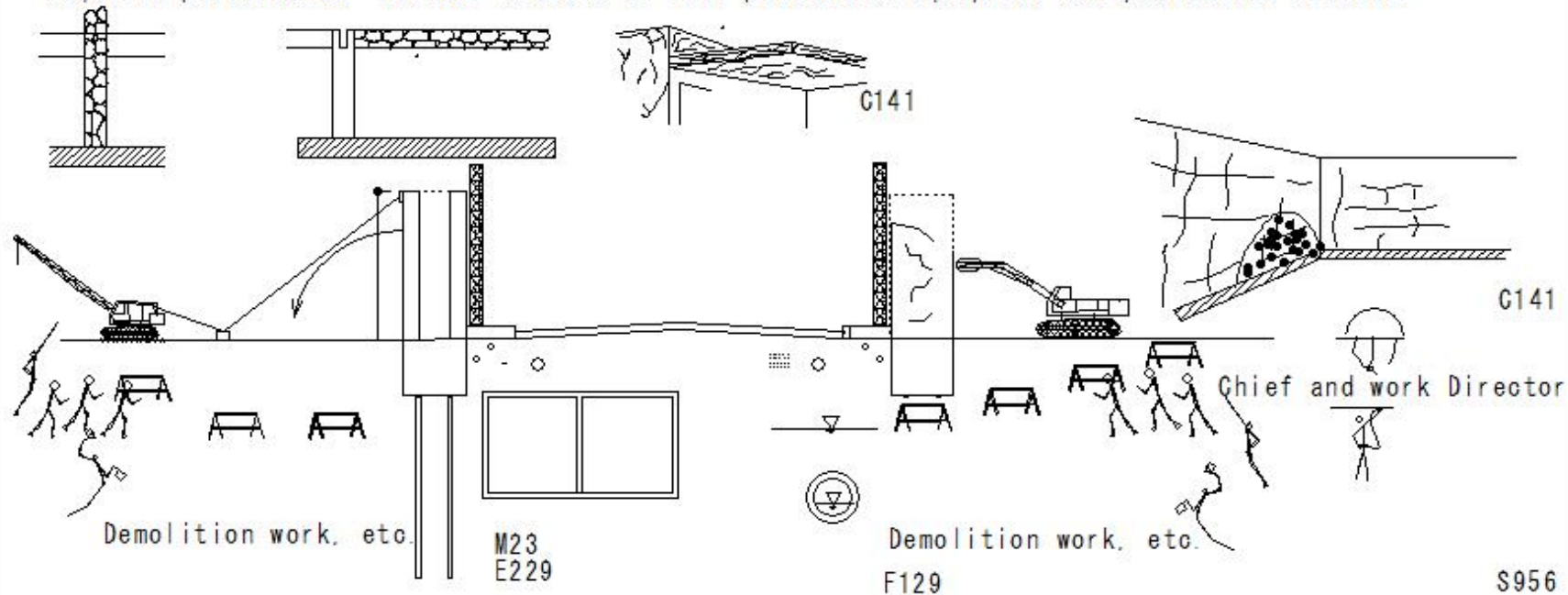
Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 517-18

Safety helmets and safety harnesses

(duties of the work chief for the demolition of concrete structures over 5m in height, etc.)

Required performance: Monitor the use of fall prevention equipment and protective helmets.



(S1424) Protective Equipment

(S1424) Protective Equipment

Duty to monitor the use of protective equipment

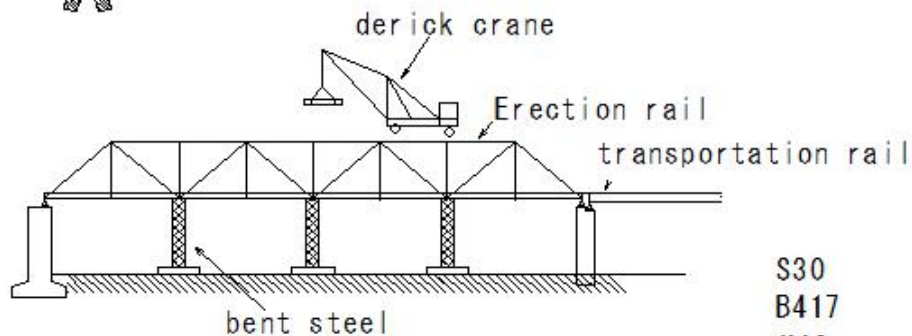
Duty to monitor the use of protective equipment (duties of the work chief and work director)

Crane Ordinance Articles 33, 118, 153, 191

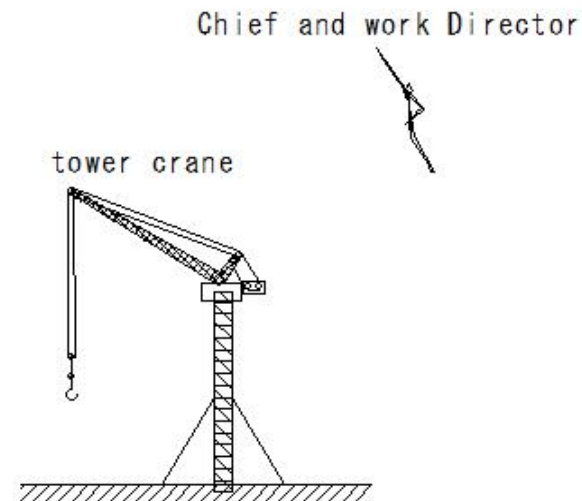
Safety helmets and safety harnesses

(assembly/disassembly of cranes, derricks, construction lifts, etc.)

Monitor the use of fall prevention equipment and protective helmets that meet required performance .



S30
B417
M49



S48
M391

(S1425) Protective Equipment

(S1425) Protective Equipment

Duty to monitor the use of protective equipment

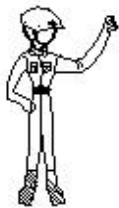
Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 151-70

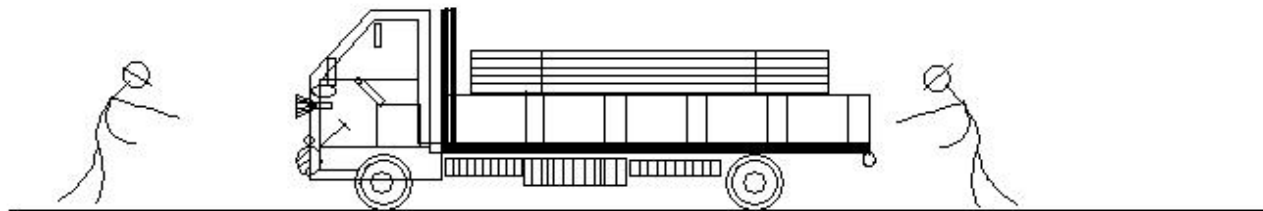
Safety helmet

(Loading and unloading)

Loading items weighing 100 kilograms or more onto a freight vehicle



Chief and work Director



Freight vehicle

S622

(S1426) Protective Equipment

(S1426) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 151-48

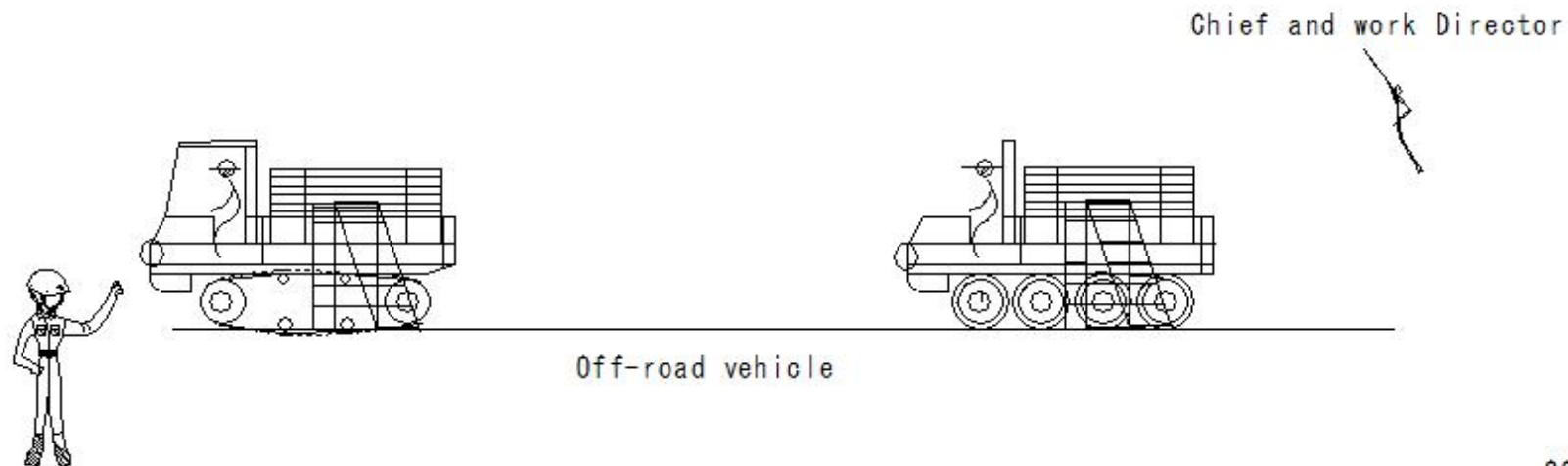
Safety helmets

(loading/unloading)

Work involving loading items weighing 100 kg or more onto an off-road vehicle

(including tying ropes and covering with sheets).

Monitor the use of equipment for ascending and descending and protective helmets.



S611

(S1427) Protective Equipment

(S1427) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Safety and Health Regulations 429

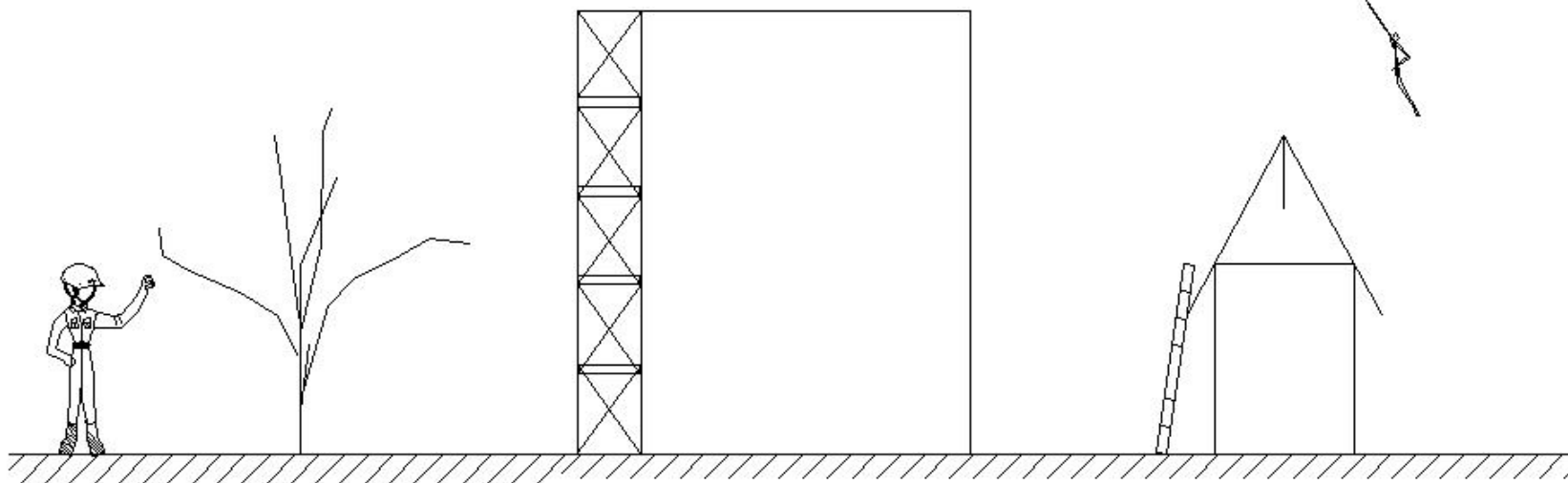
Safety helmets

Duties of the work chief for heights of 2m or more

Monitor the use of equipment for ascending and descending and protective helmets.

heights of 2m or more

Chief and work Director



S273

(S1428) Protective Equipment

(S1428) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

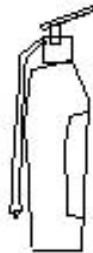
Safety and Health Regulations 315

Safety glasses/protective gloves

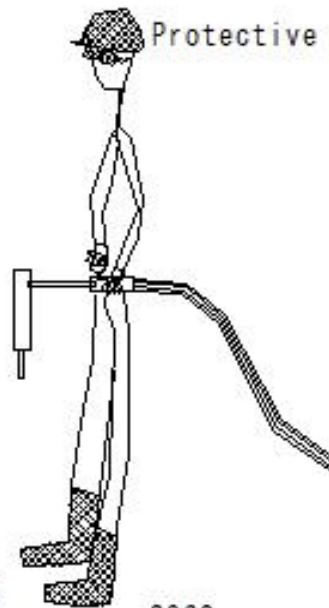
(duties of the gas welding work supervisor)

Monitor the use of protective glasses and gloves

Chief and work Director



Fire extinguisher



Gas welding

S960

Protective helmet



Safety glasses

S1360



protective gloves

S1361

(S1429) Protective Equipment

(S1429) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Organic Solvent Law 19-2

Protective Equipment

(duties of the organic solvent work supervisor)

In case of workers are engaged in organic solvent work, ensure that protective equipment is worn.

Chief and work Director



Widely used in painting, cleaning, printing, and other tasks



S1248



painting.

Organic compounds that have the ability to dissolve other substances

Organic solvents

S1229

(S1430) Protective Equipment

(S1430) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Special Law 28

Protective equipment

(duties of the work chief of specific chemical substances)

Confirmation of special organic solvent work and wearing of protective equipment inside the tank.



Specific Chemical Substances



Chief and work Director



Widely used in painting, cleaning, printing, and other tasks

(S1431) Protective Equipment

(S1431) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Oxygen deficiency measurement Article 11

Respirators

Rules for preventing oxygen deficiency, etc.

(Work chief)

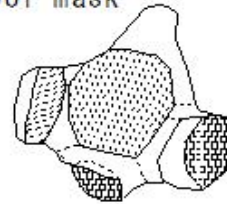
Monitor the use of respirators, etc.

Respiratory protection



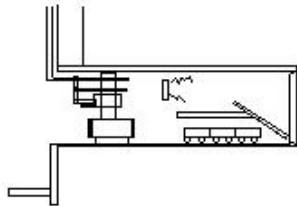
S1364

Dustproof mask



S1366

Chief and work Director



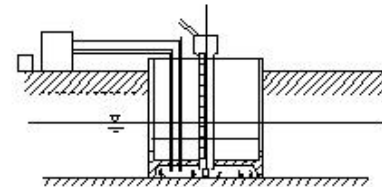
S141



T157



T112
F127



M262
F59

S1206

(S1432) Protective Equipment

(S1432) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment (duties of the work chief and work director)

Oxygen deficiency measurement Article 11

Respiratory protection

Dustproof mask

Respirators

Rules for preventing oxygen deficiency, etc.

(Work chief)

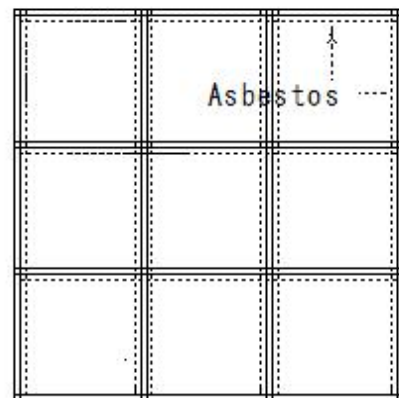
Monitor the use of respirators, etc.



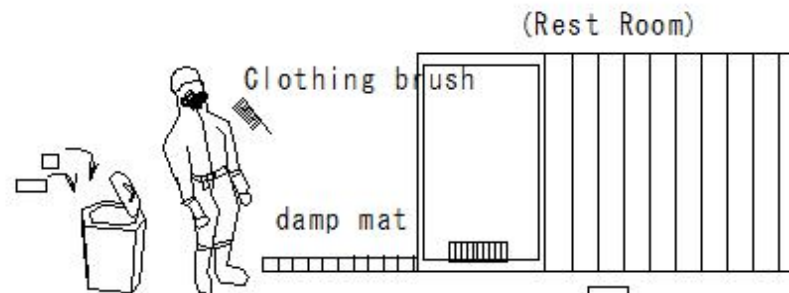
S1364



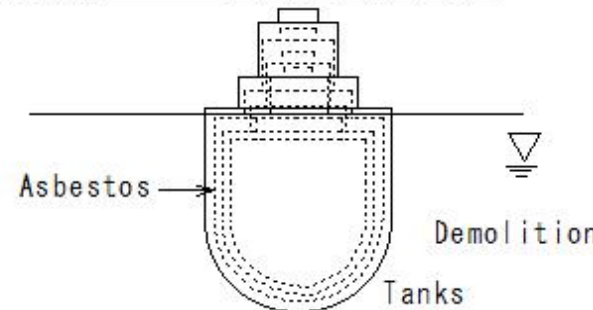
S1366



Demolition



(Rest Room)



Demolition

Tanks

S1276

Buildings

(S1433) Protective Equipment

(S1433) Protective Equipment

Duty to monitor the use of protective equipment

Duty to monitor the use of protective equipment
(duties of the work chief and work director)

Article 9 of slow radiation ionization measurement

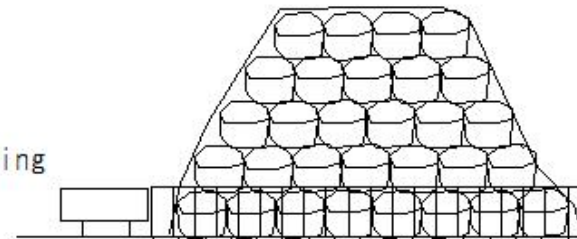
Respiratory protective equipment, work clothes, protective clothing

Article 9 of the Ionization Law

Decontamination work

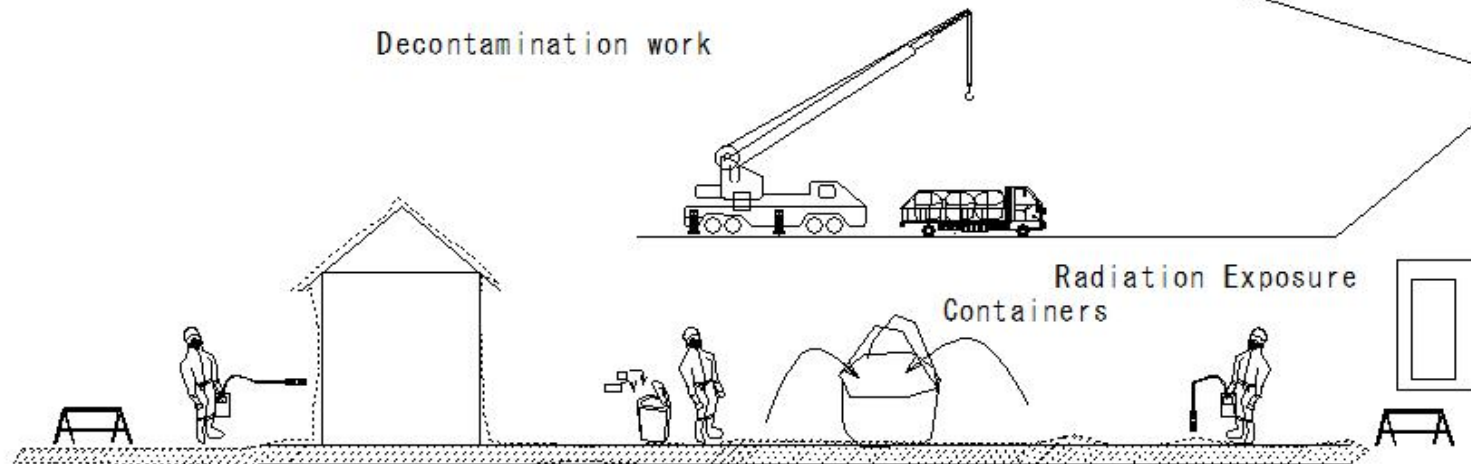
In case of the dose from external exposure in one day exceeds 1 millisievert
per centimeter dose equivalent

Store



Fences

Decontamination work



S1300

(S1434) Protective Equipment

(S1434) Protective Equipment

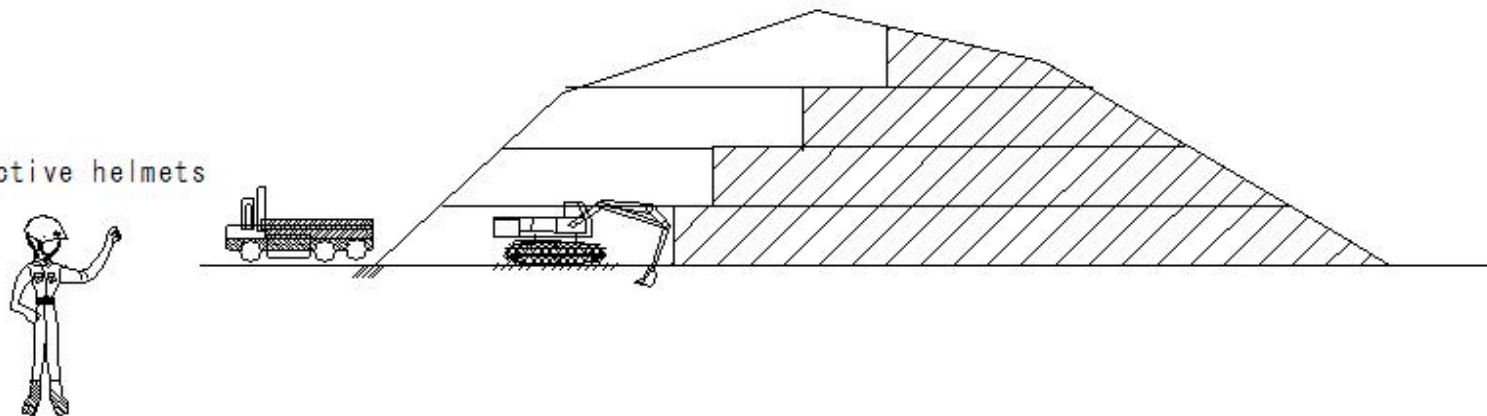
Work requiring the wearing of protective equipment

Protective helmets

Article 366 of the Safety and Health Regulations

In case of performing light excavation work, workers are required to wear protective helmets to ensure their safety.

Protective helmets



E353

(S1435) Protective Equipment

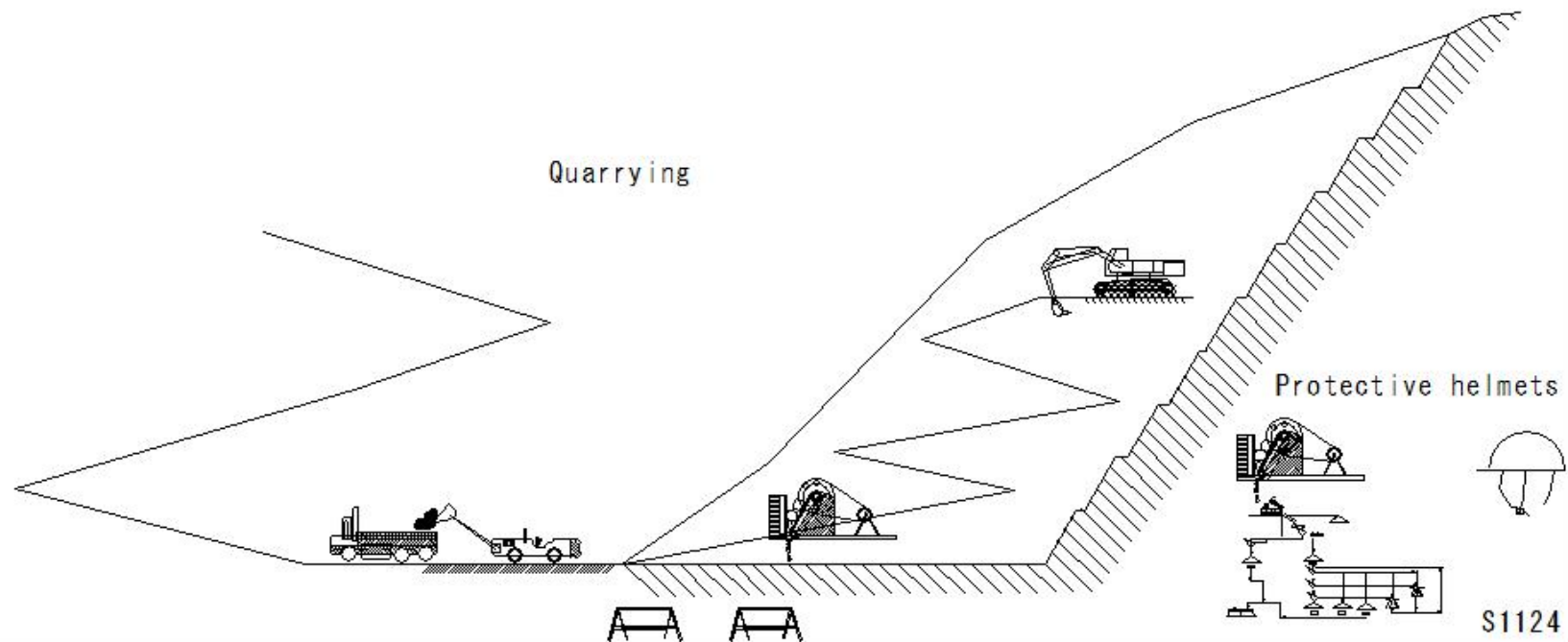
(S1435) Protective Equipment

Work requiring the wearing of protective equipment

Protective helmets

Article 412 of the Safety and Health Regulations

Duties of the excavation work supervisor for quarrying



(S1436) Protective Equipment

(S1436) Protective Equipment

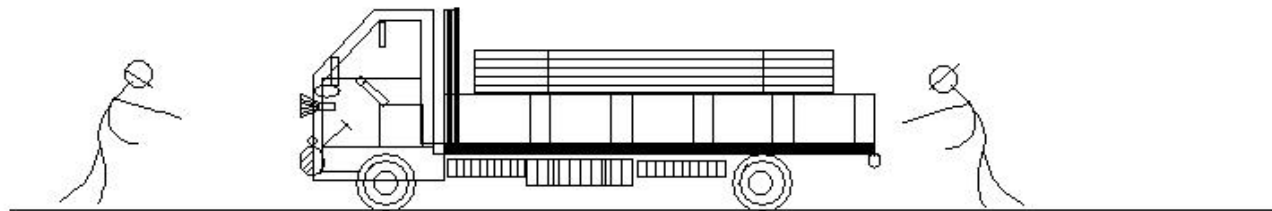
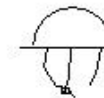
Work requiring the wearing of protective equipment

Protective helmets

Article 151, Paragraph 74 of the Industrial Safety and Health Ordinance

Work involving loading cargo onto freight vehicles with a maximum load capacity of 5 tons or more (including tying ropes and placing sheets on cargo)

Protective helmets



Freight vehicle

S1425
S622

(S1437) Protective Equipment

(S1437) Protective Equipment

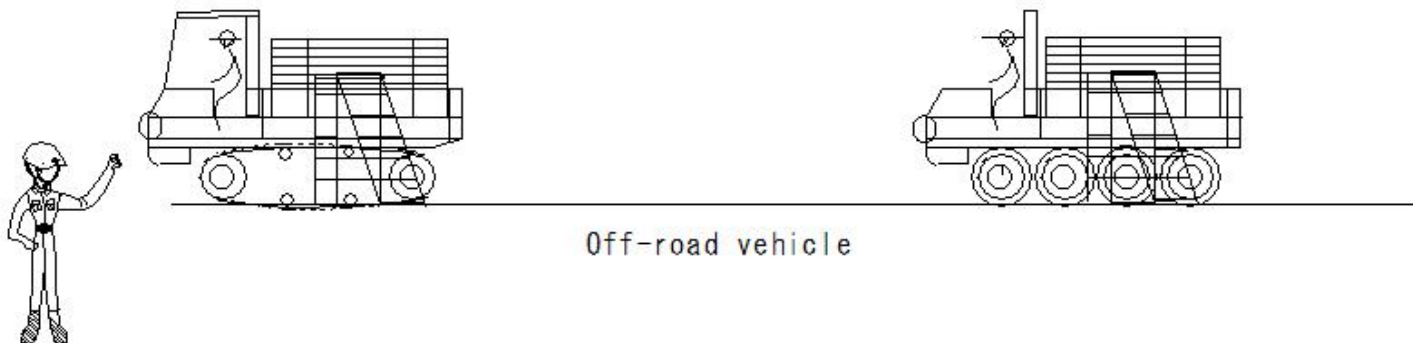
Work requiring the wearing of protective equipment

Protective helmets

Article 151, No. 52 of the Safety and Health Regulations

This is a regulation concerning the loading and unloading of cargo on off-road vehicles.

Protective helmets



Off-road vehicle

S1426

S611

(S1438) Protective Equipment

(S1438) Protective Equipment

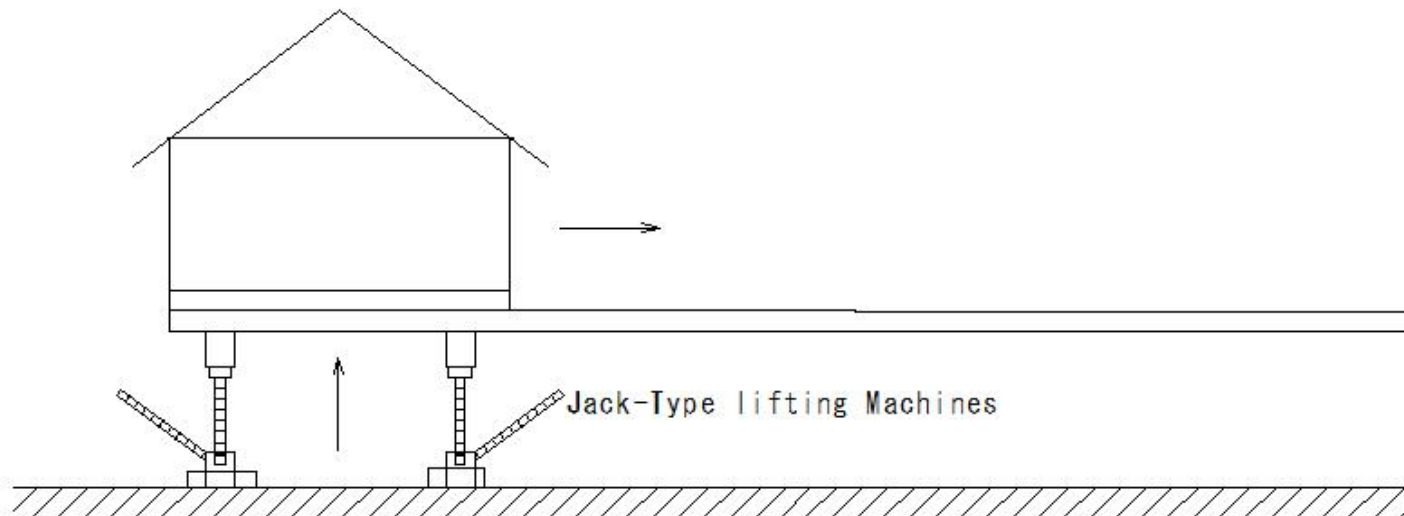
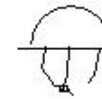
Work requiring the wearing of protective equipment

Protective helmets

Article 194, paragraph 7 of the Industrial Safety and Health Ordinance

It is stipulated that workers must wear protective helmets when performing work using jack-type lifting machines in construction work.

Protective helmets



(S1439) Protective Equipment

(S1439) Protective Equipment

Work requiring the wearing of protective equipment

Protective helmets

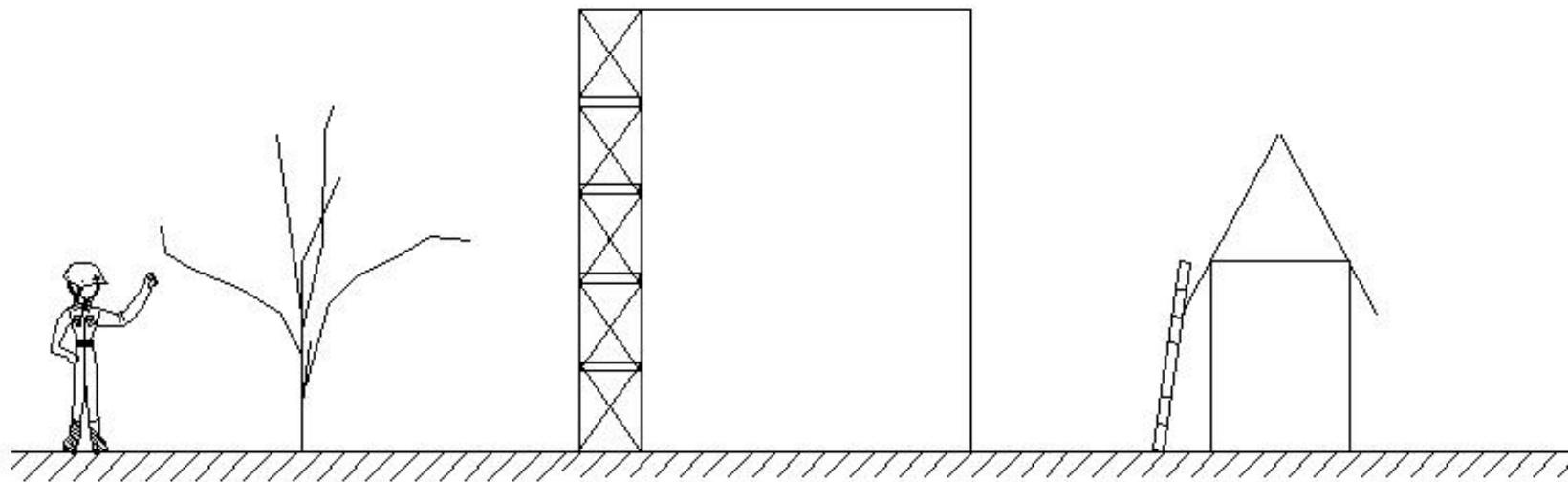
Article 435 of the Safety and Health Regulations:

Work on a platform (limited to those where the height of the work area is 2 meters or more from the floor)

Protective helmets



heights of 2m or more



S273

(S1440) Protective Equipment

(S1440) Protective Equipment

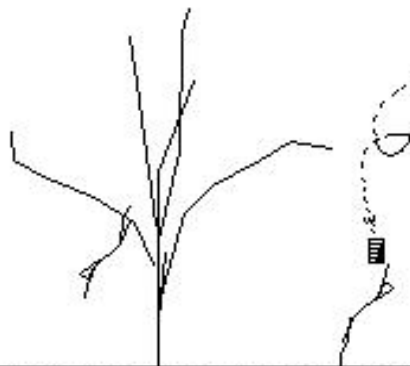
Work requiring the wearing of protective equipment

Protective helmets

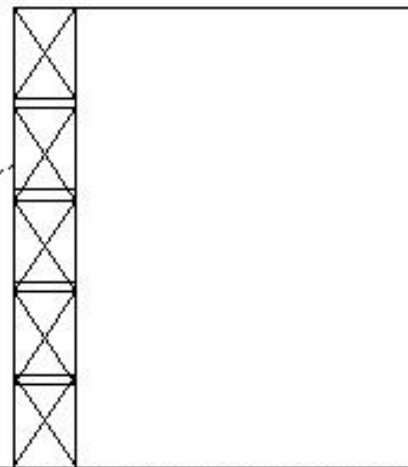
Safety and Health Regulations, Article 517, 10

(Wearing protective helmets) In order to prevent workers from being exposed to danger from flying or falling objects, workers engaged in the work in question must wear protective helmets

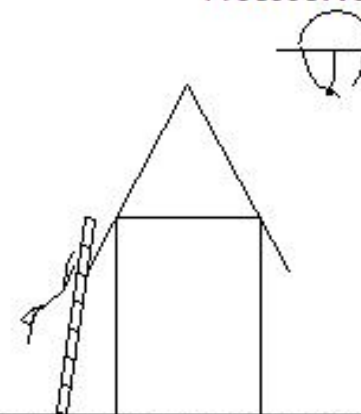
falling from a tree



falling objects



falling from a ladder



Protective helmets



(S1441) Protective Equipment

(S1441) Protective Equipment

Work requiring the wearing of protective equipment

Protective helmets

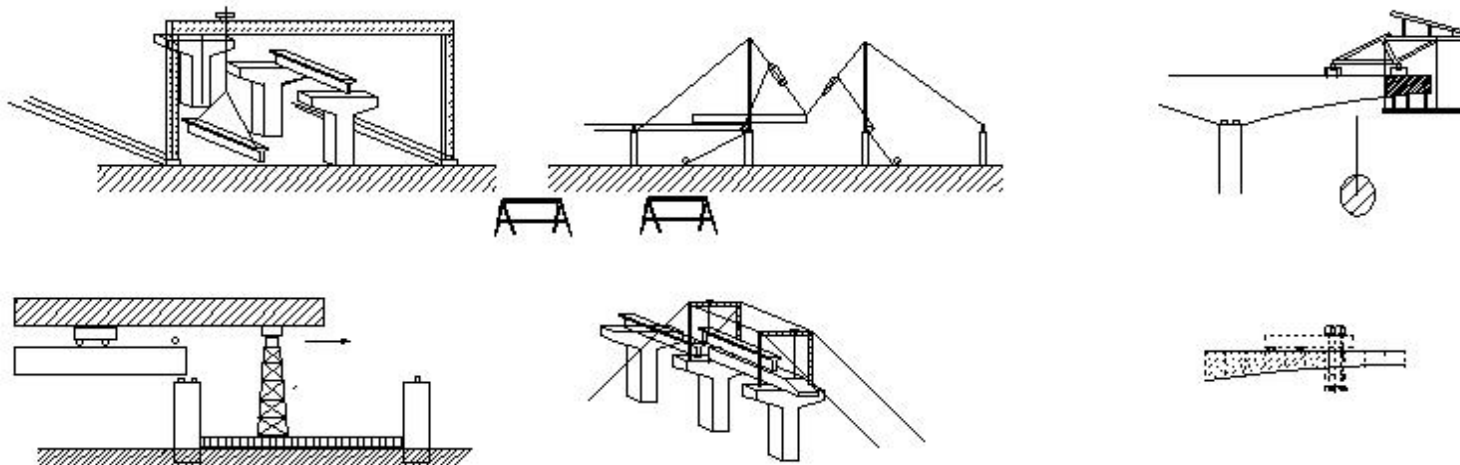
Article 517, Section 24 of the Safety and Health Regulations

(Duties of the Work Supervisor for Concrete Bridge Construction, etc.)

It is mandatory to wear protective helmets to prevent workers from being exposed to flying or falling objects.

concrete bridge

Protective helmets



S1422

(S1442) Protective Equipment

(S1442) Protective Equipment

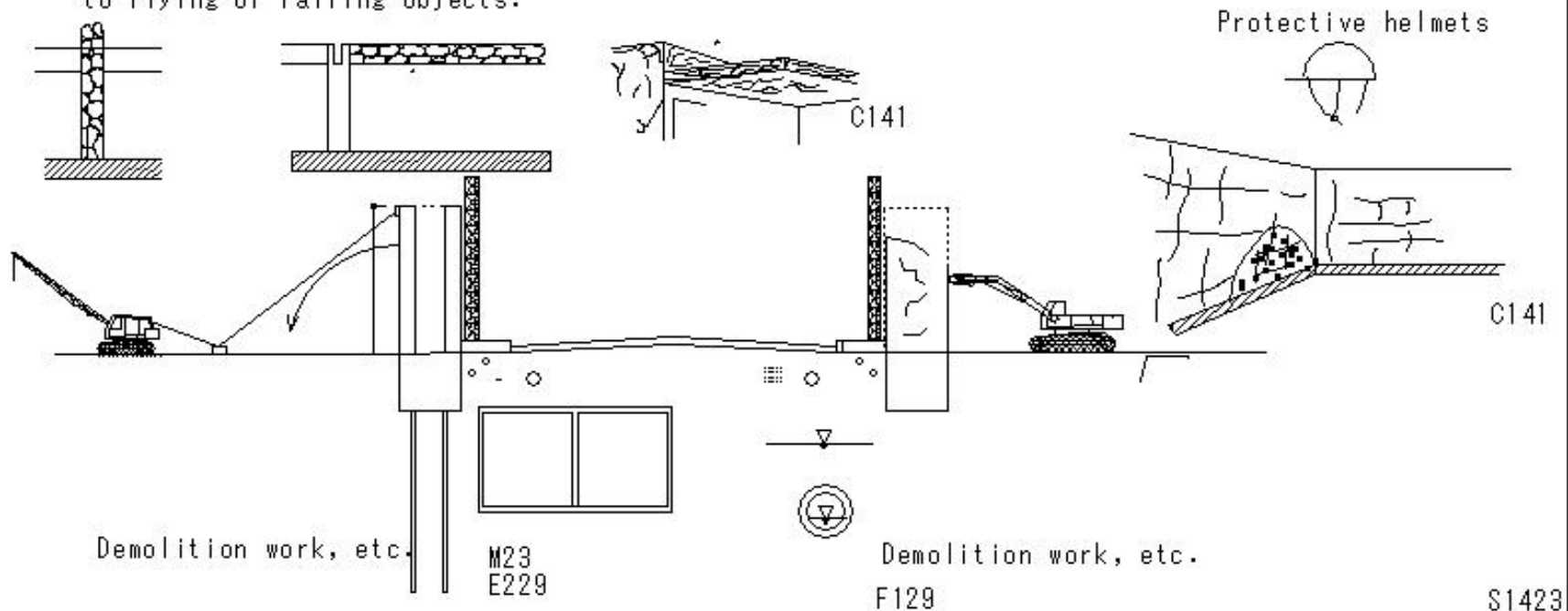
Work requiring the wearing of protective equipment

Protective helmets

Article 517, Section 24 of the Safety and Health Regulations

(Duties of the Work Supervisor for Concrete Bridge Construction, etc.)

It is mandatory to wear protective helmets to prevent workers from being exposed to flying or falling objects.



(S1443) Protective Equipment

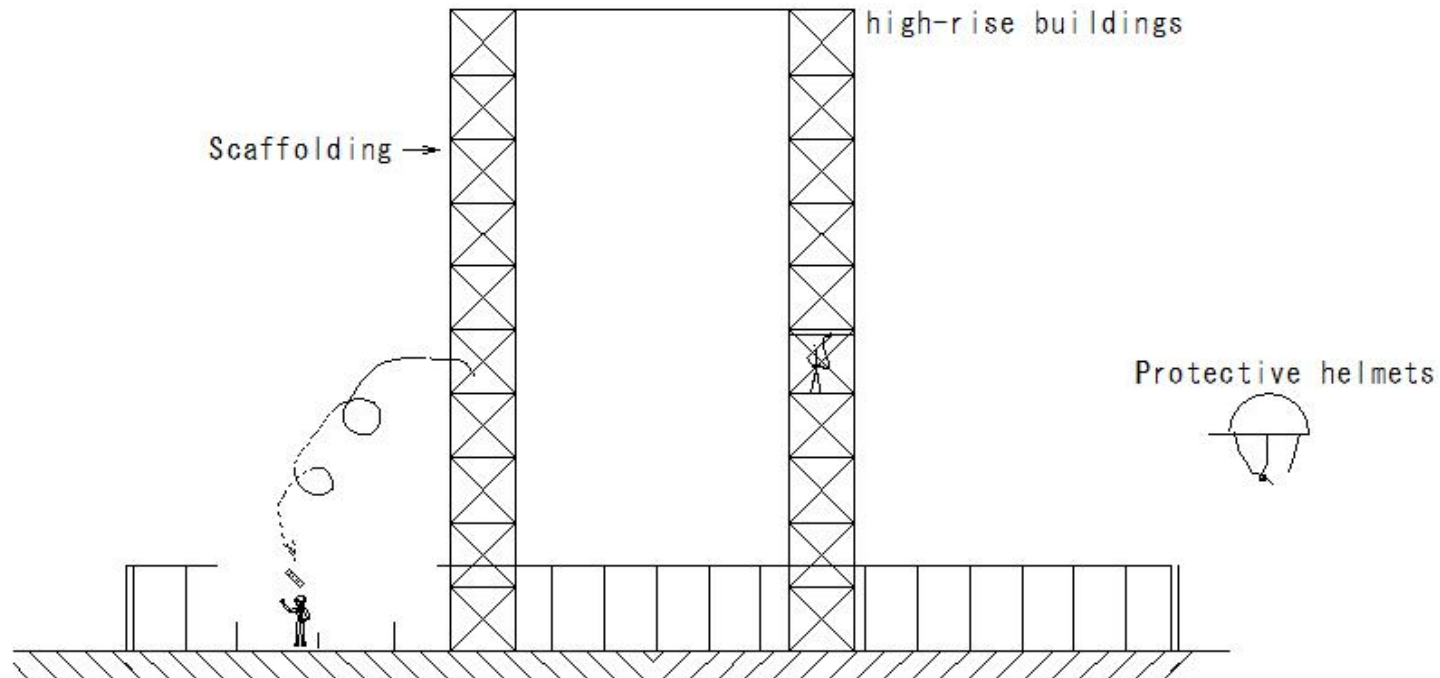
(S1443) Protective Equipment

Work requiring the wearing of protective equipment

Protective helmets

Article 539 of the Safety and Health Regulations

In case of working at heights such as on slipways or high-rise buildings, workers are required to wear protective helmets to prevent the danger of flying or falling objects.



(S1444) Protective Equipment

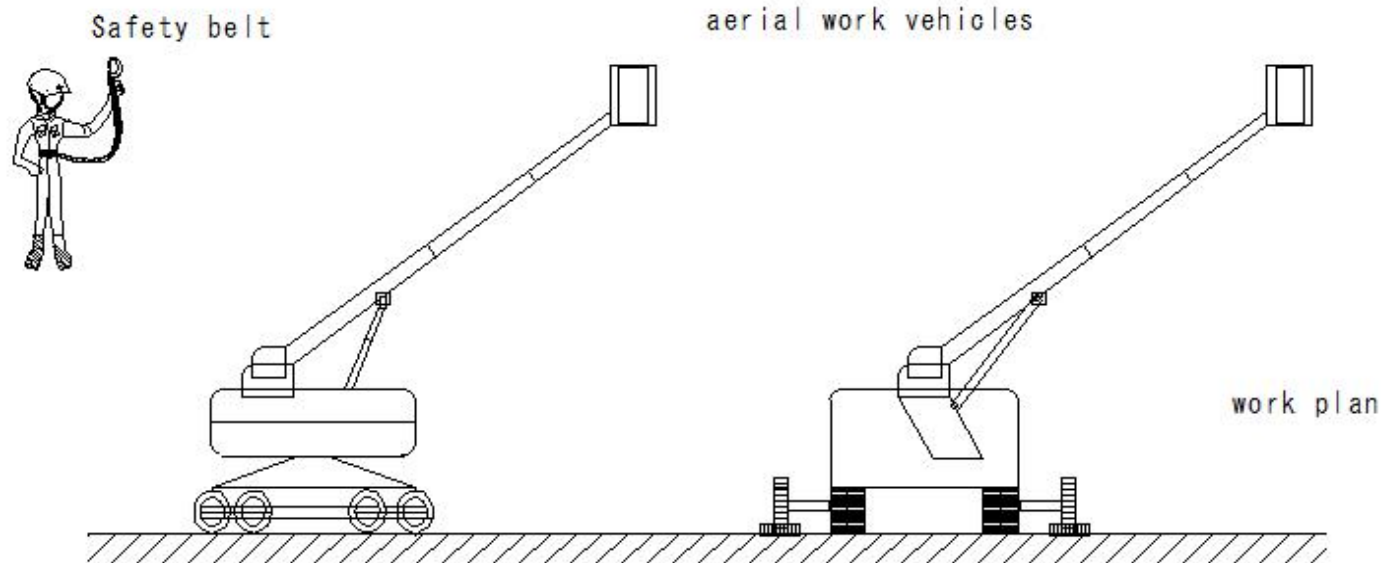
(S1444) Protective Equipment

Work that requires protection equipment to be worn

Safety belt

Article 194, 22 of the Health and Safety Regulations

- ① Working on an Aerial work platform
- ② There is a risk of crash when working at a height of 2m or more



S322

S635

(S1445) Protective Equipment

(S1445) Protective Equipment

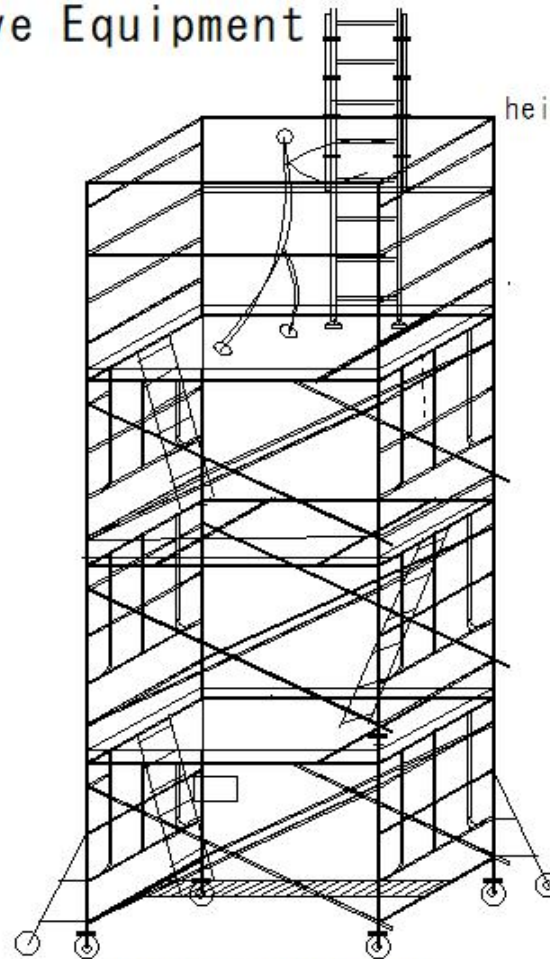
Work requiring the wearing of protective equipment

Safety belt

Safety and Health Regulations Articles 518-521

Working at heights of 2 meters or more

Safety belt



heights of 2 meters
or more

(Mobile Scaffolding)

S801
S798

(S1446) Protective Equipment

(S1446) Protective Equipment

Work requiring the wearing of protective equipment

Safety belt

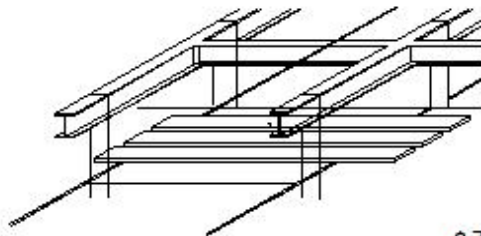
Article 564 of the Safety and Health Regulations

Assembly and dismantling of suspended scaffolding, overhanging scaffolding,
or scaffolding with a height of two meters or more

Safety belt

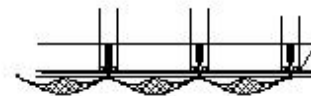


ladders



suspended scaffolding

S770
S88
S796



Configuration of suspended scaffolding

S797

S1418

(S1447) Protective Equipment

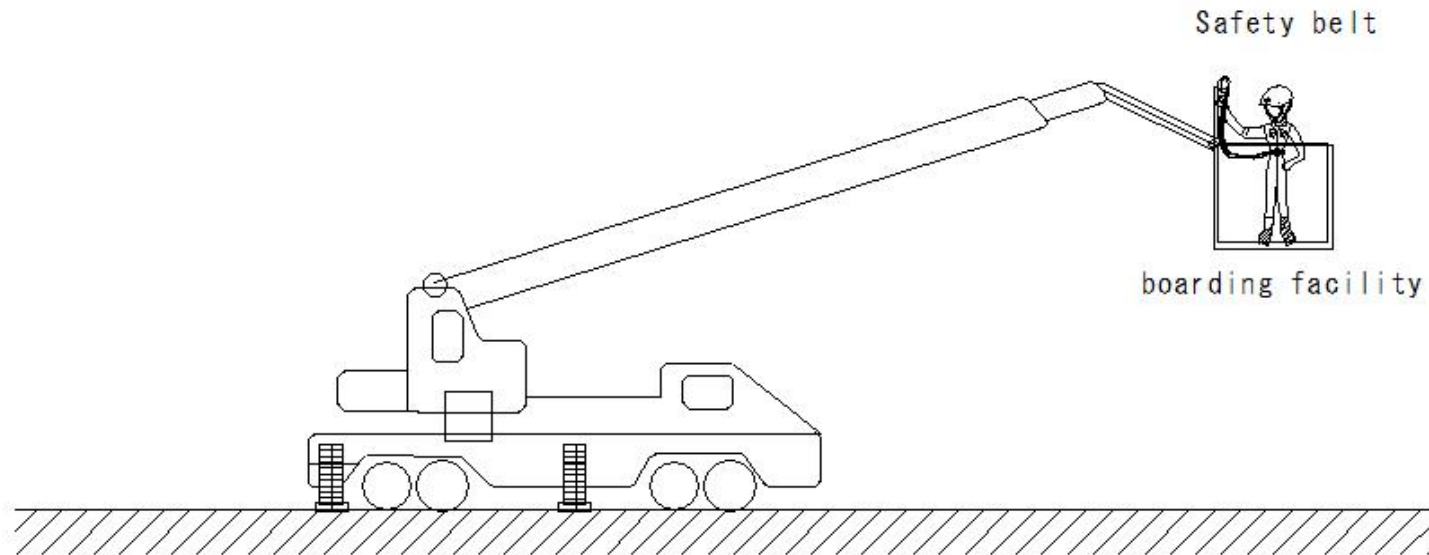
(S1447) Protective Equipment

Work requiring the wearing of protective equipment

Safety belt

Article 564 of the Safety and Health Regulations

Assembly and dismantling of suspended scaffolding, overhanging scaffolding,
or scaffolding with a height of two meters or more



(S1448) Protective Equipment

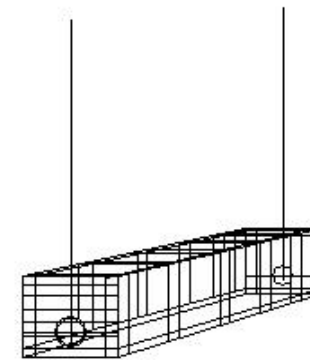
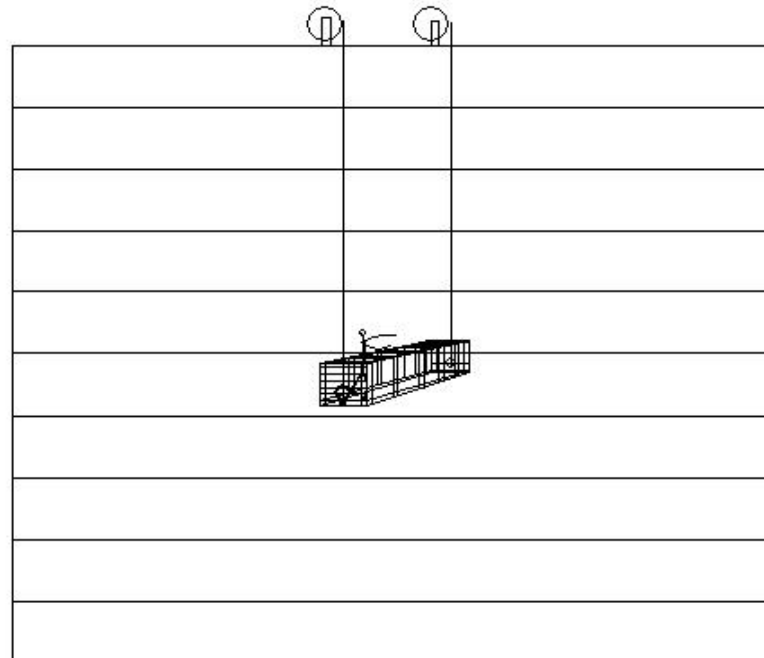
(S1448) Protective Equipment

Work requiring the wearing of protective equipment

Safety belt

Gondola Regulations Article 17

Working on the work platform of a gondola



gondola



S1379

(S1449) Protective Equipment

(S1449) Protective Equipment

Work requiring the wearing of protective equipment

Safety belt

Article 6 of the Oxygen Deficiency Law

Dangerous work involving oxygen deficiency, etc.

Safety belt



Respiratory protection

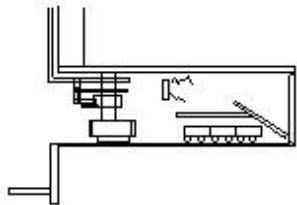


S1364

Dustproof mask



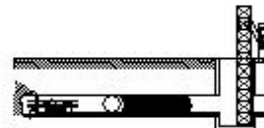
S1366



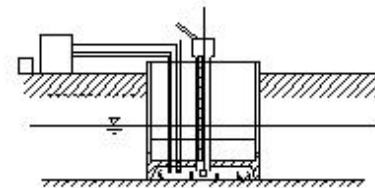
S141



T157



T112
F127



M262
F59

S1206
S1431

(S1450) Protective Equipment

(S1450) Protective Equipment

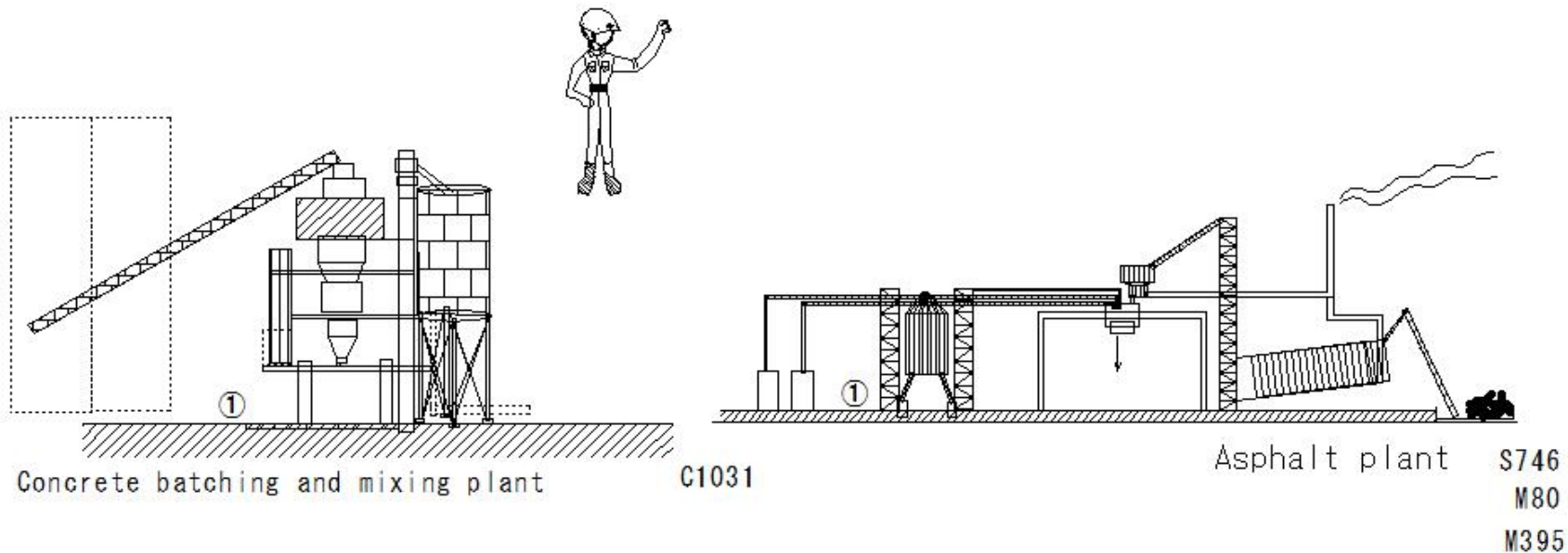
Work requiring the wearing of protective equipment

Work hats and work clothes

Article 110 of the Safety and Health Regulations

- ① In case of there is a risk that the worker's hair or work clothes may be caught in the machine
- ② In case of it is mandatory to wear a work hat or work clothes

Work hats and work clothes



(S1451) Protective Equipment

(S1451) Protective Equipment

Work requiring the wearing of protective equipment

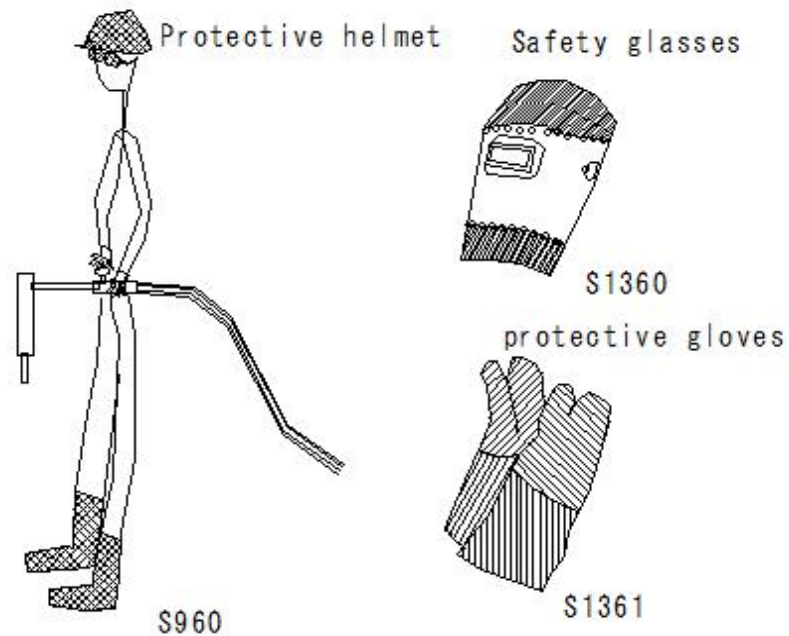
Protective glasses and gloves

Article 313 of the Safety and Health Regulations

Gas welding work

Wear protective glasses and gloves

Gas welding



S1428

(S1452) Protective Equipment

(S1452) Protective Equipment

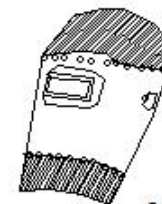
Work requiring the wearing of protective equipment

Appropriate protective equipment

Safety and Health Regulations 312 Article 325

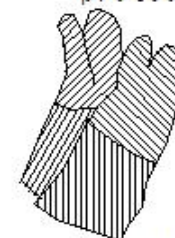
Acetylene welding, arc welding

Safety glasses



S1360

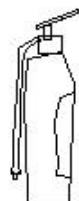
protective gloves



S1361

Arc welding

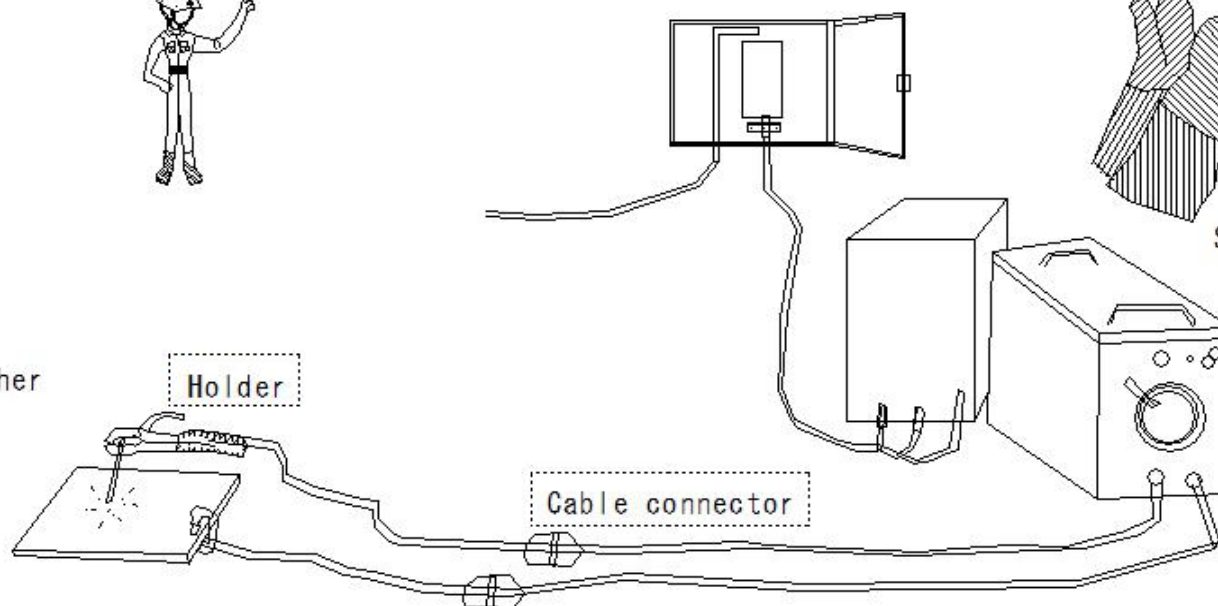
Fire extinguisher



Holder



Cable connector



S968

(S1453) Protective Equipment

(S1453) Protective Equipment

Safety glasses

Work requiring the wearing of protective equipment

Appropriate protective equipment

Insulating protective equipment

(High voltage live line work) (Work in close proximity to high voltage live lines)

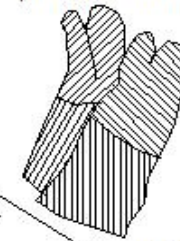
(Wearing insulating protective equipment, etc.) (Low voltage live line work)

(Work in close proximity to low voltage live lines) Wear insulating protective equipment



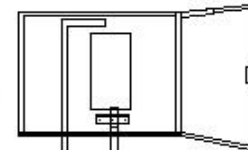
S1360

protective gloves

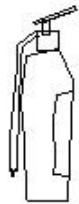


S1361

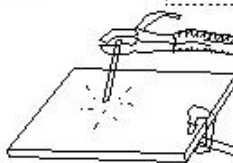
Arc welding



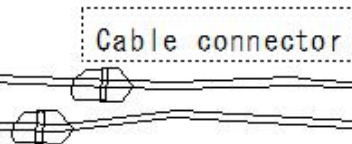
Fire extinguisher



Holder



Cable connector



S968

(S1454) Protective Equipment

(S1454) Protective Equipment

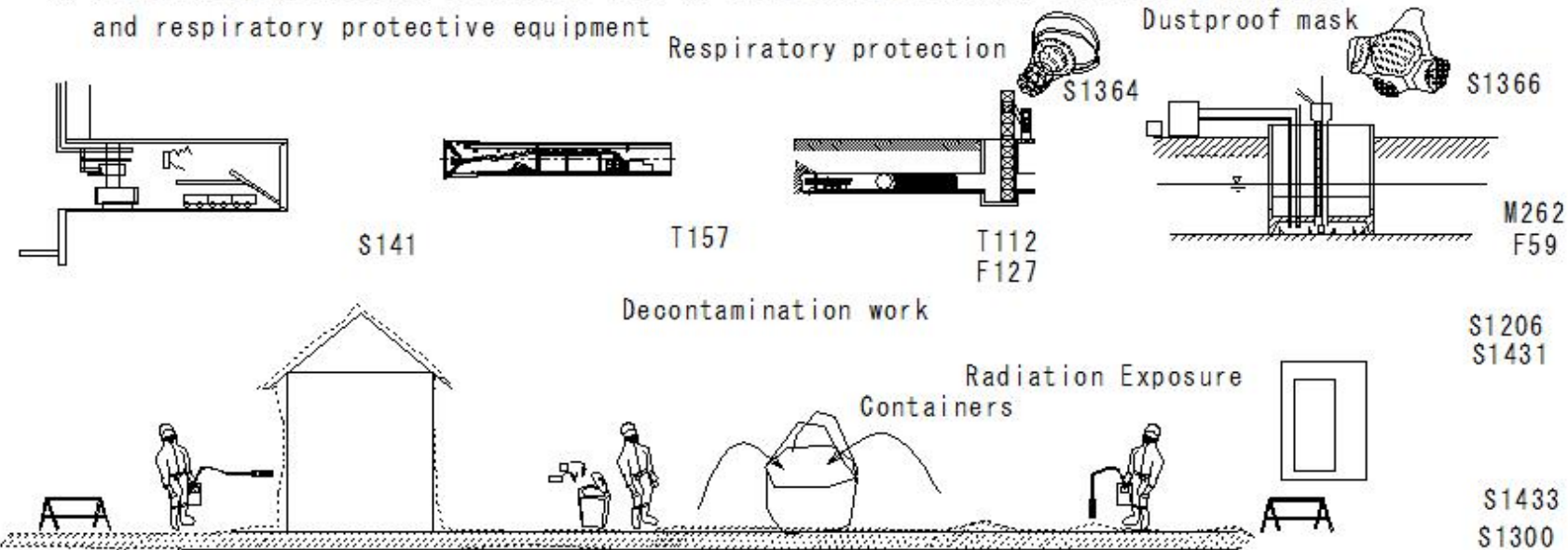
Work requiring the wearing of protective equipment

Appropriate protective equipment

Article 593, Article 597 of the Industrial Safety and Health Ordinance

Harmful work

- ① Work involving exposure to hot or cold places, harmful rays, work in harmful places that emit gas, steam or dust, work where there is a high risk of contamination by
- ② Appropriate protective equipment such as protective clothing, protective glasses, and respiratory protective equipment



(S1455) Protective Equipment

(S1455) Protective Equipment

Anti-vibration gloves



S1365

Work requiring the wearing of protective equipment

Appropriate protective equipment

Article 597 of the Industrial Safety and Health Ordinance 594

(Protective equipment for preventing skin disorders, etc.) Appropriate protective equipment such as protective clothing, protective gloves, footwear, or protective glasses

Safety Shoes



S1358

Dustproof Goggles



S1362

Respiratory protection

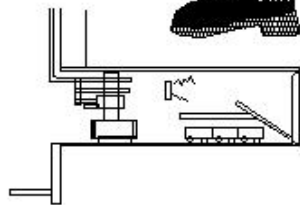


S1364

Dustproof mask



S1366



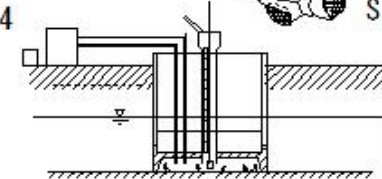
S141



T157



T112
F127

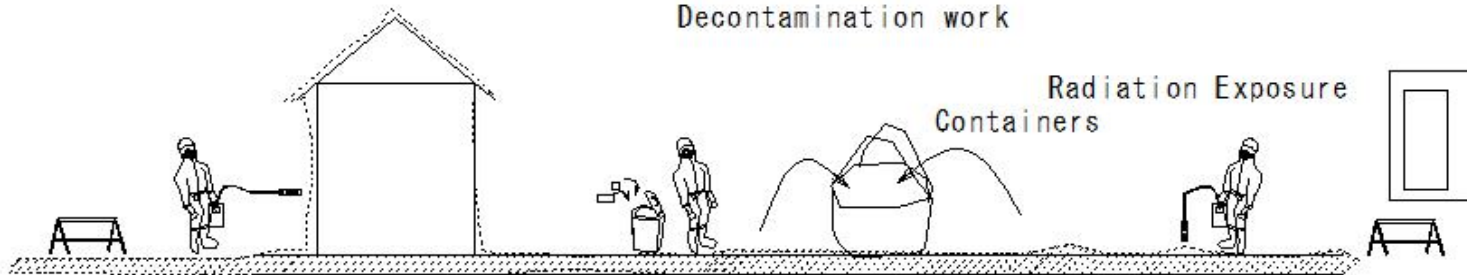


M262
F59

Decontamination work

Radiation Exposure
Containers

S1206
S1431



S1433
S1300

(S1456) Protective Equipment

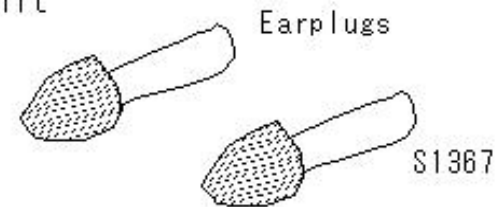
(S1456) Protective Equipment

Work requiring the wearing of protective equipment

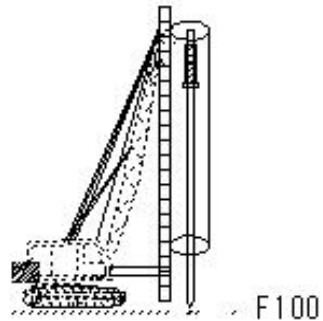
Appropriate protective equipment

Safety and Health Regulations 595 Article 597

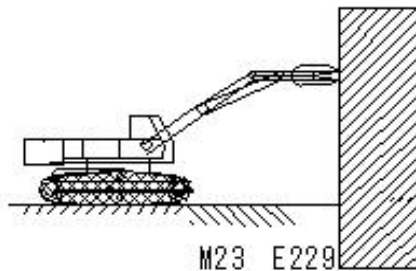
(Protective equipment for preventing noise pollution) Earplugs



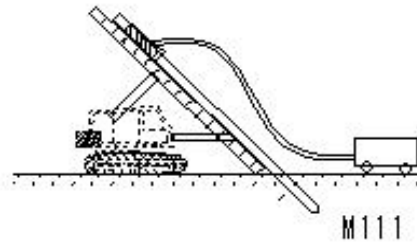
① Pile drivers



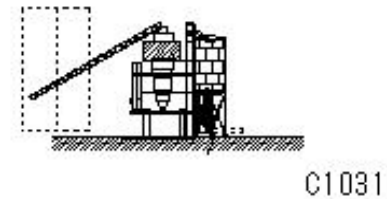
② Rock drills



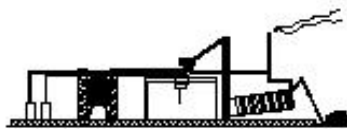
③ Air compressors



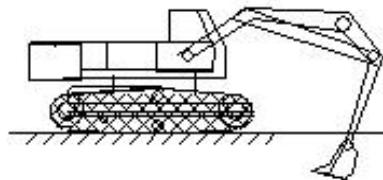
④ Concrete plants



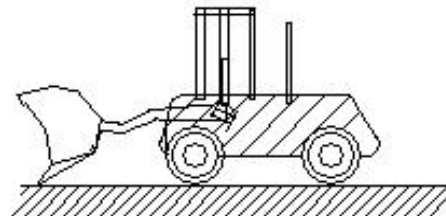
⑤ Asphalt plants



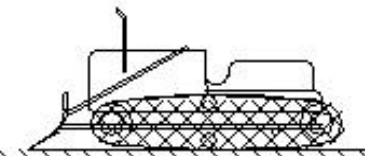
⑥ Backhoes



⑦ Tractor shovels



⑧ Bulldozers



(S1457) Protective Equipment

(S1457) Protective Equipment

Work requiring the wearing of protective equipment

Appropriate protective equipment

Article 5, Paragraph 2 of the Oxygen Deficiency Act

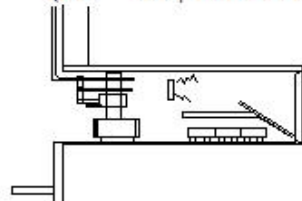
Locations with oxygen deficiency

Air respirators, etc.

(Air respirators, oxygen respirators, or air-supplied masks)

Respiratory protection

Dustproof mask



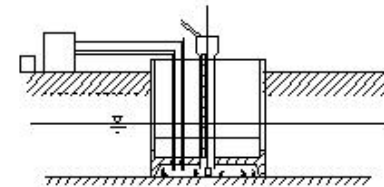
S141



T157

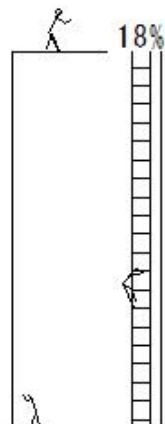


T112
F127

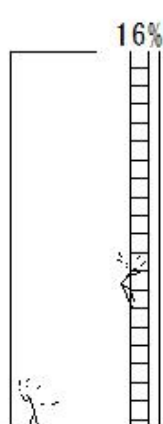


M262
F59

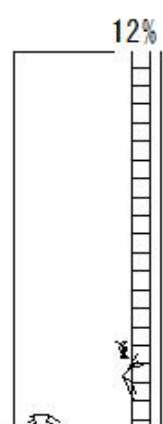
①



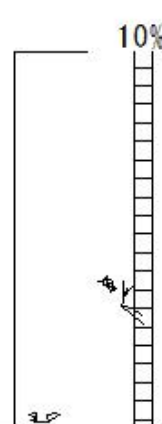
②



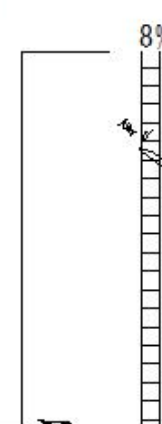
③



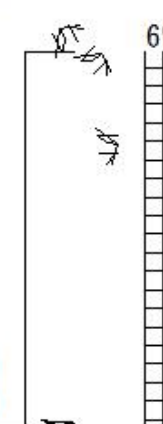
④



⑤



⑥



S1216
S1200

(S1458) Protective Equipment

(S1458) Protective Equipment

Work requiring the wearing of protective equipment

Appropriate protective equipment

Articles 33 and 34 of the Organic Solvent Law

Ordinance for the Prevention of Organic Solvent Poisoning (Organic Solvent Law)

Work involving exposure to organic solvent vapors

Respiratory protective equipment such as air-supplied masks and gas masks

Respiratory protection



S1364

Dustproof mask



S1366



S1248

Specific Chemical Substances



Widely used in painting, cleaning, printing, and other tasks

S1229

S1430

(S1459) Protective Equipment

(S1459) Protective Equipment

Work requiring the wearing of protective equipment

Appropriate protective equipment

Article 27 of the Dust Law, Article 5 of the Pneumoconiosis Law

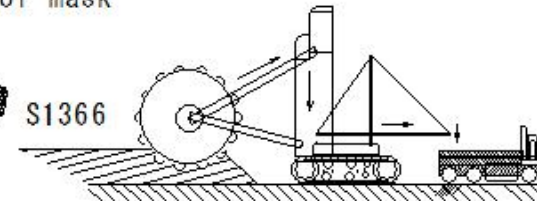
(Use of respiratory protective equipment)

Dusty work

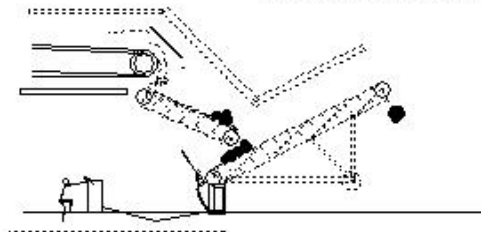
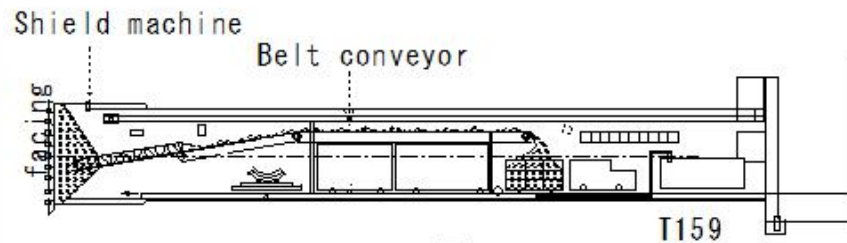
Respiratory protection

Dustproof mask

Prevention of pneumoconiosis

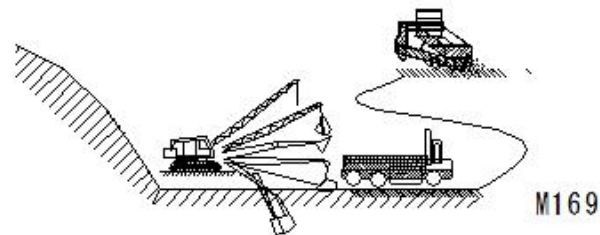


M169

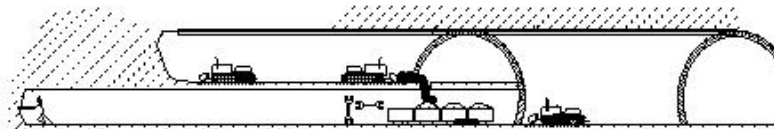


Belt conveyor

M368
C1329



S1278



S60
T148
T31

(S1460) Protective Equipment

(S1460) Protective Equipment

Work requiring the wearing of protective equipment

Appropriate protective equipment

Special Law Article 43, Article 44

Respiratory protective equipment

Protective clothing

Workplaces manufacturing and handling specified chemical substances

Respiratory protection



S1364

Dustproof mask

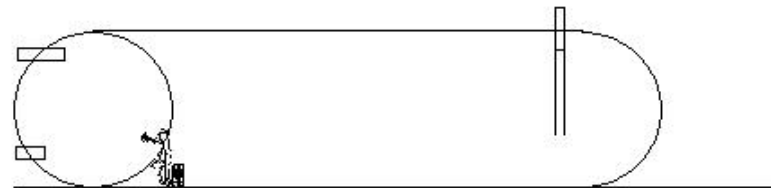


S1366

Specific Chemical Substances



S1248



S1229

Widely used in painting, cleaning, printing, and other tasks

S1430

(S1461) Protective Equipment

(S1461) Protective Equipment

Work requiring the wearing of protective equipment

Appropriate protective equipment

Article 14 of the Asbestos Regulations

Respiratory protective equipment

Protective clothing

Prevention of hazards caused by specific chemical substances

Respiratory protection

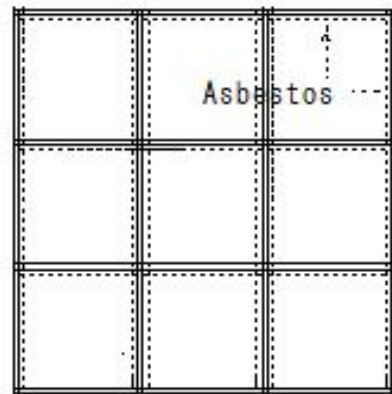
Dustproof mask



S1364



S1366



Asbestos

Demolition



Clothing brush

damp mat

(Rest Room)

Asbestos

Demolition

Tanks

Buildings

S1276
S1461

(S1462) Protective Equipment

(S1462) Protective Equipment

Work requiring the wearing of protective equipment

Appropriate protective equipment

Slow ionization measurement Article 16

Decontamination work

Respiratory protective equipment

Protective clothing

Respiratory protection

Dustproof mask

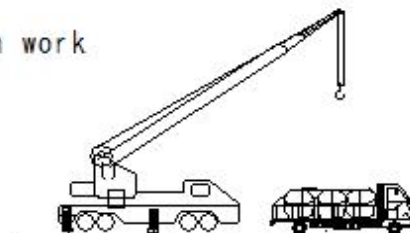


S1364



S1366

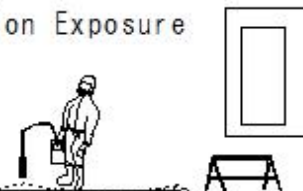
Decontamination work



Protective clothing



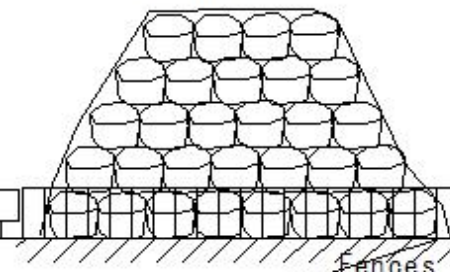
Radiation Exposure
Containers



S1433

S1300

Store



Fences

(S1463) Protective Equipment

(S1463) Protective Equipment

Work requiring the wearing of protective equipment

Appropriate protective equipment

Safety and Health Regulations No. 592-5

Waste incineration facilities

(Protective equipment) Protective clothing

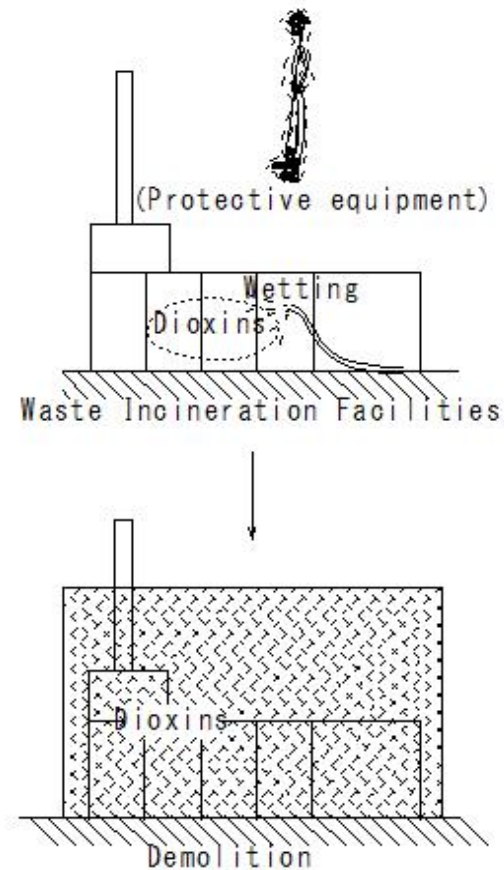
Protective clothing



Respiratory protection



Dustproof mask



(S1464) Debris flow

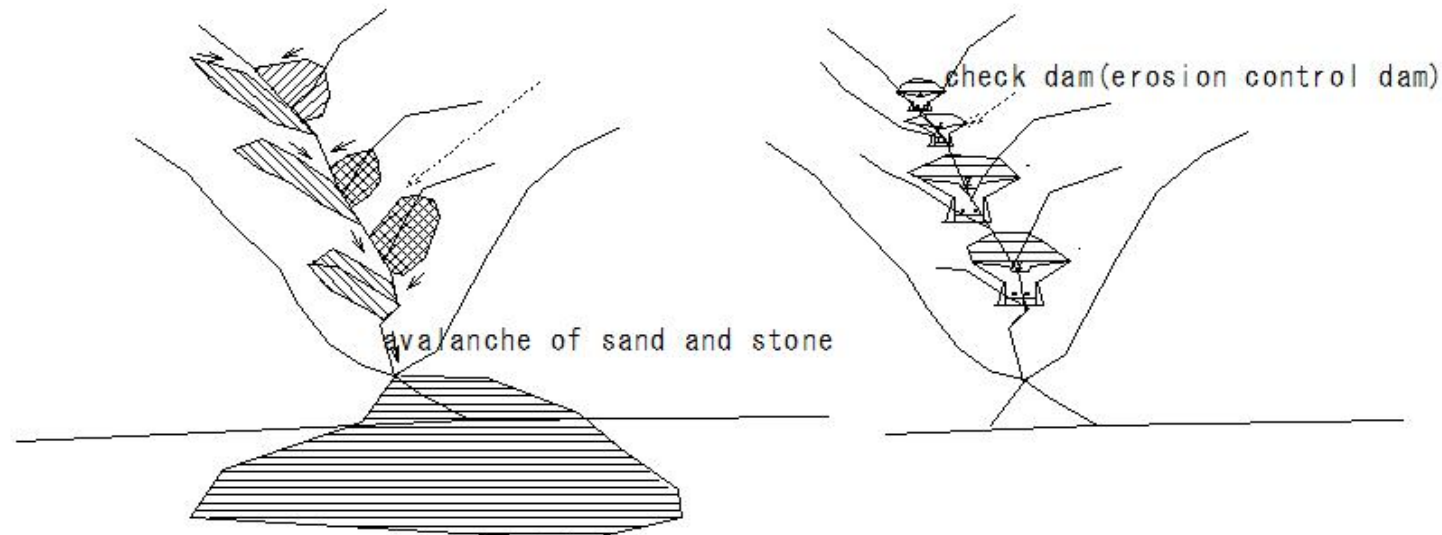
(S1464) Debris flow

Places where debris flows may occur

Article 29-2 of the Safety and Health Act

Debris flow

- ① A phenomenon in which soil and stones from mountains and valleys flow down with water
- ② A type of landslide
- ③ Caused by long rain, torrential rain, or snow-spray water
- ④ Major damage that destroys homes, fields, roads, and other places, and kills people



Prevent avalanche of sand and stone

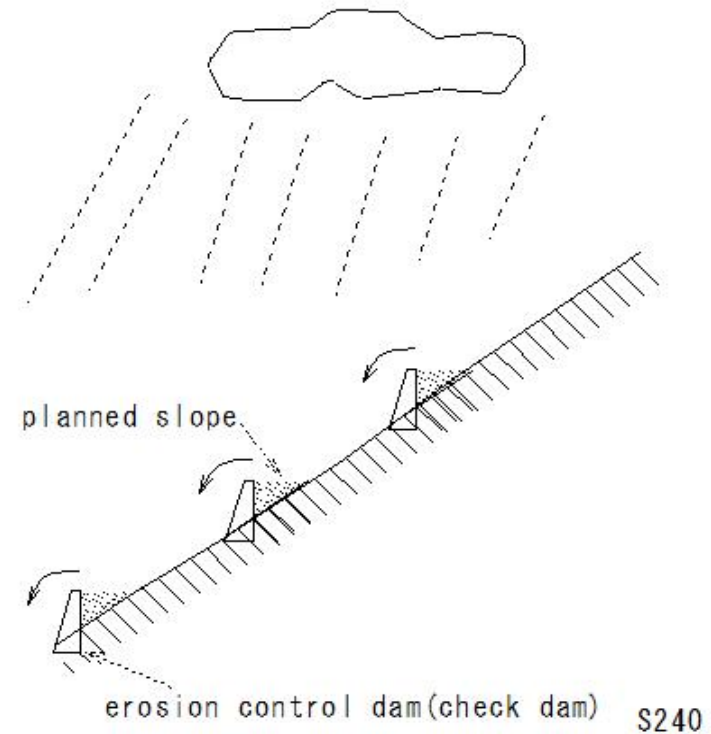
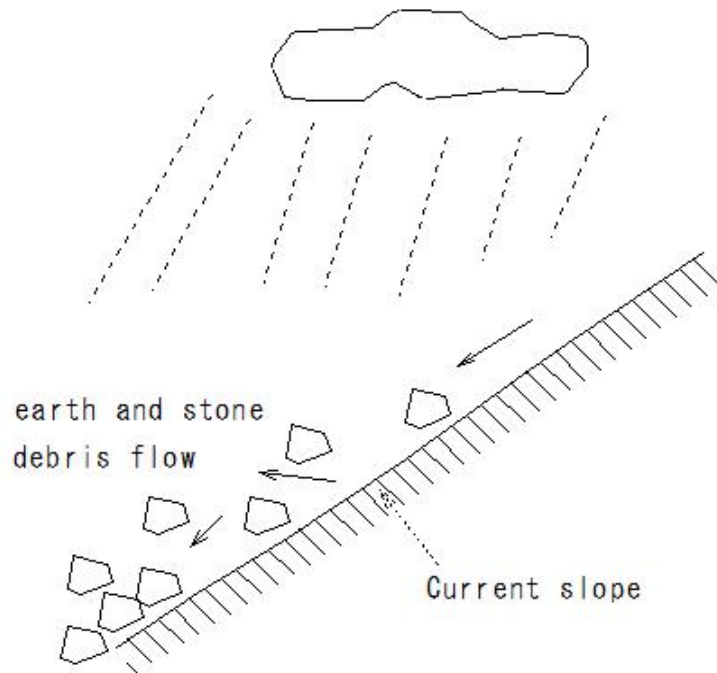
(S1465) Debris flow

(S1465) Debris flow

Places where debris flows may occur

Safety and Health Regulations Article 634-2-1-2

- ① Places where sediment and other sediment may collapse
- ② Locations where debris flows may occur



(S1466) Debris flow

(S1466) Debris flow

Places where debris flows may occur

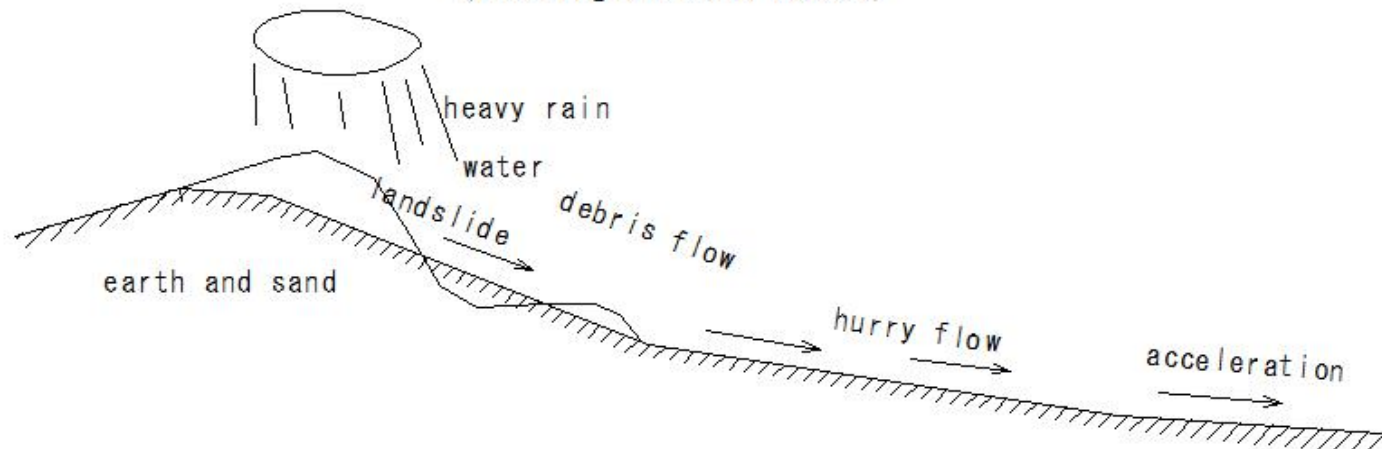
Article 575-9-3,4 of the Safety and Health Regulations

Chapter 12: Preventing dangers caused by debris flows

(Investigation and Record)

- ① A river where debris flows may occur due to rain, snowmelt or earthquakes
- ② Investigate the situation of the upstream river and its surroundings.
- ③ The results must be recorded.

(Investigation and Record)



(S1467) Debris flow

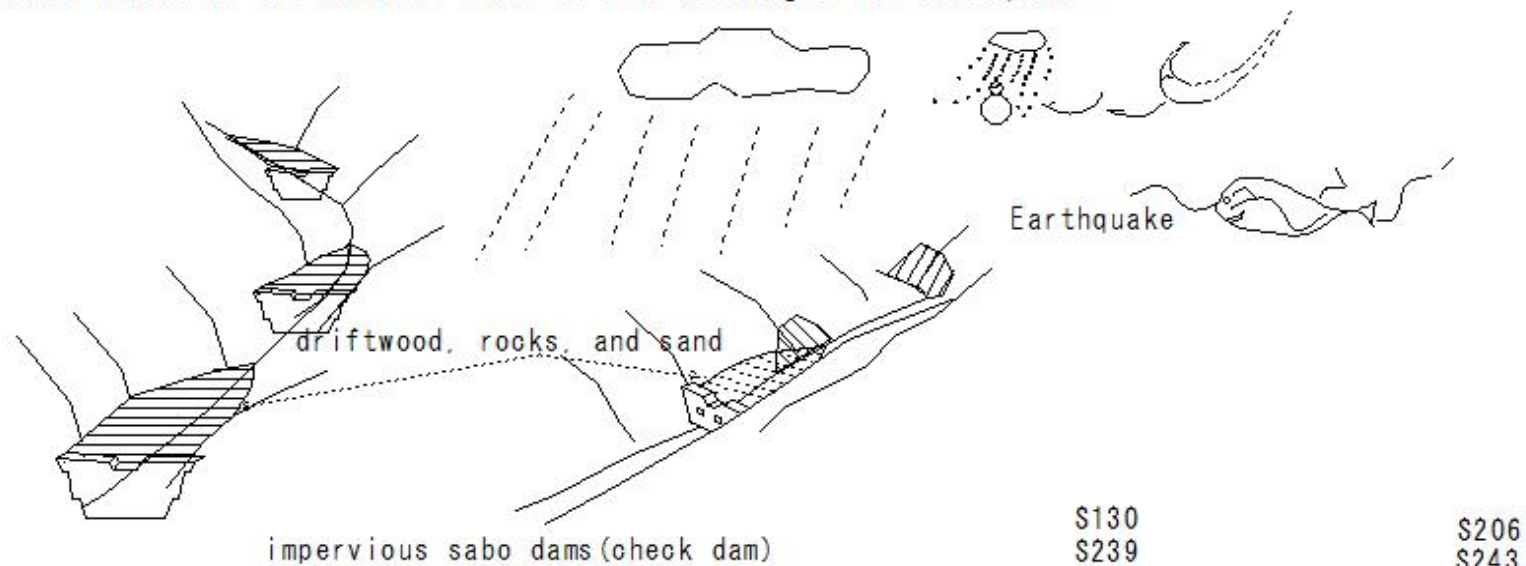
(S1467) Debris flow

Places where debris flows may occur

Article 575-10 of the Health and Safety Regulations

(Regulations on the prevention of industrial accidents caused by mudslides)

- ① In case of carrying out construction work in a river that is dangerous to debris flows
- ② Regulations regarding the prevention of industrial accidents caused by debris flows must be established.
- ③ How to grasp the amount of rainfall
- ④ Measures taken in the event of rain or snow melting or an earthquake



(S1468) Debris flow

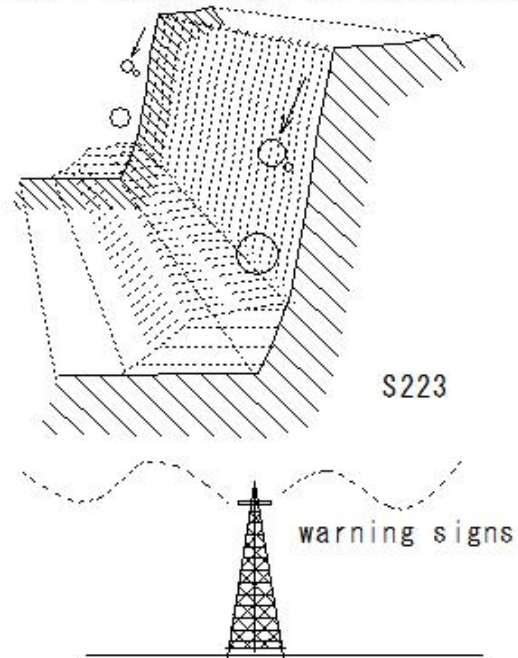
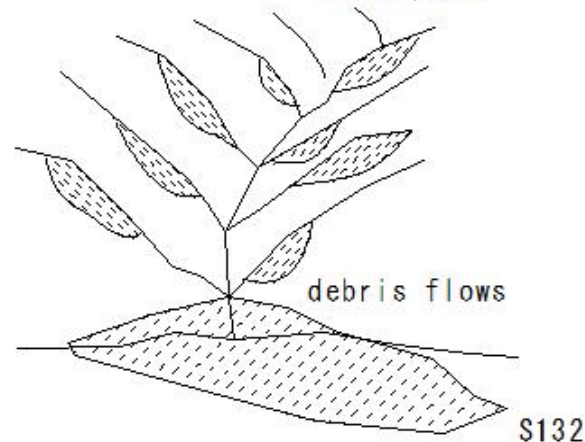
(S1468) Debris flow

Places where debris flows may occur

Article 575-10 of the Safety and Health Regulations

(Regulations on the prevention of industrial accidents caused by debris flows)

- ⑤ Measures to be taken when a precursor phenomenon to the occurrence of a debris flow is identified
- ⑥ Warning and evacuation methods in the event of a debris flow
- ⑦ Content and timing of evacuation drills



evacuation drills

S132

S249

(S1469) Debris flow

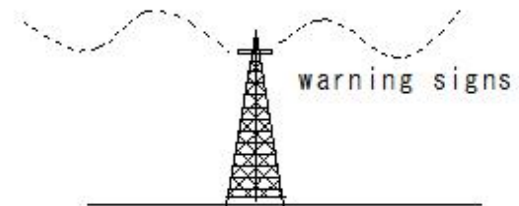
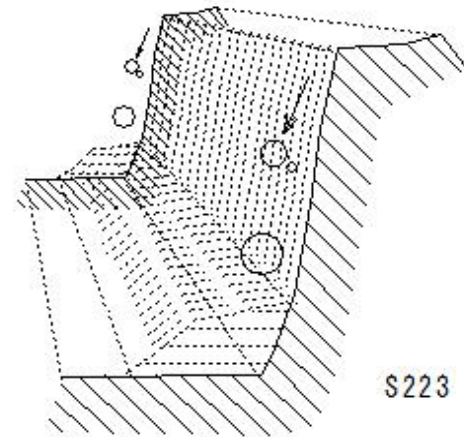
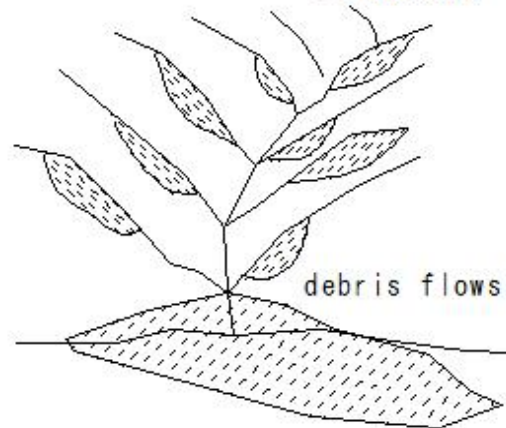
(S1469) Debris flow

Places where debris flows may occur

Article 575-14 of the Safety and Health Regulations

(Warning equipment)

- ① In case of a debris flow occurs
- ② Install warning equipment such as sirens and emergency bells
- ③ Publicize the installation locations



S249

(S1470) Debris flow

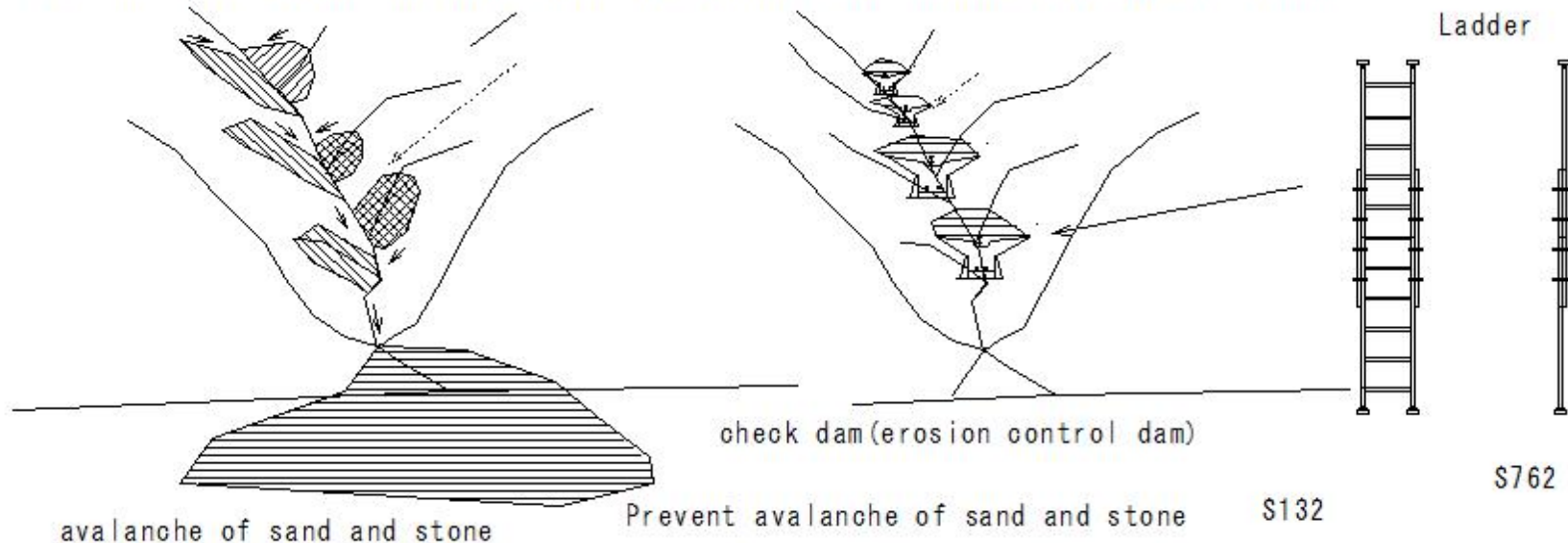
(S1470) Debris flow

Places where debris flows may occur

Article 575-15 of the Safety and Health Regulations

(Evacuation facilities)

- ① In case of carrying out construction work on rivers at risk of debris flows
- ② In case of a debris flow
- ③ Evacuation facilities such as ascending piers and ladders for evacuation must be installed in appropriate locations
- ④ The installation locations and usage methods must be made known to the public.



(S1471) Debris flow

(S1471) Debris flow

Places where debris flows may occur

Article 575-16 of the Safety and Health Regulations

(Evacuation drills)

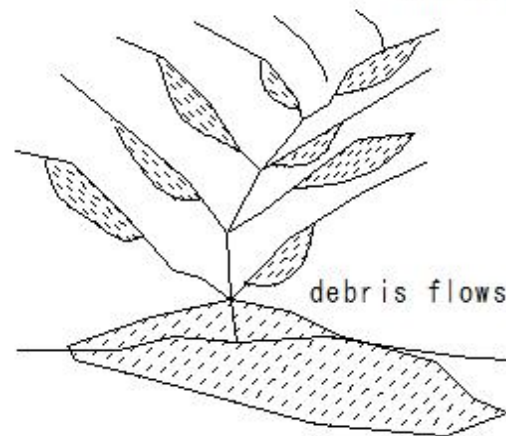
Evacuation drills must be conducted once without delay after construction begins and once every six months thereafter.

Evacuation drills - records - to be kept for three years

- ① Date of implementation
- ② Name of person who received the training
- ③ Details of the training



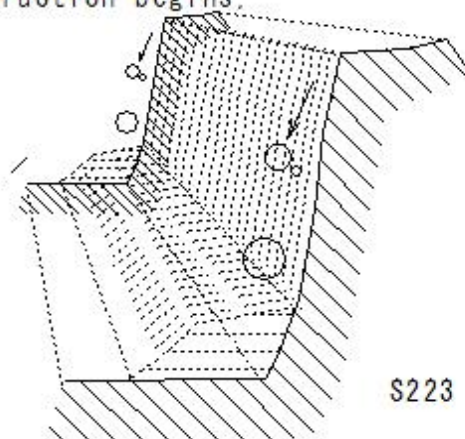
evacuation drills



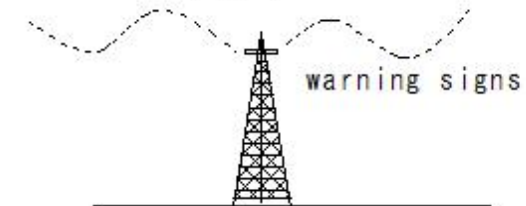
debris flows



Earthquake



S223



warning signs

S132

S249

(S1472) Debris flow

(S1472) Debris flow

Places where debris flows may occur

Article 575-11 of the Safety and Health Regulations

(Ascertainment and recording)

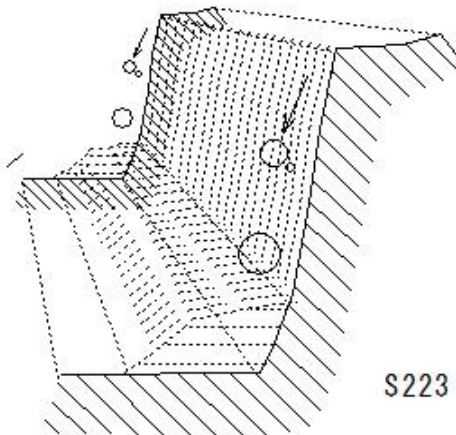
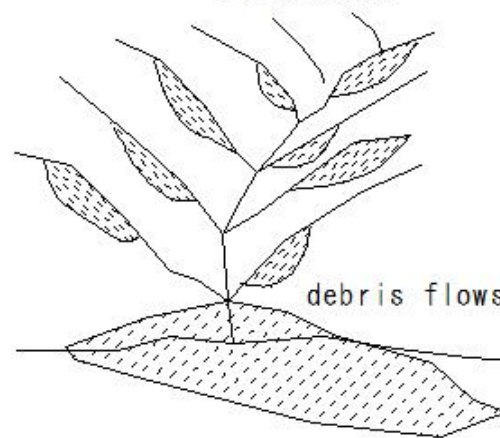
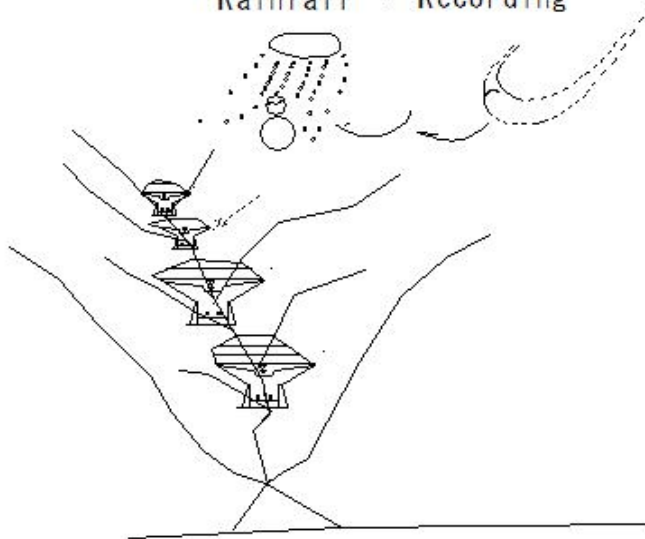
① Construction work in rivers at risk of debris flows

② Rainfall

③ Measurement and identification using rain gauges

④ Recording

Rainfall → Recording



S223

S132

(S1473) Debris flow

(S1473) Debris flow

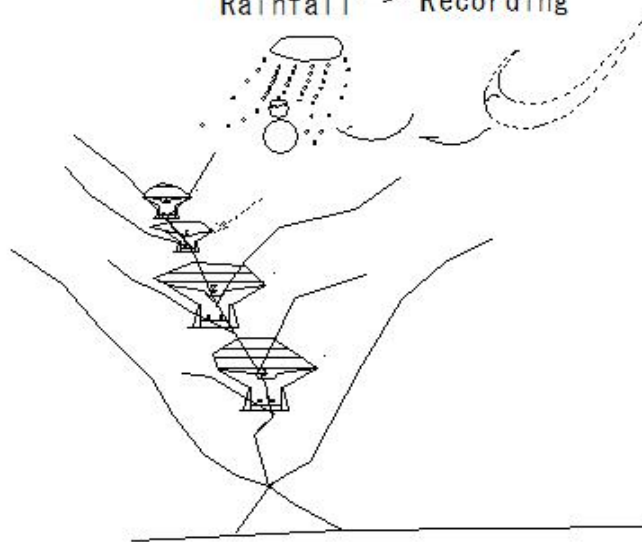
Places where debris flows may occur

Article 575-12 of the Safety and Health Regulations

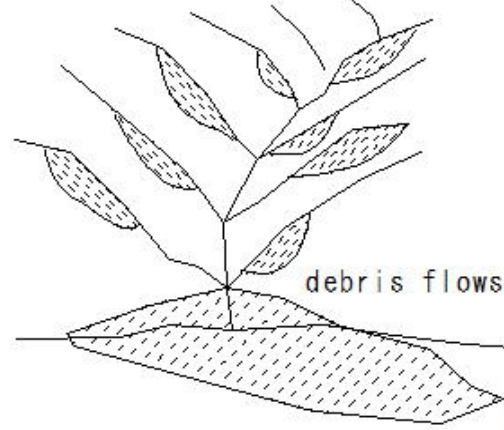
(Measures during rainfall)

- ① In case of construction work is carried out on rivers at risk of debris flows
- ② In case of there is a risk of debris flows occurring due to rainfall
- ③ Measures to detect the occurrence of debris flows at an early stage, such as the deployment of watchman

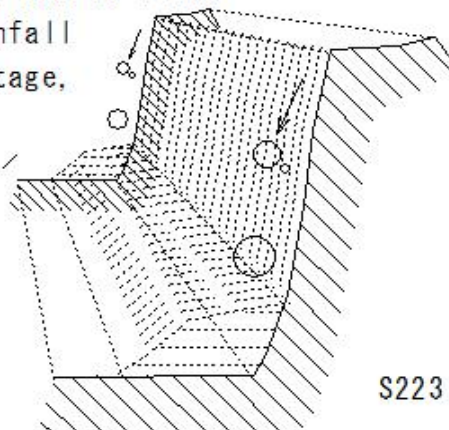
Rainfall → Recording



Earthquake



debris flows



S223

Watchman



S132

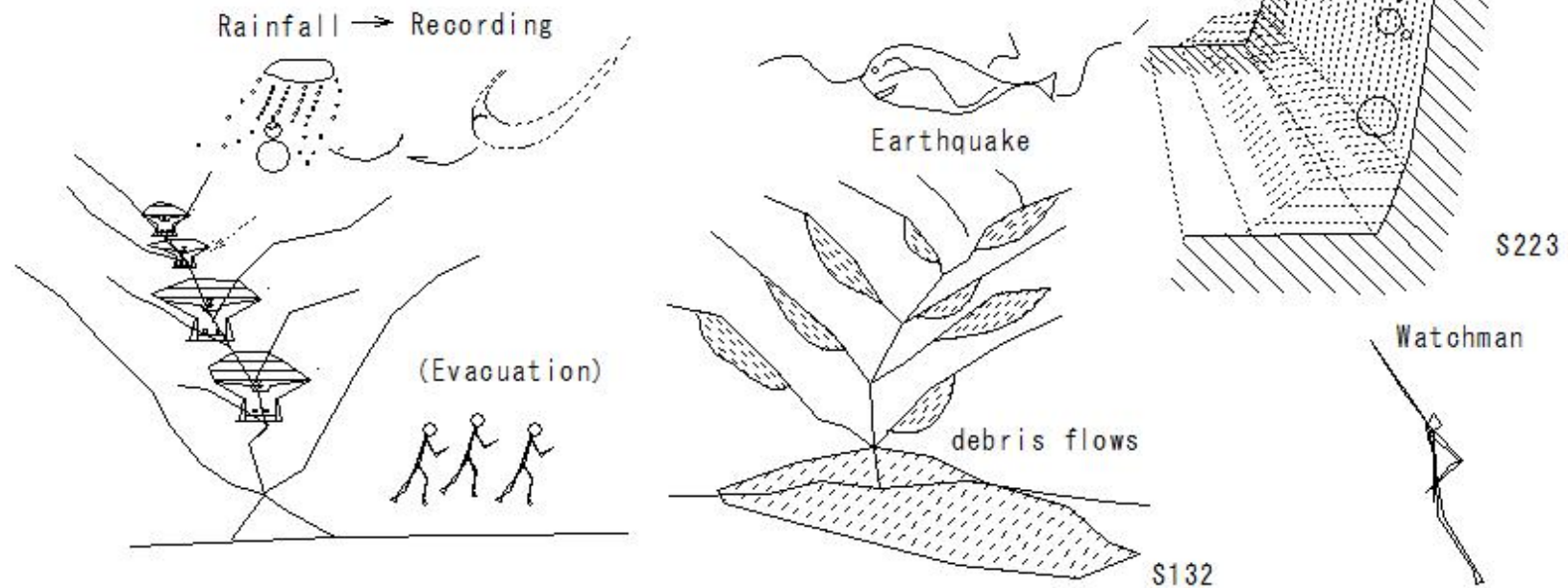
(S1474) Debris flow

(S1474) Debris flow

Places where debris flows may occur

Article 575-13 of the Safety and Health Regulations
(Evacuation)

- ① Construction work in rivers at risk of debris flows
- ② Stop work immediately
- ③ Workers must evacuate to a safe place



(S1475) Loading and Unloading

(S1475) Loading and Unloading

Safety work for loading and unloading

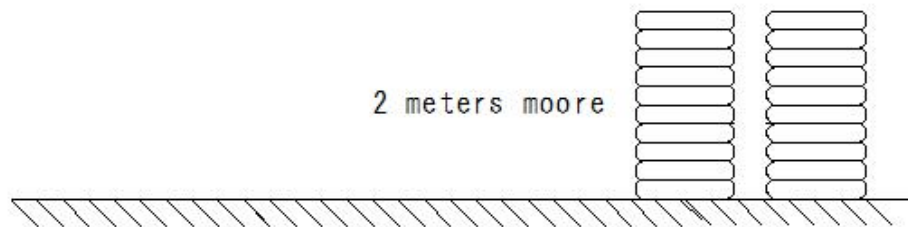
Article 428 of the Safety and Health Regulations

Piling work is the work of stacking and unloading cargo that is piled up in a warehouse or on a yard

Piling, demolition, etc.

① Piling work that is 2 meters or higher in height

Piling, demolition, etc.



(S1476) Loading and Unloading

(S1476) Loading and Unloading

Safety work for loading and unloading

Article 429 of the Safety and Health Regulations
(Duties of the Work Supervisor)

Work Supervisor

- ① Determine the method and order of work and directly supervise the work.
- ② Inspect the equipment and tools and remove defective items.
- ③ Allow workers to pass safely.
- ④ Give instructions to start work after confirming that there is no risk of the pile collapsing.
- ⑤ Monitor the use of equipment for ascending and descending and protective helmets.

Piling, demolition, etc.

2 meters moore



(S1477) Loading and Unloading

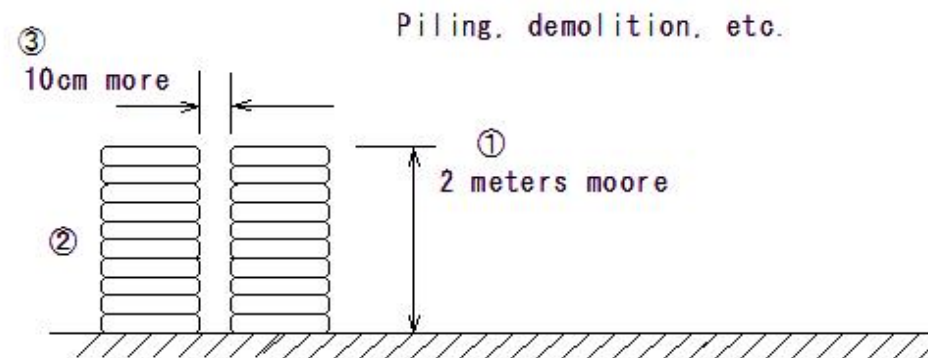
(S1477) Loading and Unloading

Safety work for loading and unloading

Article 430 of the Safety and Health Regulations

(Spacing of containers)

- ① Height from the floor is more than two meters
- ② Containers are bags, baskets, or bales
- ③ Distance between containers and adjacent containers is more than 10 centimeters



(S1478) Loading and Unloading

(S1478) Loading and Unloading

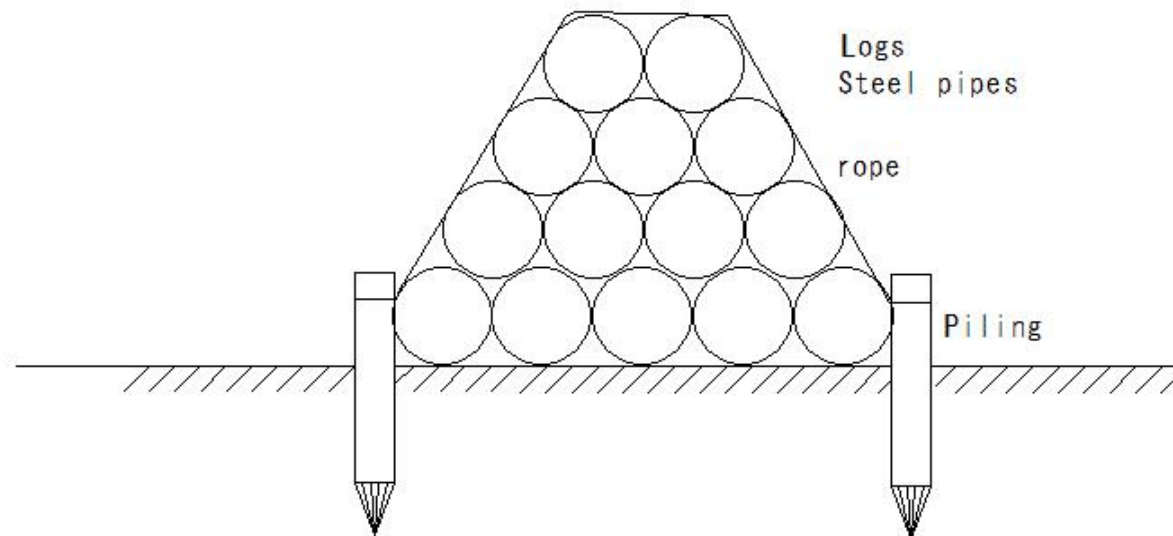
Safety work for loading and unloading

Article 432 of the Safety and Health Regulations

(Prevention of dangers such as pile collapse)

- ① In case of there is a risk of danger to workers due to pile collapse or falling load
- ② Tie with rope, stretch net, apply pilings, and replace piles

Piling, demolition, etc.



(S1479) Loading and Unloading

(S1479) Loading and Unloading

Safety work for loading and unloading

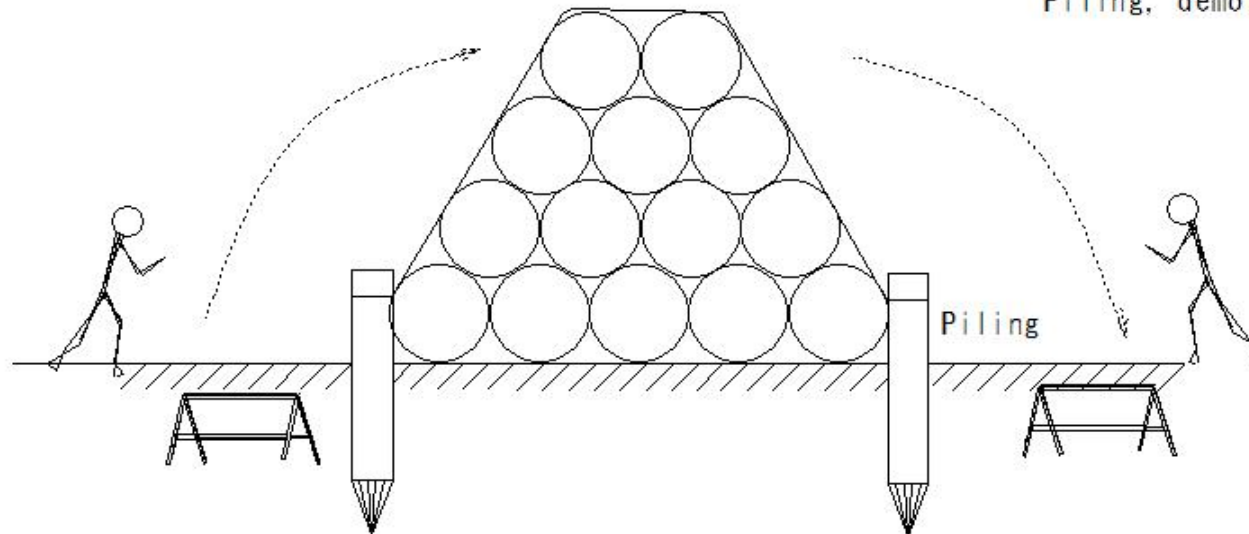
Article 433 of the Safety and Health Regulations

(No entry)

- ① In areas where pile-laying or piling work is being carried out
- ② In areas where there is a risk of danger to workers due to the collapse of piles or the falling of loads
- ③ No workers other than workers are allowed to enter.

(No entry)

Piling, demolition, etc.



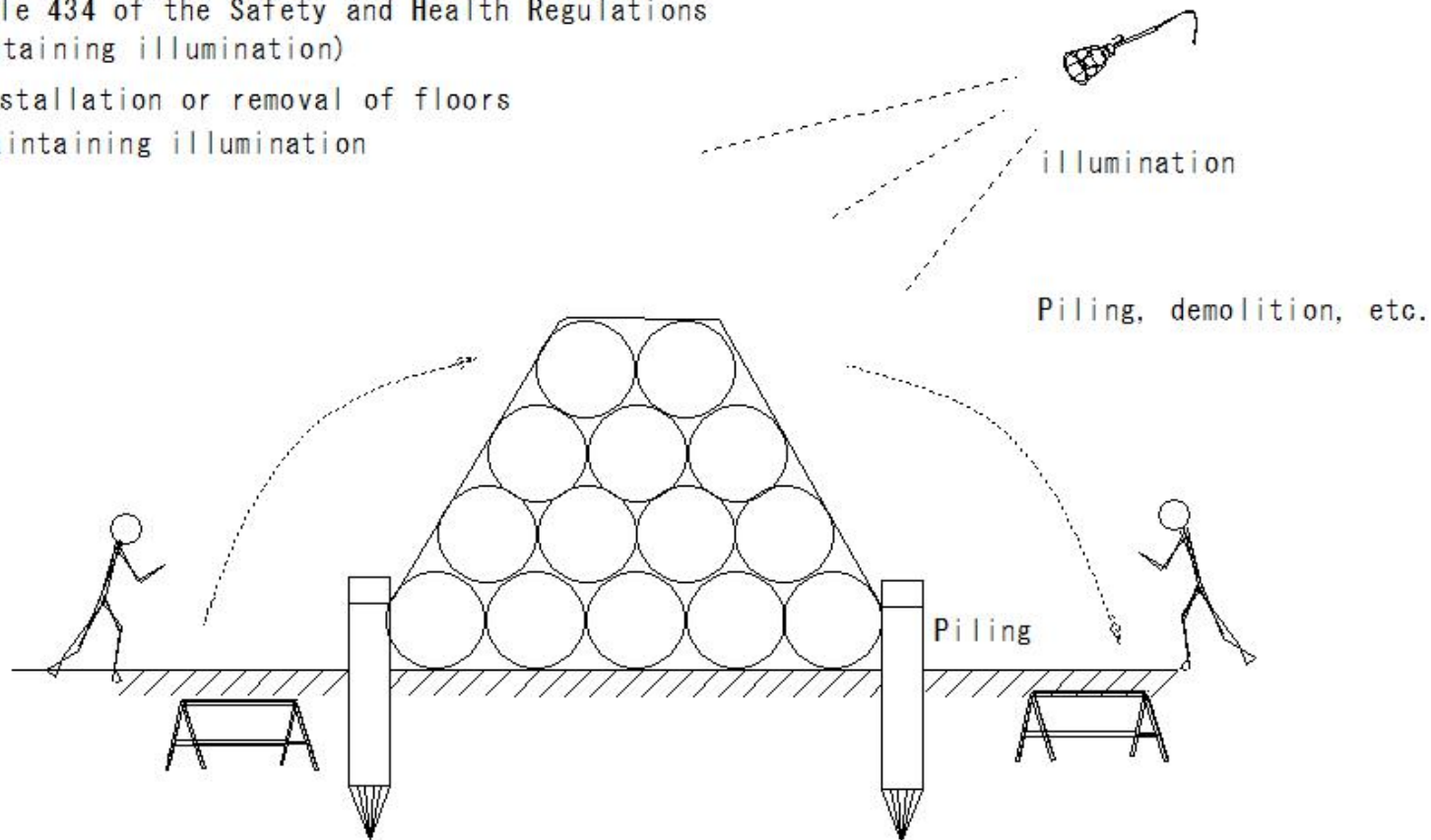
(S1480) Loading and Unloading

(S1480) Loading and Unloading

Safety work for loading and unloading

Article 434 of the Safety and Health Regulations
(Maintaining illumination)

- ① Installation or removal of floors
- ② Maintaining illumination



(S1481) Loading and Unloading

(S1481) Loading and Unloading

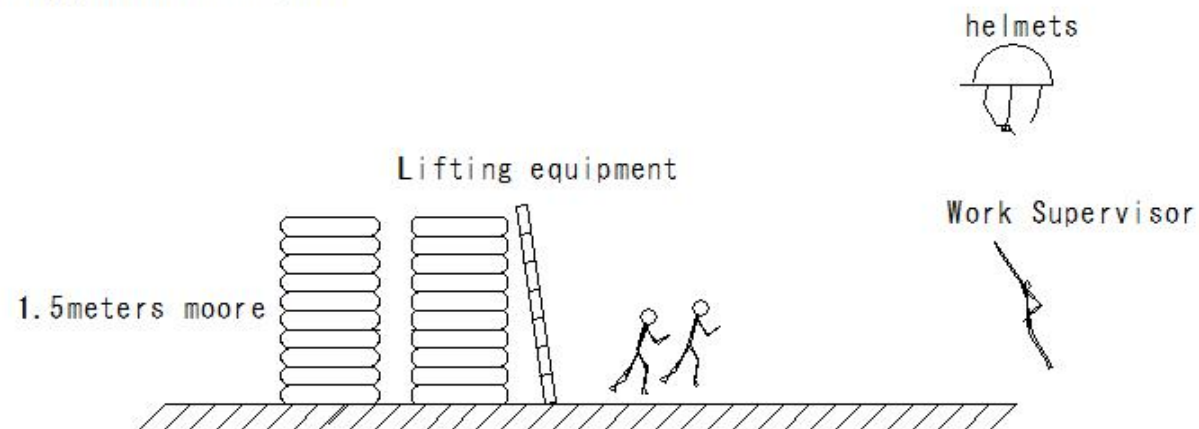
Safety work for loading and unloading

Safety and Health Regulations Article 427

(Lifting equipment for lifting)

- ① Lifting work
- ② In case of the height of the work area is more than 1.5 meters above the floor
- ③ Install lifting equipment

Piling, demolition, etc.



(S1482) Loading and Unloading

(S1482) Loading and Unloading

Safety work for loading and unloading

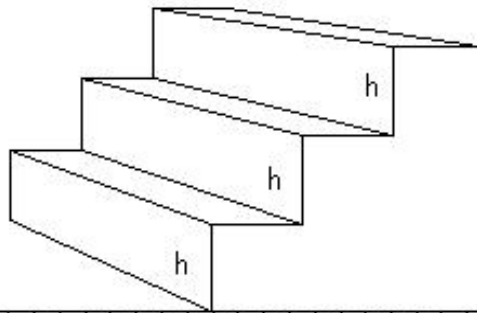
Article 431 of the Safety and Health Regulations

Pile-up and break-up work

- ① Piling and piling work that is more than two meters above the floor
- ② Do not hollow out the insides.
- ③ For pilings that consist of loads whose containers are bags, baskets, or bales, break them into tiers
- ④ The height of each tier (excluding the bottom tier) must be 1.5 meters or less.

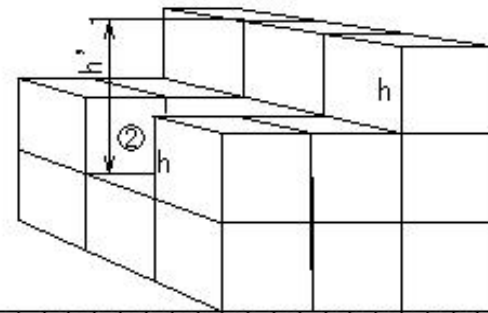
Piling, demolition, etc.

$$h \leq 1.5\text{m}$$



$$h \leq 1.5\text{m}$$

$$h' > 1.5\text{m}$$



(S1483) Loading and Unloading

(S1483) Loading and Unloading

Safety work for loading and unloading

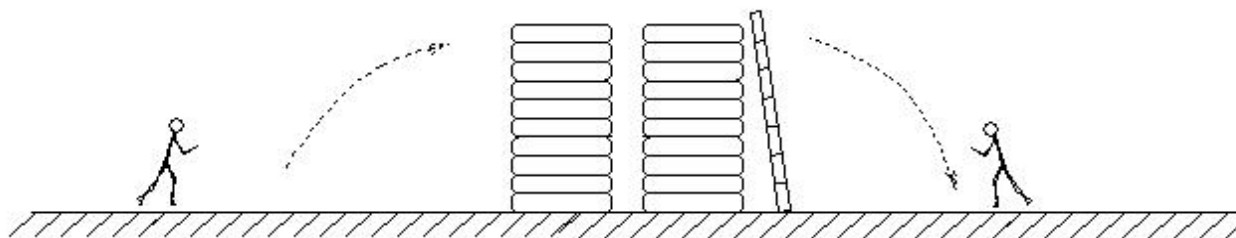
Safety and Health Regulations Article 435

(Wearing a protective helmet)

- ① Pile-up and break-up work (the height of the work area is more than two meters above the floor)
- ② Wear a protective helmet.

Piling, demolition, etc.

2 meters more

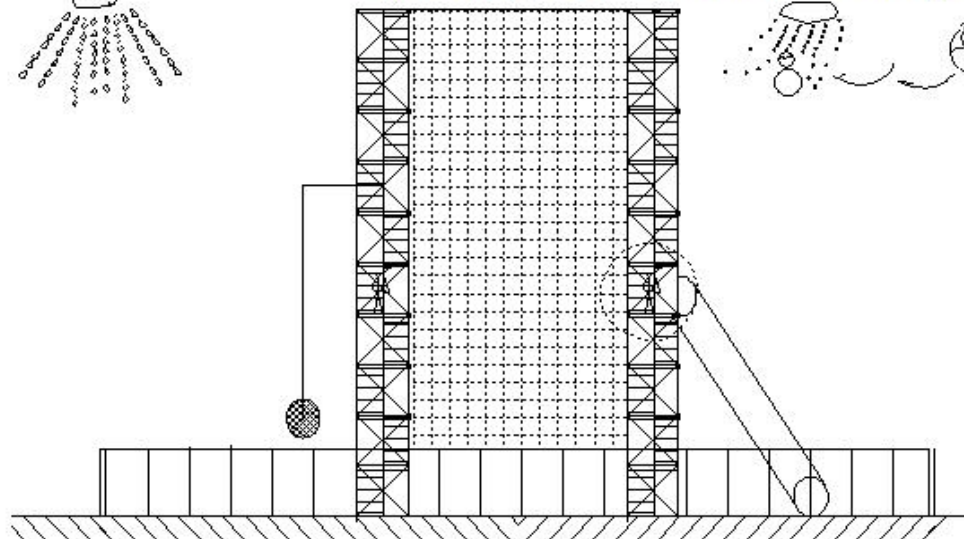


(S1484) Buildings

Article 517-4 and 5 of the Safety and Health Regulations

① Determine the work method and worker placement, and directly supervise the work.

③ Monitor the use of fall protection equipment with required performance, etc., and protective helmets.



A stick figure is shown holding a horizontal bar with a weight. The bar is attached to a vertical line, and the weight is a small circle hanging from the bar.

Work chief



(S1485) Buildings

(S1485) Buildings

Safety work such as assembling steel frames of buildings, etc.

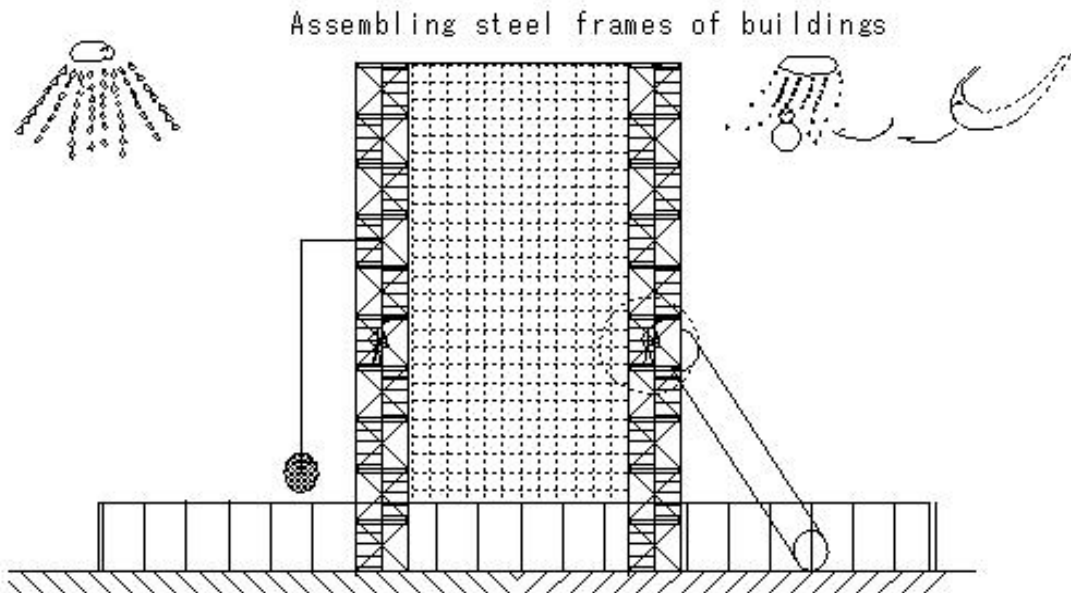
Article 6, 15-2 of the Industrial Safety and Health Order

Work requiring the appointment of an operations chief

① Framework or tower of a building

② Metal components: Height 5 meters or more

③ Work involving assembly, dismantling or modification



safety helmets

operations chief

Work chief



(S1486) Buildings

(S1486) Buildings

Safety work such as assembling steel frames of buildings, etc.

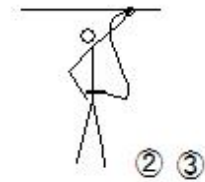
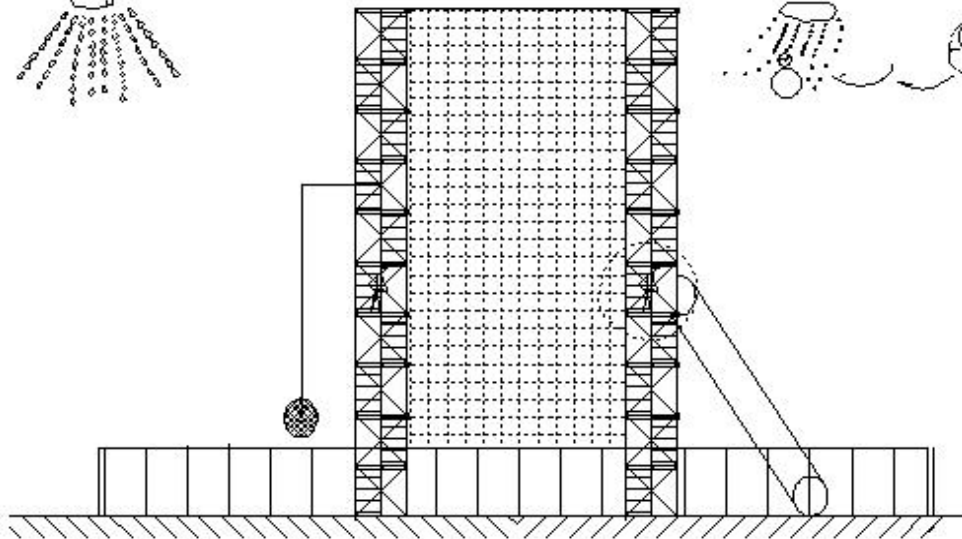
Article 517-2 of the Safety and Health Regulations

Work plan

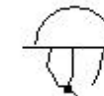
- ① Method and sequence of work
- ② Methods for preventing falling or collapse of components
- ③ Fall prevention equipment
- ④ Work plan - publicity



①
Assembling steel frames of buildings



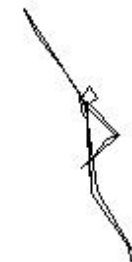
② ③



safety helmets ②

operations chief

Work chief



(S1487) Buildings

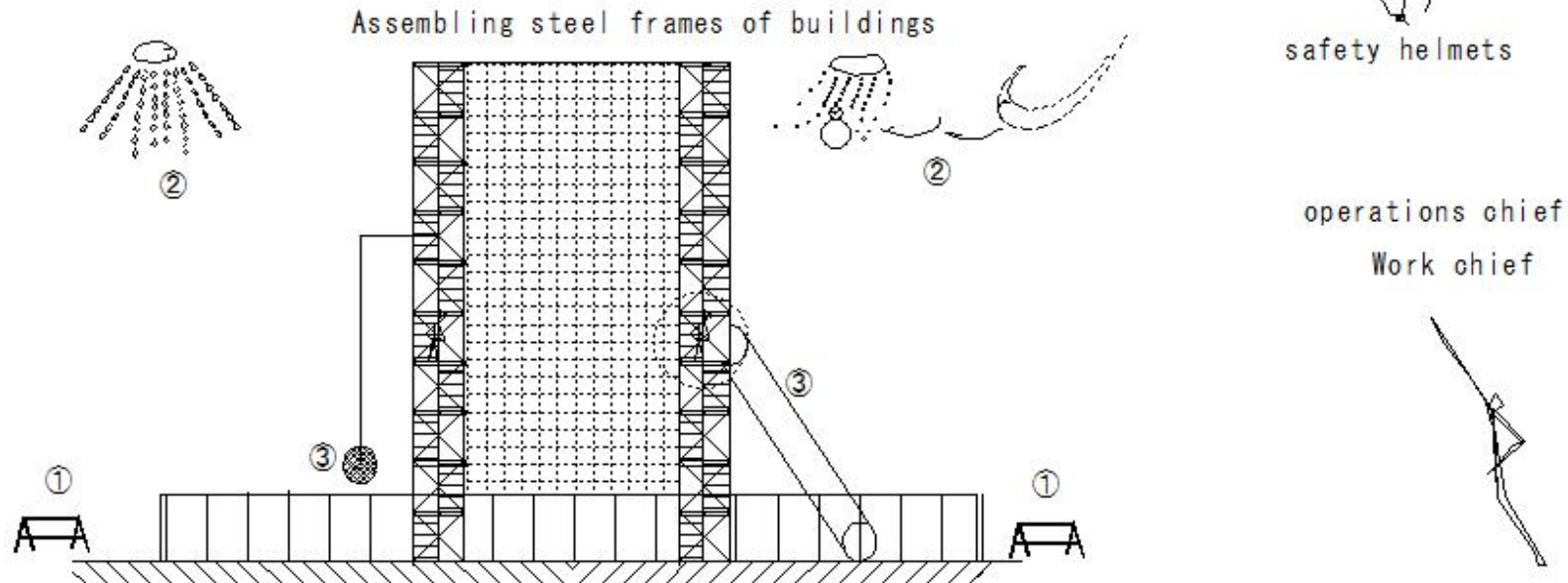
(S1487) Buildings

Safety work such as assembling steel frames of buildings, etc.

Safety and Health Regulations Article 517-3

Assembling steel frames of buildings, etc.

- ① Prohibit entry of workers other than those involved.
- ② Stop work in bad weather such as strong winds, heavy rain, heavy snow, etc.
- ③ Use slings, slings, etc. when raising or lowering materials, equipment, tools, etc.



(S1488) Buildings

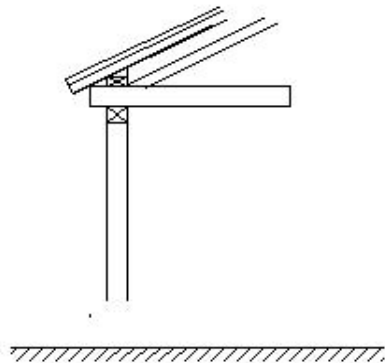
(S1488) Buildings

Safety work for assembling wooden buildings, etc.

Article 517-12 of the Safety and Health Regulations

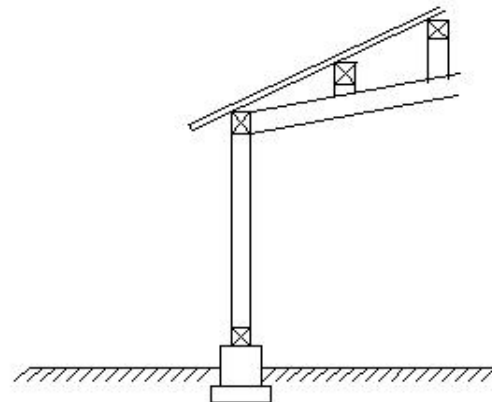
(Appointment of a work chief for assembling wooden buildings, etc.)

Western-style hut



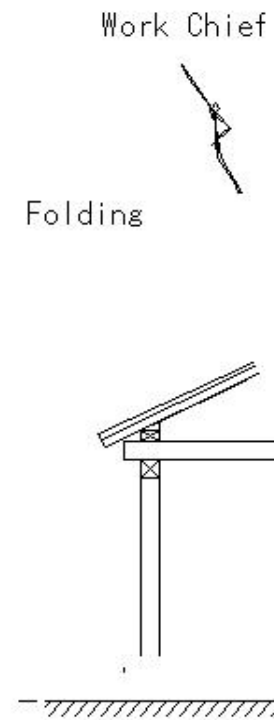
S1492

Japanese-style hut



S1493

Folding



S1494

(S1489) Buildings

(S1489) Buildings

Safety work for assembling wooden buildings, etc.

Article 517-13 of the Safety and Health Regulations

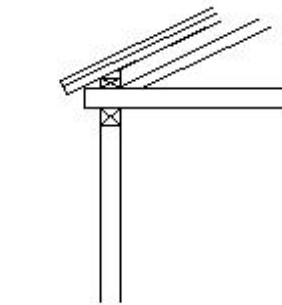
(Duties of the work chief for assembling wooden buildings)

- ① Determine the method and order of work and directly supervise the work.
- ② Check the function of tools, fall protection equipment with required performance, and protective helmets, and remove defective items.
- ③ Monitor the use of fall protection equipment with required performance, and protective helmets.

Work Chief

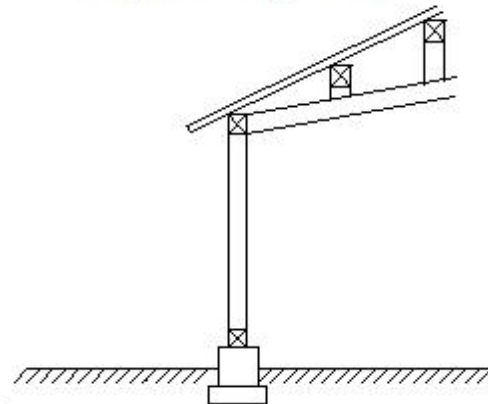


Western-style hut



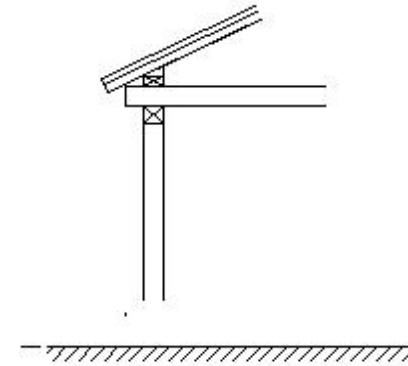
S1492

Japanese-style hut



S1493

Folding



S1494

(S1490) Buildings

(S1490) Buildings

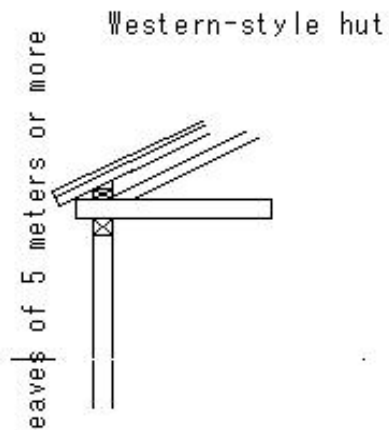
Safety work for assembling wooden buildings, etc.

Safety and Security Order Article 6, 15-4

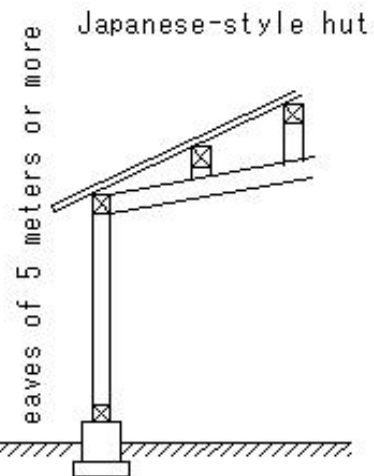
Work that requires the appointment of a work manager

- ① Building Standards Act Enforcement Order
- ② Wooden building with eaves of 5 meters or more

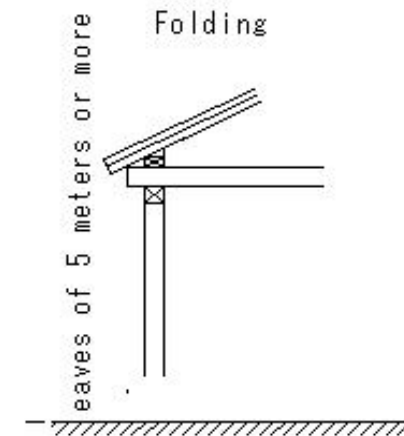
Work manager



S1492



S1493



S1494

(S1491) Buildings

(S1491) Buildings

Safety work for assembling wooden buildings, etc.

Article 517-11 of the Safety and Health Regulations

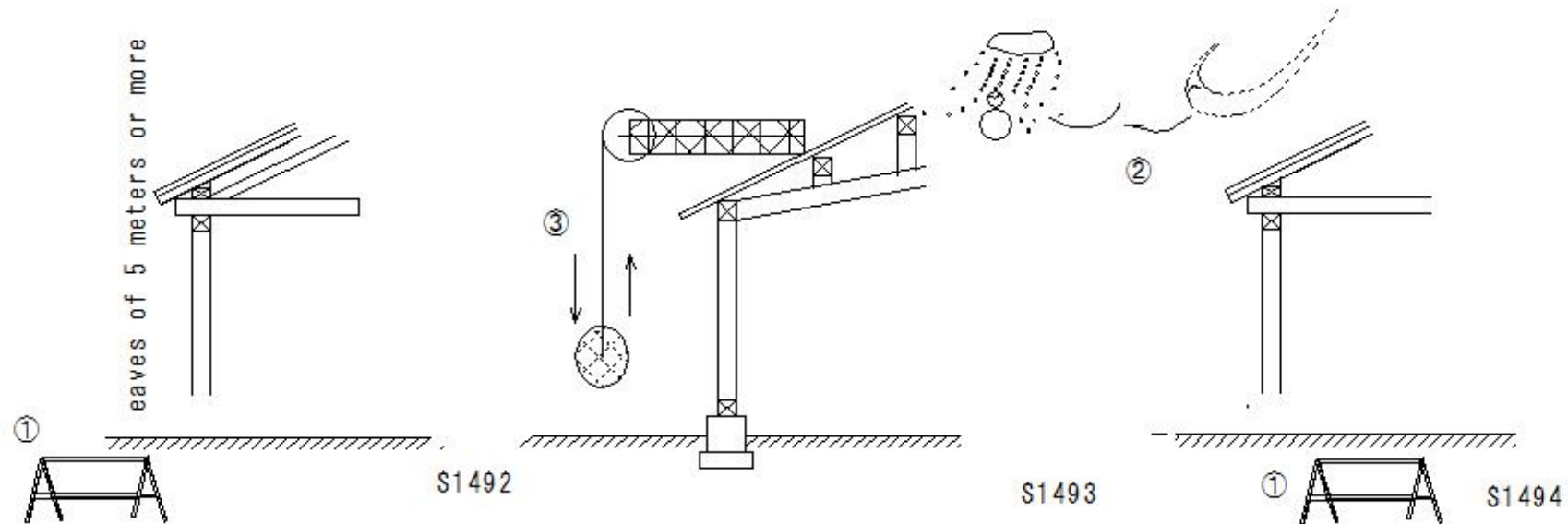
Works such as assembly of wooden buildings

- ① Workers other than those involved are prohibited from entering
- ② Work is cancelled in bad weather such as strong winds, heavy rain, heavy snow.
- ③ In case of lifting or unloading materials, tools, etc., use a hanging rope, hanging bag, etc.

Western-style hut

Japanese-style hut

Folding



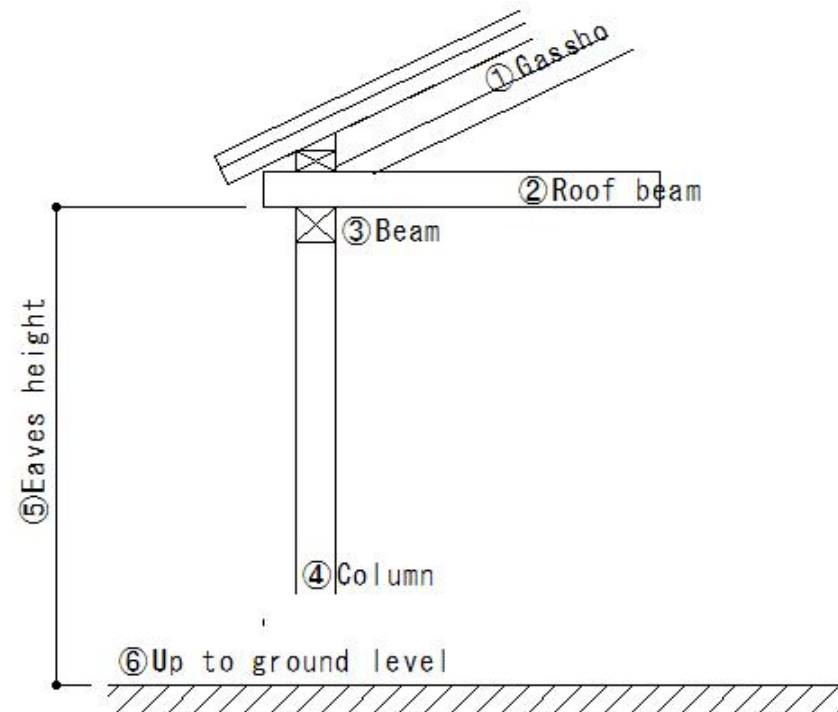
(S1492) Buildings

(S1492) Buildings

Safety work for assembling wooden buildings

- Wooden buildings are buildings whose main structural members such as pillars and beams are made of wood

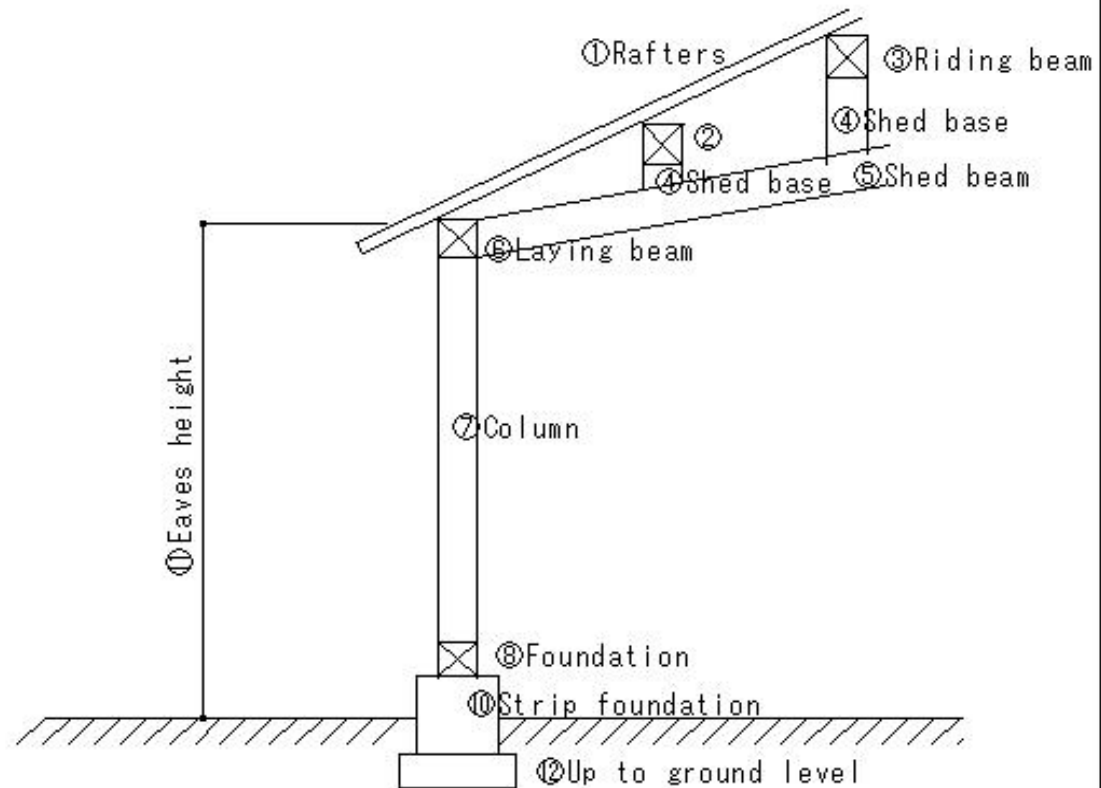
Western-style hut



(S1493) Buildings

Safety work for assembling wooden buildings

Japanese-style hut

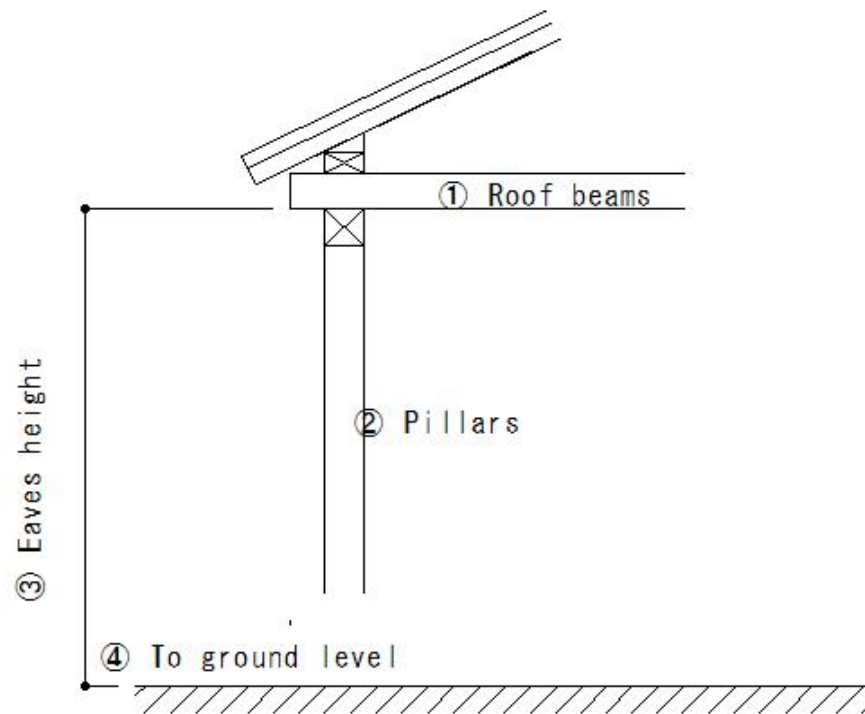


(S1494) Buildings

(S1494) Buildings

Safety work for assembling wooden buildings

Folding



(S1495) Inspection

(S1495) Inspection

Equipment and items requiring inspection

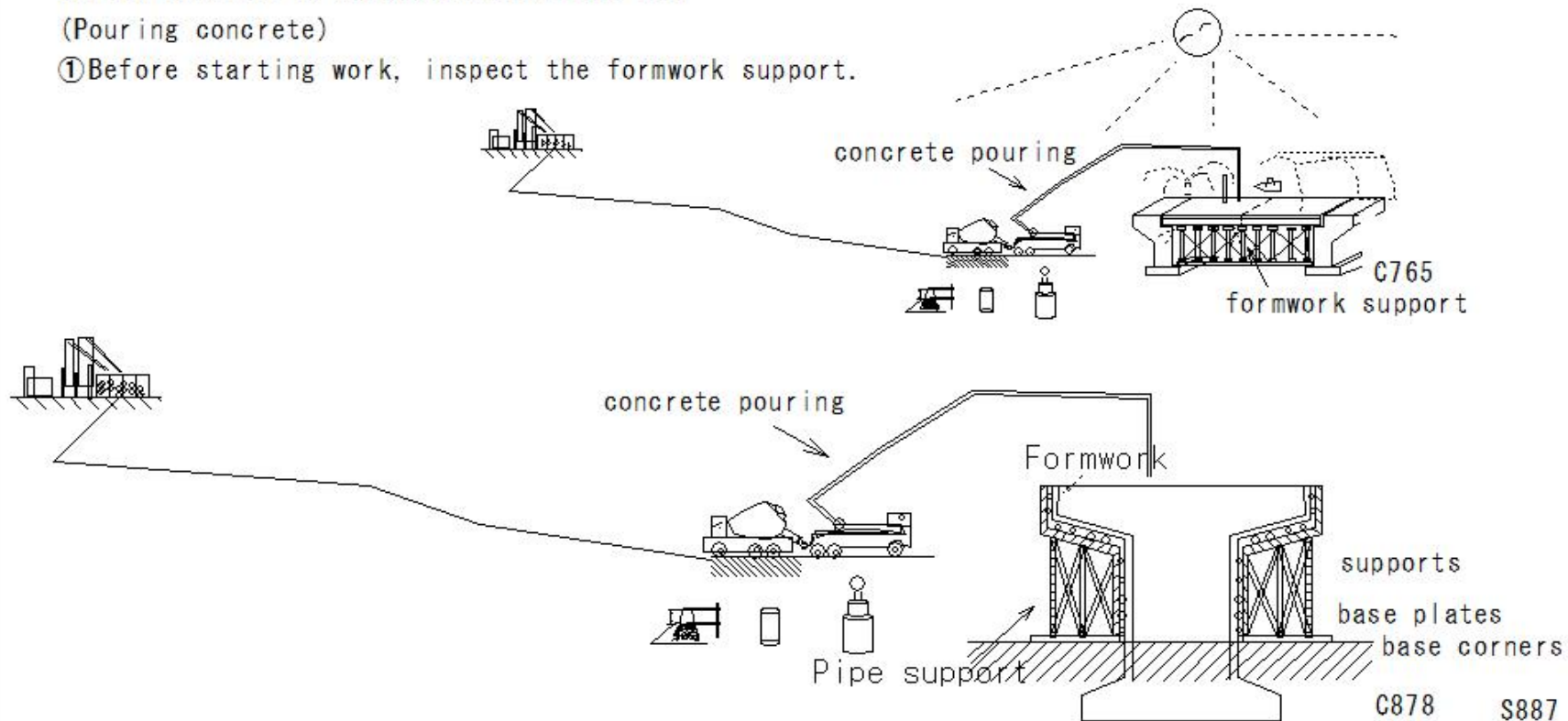
Formwork support

Safety and Health Regulations Article 244

(Pouring concrete)

① Before starting work, inspect the formwork support.

Inspection



(S1496) Inspection

(S1496) Inspection

Equipment and items requiring inspection

Earth Retaining Support

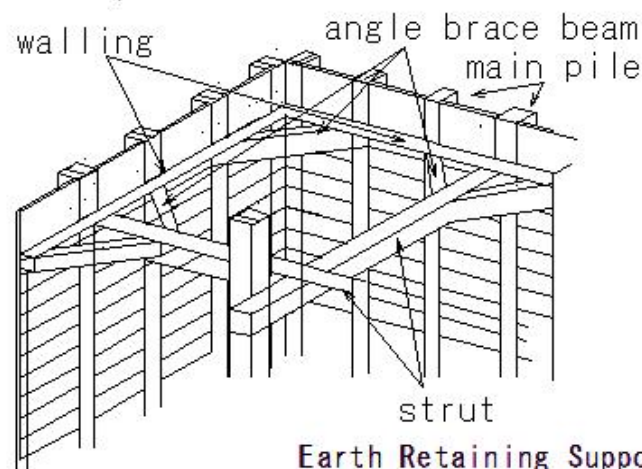
Safety and Health Regulations Article 373
(Inspection)

- After a moderate earthquake or greater
- After heavy rainfall
- ① Presence and condition of damage, deformation, corrosion, displacement and falling off of components
- ② Degree of tension of struts
- ③ Condition of connections, attachments and intersections of components

Earthquake 



Inspection



Earth Retaining Support

(S1497) Inspection

(S1497) Inspection

Equipment and items requiring inspection

Open Excavation

Article 358 of the Safety and Health Regulations

(Inspection)

○ Open excavation work

○ Collapse of ground or falling of soil and stones

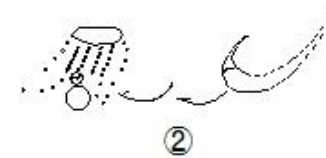
① Before starting work

② After heavy rain and after earthquakes of moderate magnitude or greater

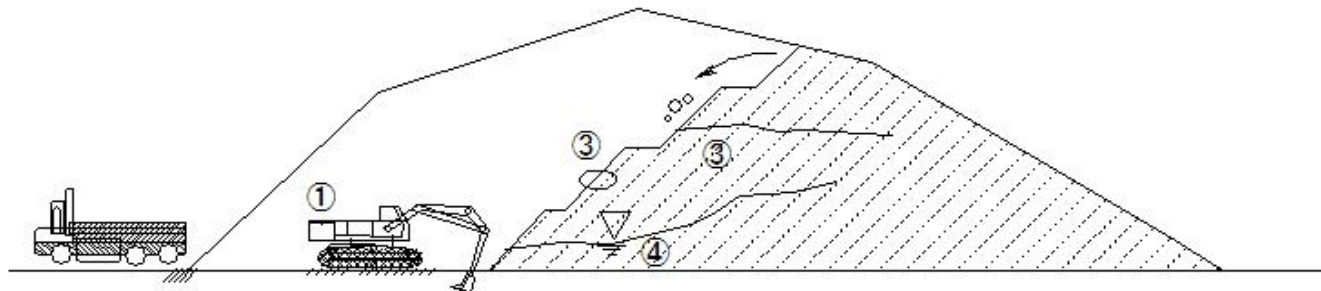
③ Check for loose rocks and cracks

④ Check for changes in water content, upwelling water, and freezing conditions

Earthquake



Inspection



(S1498) Inspection

(S1498) Inspection

Equipment and items requiring inspection

Maintaining the security of exposed buried objects, etc.

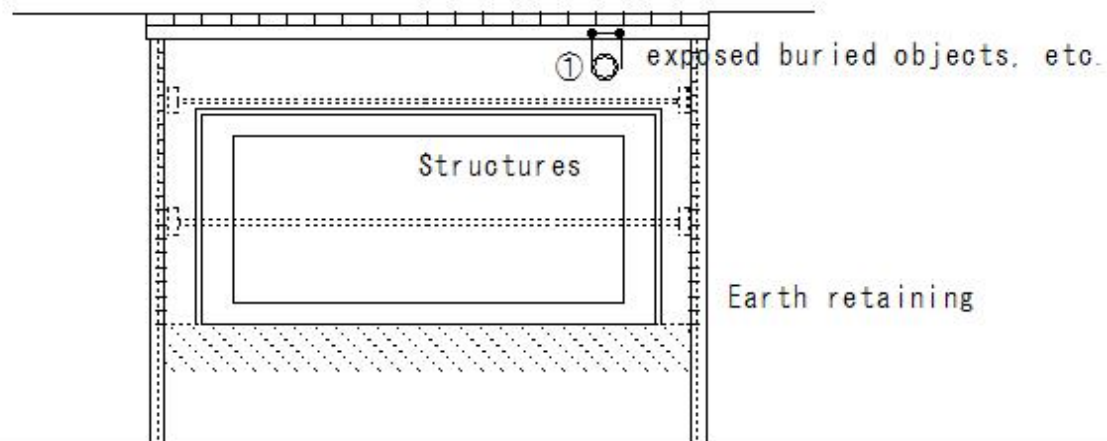
○ Maintaining the security of exposed buried objects, etc.

① Maintaining buried objects

② Repairs, etc.

③ Refilling exposed buried objects

Open cutting method



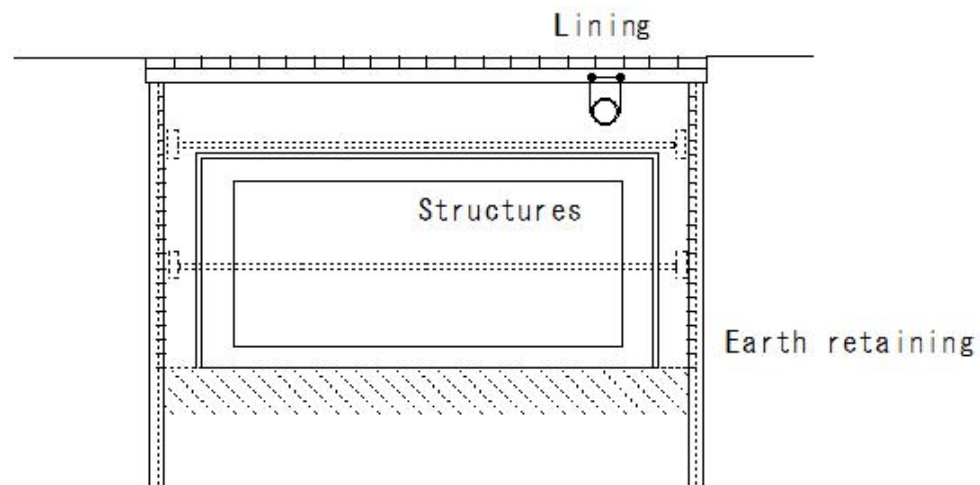
(S1499) Inspection

(S1499) Inspection

Equipment and items requiring inspection

Lining

- ① Deploy safety personnel
- ② Constant inspection
- ③ Maintenance inspection
- ④ Maintenance inspection of anti-slip treatment peeling and anti-slip protrusions
- ⑤ Prevention of noise caused by lining plate bouncing or loosening
- ⑥ Prepare spare lining plates



(S1500) Inspection

(S1500) Inspection

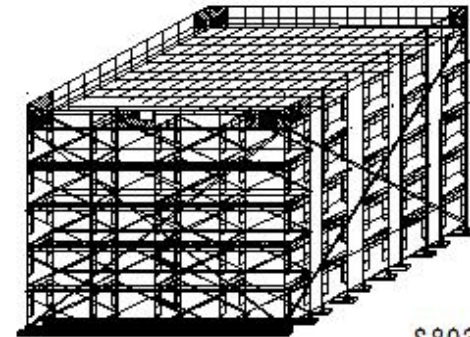
Equipment and items requiring inspection

Work platform

Article 575-8 of the Safety and Health Regulations
(Inspection)

- Inspect before starting work that day
- Inspection after bad weather such as strong winds, heavy rain, heavy snow, etc. or after an earthquake of medium or greater intensity

- ① Sliding and sinking condition of supports
- ② Damage to supports, beams, etc.
- ③ Damage, installation and hanging condition of flooring
- ④ Looseness of fastening parts, connections and installation parts of supports, beams, braces, etc.
- ⑤ Damage and corrosion condition of fastening materials and fastening fittings
- ⑥ Installation condition and removal of reinforcing materials such as horizontal ties and braces
- ⑦ Removal and falling off of handrails, etc. and center rails, etc.



S803

Work platform

(S1501) Inspection

Equipment and items requiring inspection

Scaffolding

Article 567 of the Safety and Health Regulations

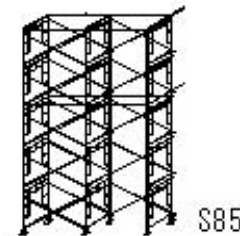
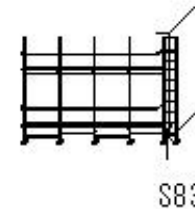
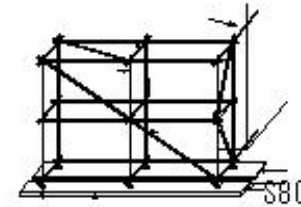
(Inspection)

○Scaffolding work

○Inspection after bad weather such as strong winds, heavy rain, heavy snow, etc., or after an earthquake of medium magnitude or greater, or after assembling scaffolding

- ① Damage to flooring, installation and hanging condition
 - ② Looseness of fastenings, connections and mountings of building sites
 - ③ Damage and corrosion condition of fastening materials and fastening fittings
 - ④ Removal and falling off of scaffold fall prevention equipment
 - ⑤ Installation condition of baseboards, etc. and whether they have been removed
 - ⑥ Subsidence and sliding condition of legs
 - ⑦ Installation condition of reinforcing materials such as braces, braces, wall connections and whether they have been removed
 - ⑧ Damage to building sites, cloth and arms
- Inspection-preservation
- ⑨ Results of the inspection and name of inspector
 - ⑩ In case of repair measures etc. have been taken based on the results of the previous item, the details of the measures

(S1501) Inspection



S86

(S1502) Inspection

(S1502) Inspection

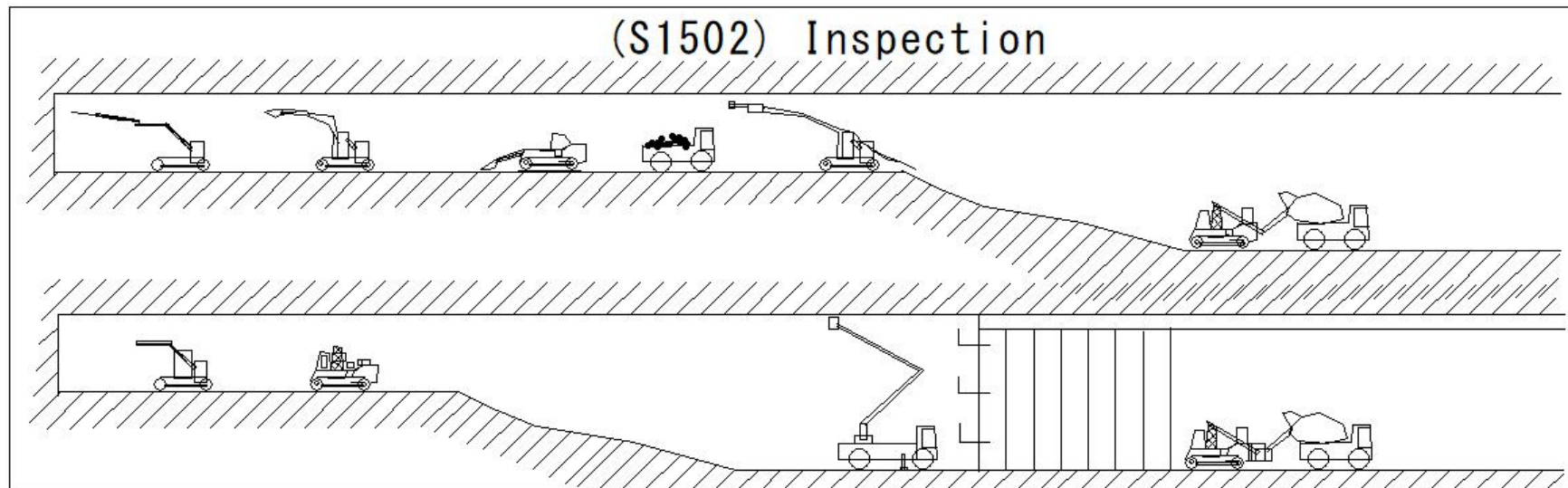
Equipment and items requiring inspection

Construction of tunnels, etc.

Article 382 of the Safety and Health Regulations

(Inspection)

- | | |
|---|--|
| ① Construction work of tunnels, etc. | ⑦ Presence or absence of loose rocks and cracks |
| ② Excavation work | ⑧ Condition of water and welling water |
| ③ Transportation of rubble, materials, etc. | ⑨ Appointment of inspector |
| ④ Pouring concrete for lining | ⑩ After blasting |
| ⑤ Measures for falling rocks or skin fall | ⑪ Check the presence and condition of loose rocks and cracks |
| ⑥ After a moderate earthquake or larger | |



(S1503) Inspection

Equipment and items requiring inspection

Tunnel support

Article 396 of the Safety and Health Regulations

(Inspection)

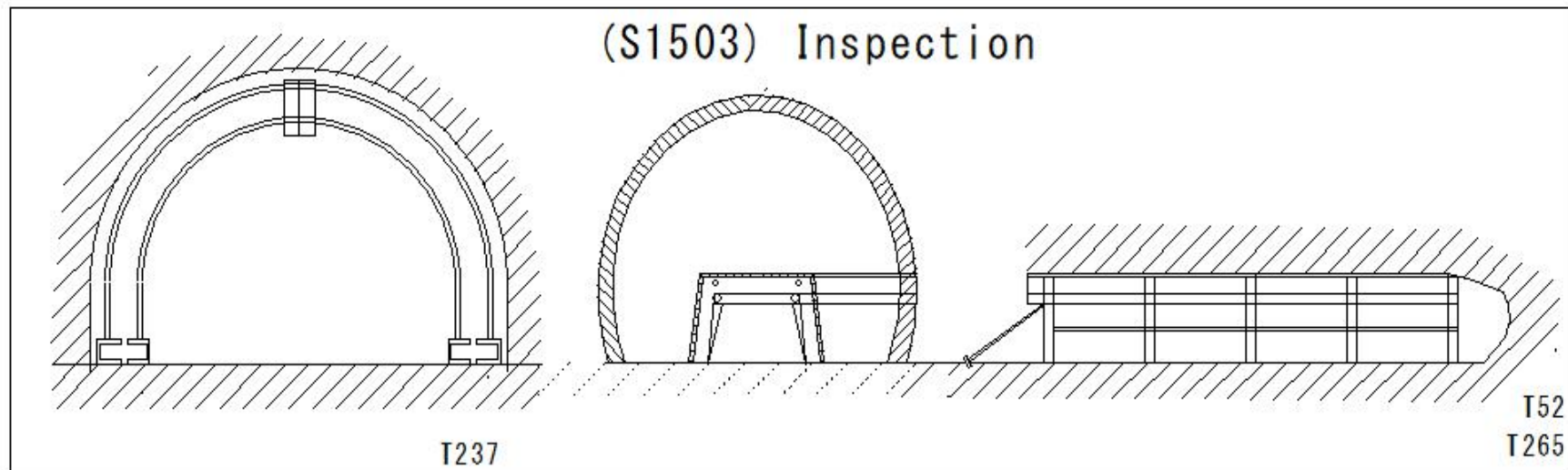
○ Tunnel support

○ Daily and after earthquakes of moderate magnitude or greater

○ In case of abnormalities are found

○ Must be reinforced or repaired.

- ① Presence and condition of damage, deformation, corrosion, displacement, and falling off of components
- ② Degree of compression of components
- ③ Condition of connections and intersections of components
- ④ Presence and condition of sinking of legs



(S1504) Inspection

Equipment and items requiring inspection

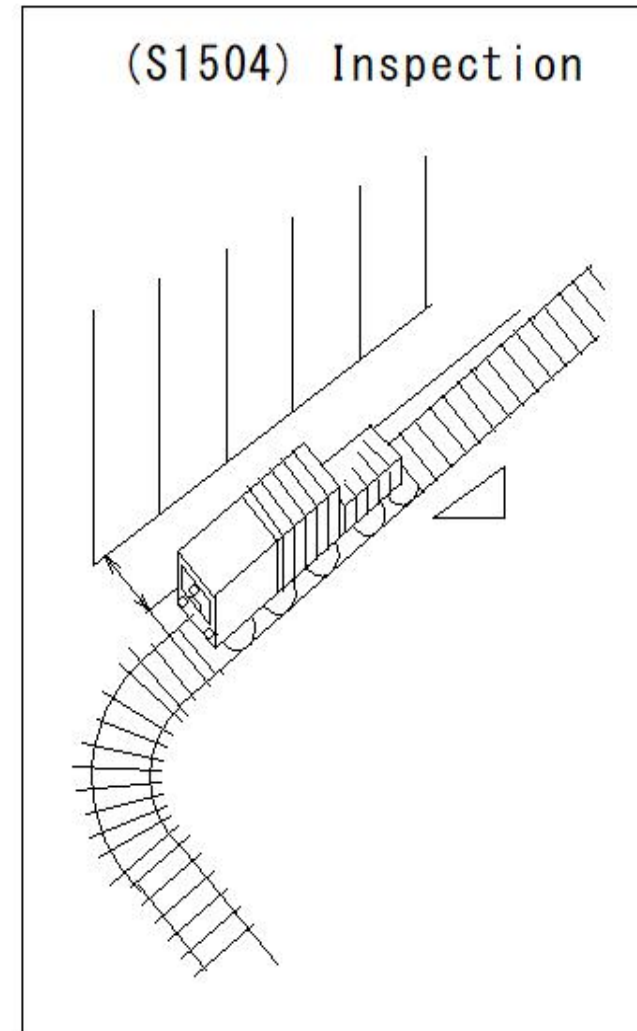
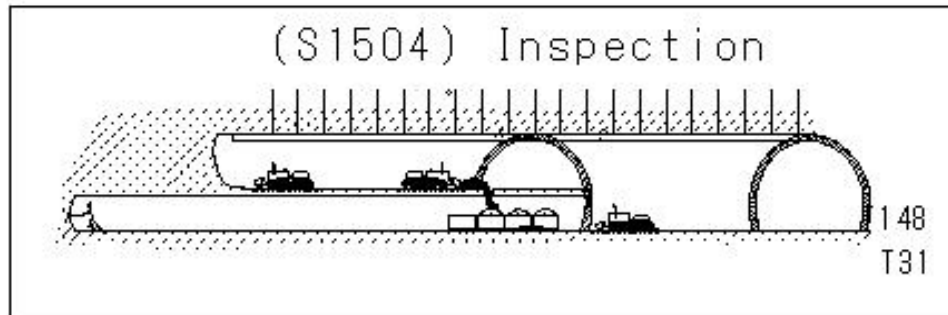
Railway equipment

Article 232 of the Safety and Health Regulations

(Inspection)

○Railway equipment

- ① Function of brakes, coupling devices, alarm devices,
current collectors, headlights, control devices and safety devices
- ② Check for leaks from piping such as air
- ③ Regularly check for abnormalities in the condition of the rails
and road surface



(S1505) Environment Measurements

(S1505) Environment Measurements

Places where measurements of the work environment are required

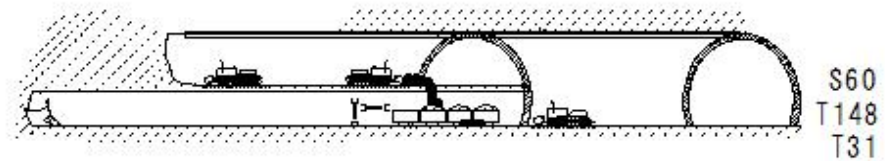
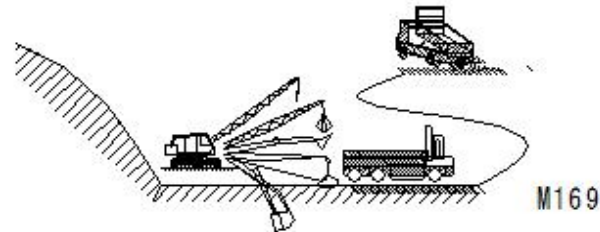
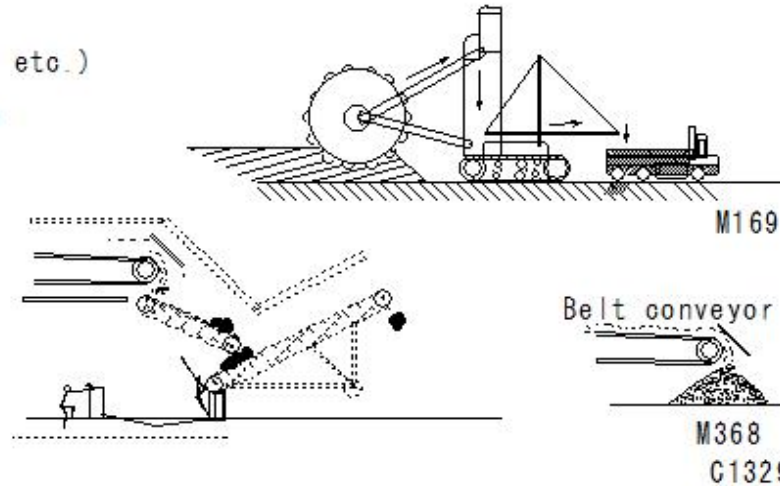
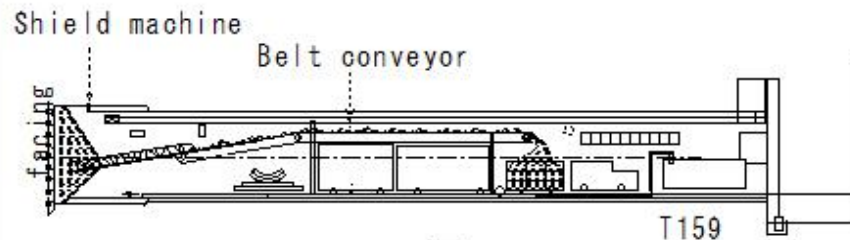
Article 26 of the Dust Law

(Measurement of dust concentration, etc.)

① Measure the dust concentration in the air regularly, once every six months.

(Measurement of dust concentration, etc.)

S1278



(S1506) Environment Measurements

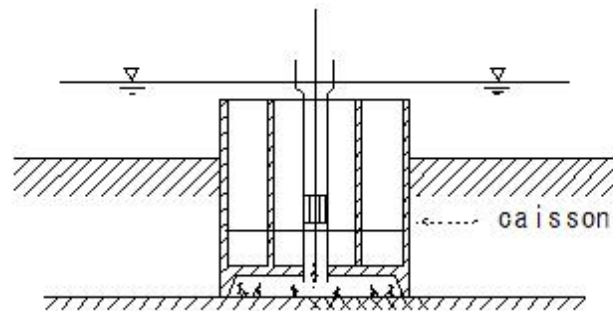
(S1506) Environment Measurements

Places where measurements of the work environment are required

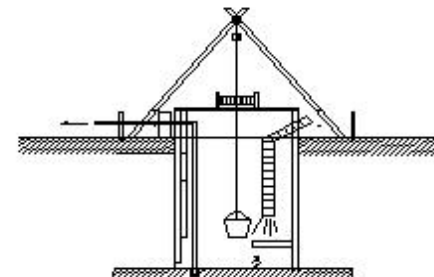
Article 607 of the Safety and Health Regulations

(measurement of temperature, humidity, etc.)

(measurement of temperature, humidity, etc.)



S15



F43
S36

S210

(S1507) Environment Measurements

(S1507) Environment Measurements

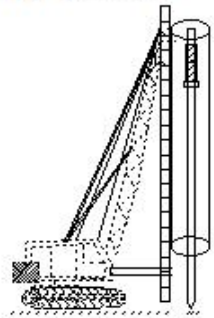
Places where measurements of the work environment are required

Articles 590 and 591 of the Safety and Health Regulations

(Noise measurements, etc.)

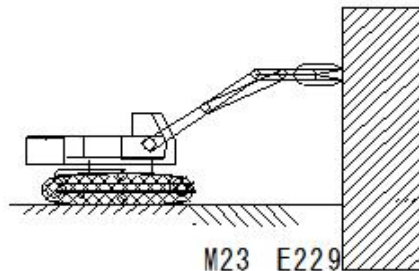
① Once every six months, on a regular basis ② Keep for three years

① Pile drivers



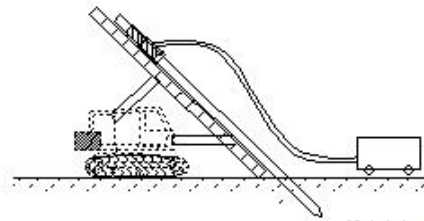
F100

② Rock drills



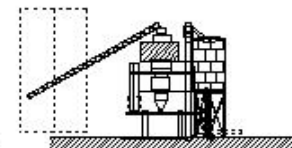
M23 E229

③ Air compressors



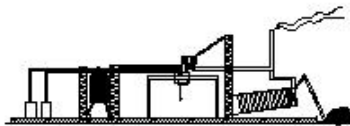
M111

④ Concrete plants



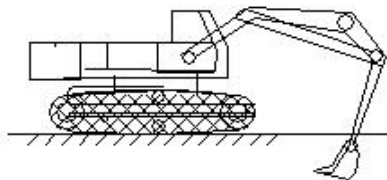
C1031

⑤ asphalt plants



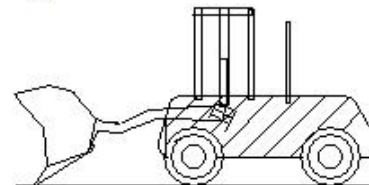
M80

⑥ Backhoes



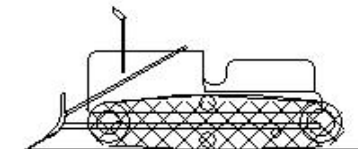
M1

⑦ Tractor shovels



M392
E292

⑧ Bulldozers



S1334
M14

(S1508) Environment Measurements

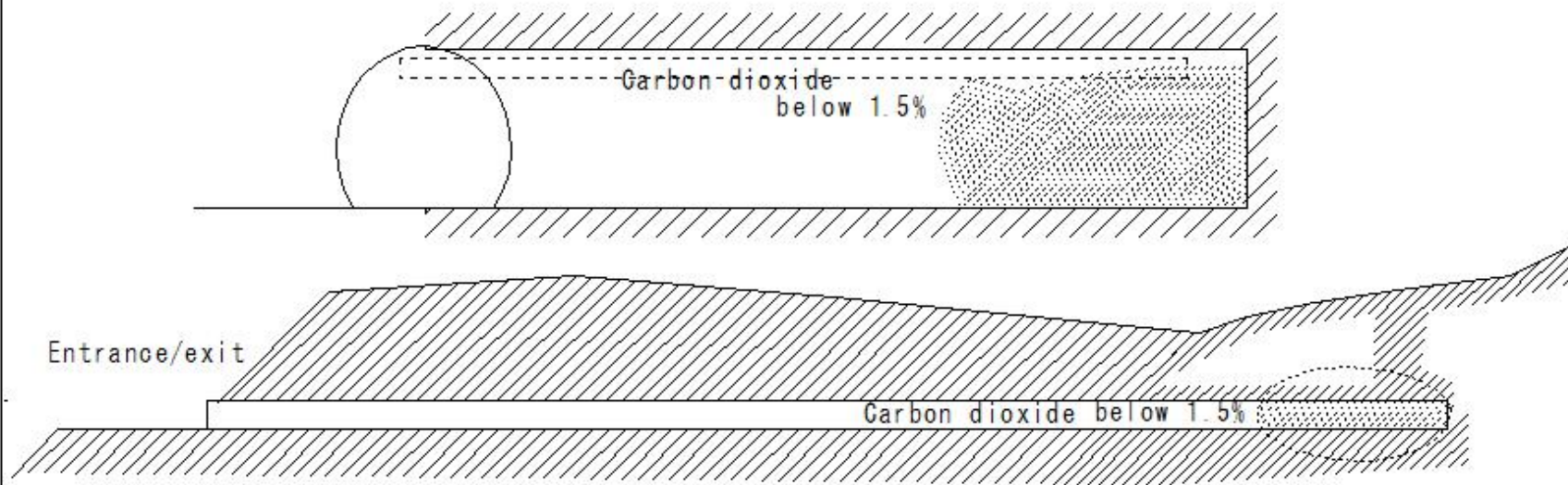
(S1508) Environment Measurements

Places where measurements of the work environment are required

Article 592 of the Safety and Health Regulations

(Measurement of carbon dioxide gas concentration in the mine, etc.)

① Measure the carbon dioxide gas concentration regularly, once a month



S1102

(S1509) Environment Measurements

(S1509) Environment Measurements

Places where measurements of the work environment are required

Article 612 of the Safety and Health Regulations

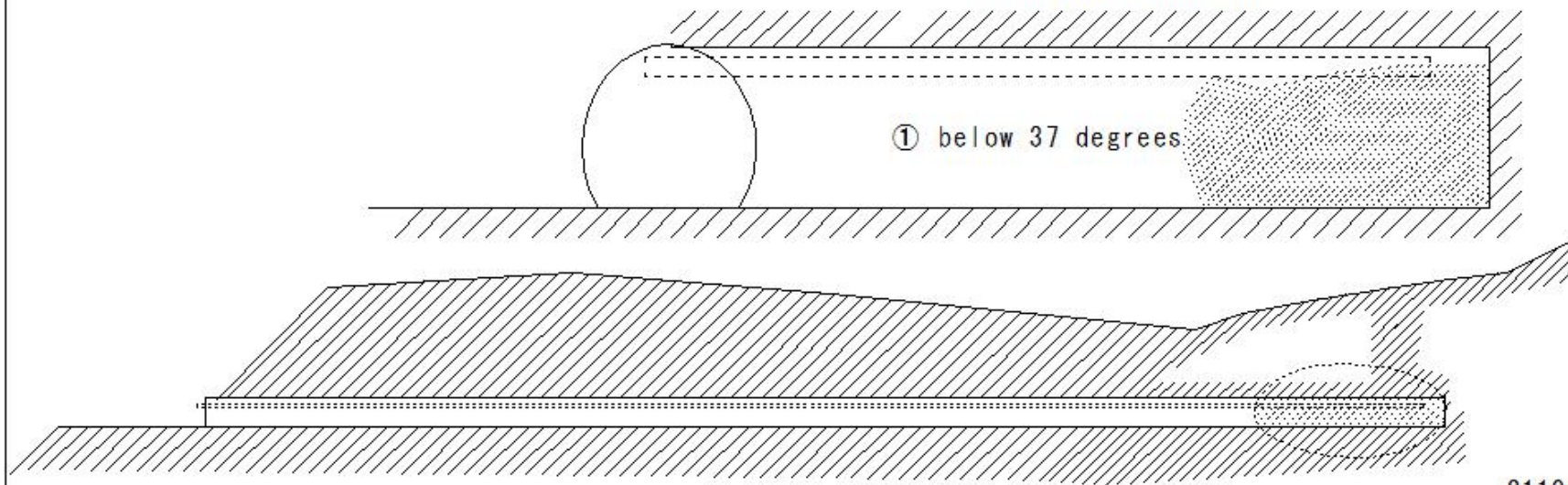
(Temperature measurements inside the mine, etc.)

- ① Workplace inside the mine
- ② Regularly, once every two weeks
- ③ Measure the temperature

Temperature inside the tunnel

① below 37 degrees

① below 37 degrees



S1106

(S1510) Environment Measurements

(S1510) Environment Measurements

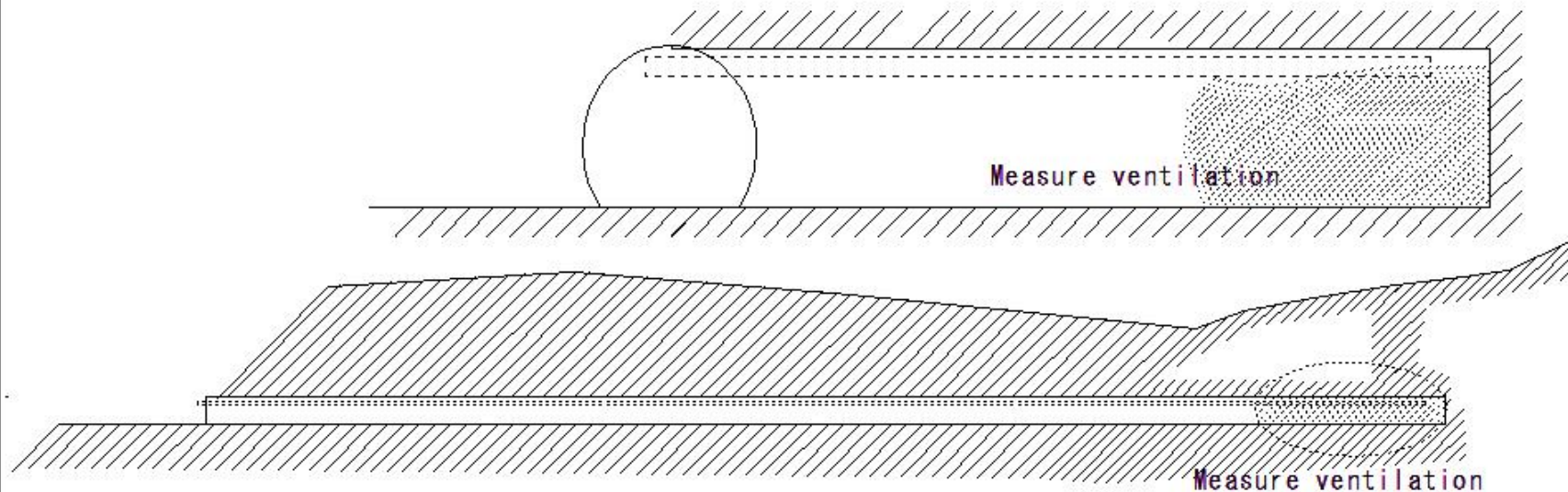
Places where measurements of the work environment are required

Article 603 of the Safety and Health Regulations

(Measurement of ventilation in the mine)

① Regularly, once every two weeks

(Measurement of ventilation in tunnels)



S1105

(S1511) Environment Measurements

(S1511) Environment Measurements

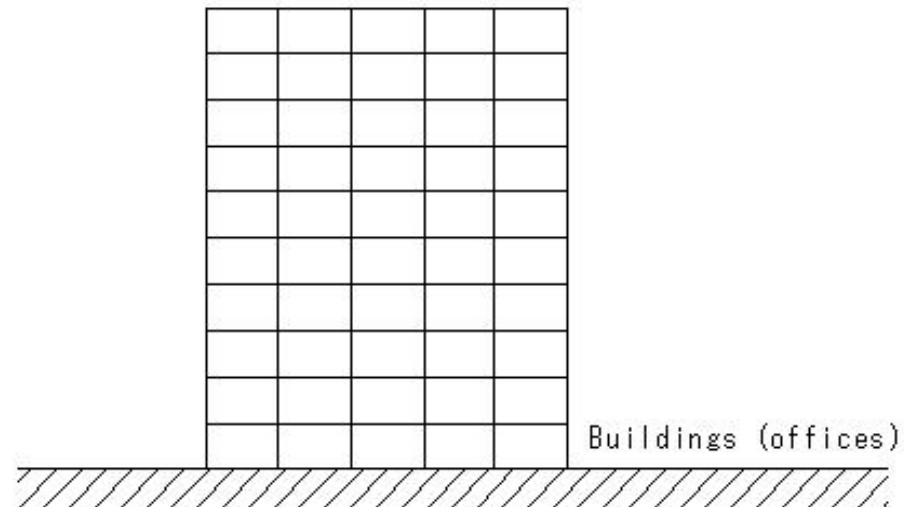
Places where measurements of the work environment are required

Office Regulations Article 7

Work environment measurements (carbon monoxide, carbon dioxide)

- ①Buildings (offices) with centrally controlled air conditioning equipment
- ②Regular measurements once every two months
- ③Carbon monoxide and carbon dioxide content
- ④Room temperature and outside temperature
- ⑤Relative humidity
- Work environment measurement
- | | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

Work environment measurements



(S1512) Environment Measurements

(S1512) Environment Measurements

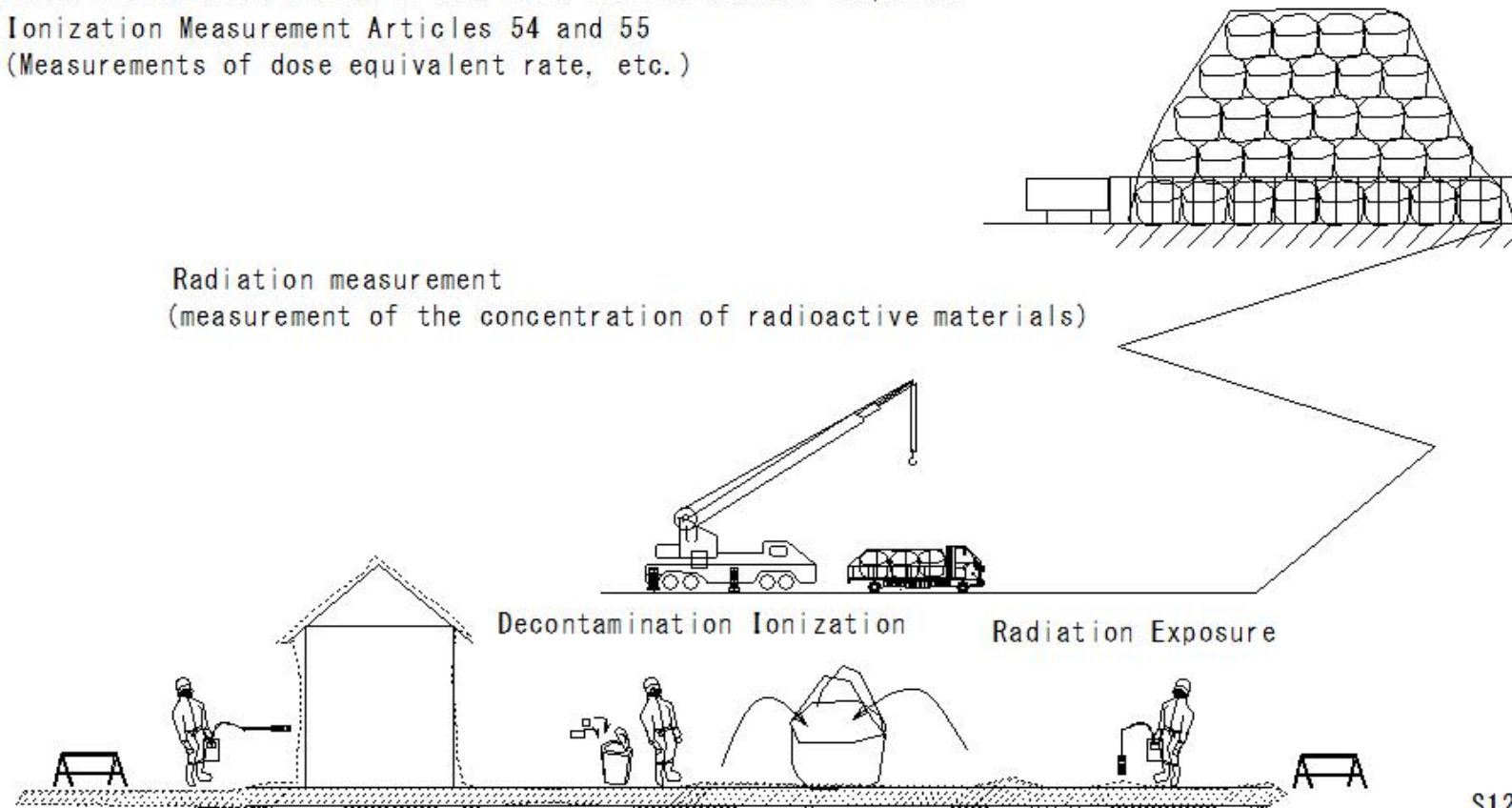
Places where measurements of the work environment are required

Ionization Measurement Articles 54 and 55

(Measurements of dose equivalent rate, etc.)

Radiation measurement

(measurement of the concentration of radioactive materials)



S1298

(S1513) Environment Measurements

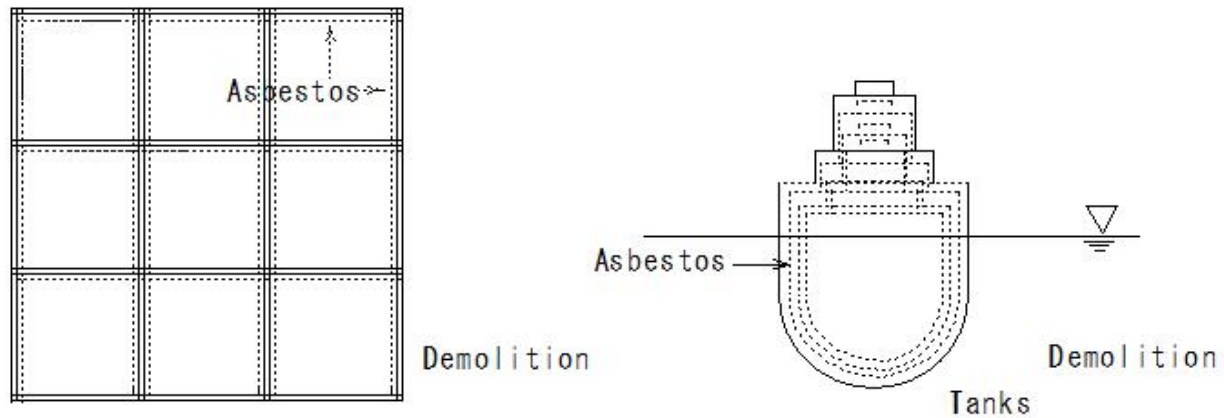
(S1513) Environment Measurements

Places where measurements of the work environment are required

Special Law Article 36

(Measurements and records)

① Asbestos, etc. - Measure the concentration in the air



S1250

(S1514) Environment Measurements

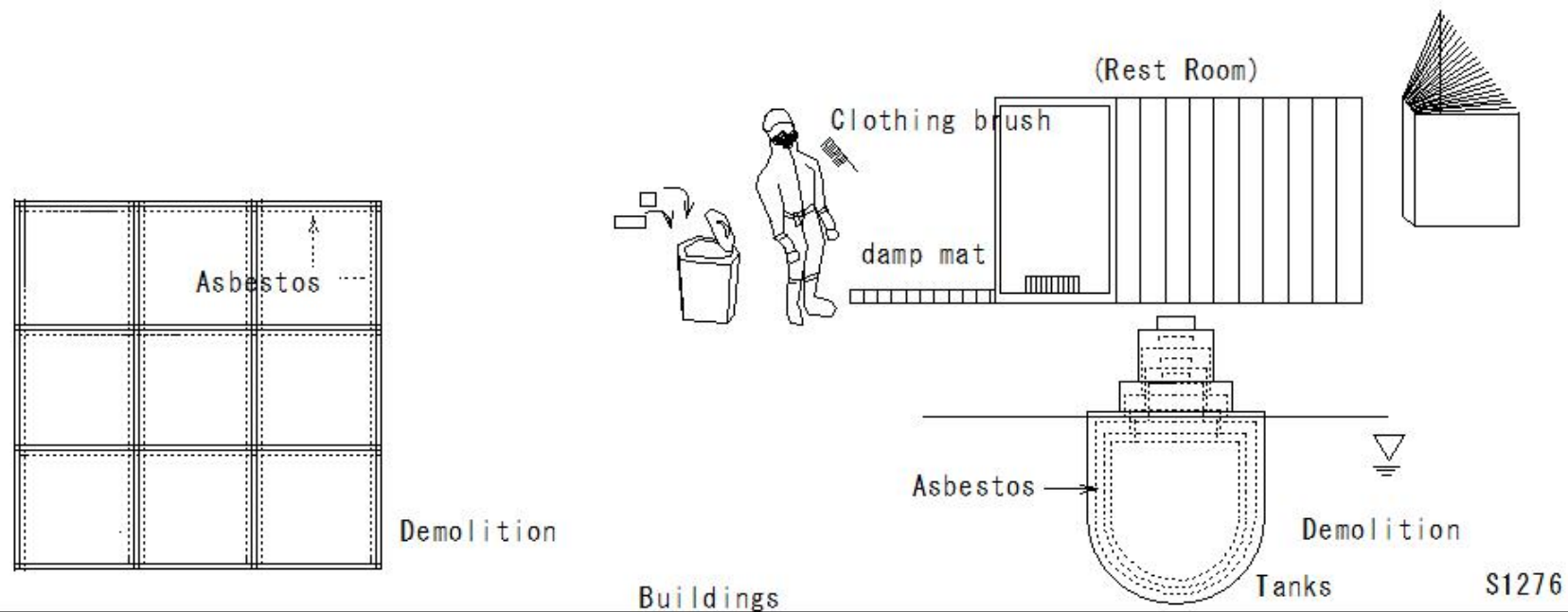
(S1514) Environment Measurements

Places where measurements of the work environment are required

Special Law Article 36

(Measurements and records)

① Measure the concentration of asbestos in the air on a regular basis



(S1515) Environment Measurements

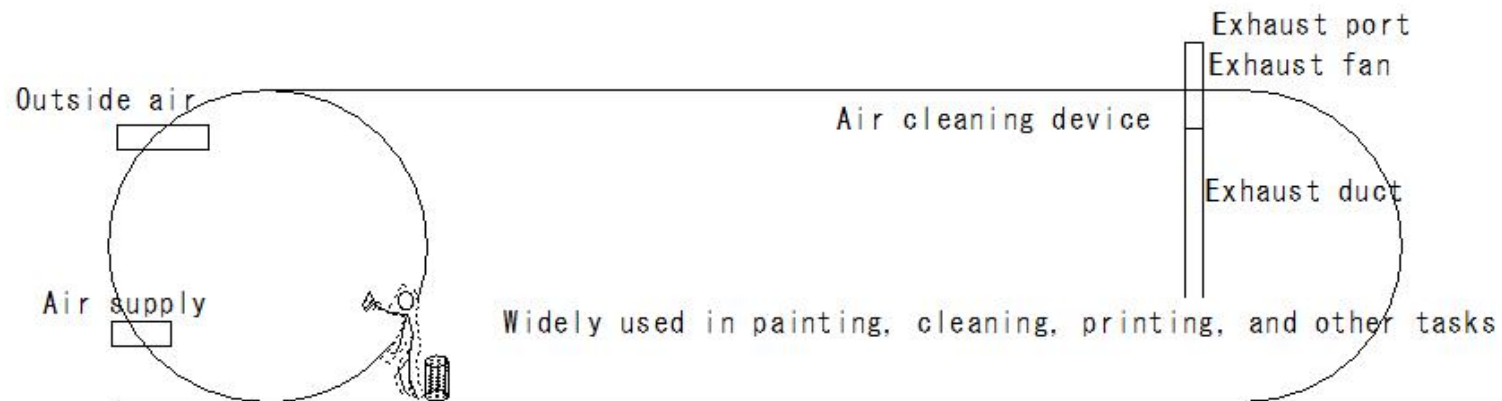
(S1515) Environment Measurements

Places where measurements of the work environment are required

Lead Regulations Article 52

Lead Poisoning Prevention Regulations

- ① Measure the lead concentration in the air regularly, once a year
- ② Lead poisoning affects various parts of the body, including the brain, nerves, kidneys, liver, and blood.



(S1516) Environment Measurements

(S1516) Environment Measurements

Places where measurements of the work environment are required

Oxygen Deficiency Law Article 3

Regulations for the Prevention of Oxygen Deficiency, etc.

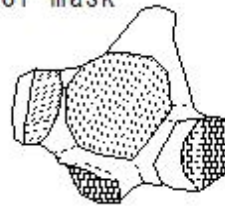
- ① Before starting work
- ② Measure the concentration of oxygen (oxygen and hydrogen sulfide) in the air
- ③ Record and store for three years

Respiratory protection

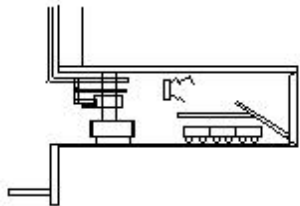


S1364

Dustproof mask



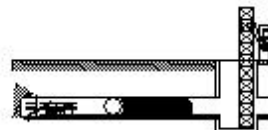
S1366



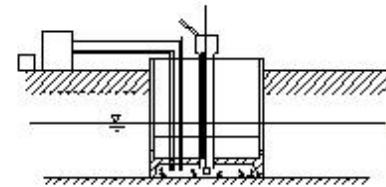
S141



T157



T112
F127



M262
F59

S1206

S1431

(S1517) Environment Measurements

(S1517) Environment Measurements

Places where measurements of the work environment are required

Article 28 of the Organic Solvent Law
(Measurement)

- ① Organic solvent work related to organic solvents
- ② Measure the concentration of the organic solvent on a regular basis, once every six months
- ③ Record and keep for three years

Respiratory protection



S1364

Dustproof mask

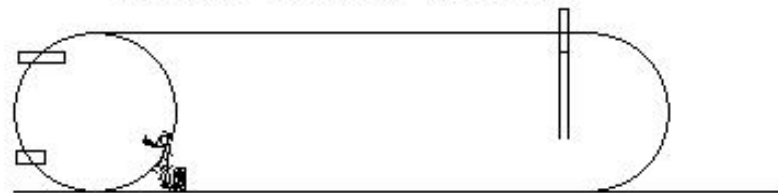


S1366

Specific Chemical Substances



S1248



Widely used in painting, cleaning, printing, and other tasks

S1458

S1229

S1430

(S1518) Environment Measurements

(S1518) Environment Measurements

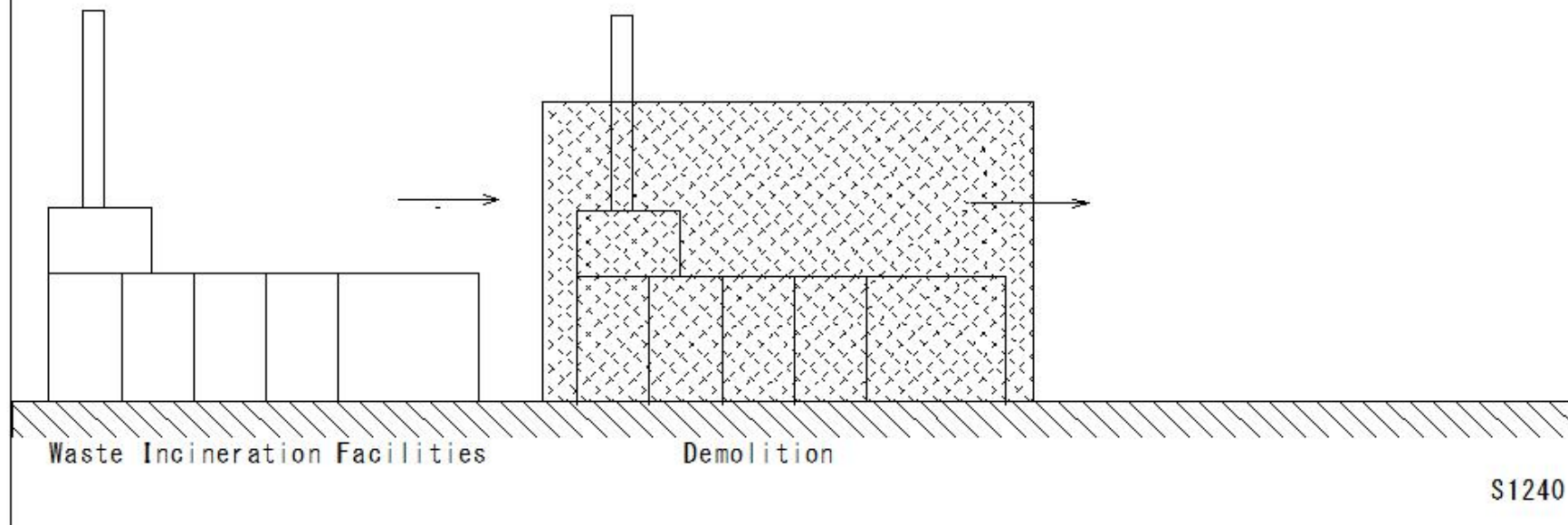
Places where measurements of the work environment are required

Article 592, Paragraph 2 of the Organic Chemicals Act

(Measurement of dioxin concentration and content)

① Regularly, once every six months

② Measure the concentration of dioxins in the air



(S1519) Environment Measurements

(S1519) Environment Measurements

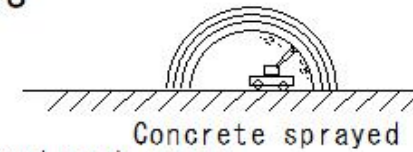
Places where measurements of the work environment are required

Article 6, Paragraph 3 of the Dust Prevention Regulations

- ① Regularly measure the dust concentration in the air in underground work areas where dusty work is performed

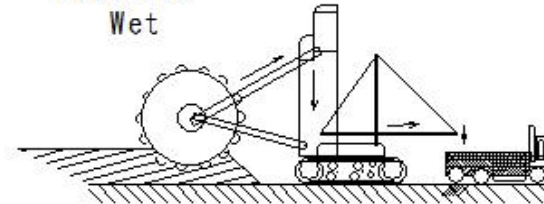
- ② Evaluate the results

Clothing brush (Rest Room)



T51

Watering
Wet

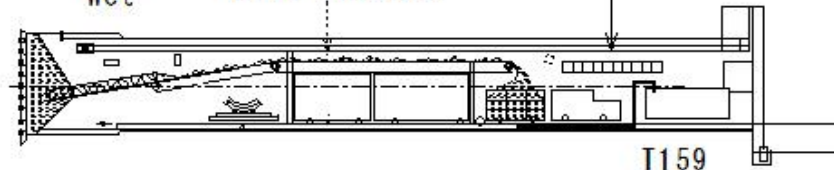


M169

Ventilation fan

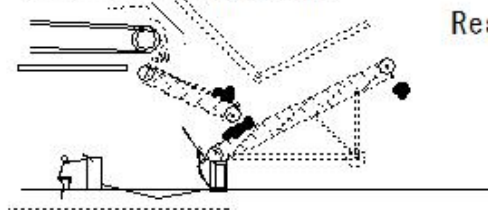
Watering
Wet

Belt conveyor



T159

Watering



Respiratory protective
equipment



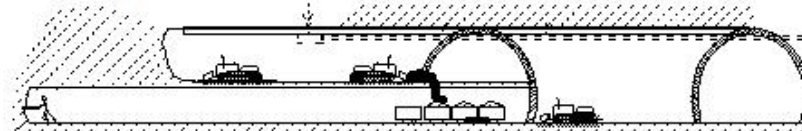
S1248



S1289

S60
T148

Watering
Wet Ventilation fan



M169



(S1520) Environment Measurements

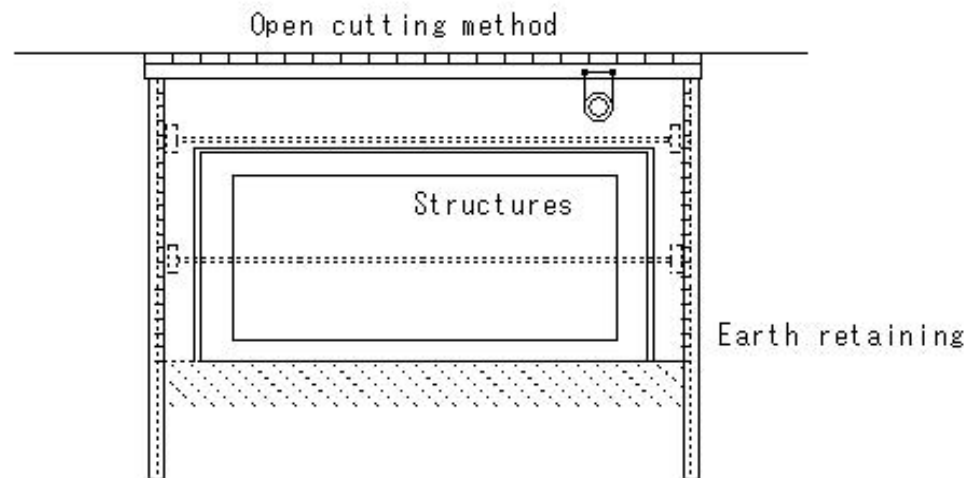
(S1520) Environment Measurements

Places where measurements of the work environment are required

Article 322 of the Safety and Health Regulations

(Underground work areas, etc.)

- ① Underground work areas where flammable gases may be generated



S104

F133

(S1521) Bad Weather

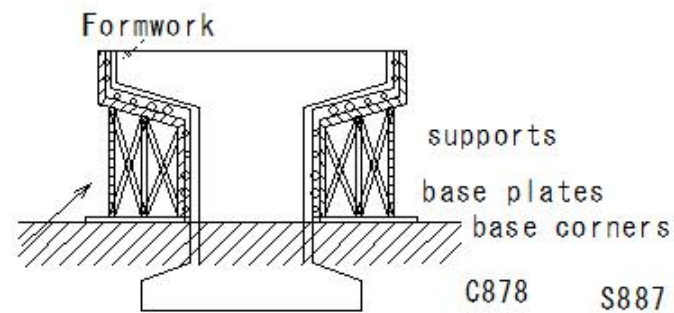
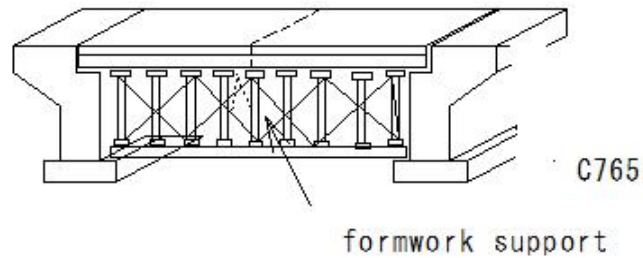
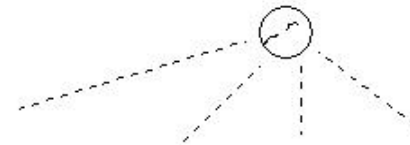
(S1521) Bad Weather

Work that is restricted in bad weather

Article 245 of the Safety and Health Regulations

(Work such as assembling formwork shoring)

① Work will be suspended in bad weather such as strong winds, heavy rain, heavy snow, etc.



S1495

(S1522) Bad Weather

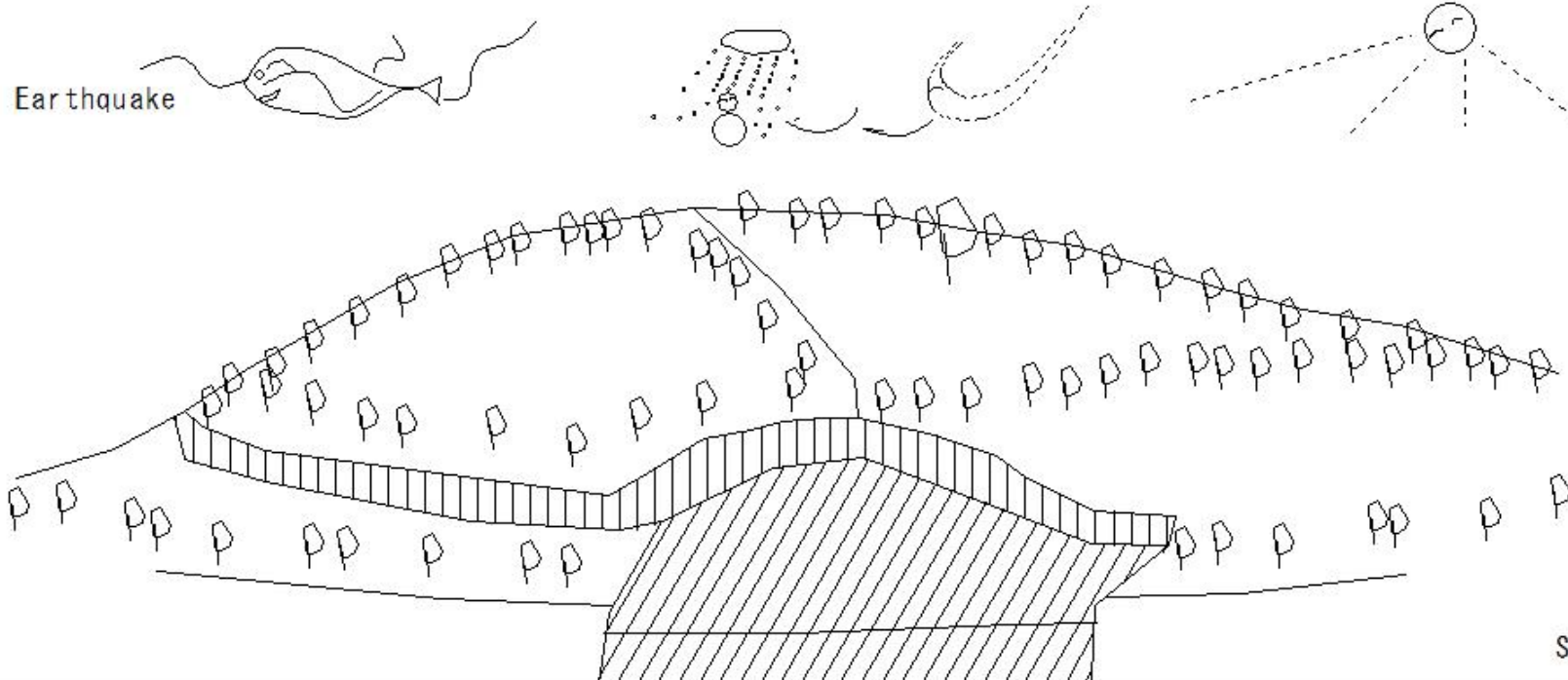
(S1522) Bad Weather

Work that is restricted in bad weather

Article 483 of the Safety and Health Regulations

Performing work such as afforestation

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.



S224

(S1523) Bad Weather

(S1523) Bad Weather

Work that is restricted in bad weather

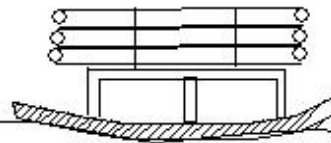
Article 496 of the Safety and Health Regulations

Prohibition of work involving transporting materials using wooden horses or snow sleds

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.



Snow Sleds



(S1524) Bad Weather

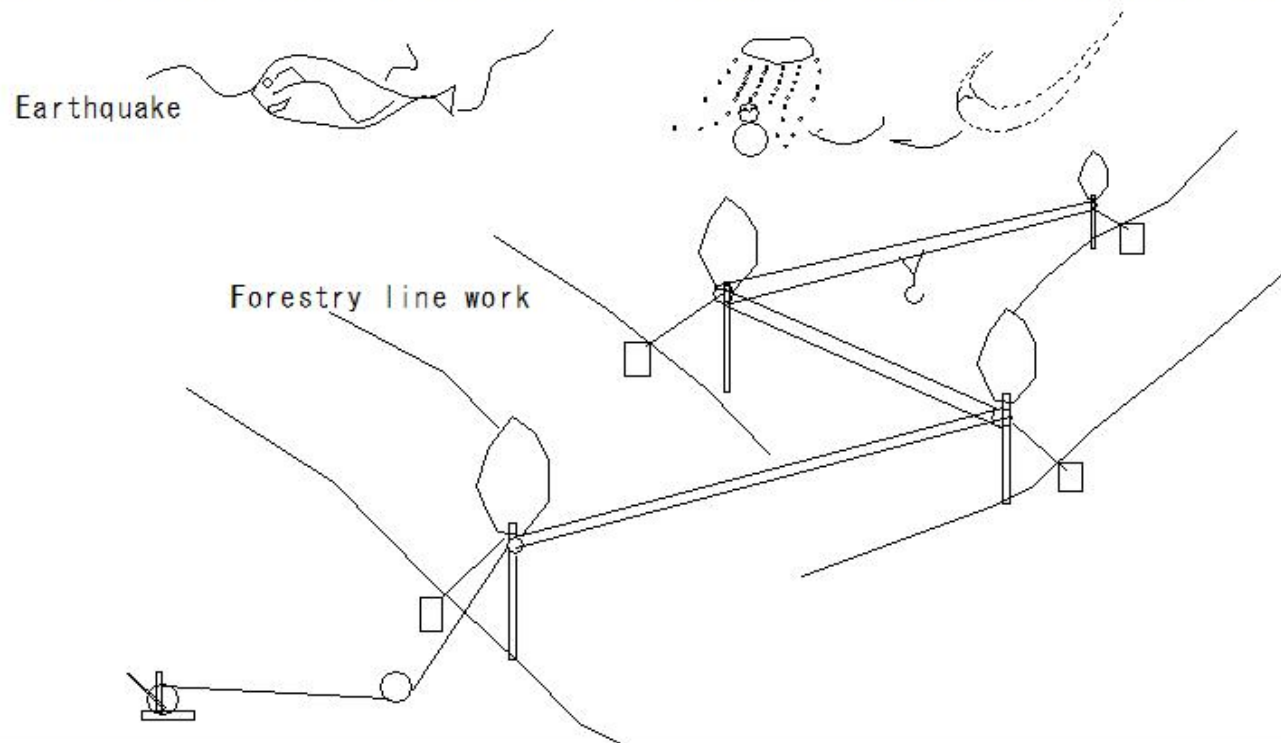
(S1524) Bad Weather

Work that is restricted in bad weather

Article 510 of the Safety and Health Regulations

Forestry line work

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.



S1416

(S1525) Bad Weather

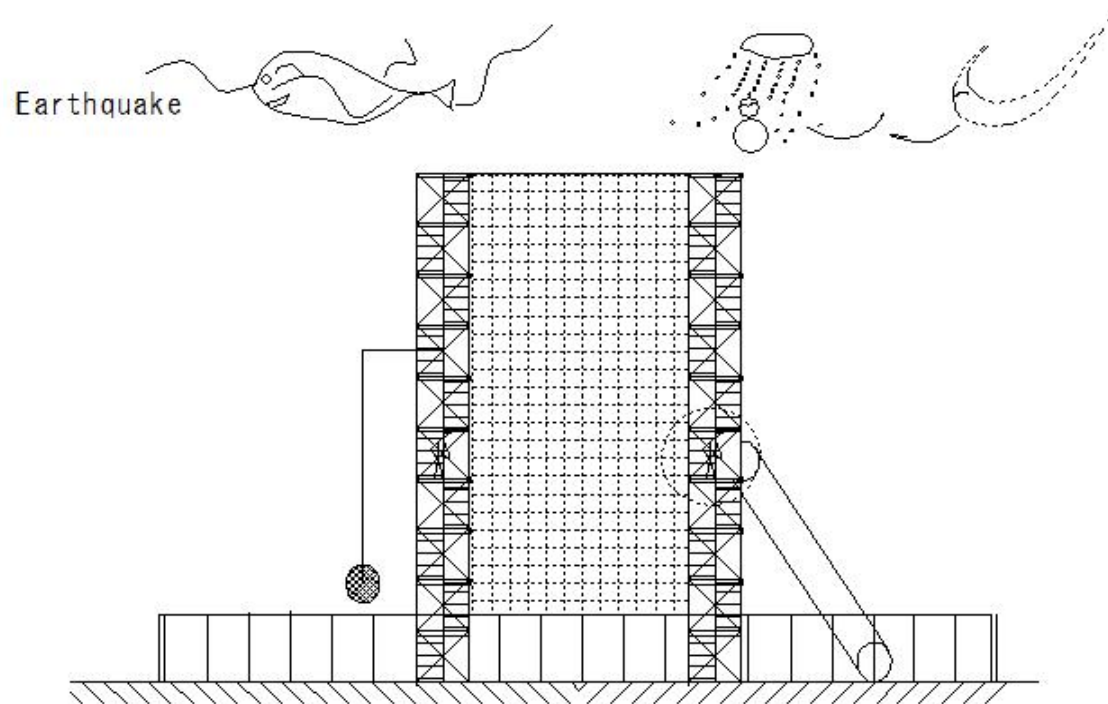
(S1525) Bad Weather

Work that is restricted in bad weather

Article 517-3 of the Safety and Health Regulations

(Work such as assembling steel frames for buildings, etc.)

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.



(S1526) Bad Weather

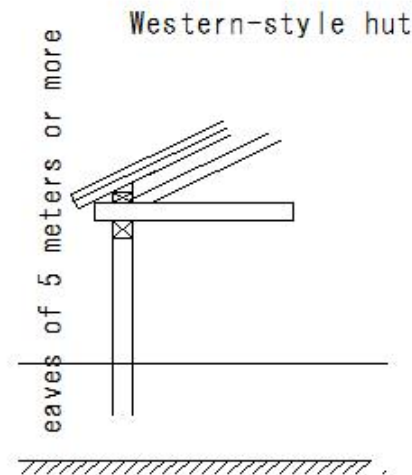
(S1526) Bad Weather

Work that is restricted in bad weather

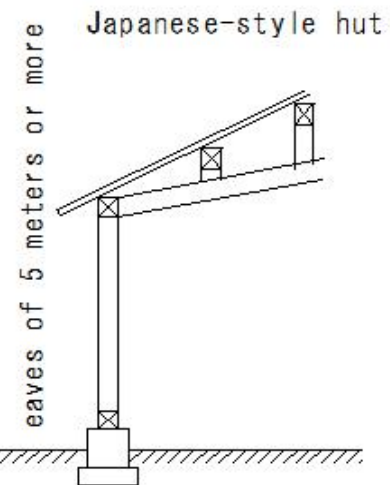
Article 517-11 of the Safety and Health Regulations

(Work such as assembling wooden buildings)

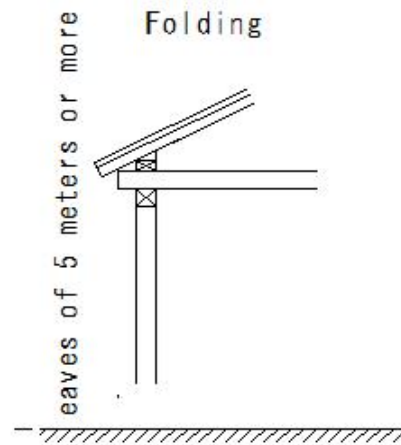
- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.



S1492



S1493



S1494

(S1527) Bad Weather

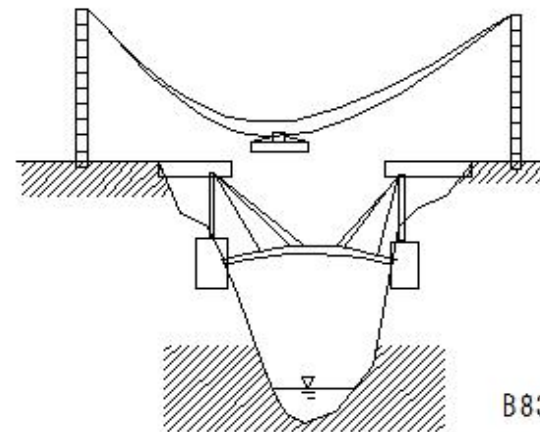
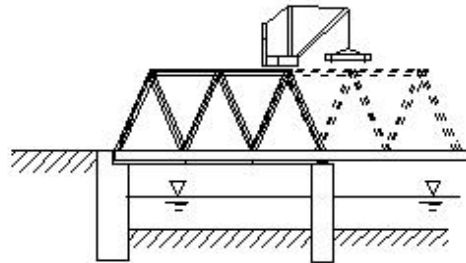
(S1527) Bad Weather

Work that is restricted in bad weather

Article 517-7 of the Safety and Health Regulations

(Work such as erecting steel bridges)

- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.



B83

S1421

(S1528) Bad Weather

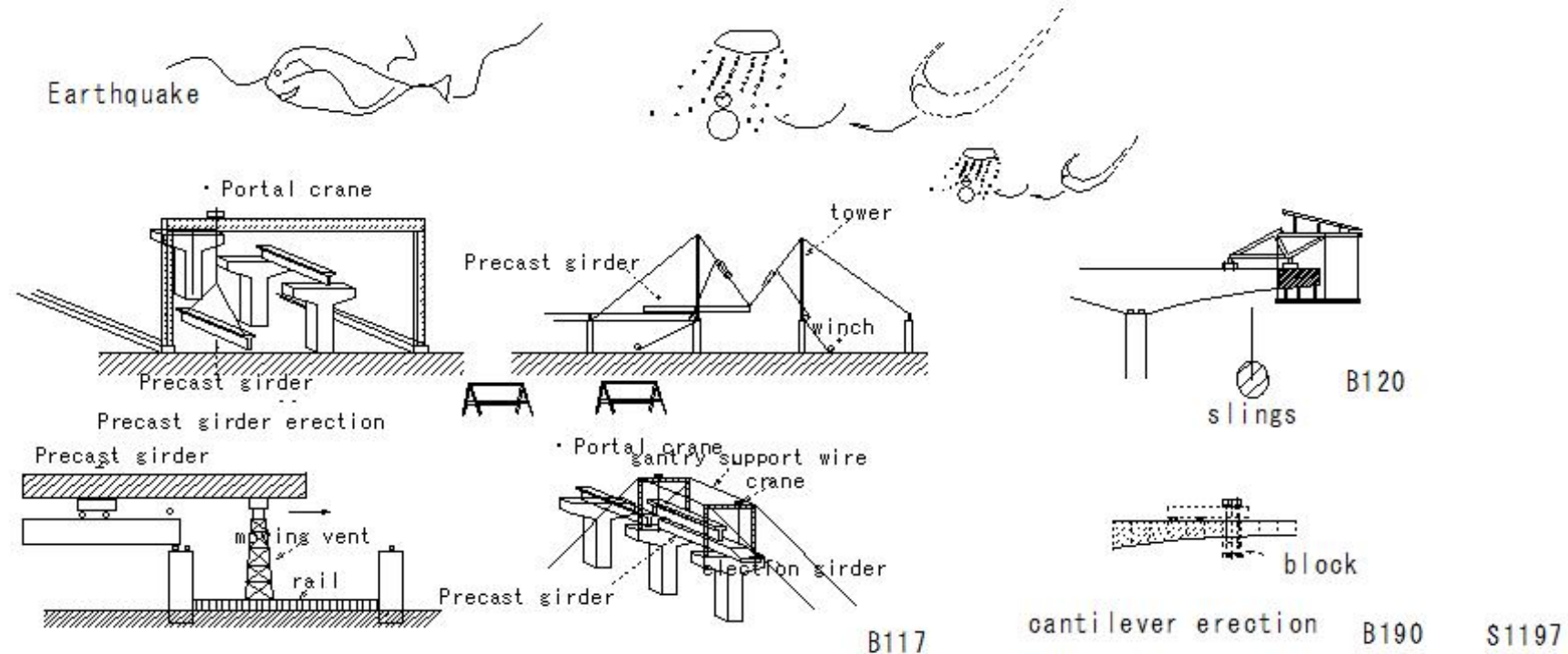
(S1528) Bad Weather

Work that is restricted in bad weather

Article 517-21 of the Safety and Health Regulations

(Work such as erecting concrete bridges)

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.



(S1529) Bad Weather

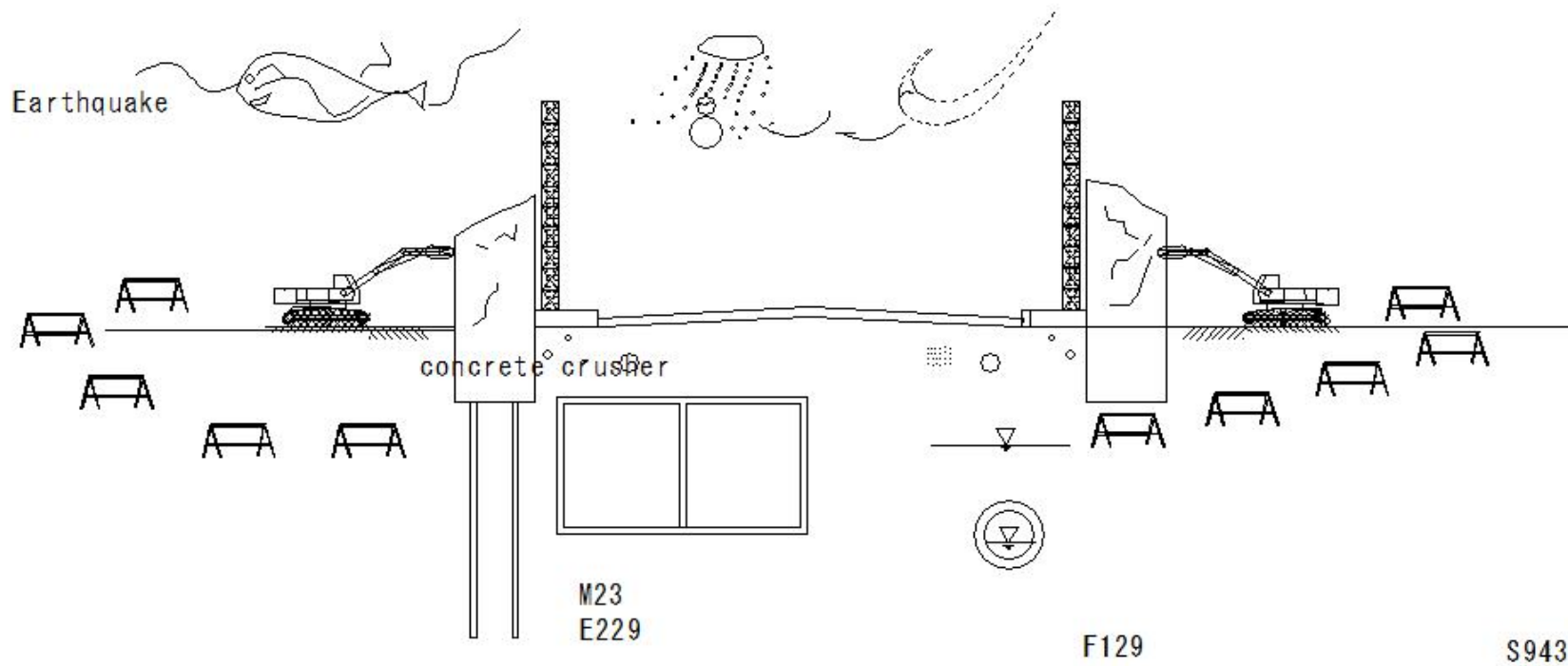
(S1529) Bad Weather

Work that is restricted during bad weather

Article 517-15 of the Safety and Health Regulations

(Work such as dismantling concrete structures)

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.



(S1530) Bad Weather

(S1530) Bad Weather

Work that is restricted during bad weather

Article 522 of the Safety and Health Regulations

(Work prohibited in bad weather)

○ Work at a height of more than two meters

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

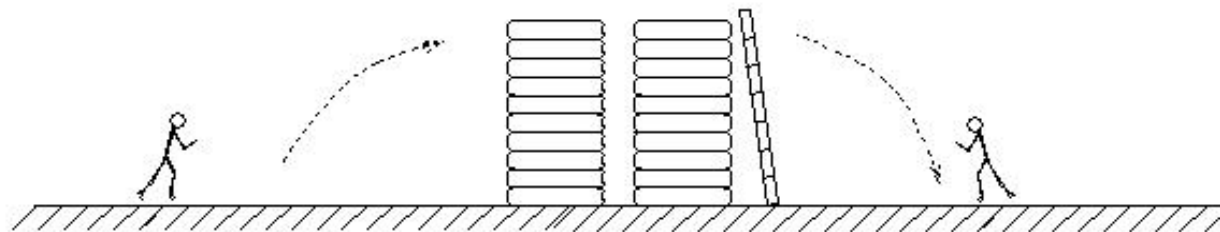
(Work prohibited in bad weather)

Earthquake



Piling, demolition, etc.

2 meters more



S1483

(S1531) Bad Weather

(S1531) Bad Weather

Work that is restricted during bad weather

Article 564 of the Safety and Health Regulations

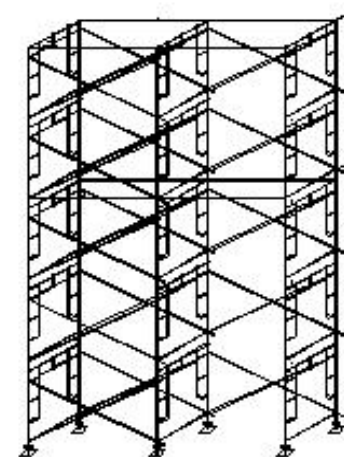
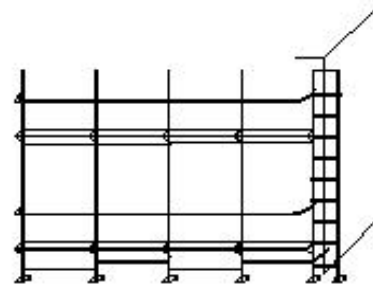
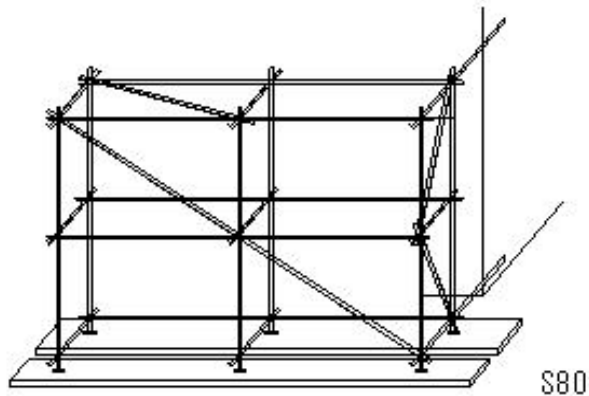
(Work prohibited in bad weather)

(Work such as assembling scaffolding)

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

(Work prohibited in bad weather)

Earthquake



S85

(S1532) Bad Weather

(S1532) Bad Weather

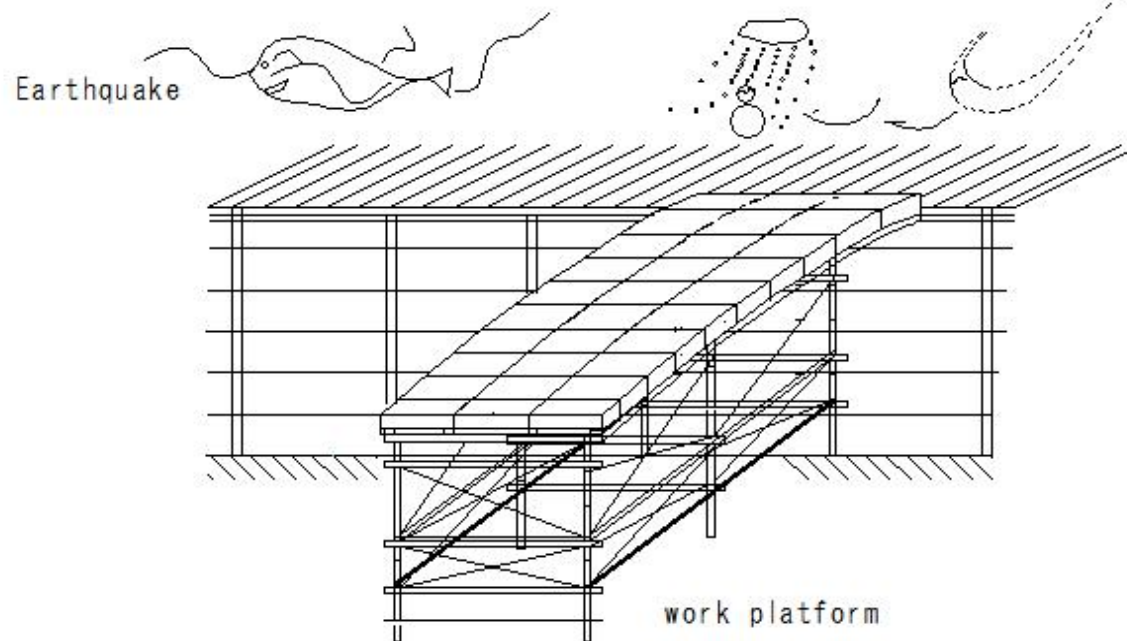
Work that is restricted during bad weather

Article 575-7 of the Safety and Health Regulations

Work such as assembling a work platform

- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

(Work prohibited in bad weather)



(S1533) Bad Weather

(S1533) Bad Weather

Work that is restricted during bad weather

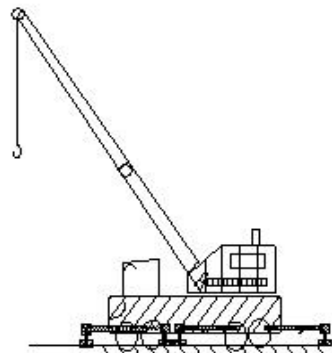
Crane Law Article 31-2

(Work suspended in strong winds) Crane work

- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

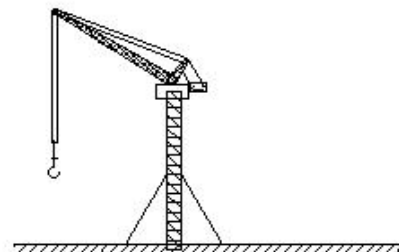
(Work prohibited in bad weather)

Earthquake



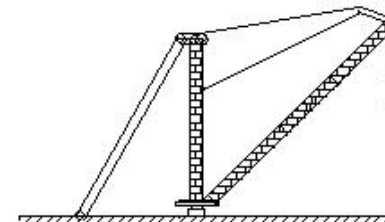
Outrigger - Stabilize

B111
M46



tower crane

M390



guideric

M391

S32

(S1534) Bad Weather

(S1534) Bad Weather

Work that is restricted during bad weather

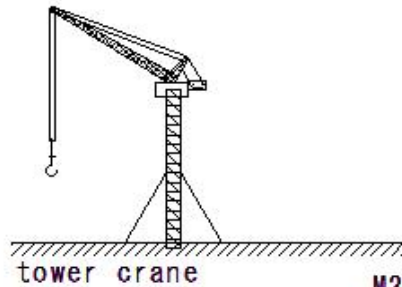
Crane Law Article 33

(assembly, etc.)

- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

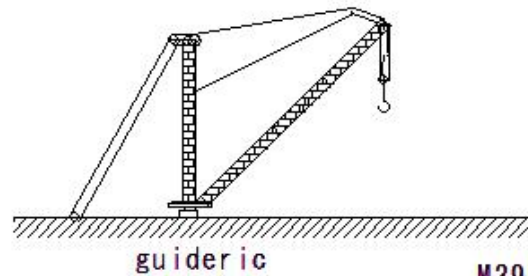
(Work prohibited in bad weather)

Earthquake



tower crane

M390



guideric

M391

(S1535) Bad Weather

(S1535) Bad Weather

Work that is restricted during bad weather

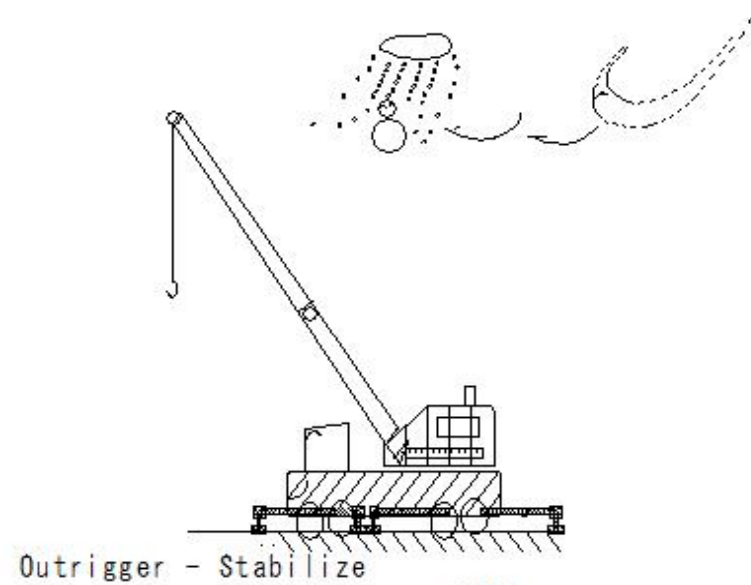
Crane Law Article 74-3

Strong winds

Mobile crane

- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

(Work prohibited in bad weather)



B111
M46

(S1536) Bad Weather

(S1536) Bad Weather

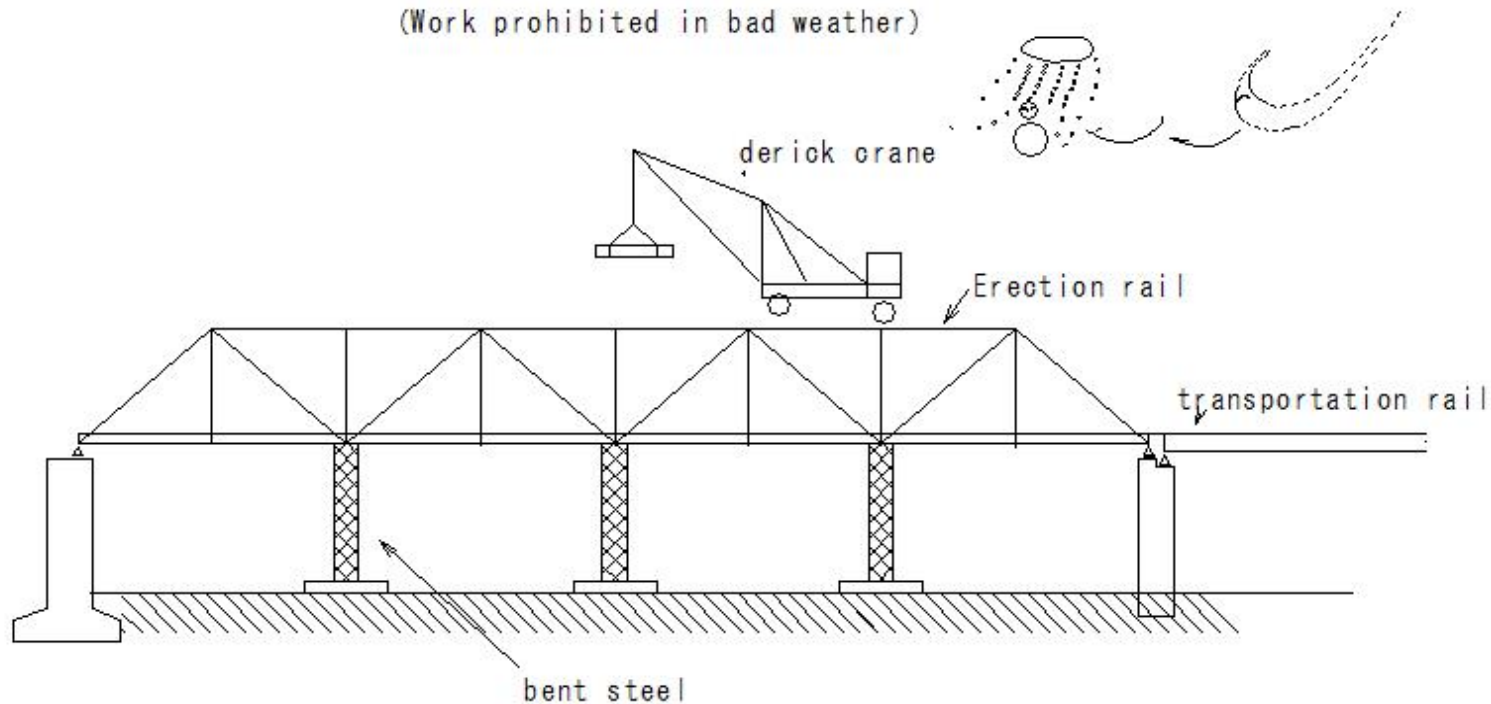
Work that is restricted during bad weather

Crane Law Article 116-2

Strong winds

- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

(Work prohibited in bad weather)



S30
M49
B417

(S1537) Bad Weather

(S1537) Bad Weather

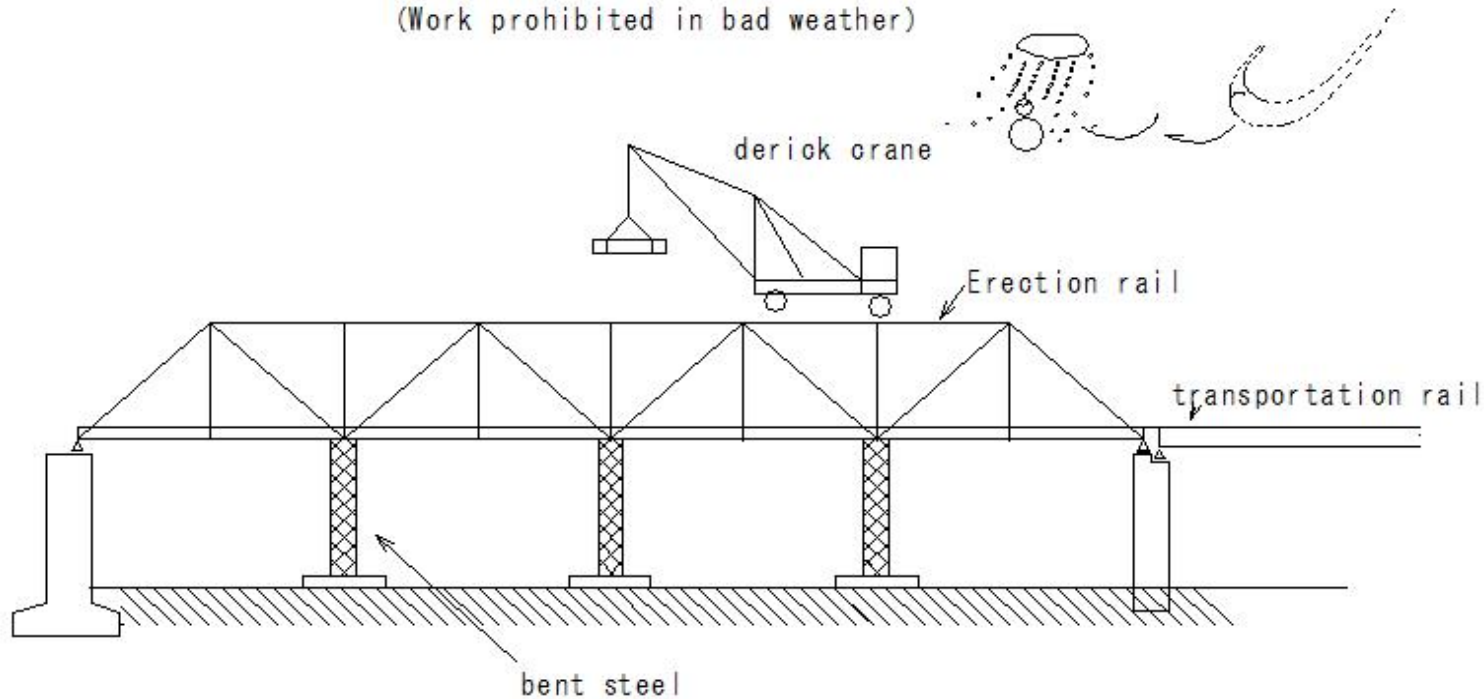
Work that is restricted during bad weather

Crane Law Article 118

Assembly and dismantling of derricks

- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

(Work prohibited in bad weather)



S30
M49
B417

(S1538) Bad Weather

(S1538) Bad Weather

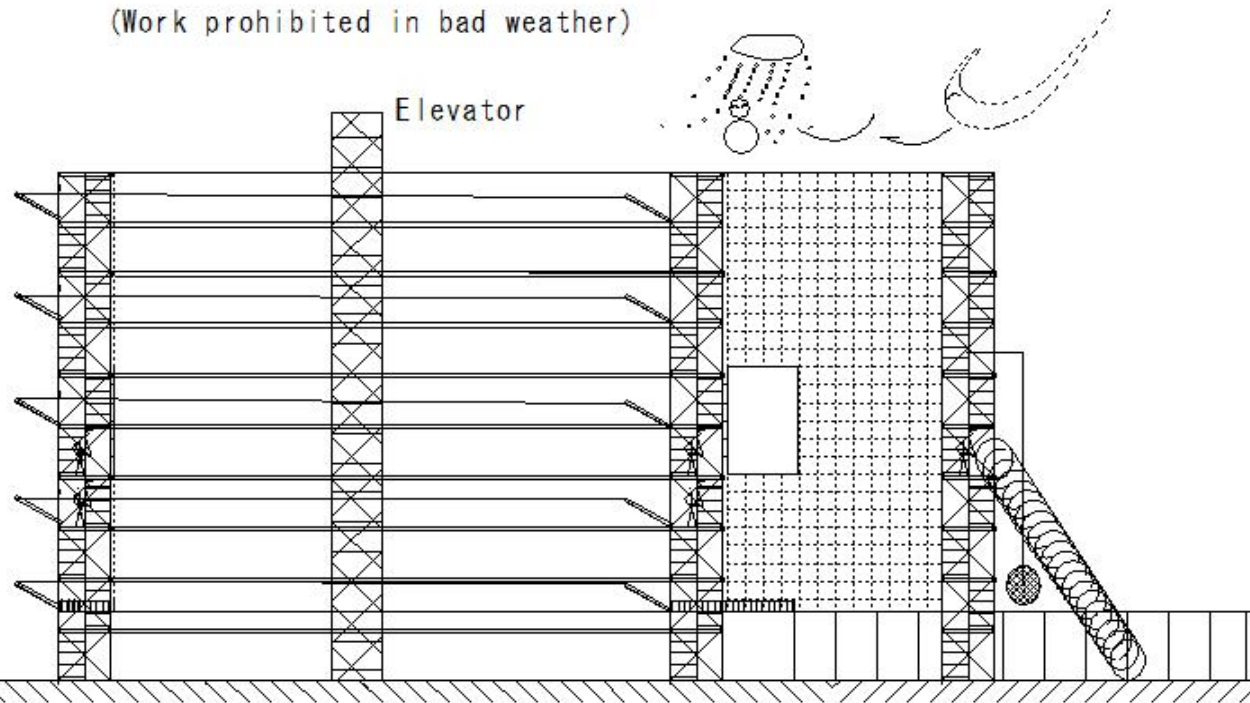
Work that is restricted during bad weather

Crane Law Article 153

Elevators installed outdoors

- ① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

(Work prohibited in bad weather)



S403
S30
M49
B417

(S1539) Bad Weather

(S1539) Bad Weather

Work that is restricted during bad weather

Crane Law Article 191

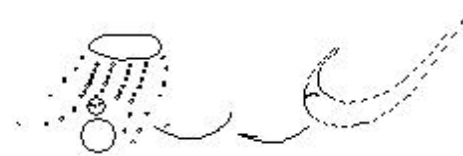
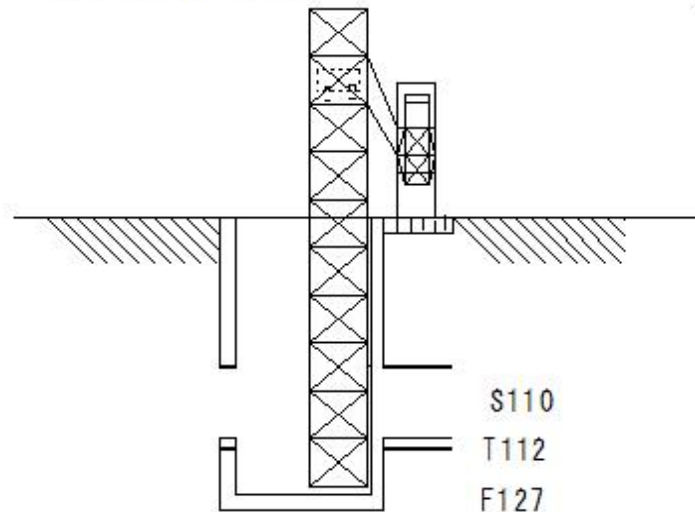
(Assembly and other work)

Assembly or dismantling of construction lifts

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

(Work prohibited in bad weather)

Elevator with lifting
load of 1t or more



(S1540) Bad Weather

(S1540) Bad Weather

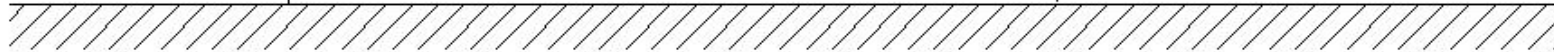
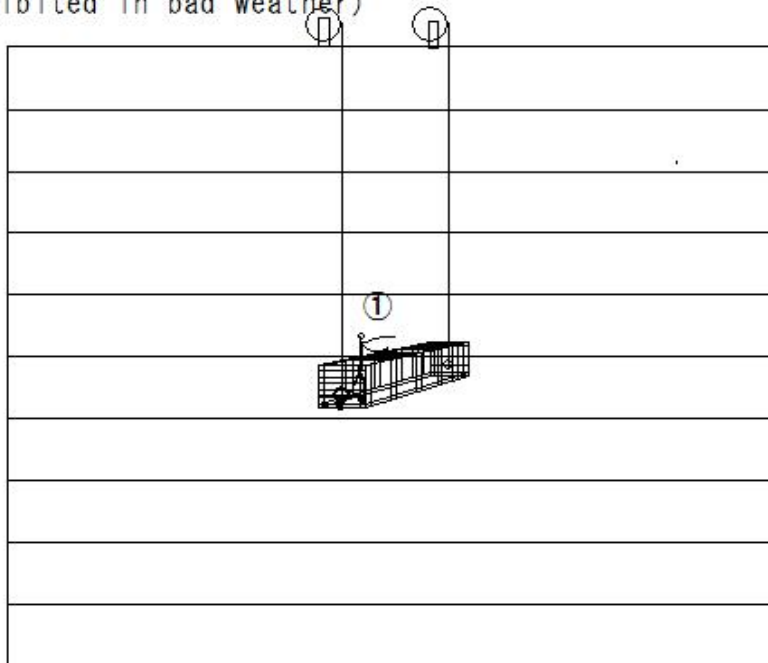
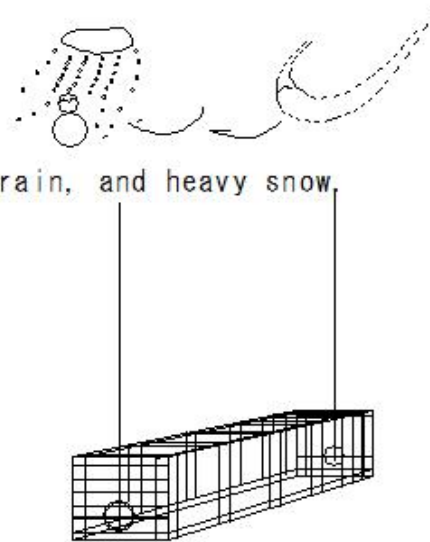
Work that is restricted during bad weather

Gondola Law Article 19

Work that uses a gondola

① Work is suspended in bad weather such as strong winds, heavy rain, and heavy snow.

(Work prohibited in bad weather)



S437

(S1541) Bad Weather

(S1541) Bad Weather

Work that is restricted during bad weather

- ① Strong wind: Wind with an average wind speed of 10 m/s or more over 10 minutes
- ② Heavy rain (rainfall of 50 mm or more in one go)
- ③ Heavy snow: When rainfall is expected to be 25 cm or more in one go
- ④ Storm: "Very strong wind" refers to wind speeds of 20 m/s to 30 m/s.
- ⑤ Moderate earthquake: Earthquake with a seismic intensity of 4 or higher



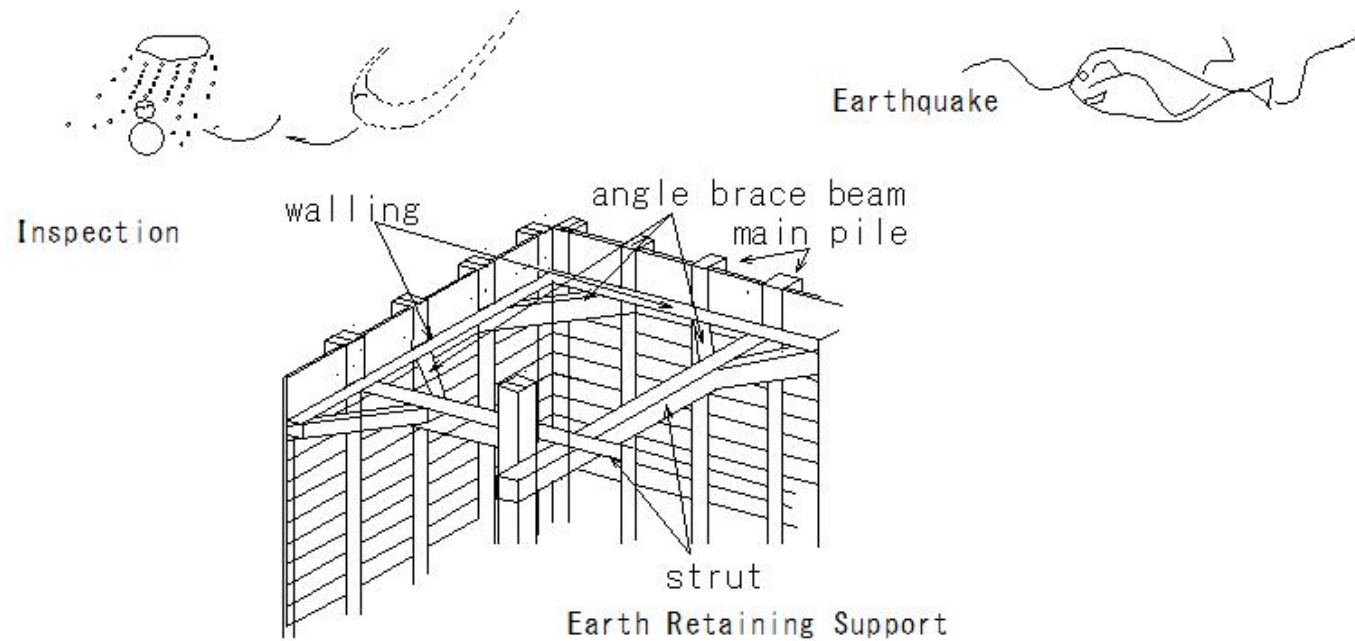
(S1542) Bad Weather

(S1542) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Article 373 of the Safety and Health Regulations

Inspection of retaining supports



E244

S1496

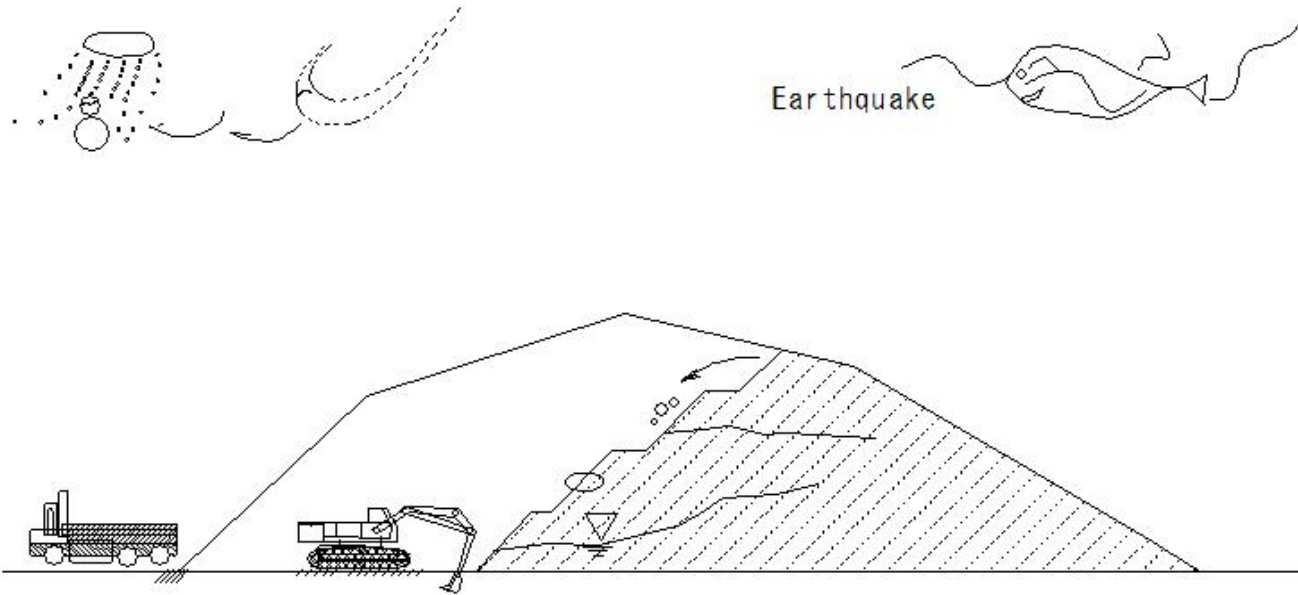
(S1543) Bad Weather

(S1543) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Article 358 of the Safety and Health Regulations

In case of performing open excavation work, inspection of the ground



S1497

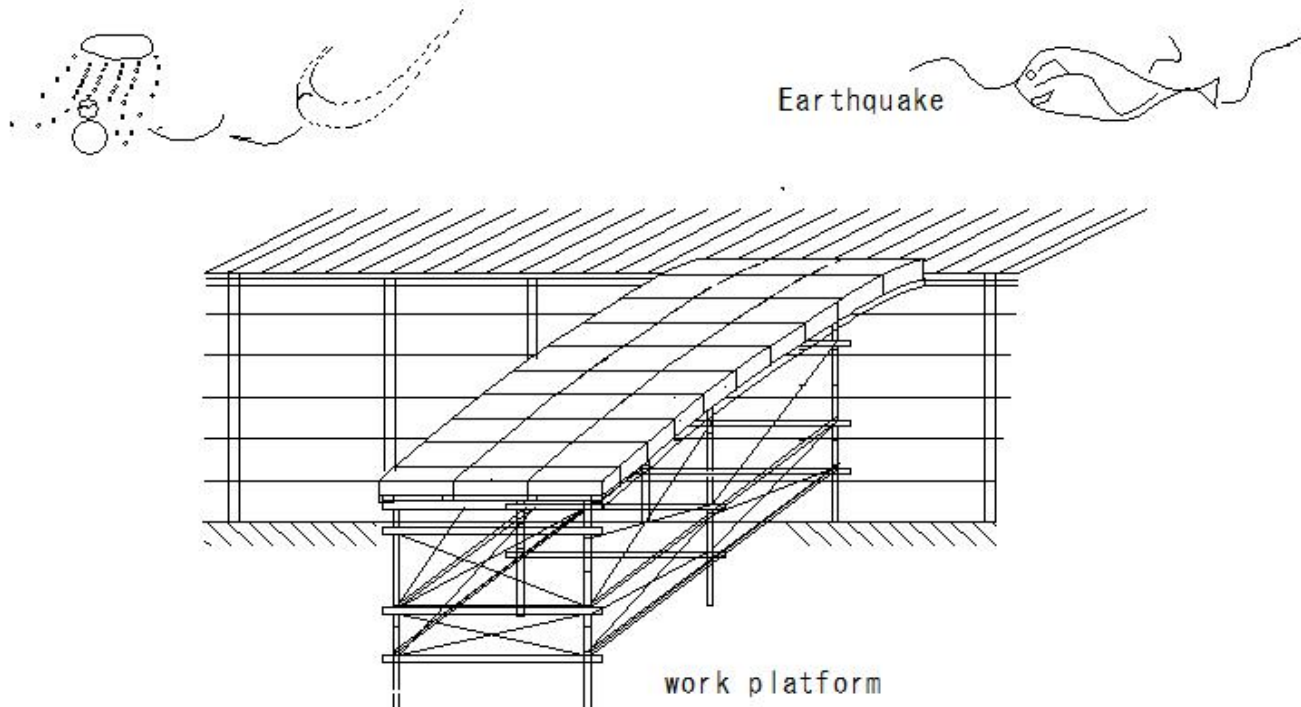
(S1544) Bad Weather

(S1544) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Article 575-8 of the Safety and Health Regulations

(Inspection of work platforms)



S109
S1532

(S1545) Bad Weather

(S1545) Bad Weather

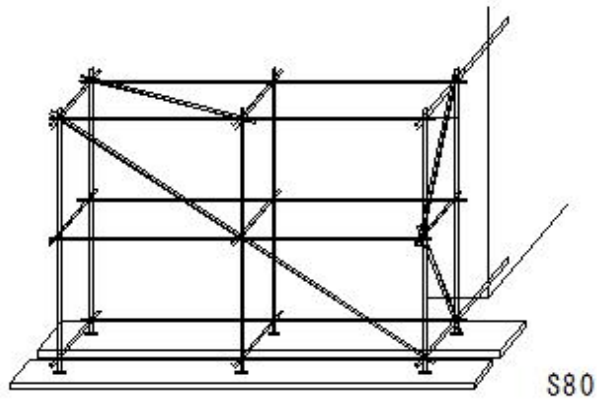
Work that requires inspection during bad weather or after natural disasters

Article 567 of the Safety and Health Regulations

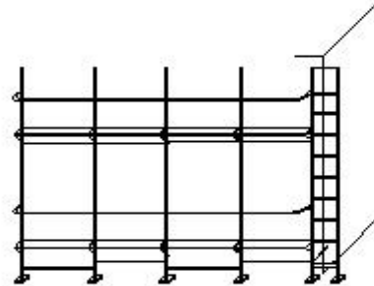
Scaffolding work - inspection



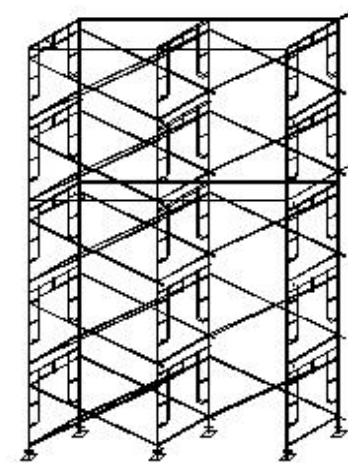
Earthquake



S80



S83



S85

S1531

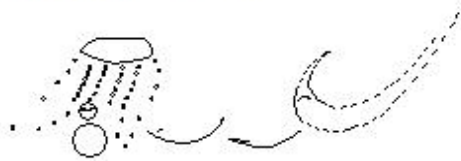
(S1546) Bad Weather

(S1546) Bad Weather

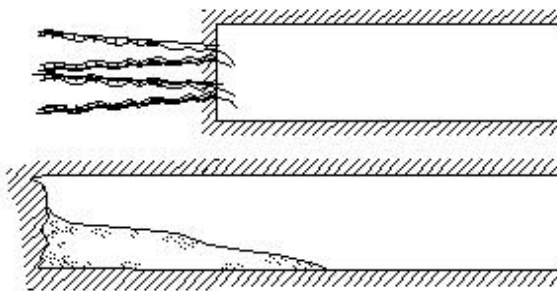
Work that requires inspection during bad weather or after natural disasters

Article 382 of the Safety and Health Regulations

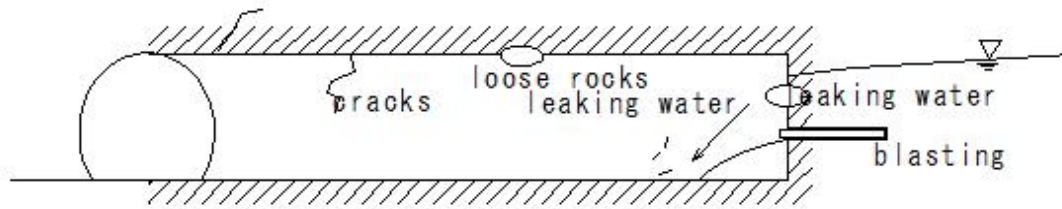
(Inspection of tunnels)



blasting
Dynamite



(Inspection)



T232
S39

S1051

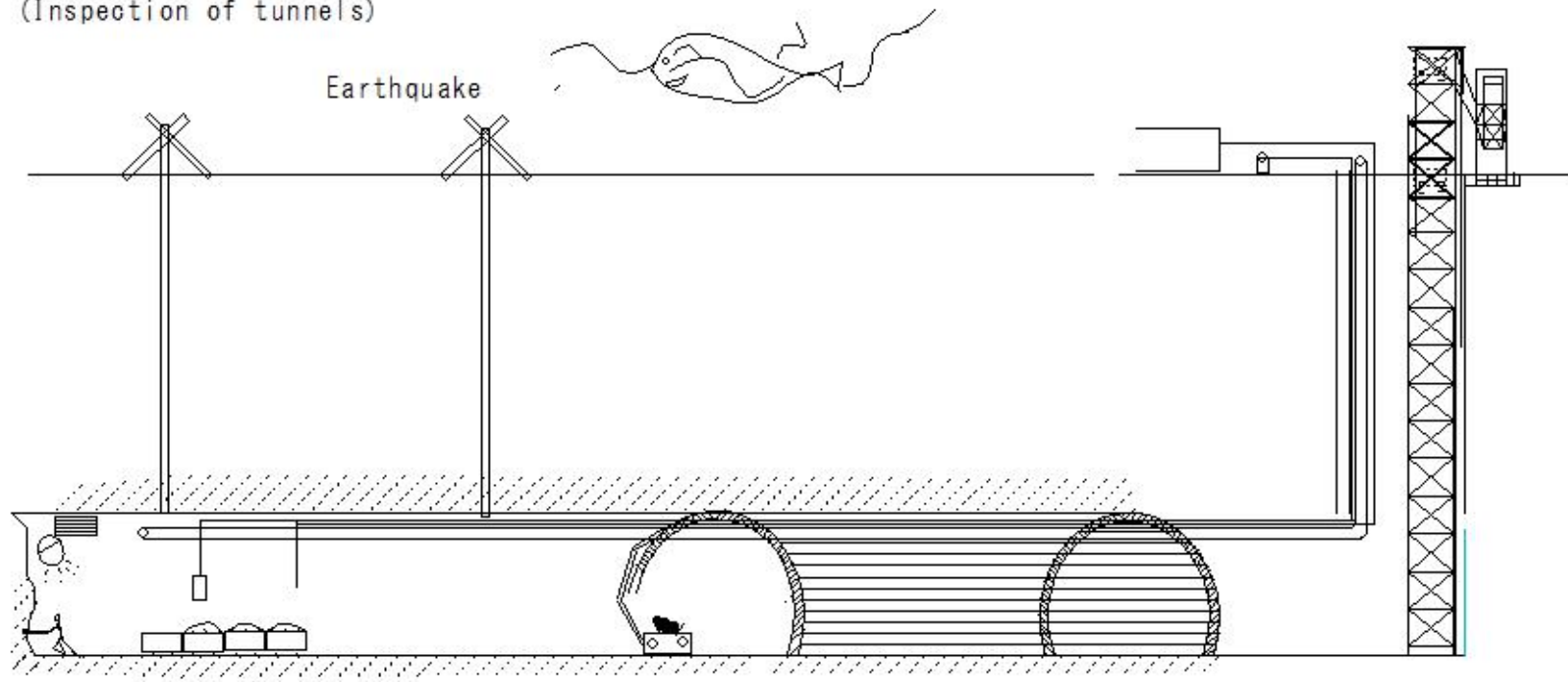
(S1547) Bad Weather

(S1547) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Article 382-2 of the Safety and Health Regulations

(Inspection of tunnels)



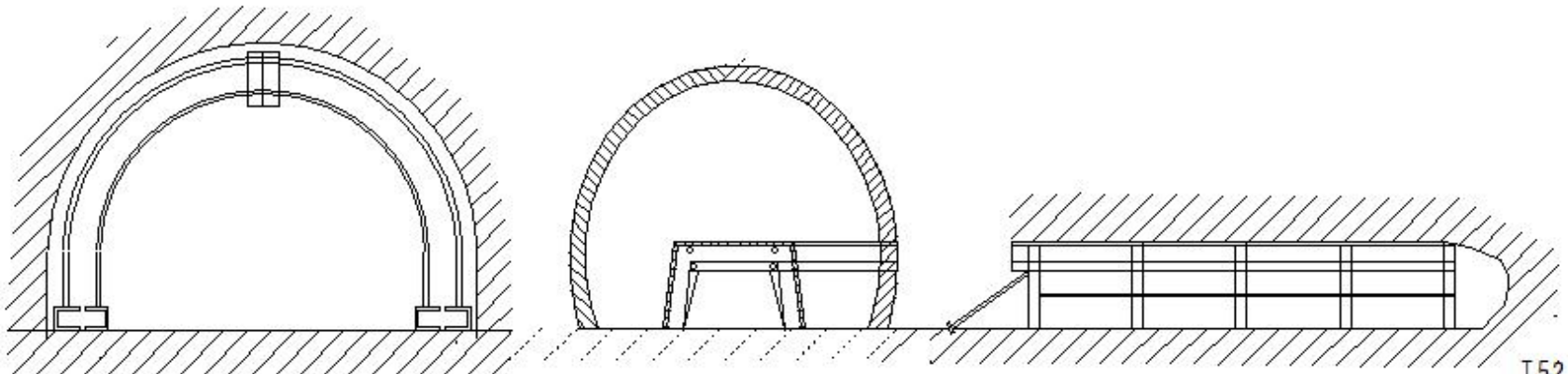
(S1548) Bad Weather

(S1548) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Article 396 of the Safety and Health Regulations

Inspection of tunnel support structures



T237

T52
T265
S1503

(S1549) Bad Weather

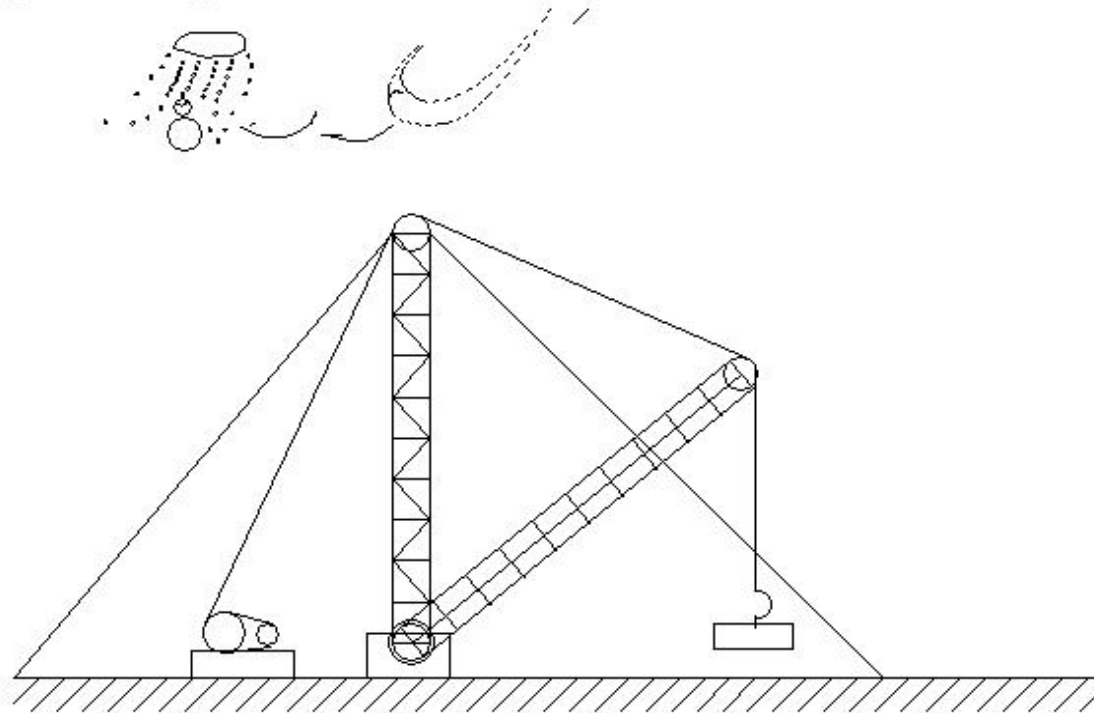
(S1549) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Crane Regulations Article 31-3

Fixing the jib of a jib crane

(Prevention of damage in strong winds)



M371

(S1550) Bad Weather

(S1550) Bad Weather

Work that requires inspection during bad weather or after natural disasters

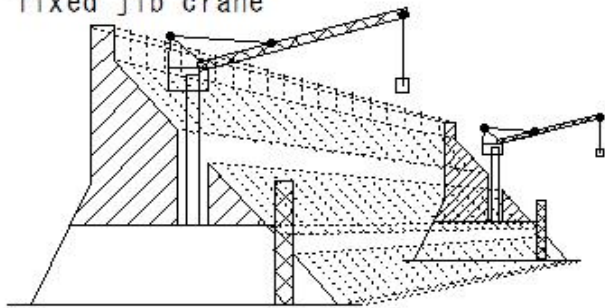
Crane Law Article 37

Cranes installed outdoors

(Inspection after a windstorm, etc.)

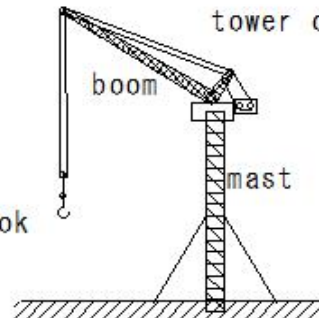


fixed jib crane



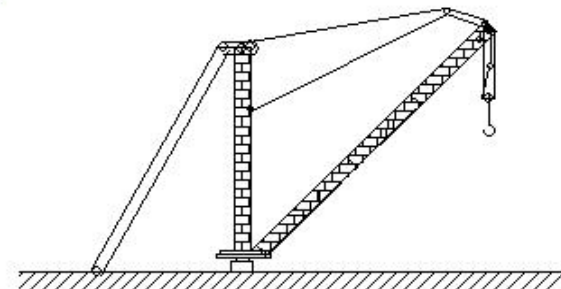
C1036

tower crane
boom
hook
mast



M391

derrick crane



guideric

M390

(S1551) Bad Weather

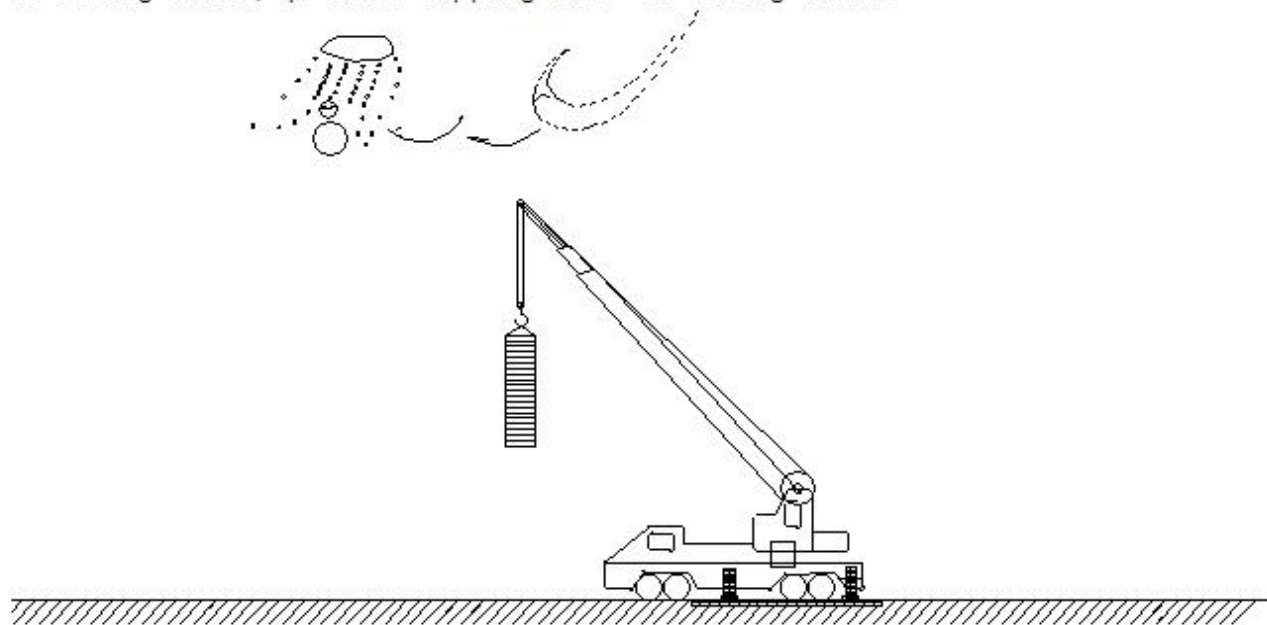
(S1551) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Crane regulations, Article 74-4

Position of outriggers

Stop work in strong winds, prevent tipping over in strong winds.



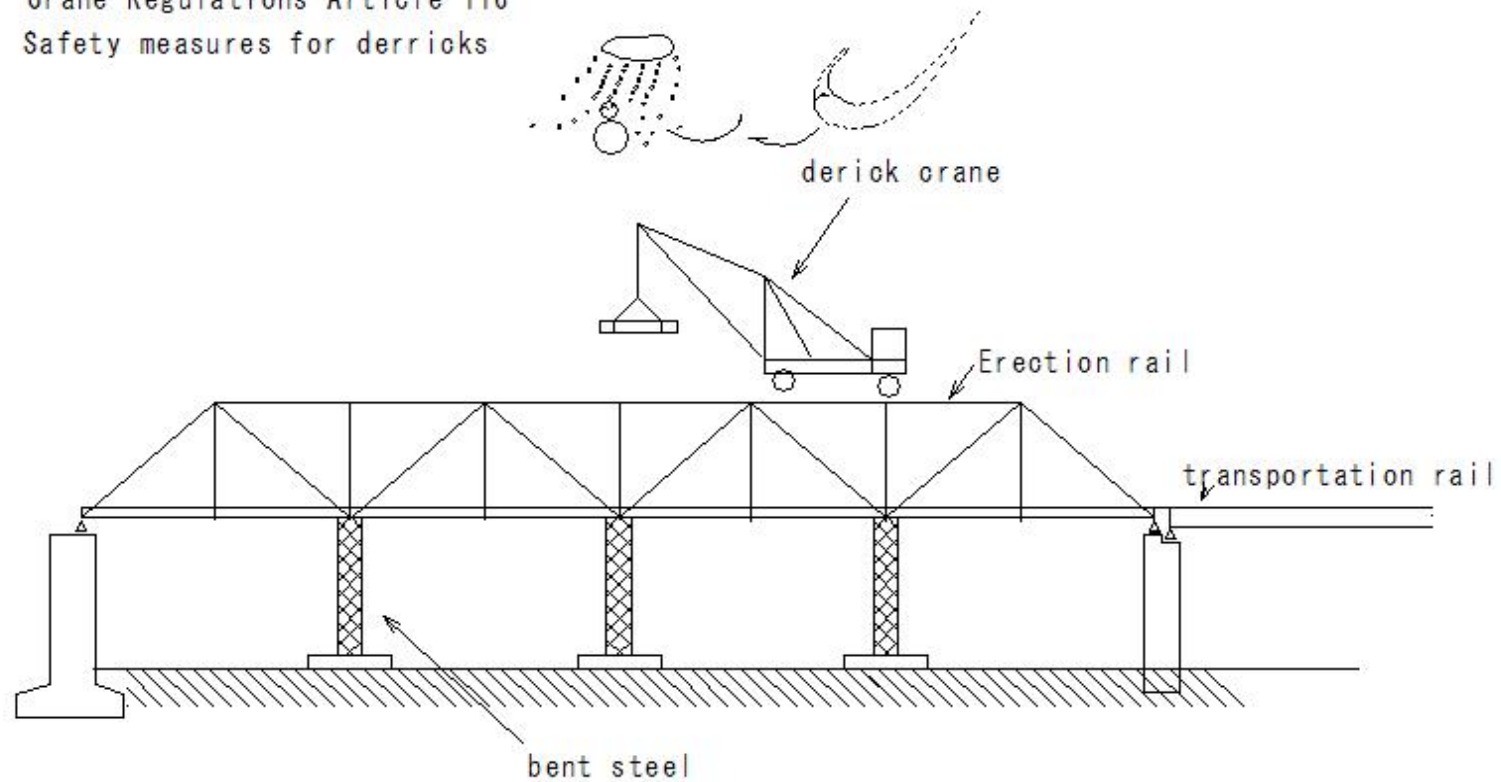
(S1552) Bad Weather

(S1552) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Crane Regulations Article 116

Safety measures for derricks



S30
B417
M49

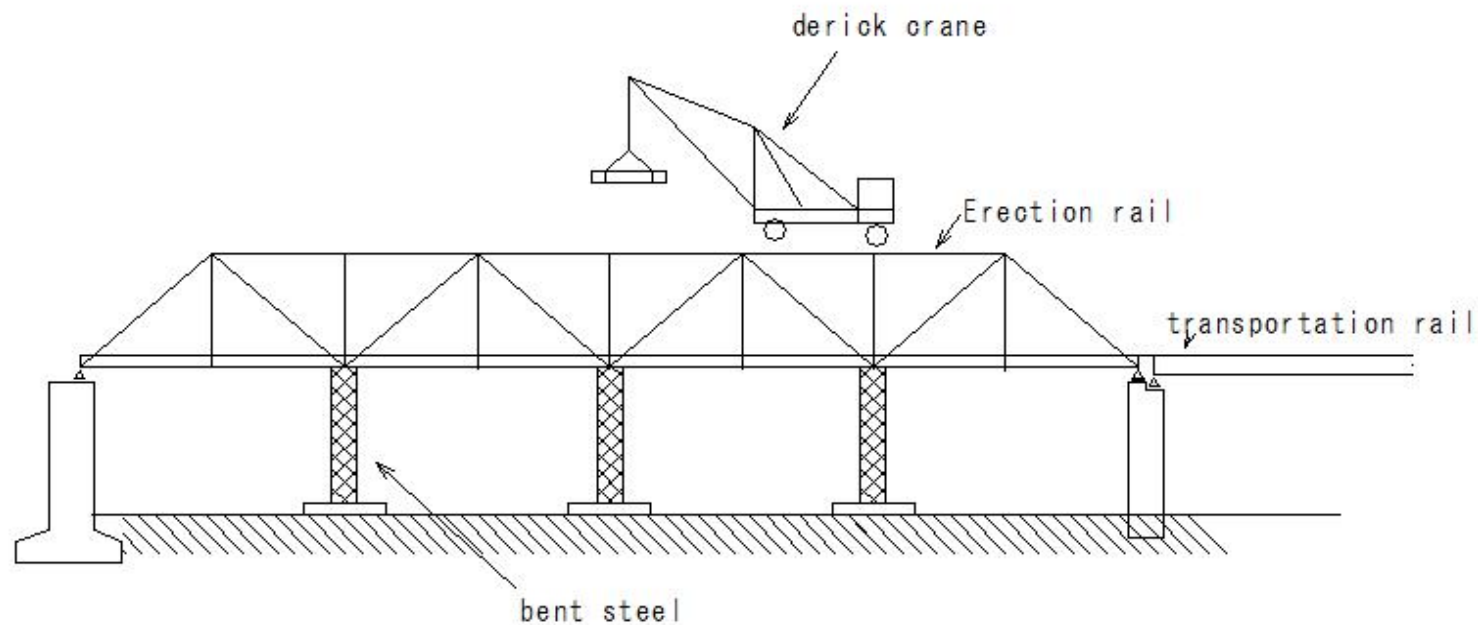
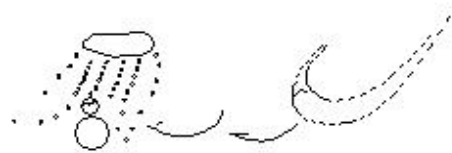
(S1553) Bad Weather

(S1553) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Crane Regulations Article 122

Inspection of derricks



S30
B417
M49

(S1554) Bad Weather

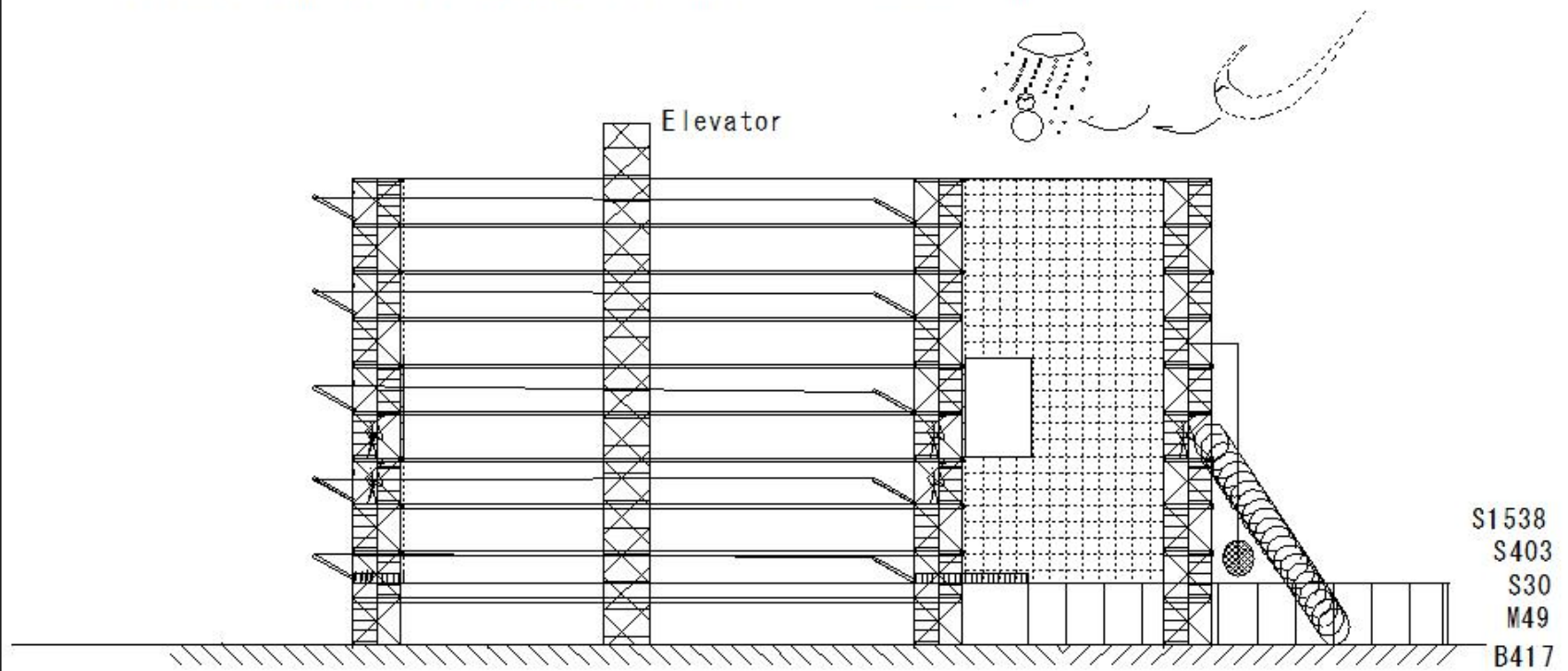
(S1554) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Crane Regulations Article 152

Outdoor elevators – Measures to prevent collapse

Wind with a momentary wind speed exceeding 35 meters per second



(S1555) Bad Weather

(S1555) Bad Weather

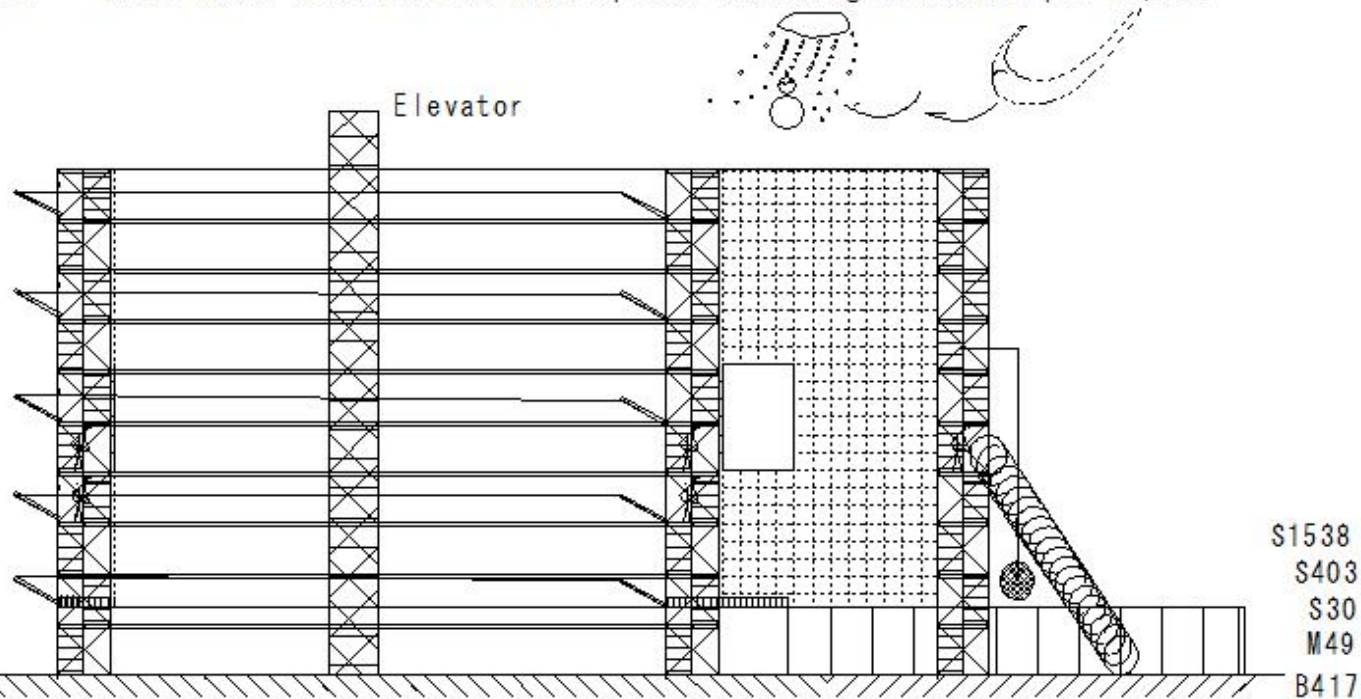
Work that requires inspection during bad weather or after natural disasters

Crane Law Article 156

(Inspection after a windstorm, etc.)

Inspection of outdoor elevators

Outdoor elevators----winds with instantaneous wind speeds exceeding 30 meters per second



(S1556) Bad Weather

(S1556) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Crane Regulations Article 189

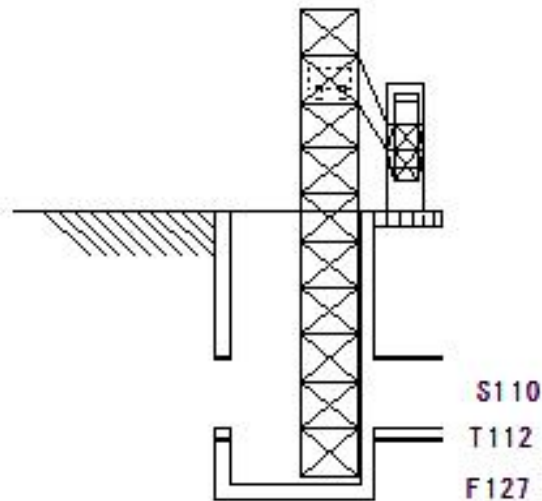
(Measures to be taken during a storm)

Instantaneous wind speed of 35 meters per second

Construction lift



Elevator with lifting
load of 1t or more



S1539

(S1557) Bad Weather

(S1557) Bad Weather

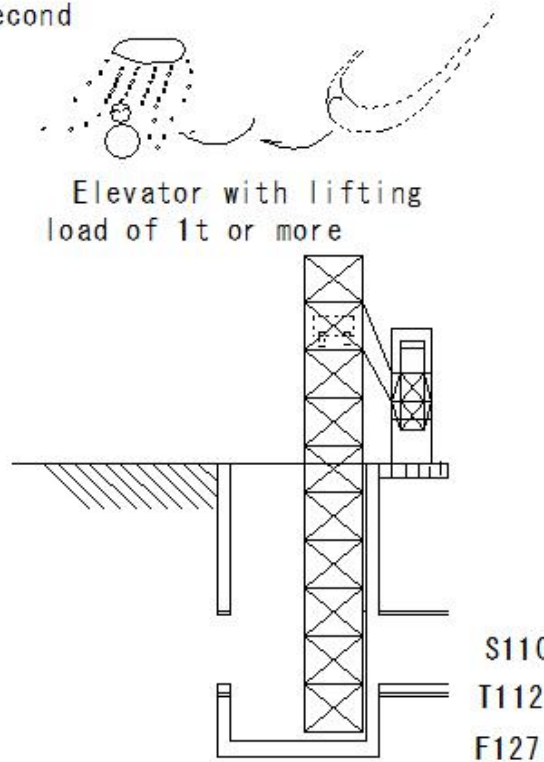
Work that requires inspection during bad weather or after natural disasters

Crane Law Article 194

(Inspection after a windstorm, etc.)

Instantaneous wind speed of 30 meters per second

Construction lift



S1539

(S1558) Bad Weather

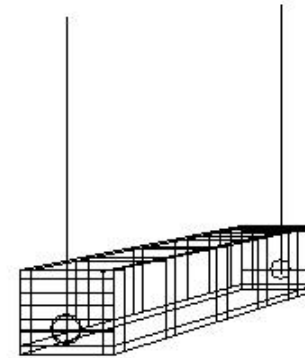
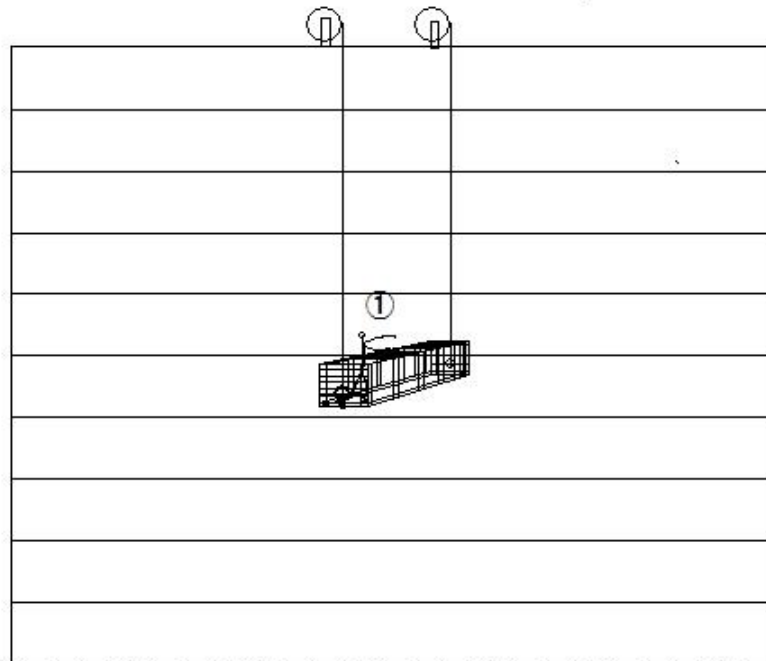
(S1558) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Gondola Rules Article 22

(Inspection before work begins)

Gondola work



S1540
S437

(S1559) Bad Weather

(S1559) Bad Weather

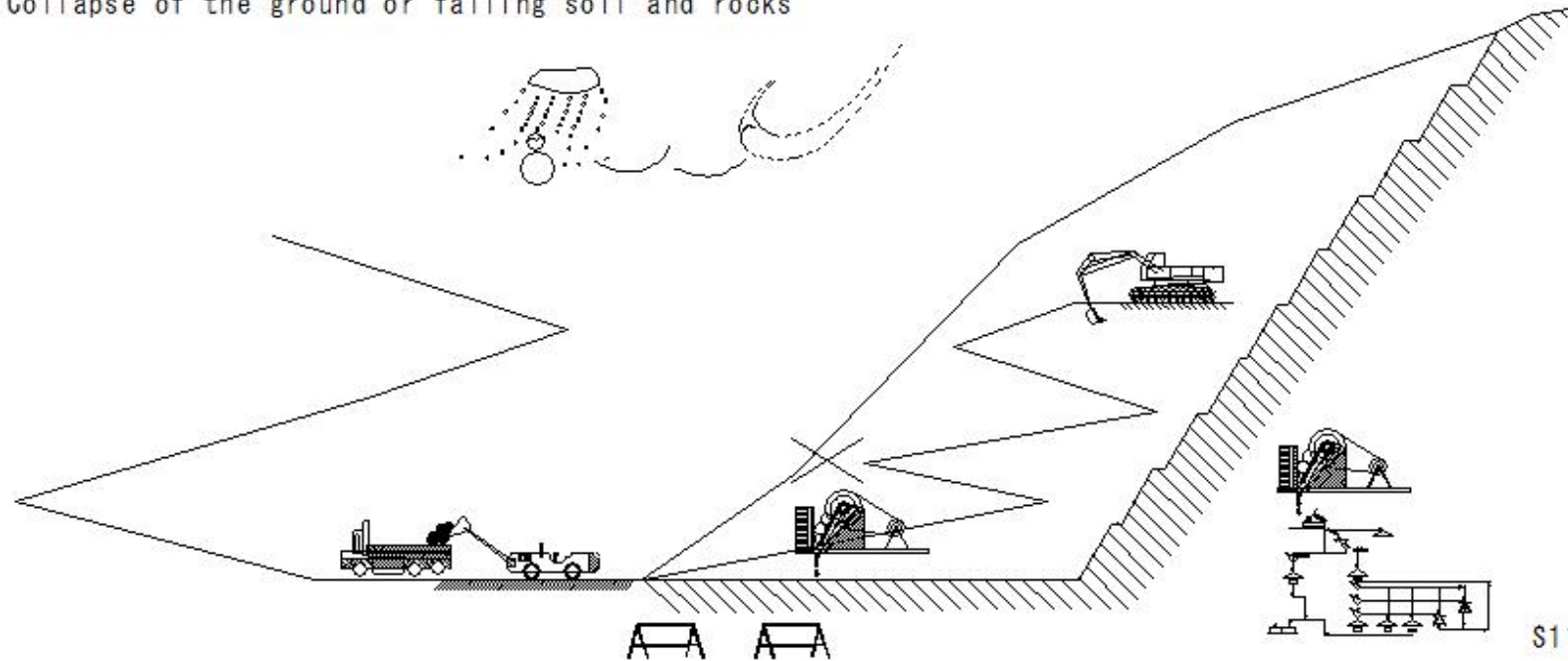
Work that requires inspection during bad weather or after natural disasters

Article 401 of the Safety and Health Regulations

(Inspection)

Quarrying work

Collapse of the ground or falling soil and rocks



S1124

S1417

(S1560) Bad Weather

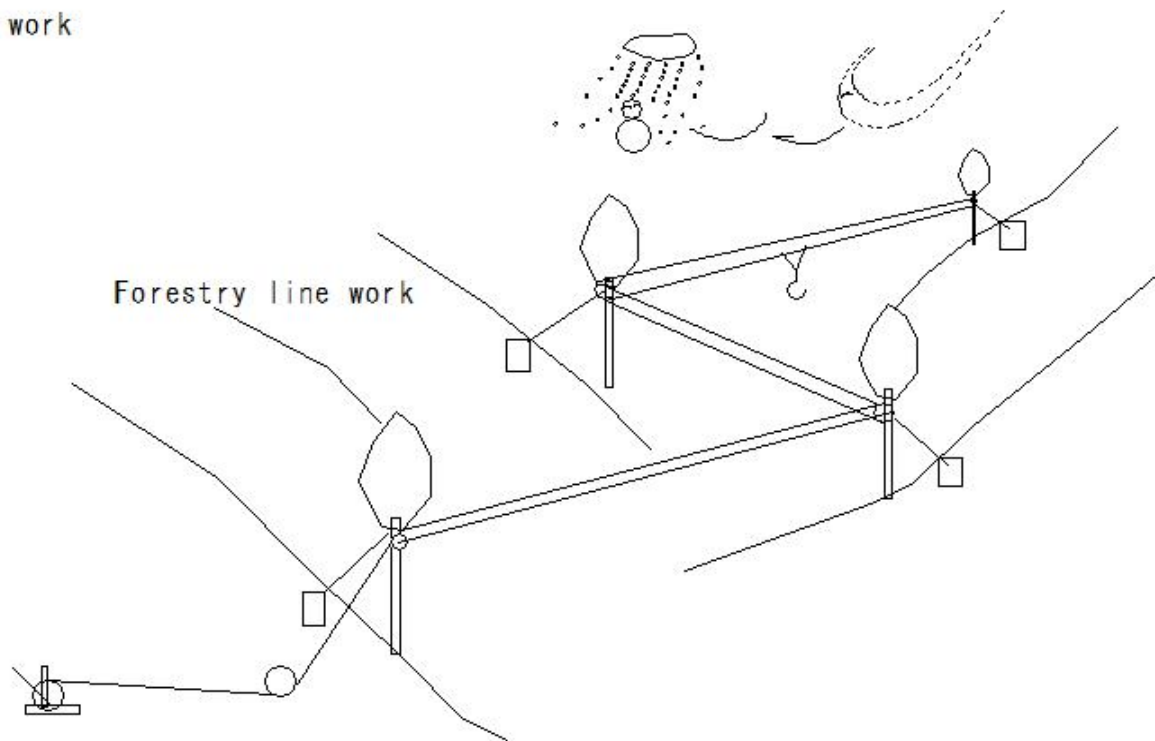
(S1560) Bad Weather

Work that requires inspection during bad weather or after natural disasters

Article 511 of the Safety and Health Regulations

(Inspection)

Forestry line work



S1416
S1524

(S1561) Illumination

(S1561) Illumination

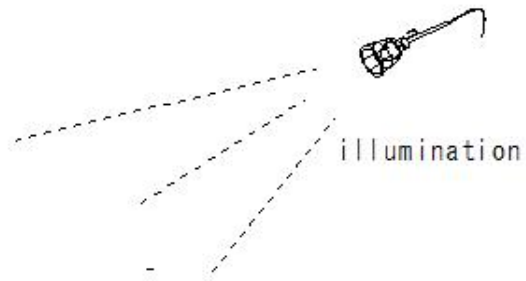
Illuminance in the workplace

Article 604 of the Safety and Health Regulations

(Illuminance)

Classification of work Standards:

Precise work	300 lux or more
Normal work	150 lux or more
Rough work	70 lux or more



(S1562) Illumination

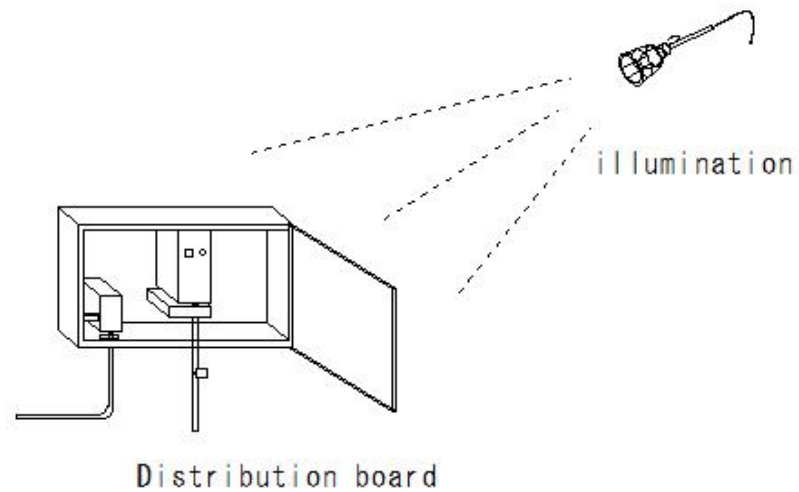
(S1562) Illumination

Illuminance in the workplace

Article 335 of the Safety and Health Regulations

(Illuminance in the operating parts of electrical machinery and equipment)

Operation of electrical machinery and equipment



(S1563) Illumination

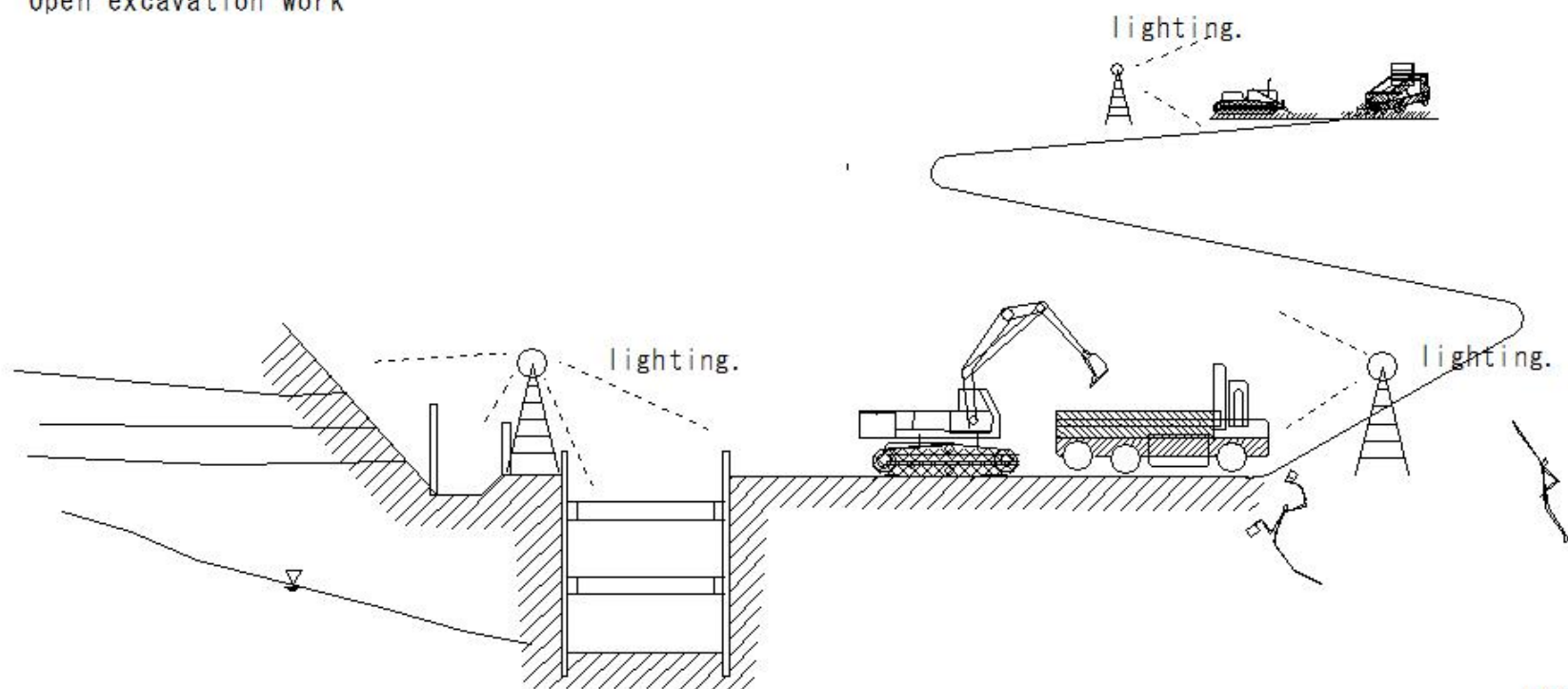
(S1563) Illumination

Illuminance in the workplace

Article 367 of the Safety and Health Regulations

(Maintaining illumination)

Open excavation work



S918

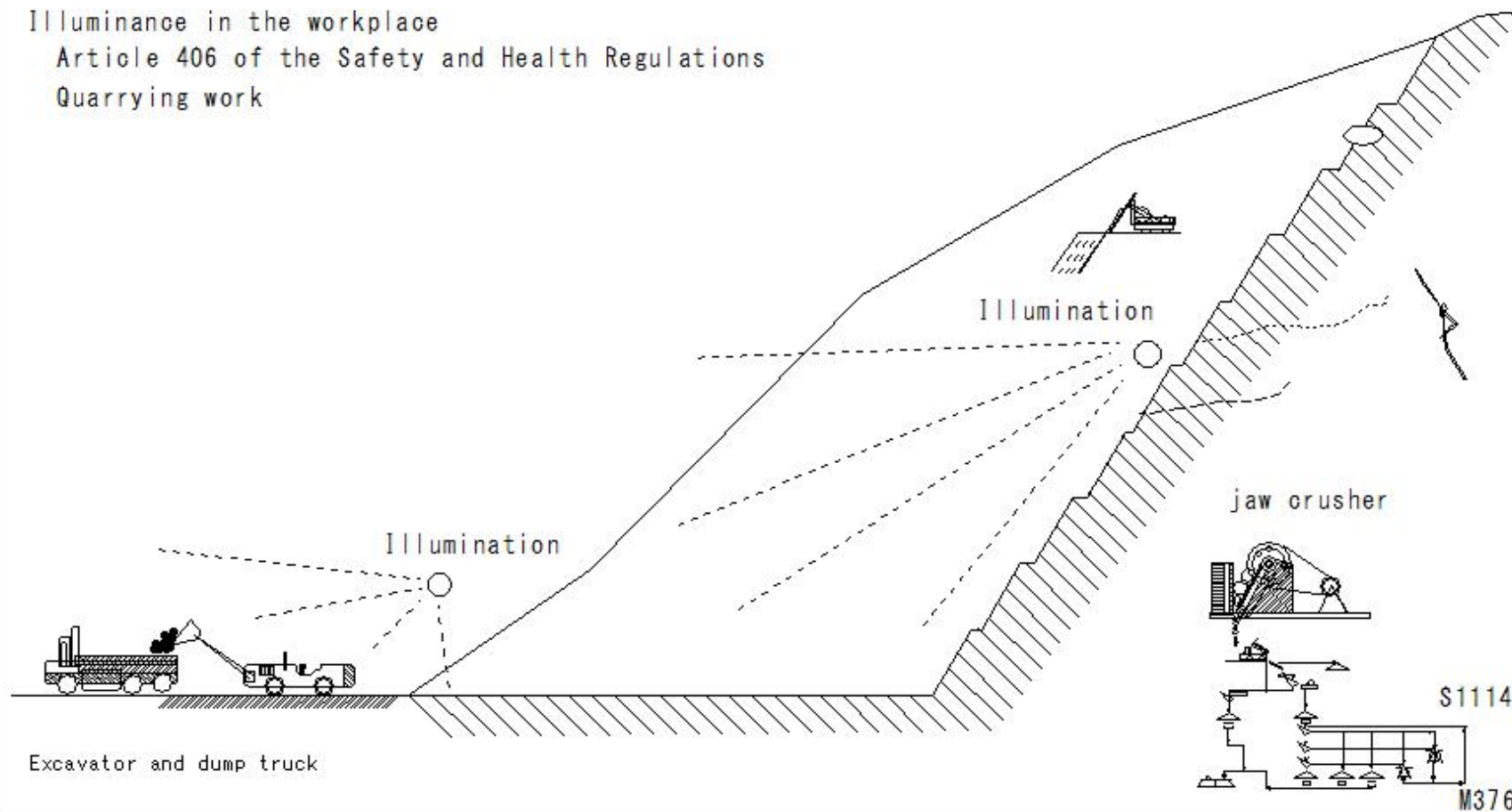
(S1564) Illumination

(S1564) Illumination

Illuminance in the workplace

Article 406 of the Safety and Health Regulations

Quarrying work



(S1565) Illumination

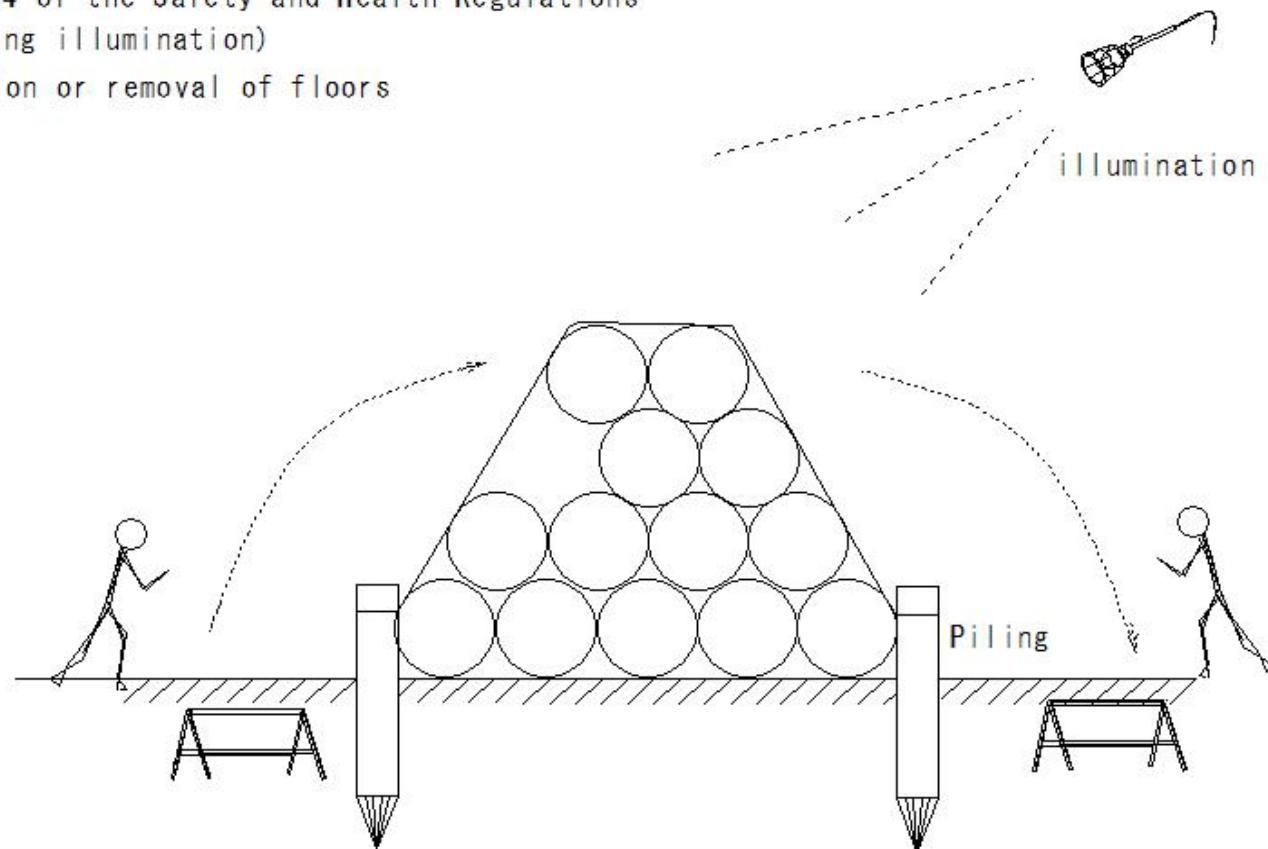
(S1565) Illumination

Illuminance in the workplace

Article 434 of the Safety and Health Regulations

(Maintaining illumination)

Installation or removal of floors



S1480

(S1566) Illumination

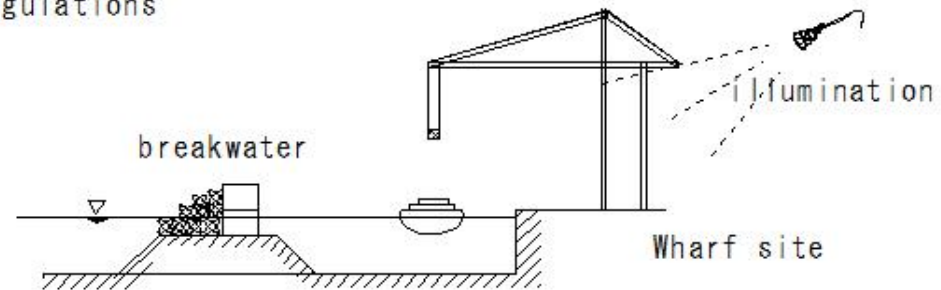
(S1566) Illumination

Illuminance in the workplace

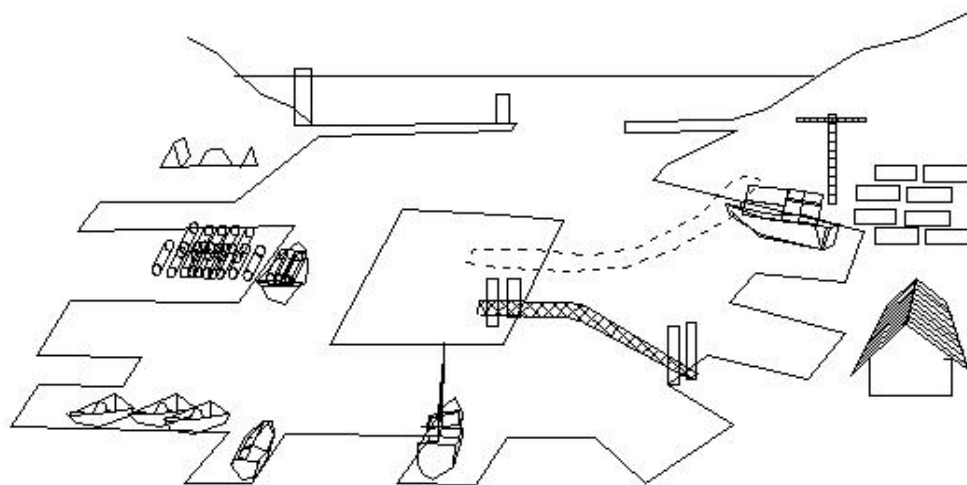
Article 454 of the Safety and Health Regulations

(Maintaining illumination)

Harbor loading and unloading work



P11



P12

(S1567) Illumination

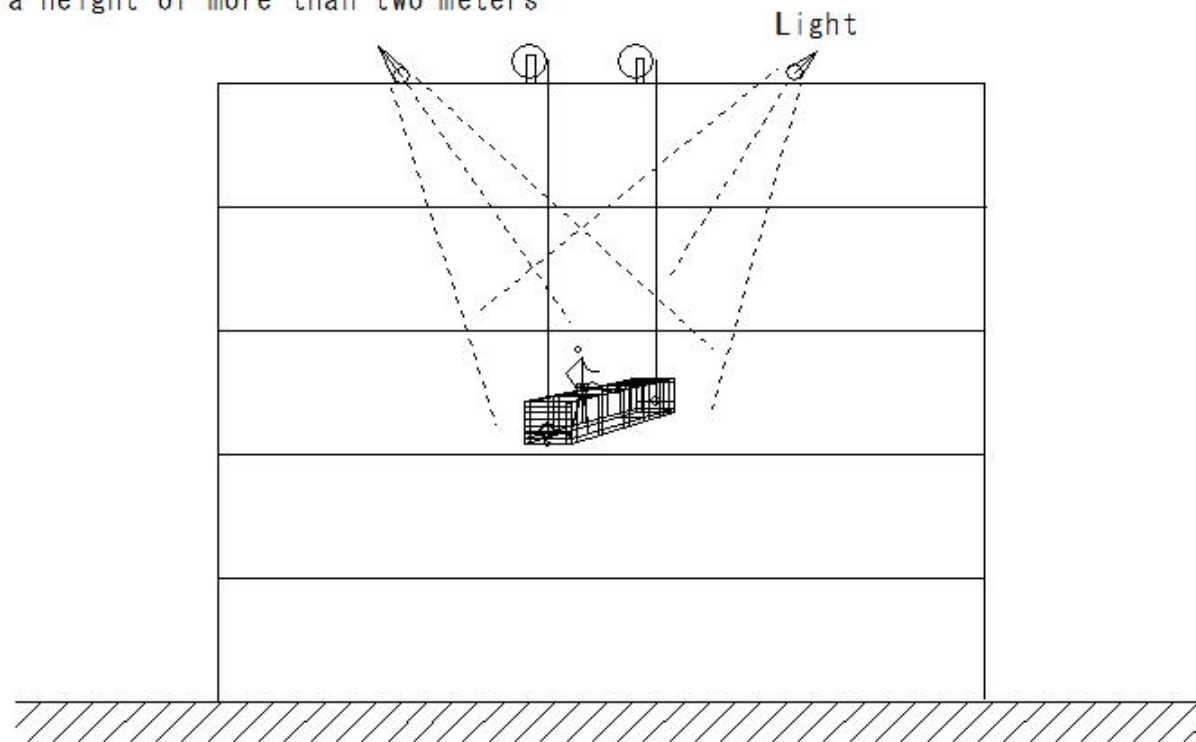
(S1567) Illumination

Illuminance in the workplace

Article 523 of the Safety and Health Regulations

(Maintaining illumination)

Working at a height of more than two meters



S445

S829

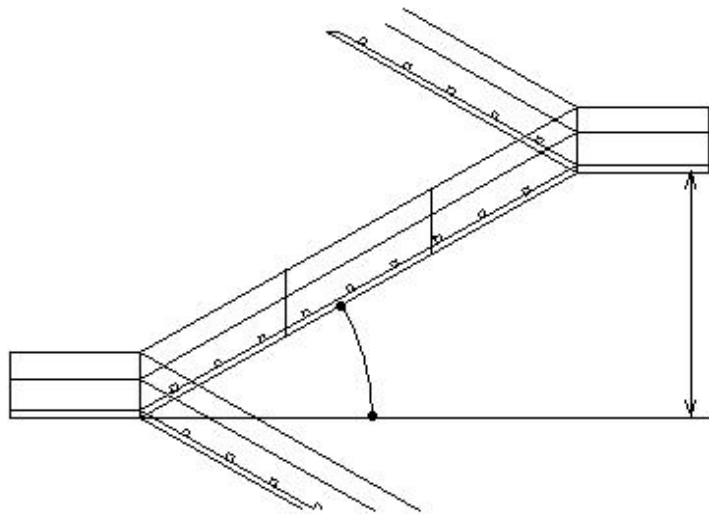
(S1568) Illumination

(S1568) Illumination

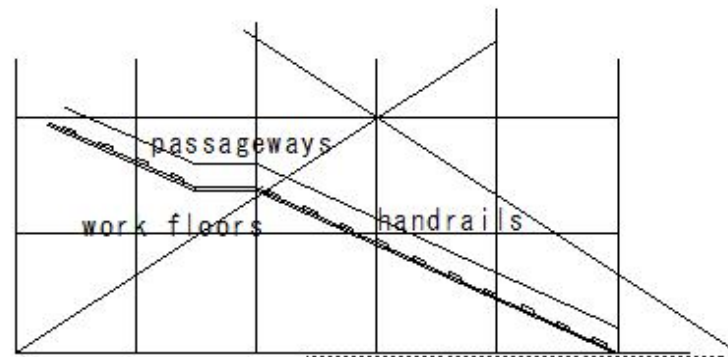
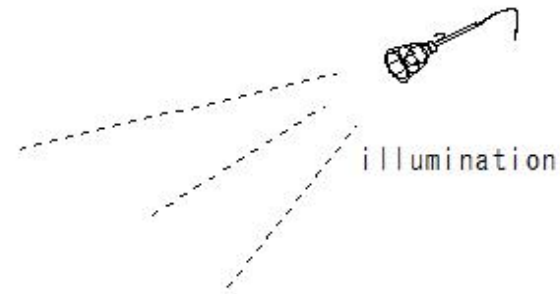
Illuminance in the workplace

Article 541 of the Safety and Health Regulations

(Lighting in passageways)



S767



Scaffolding

S89

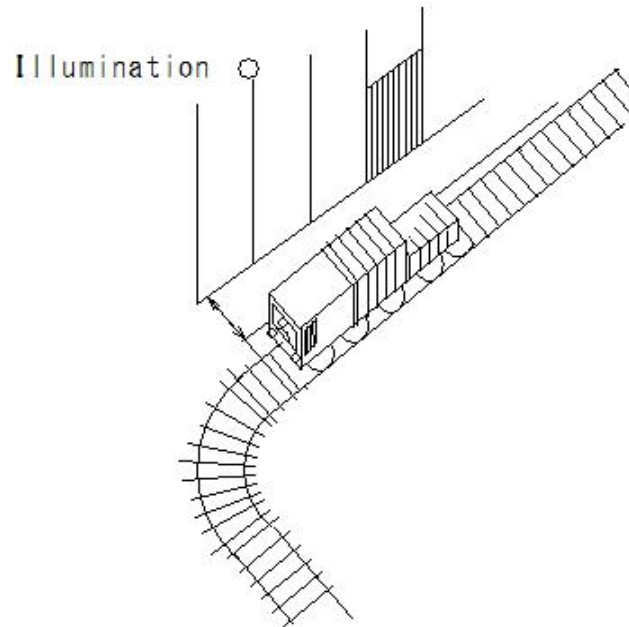
(S1569) Illumination

(S1569) Illumination

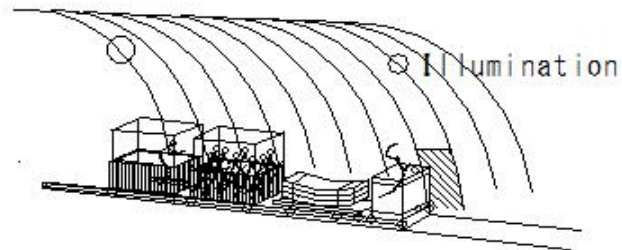
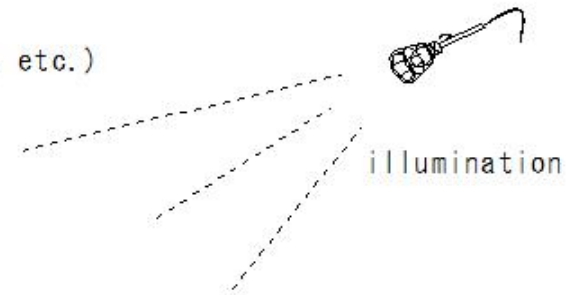
Illuminance in the workplace

Article 555 of the Safety and Health Regulations

(Maintaining illumination during track maintenance work, etc.)



S126



S755

(S1570) Labeling

(S1570) Labeling

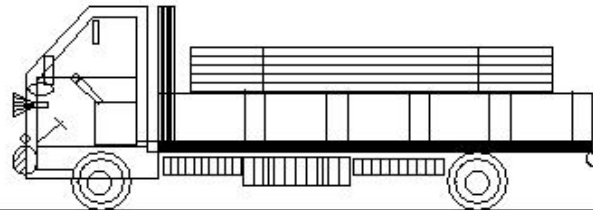
Places where labeling is required

Article 35 of the Industrial Safety and Health Act

Duty tons

Freight vehicles

Labeling
Duty tons
Over 1 ton



Freight vehicle

(S1571) Labeling

(S1571) Labeling

Places where labeling is required

Article 107 of the Safety and Health Regulations
(Shutdown of operation for cleaning, etc.)

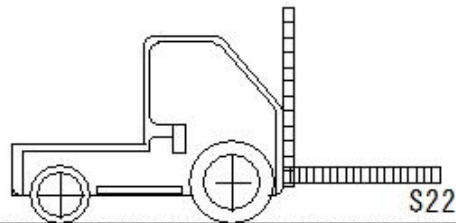
Machine cleaning, refueling, inspection, repair or adjustment work

Labeling
(Shutdown of operation for cleaning, etc.)

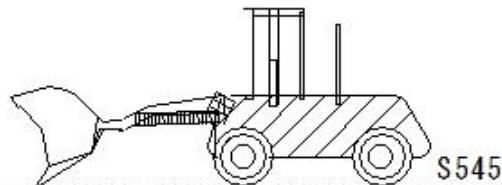
⑦ Freight vehicle



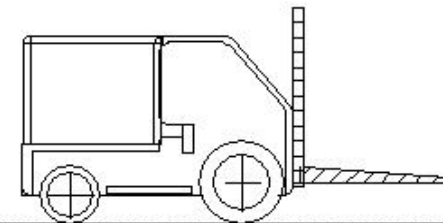
① Forklift



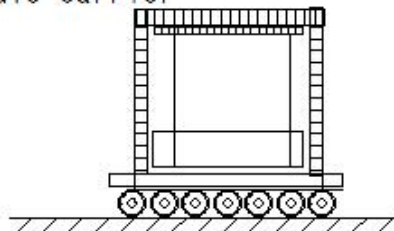
② Shovel loader



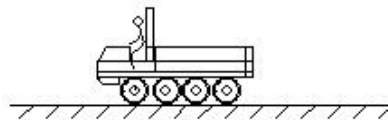
③ Fork loader



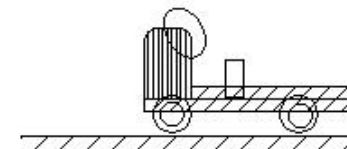
④ Straddle carrier



⑤ Off-road transport vehicle



⑥ In-plant transport vehicle



S568

(S1572) Labeling

(S1572) Labeling

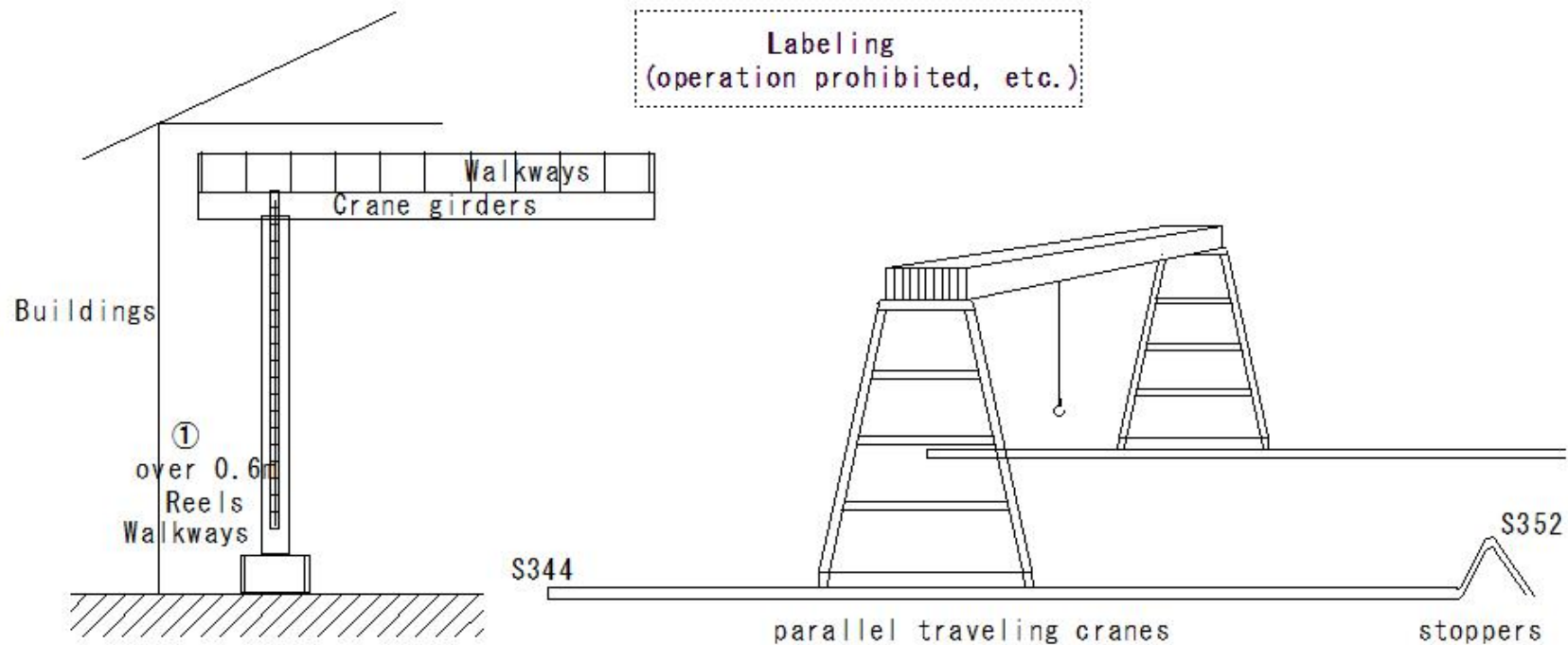
Places where labeling is required

Crane Regulations Article 30-2

(operation prohibited, etc.)

Overhead cranes Bridge cranes

During inspection, repair, painting, etc.



(S1573) Labeling

(S1573) Labeling

Places where labeling is required

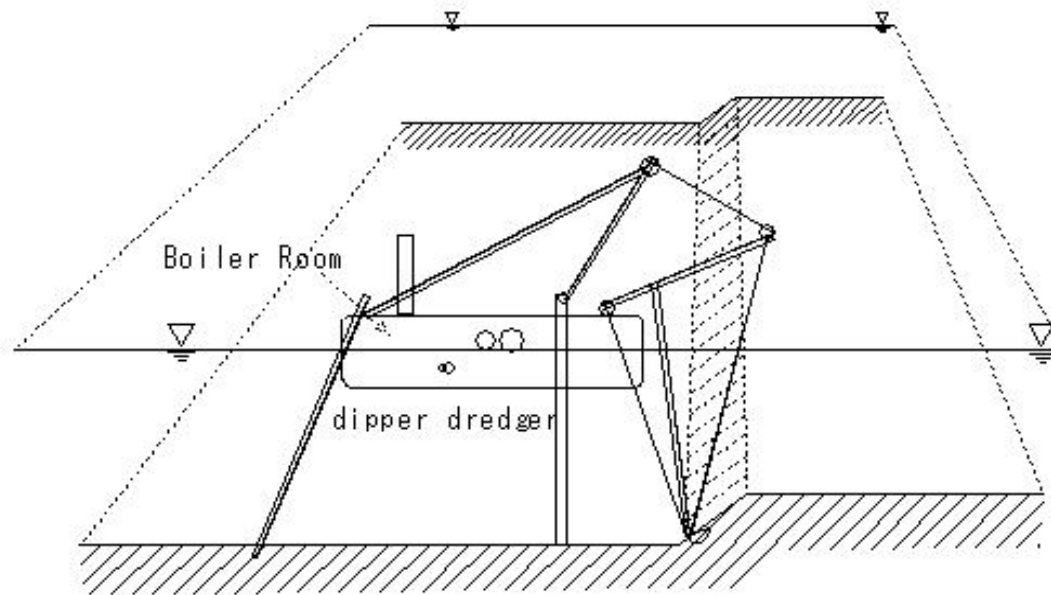
Boiler Law Article 87

Maximum operating pressure

Pressure gauge

Labeling

Maximum operating pressure



S40
R432

(S1574) Labeling

(S1574) Labeling

Places where labeling is required

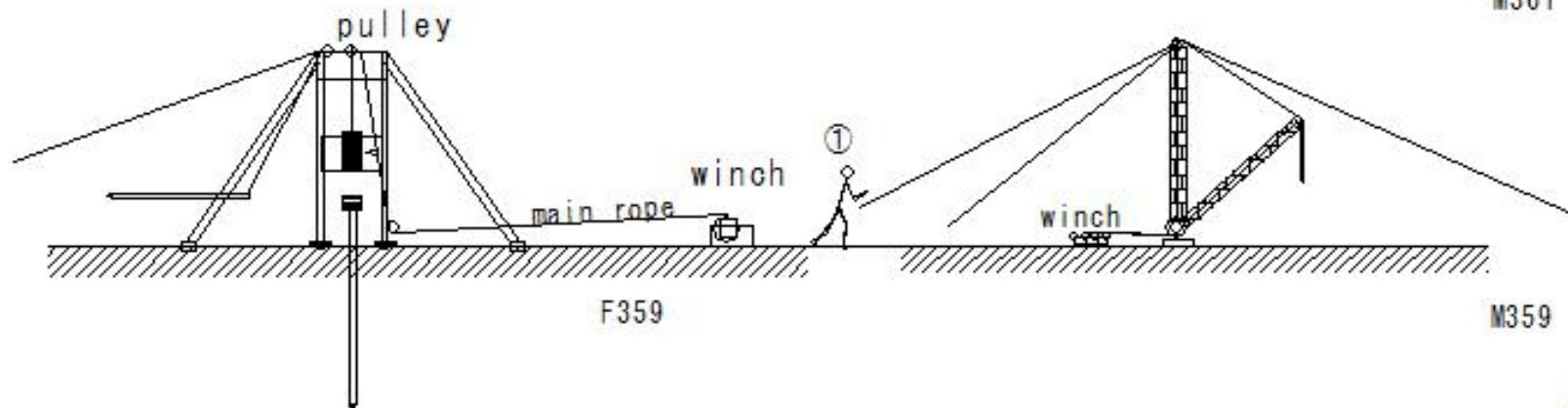
Crane Regulations Articles 19, 106, and 182

(Prevention of overwinding)

Overwinding prevention device

Labeling
(Prevention of overwinding)

wooden winch
human power



(S1575) Labeling

(S1575) Labeling

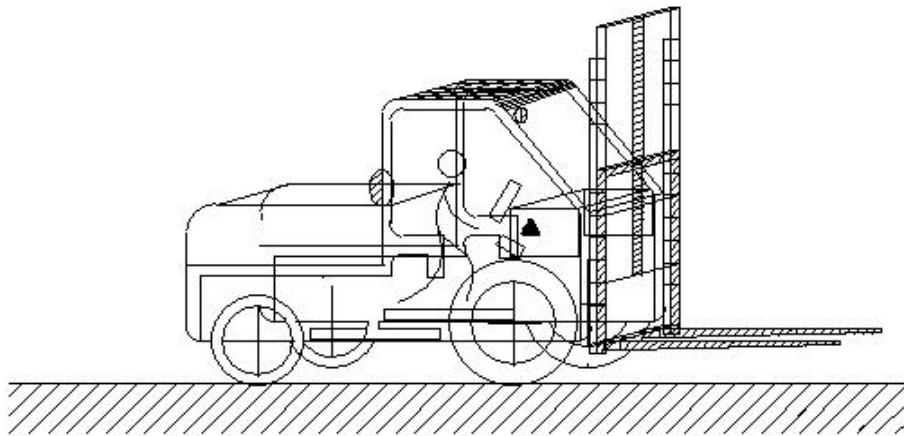
Places where labeling is required

151-24 of the Industrial Safety and Health Ordinance

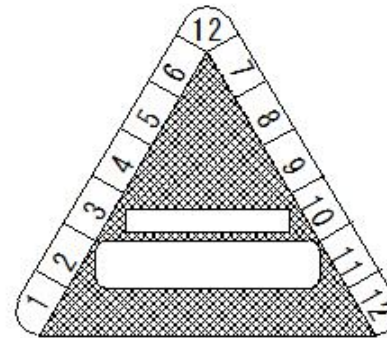
Specific self-inspection (annual inspection)

Periodic self-inspection

Labeling
Periodic self-inspection



Forklift



Inspection mark

S22
S594

(S1576) Labeling

(S1576) Labeling

Places where labeling is required

Articles 312 and 313 of the Safety and Health Regulations

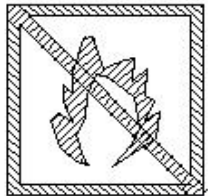
(Management of acetylene welding equipment, etc.)

(Management of gas welding equipment, etc.)

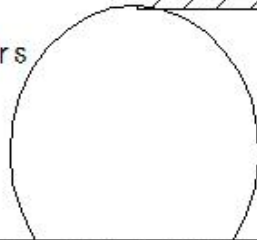
No open flames

Labeling
No open flames

No open flames



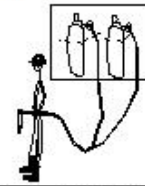
matches, lighters



rag, wood chips, waste paper ①②③



Gas welding



S1072

(S1577) Labeling

(S1577) Labeling

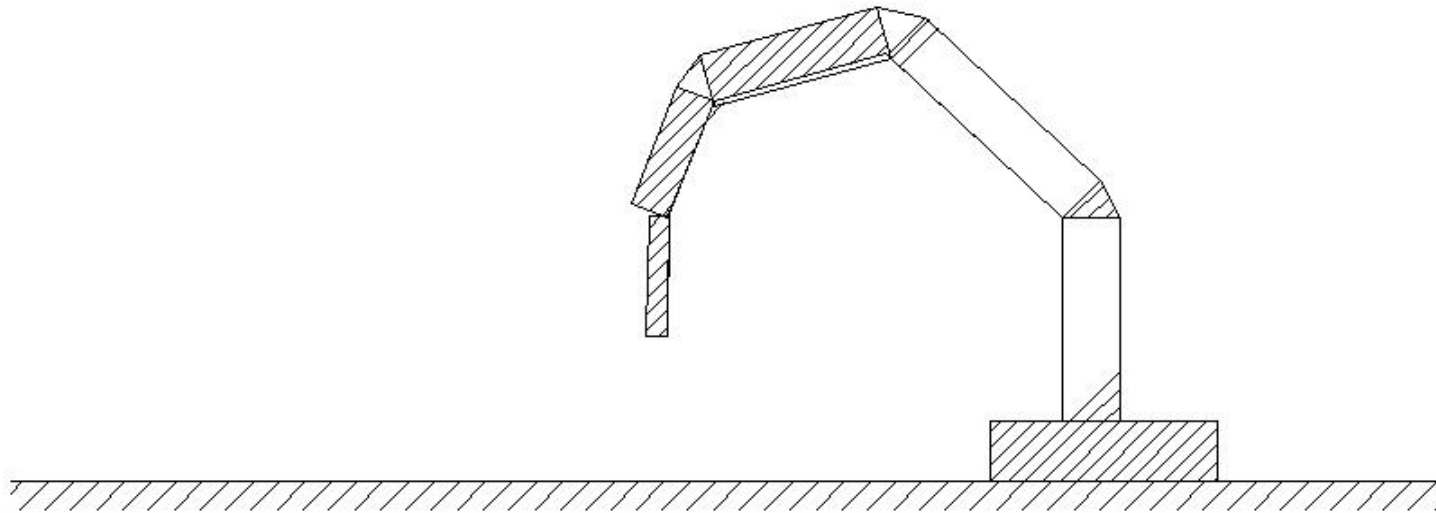
Places where labeling is required

Article 150-5 of the Industrial Safety and Health Regulations

Industrial robots

Inspection, repair, and adjustment of industrial robots

Labeling
Industrial robots



(S1578) Labeling

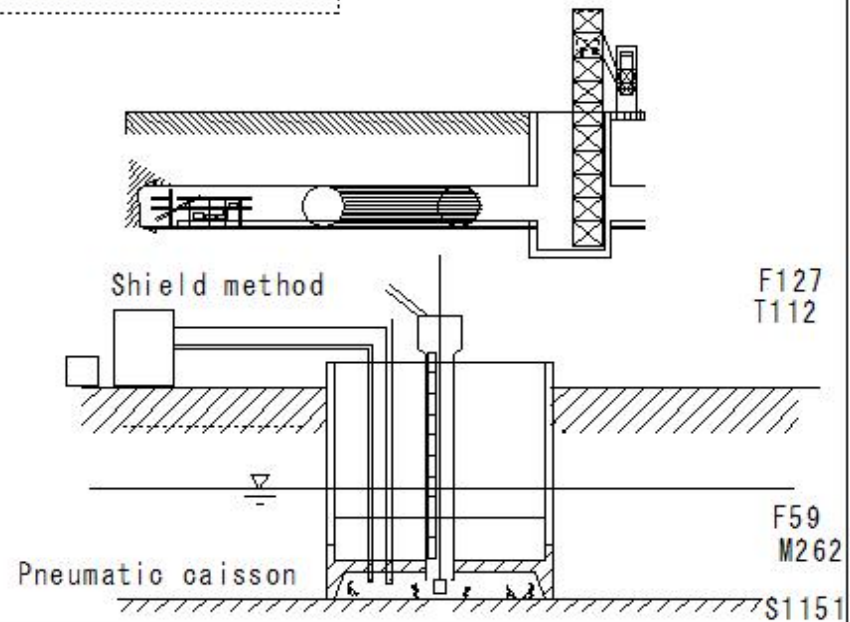
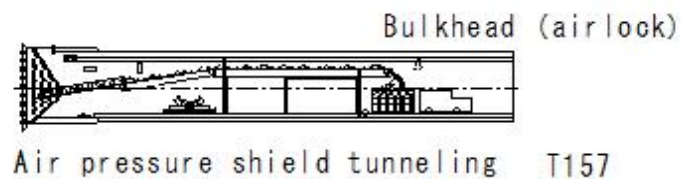
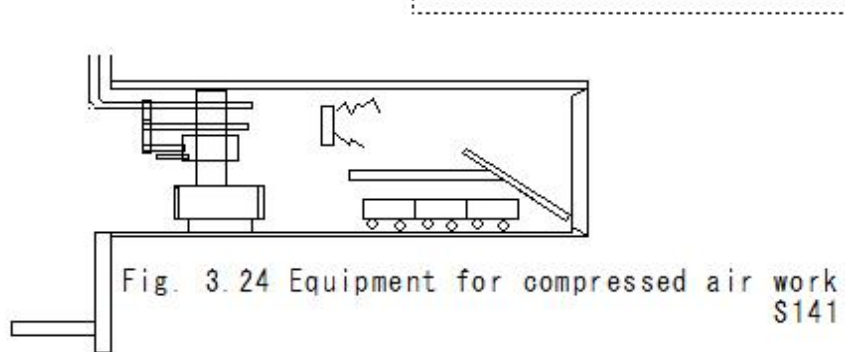
(S1578) Labeling

Places where labeling is required

Article 339 of the Safety and Health Regulations

(Measures for performing power outage work)

Labeling
(Measures for performing power outage work)



(S1579) Labeling

(S1579) Labeling

Places where labeling is required

Article 345 of the Safety and Health Regulations

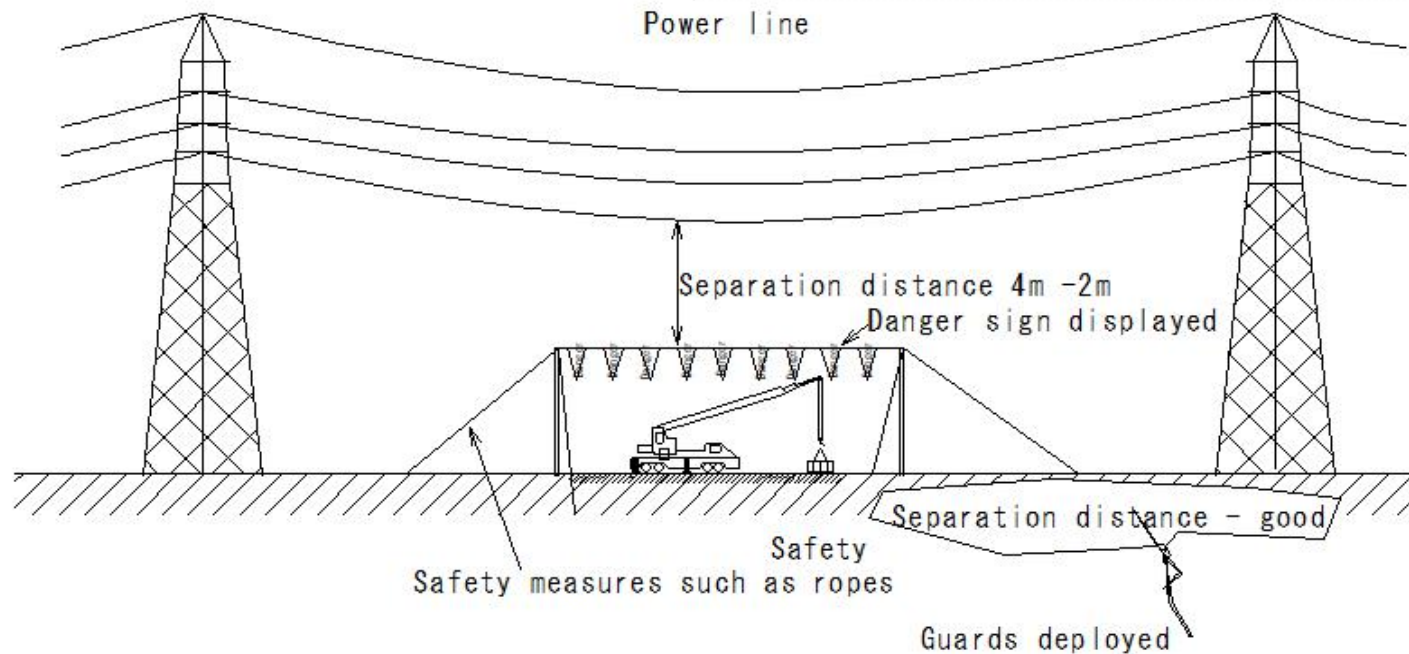
Live line work and work close to live lines

(Work close to extra-high voltage live lines)

High voltage lines Overhead ground wire

Labeling

(Work close to extra-high voltage live lines)



S703

(S1580) Labeling

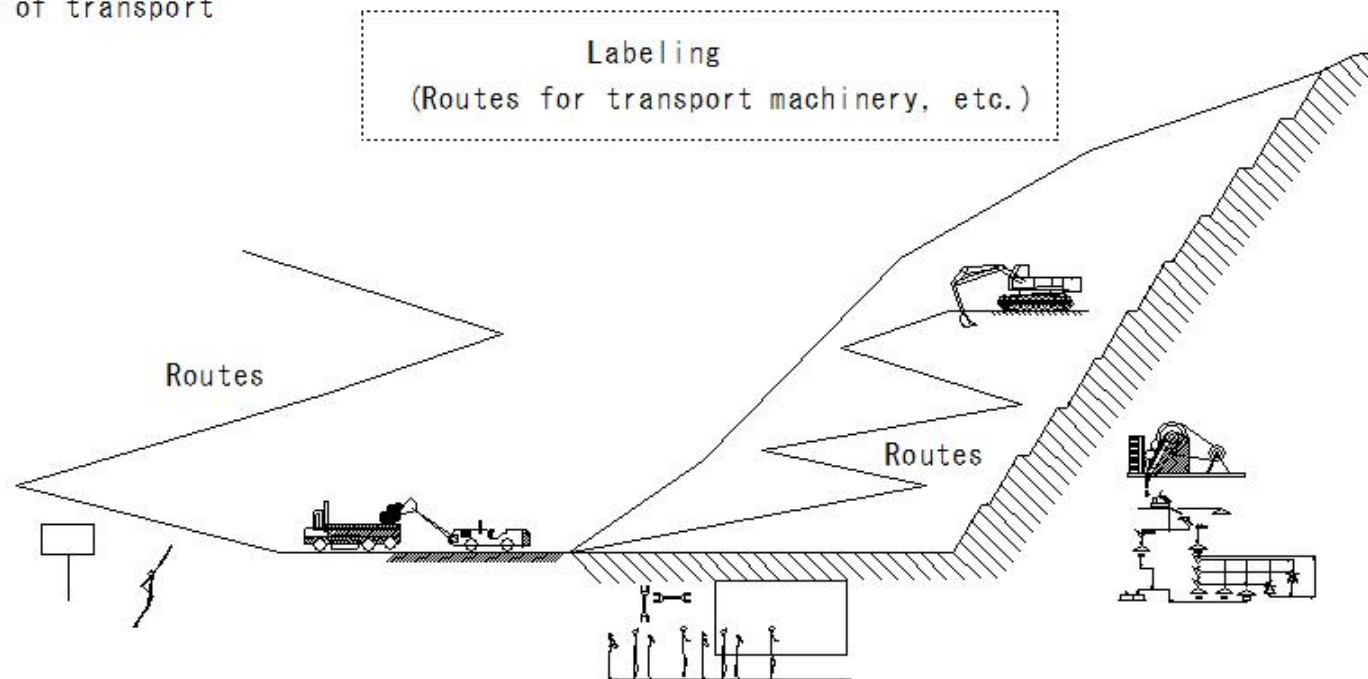
(S1580) Labeling

Places where labeling is required

Article 413 of the Safety and Health Regulations
(Routes of transport machinery, etc.)

Quarrying work

Routes of transport



S1120

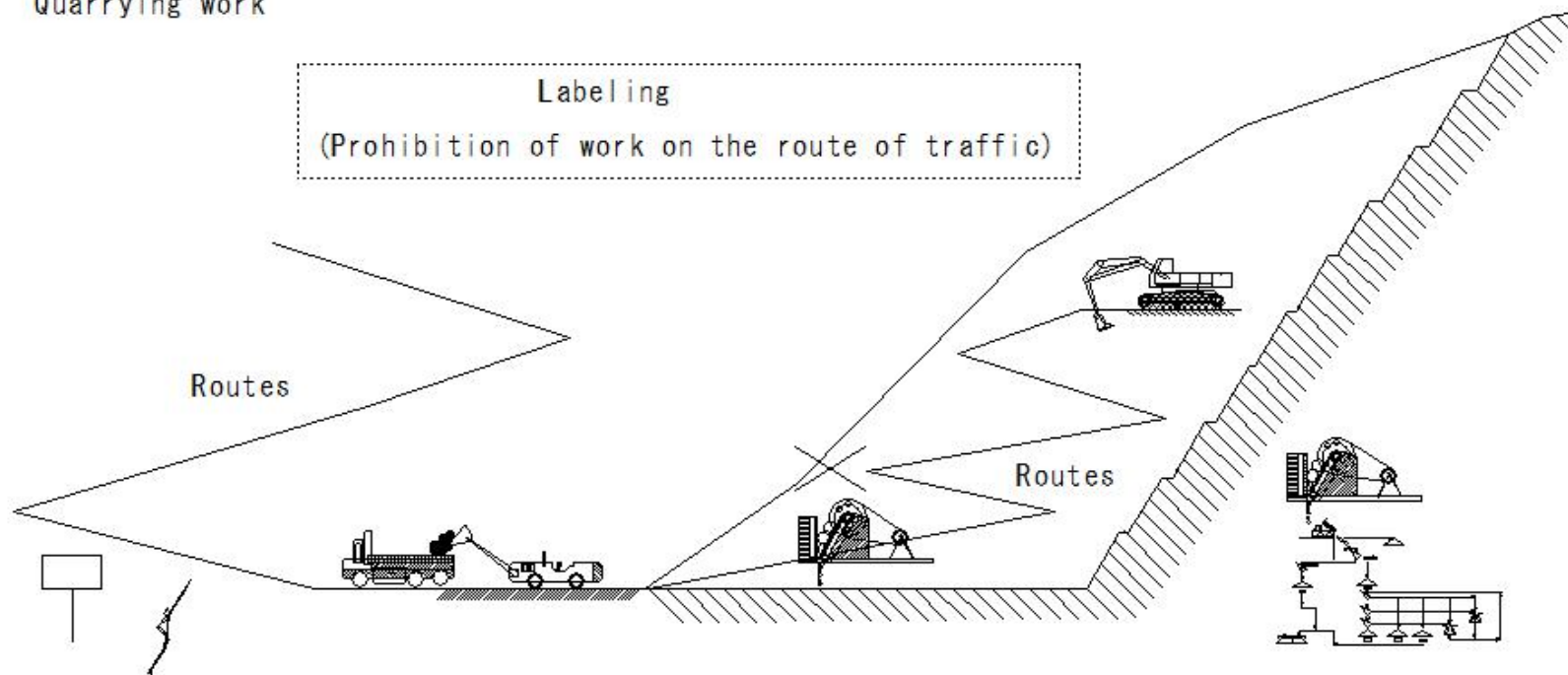
(S1581) Labeling

(S1581) Labeling

Places where labeling is required

Article 414 of the Safety and Health Regulations
(Prohibition of work on the route of transport)

Quarrying work



S1121

(S1582) Labeling

(S1582) Labeling

Places where labeling is required

High Pressure Law Article 21

(Contact)

High pressure indoor work

Workers in high pressure rooms and those who operate air compressors

Labeling
(Contact)

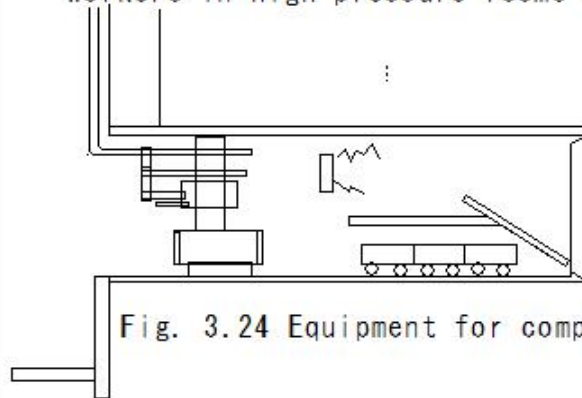
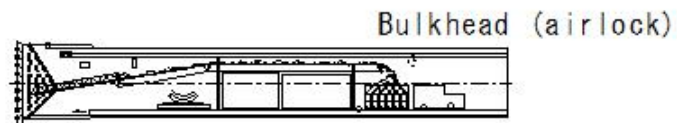
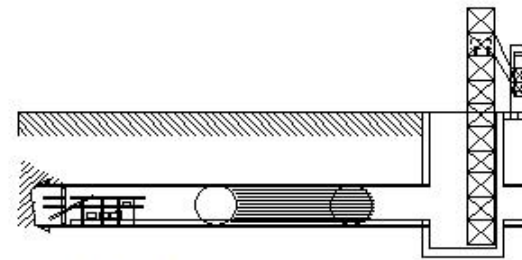


Fig. 3.24 Equipment for compressed air work
S141

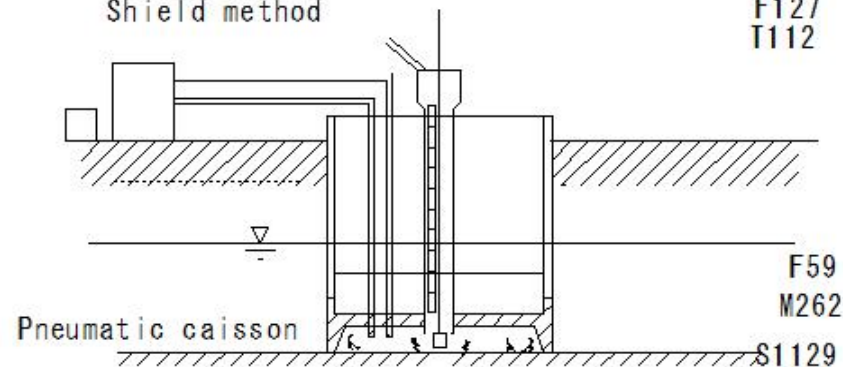


Air pressure shield tunneling
T157



Shield method

F127
T112



Pneumatic caisson

F59
M262
S1129

(S1583) Labeling

(S1583) Labeling

Places where labeling is required

High Voltage Law Article 25-2

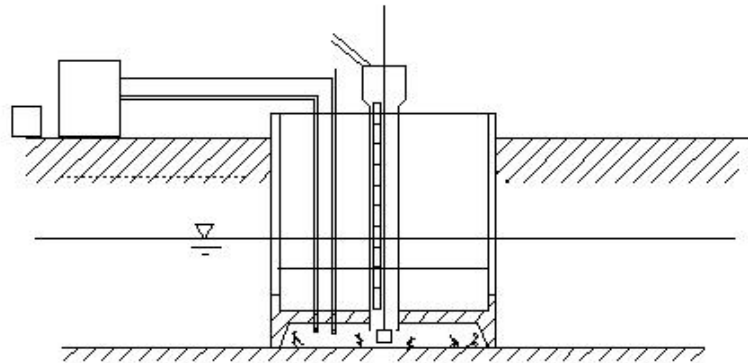
(Prevention of burns, etc.)

(No matches, lighters, etc. allowed inside)

Working inside a high voltage room

Labeling

(No matches, lighters, etc. allowed inside)



Pneumatic caisson

F59

M262

S1129

(S1584) Labeling

(S1584) Labeling

Places where labeling is required

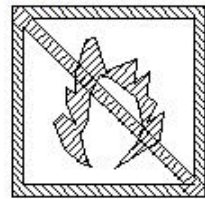
High Pressure Law Article 46

(Prevention of burns, etc.)

(No matches, lighters, etc. allowed)

High pressure work

No open flames



matches, lighters

Labeling

(No matches, lighters, etc. allowed)

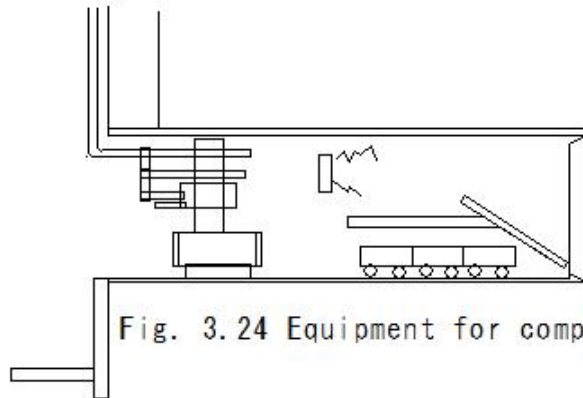
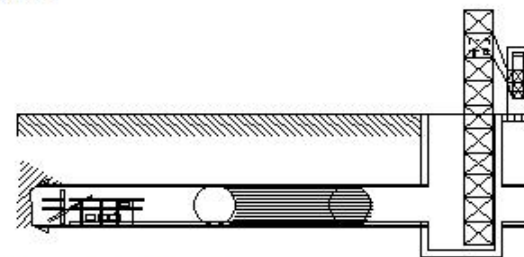
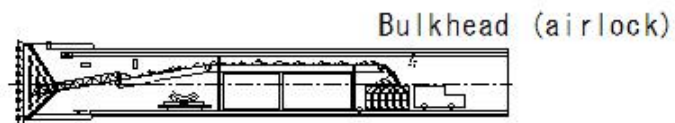


Fig. 3.24 Equipment for compressed air work
S141



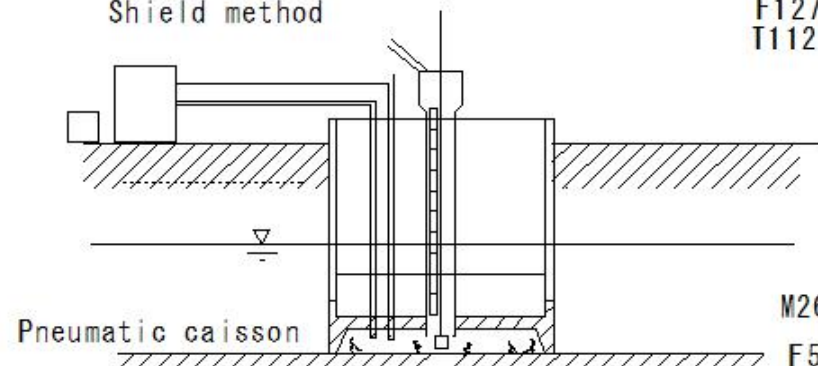
Shield method

F127
T112



Bulkhead (airlock)

Air pressure shield tunneling T157



Pneumatic caisson

M262
F59

(S1585) Labeling

(S1585) Labeling

Places where labeling is required

Article 389 of the Safety and Health Regulations

(No carrying ignition tools, etc.)

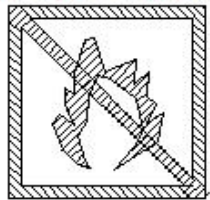
(No bringing in matches, lighters, etc.)

Near the entrances and exits of tunnels, etc.

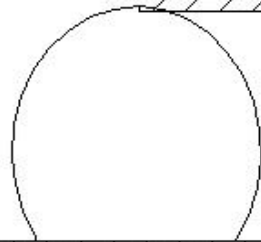
Labeling

(No matches, lighters, etc. allowed)

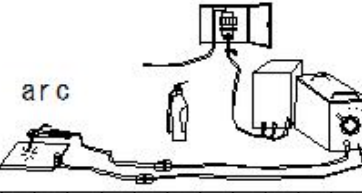
No open flames



matches, lighters



rags, wood chips, waste paper



(S1586) Labeling

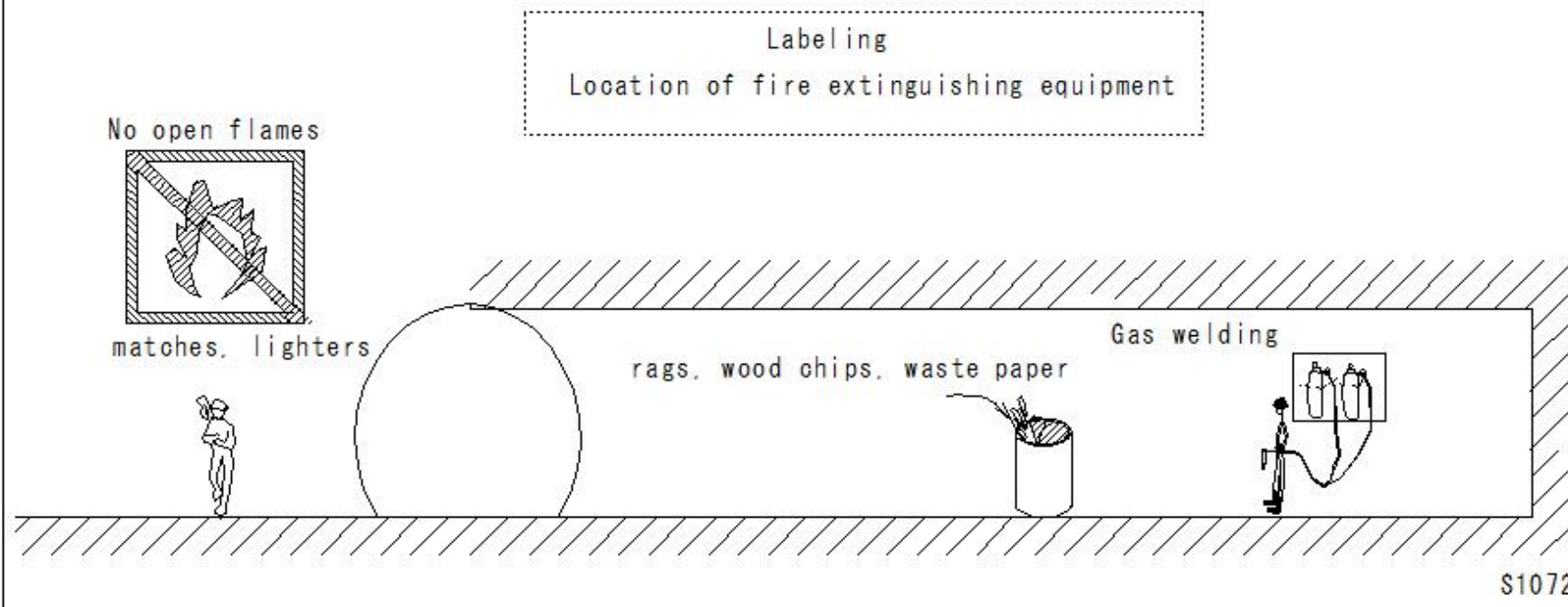
(S1586) Labeling

Places where labeling is required

Article 389-3 of the Safety and Health Regulations

Location of fire extinguishing equipment

(Fire prevention measures when performing work such as gas welding)



(S1587) Labeling

(S1587) Labeling

Places where labeling is required

Article 389-5 of the Safety and Health Regulations

(Fire extinguishing equipment)

Tunnels

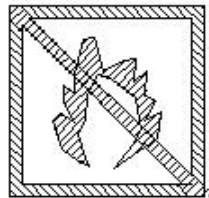
Places where arcs are used

Places where distribution boards, transformers or breakers are installed

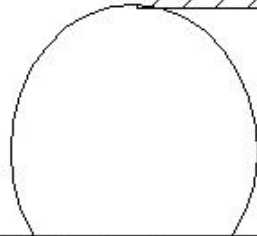
Labeling

Location of fire extinguishing equipment

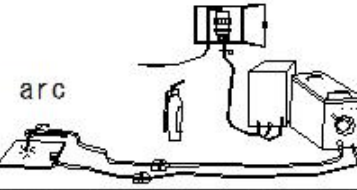
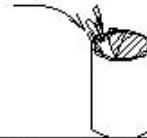
No open flames



matches, lighters



rags, wood chips, waste paper



arc

S1075

(S1588) Labeling

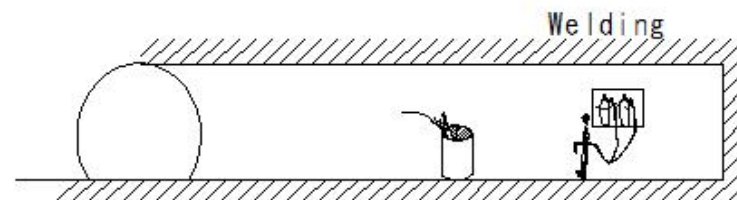
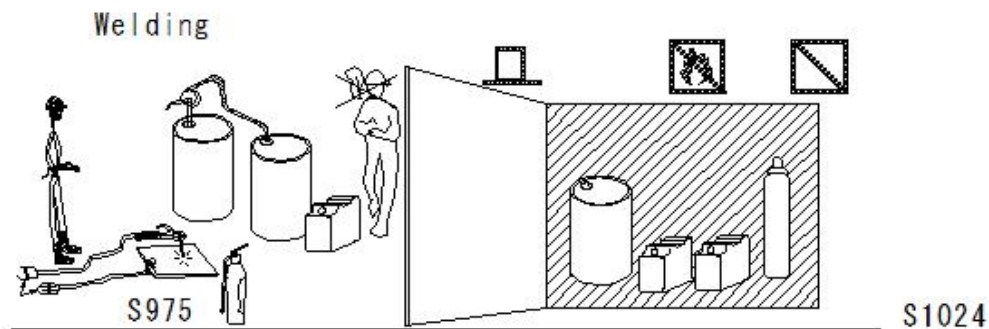
(S1588) Labeling

Places where labeling is required

Article 389-3 of the Safety and Health Regulations

(Fire prevention measures when performing gas welding, etc.)

Installation location of fire extinguishing equipment and how to use it
Labeling



(S1589) Labeling

(S1589) Labeling

Places where labeling is required

Article 389-8 of the Safety and Health Regulations
Construction of tunnels, etc.

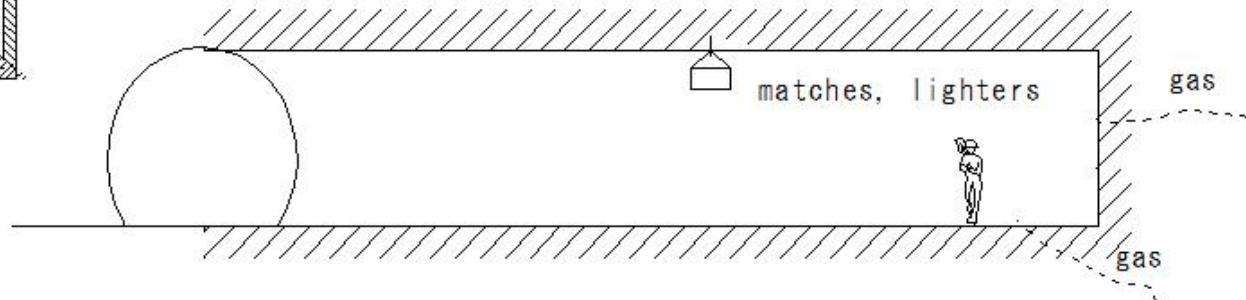
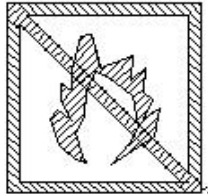
Flammable gas - Danger

Labeling

No entry

More than 30% of the lower explosion limit

No open flames



S1070

(S1590) Labeling

(S1590) Labeling

Places where labeling is required

Article 389-9 of the Safety and Health Regulations

(Alarm equipment, etc.)

Tunnel

Distance to the face is 100 meters

Labeling

(Alarm equipment, etc.)

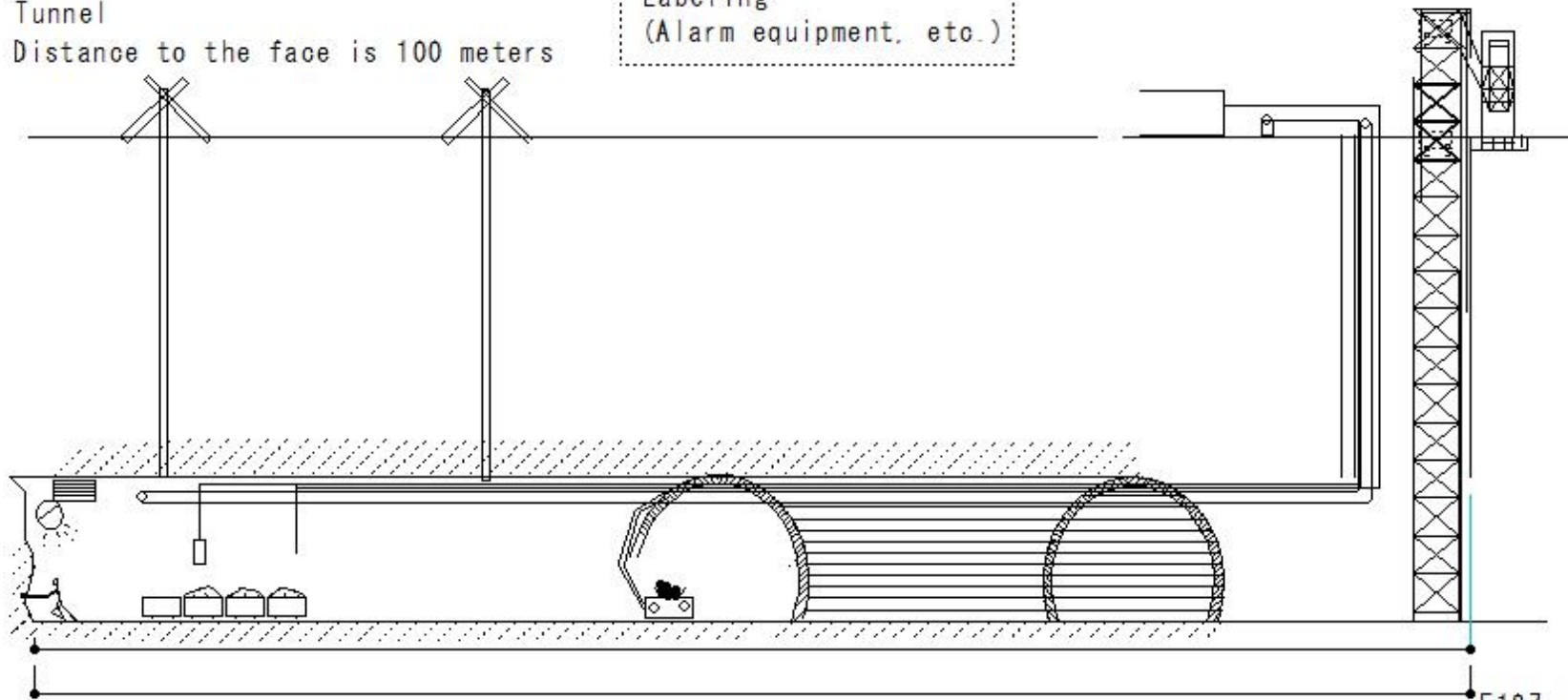


Fig. 3-18 Tunnel excavation

F127
S108

(S1591) Labeling

(S1591) Labeling

Places where labeling is required

Article 389-9 of the Safety and Health Regulations
(Alarm equipment, etc.)

Communication device

Distance to the face is 500 meters

Labeling
Communication device

(alarm equipment) 100 meters
communication devices 500 meters

rock fall, flooding, gas explosion, fire

(S1592) Labeling

(S1592) Labeling

Places where labeling is required

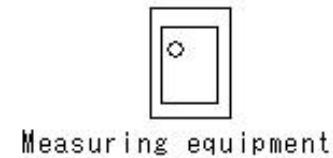
Article 389-10 of the Safety and Health Regulations

(Evacuation equipment)

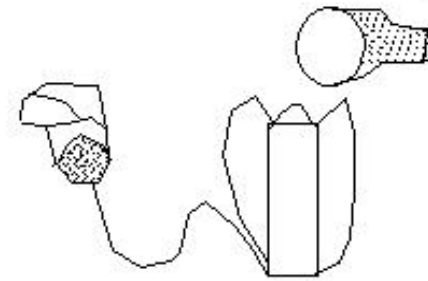
Tunnel

In case of the distance to the face reaches 100 meters

Labeling
(Evacuation equipment)



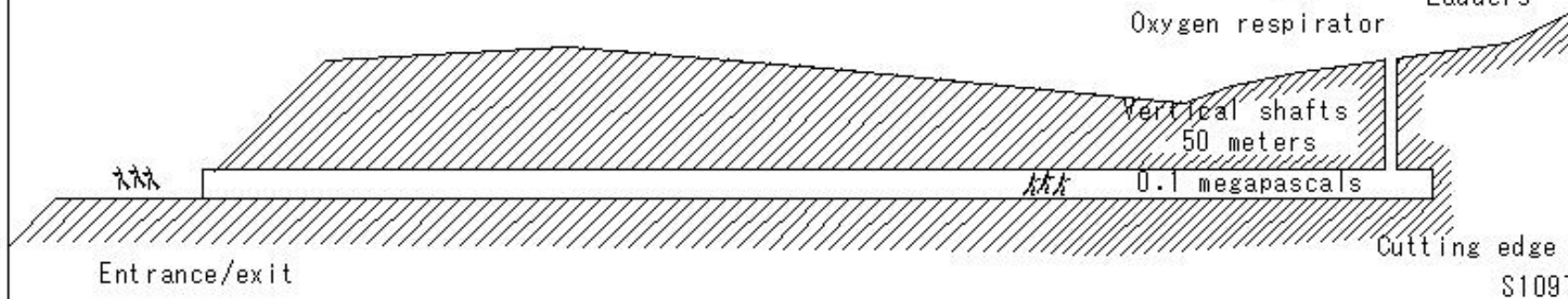
Portable lighting



Oxygen respirator



Ladders



(S1593) Labeling

(S1593) Labeling

Places where labeling is required

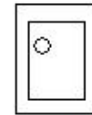
Article 389-10 of the Safety and Health Regulations
(Evacuation equipment) - How to use

Tunnel

In case of the distance to the face reaches 100 meters

Labeling

(Evacuation equipment) - How to use

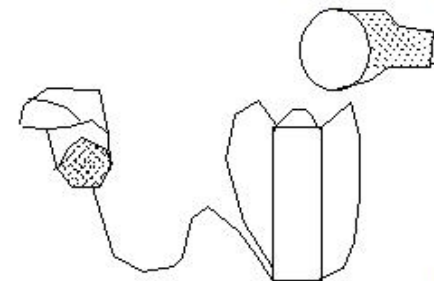


Measuring equipment



Ropes

Portable lighting



Ladders

Oxygen respirator

Vertical shafts
50 meters

0.1 megapascals

Cutting edge

Entrance/exit

S1097

(S1594) Labeling

(S1594) Labeling

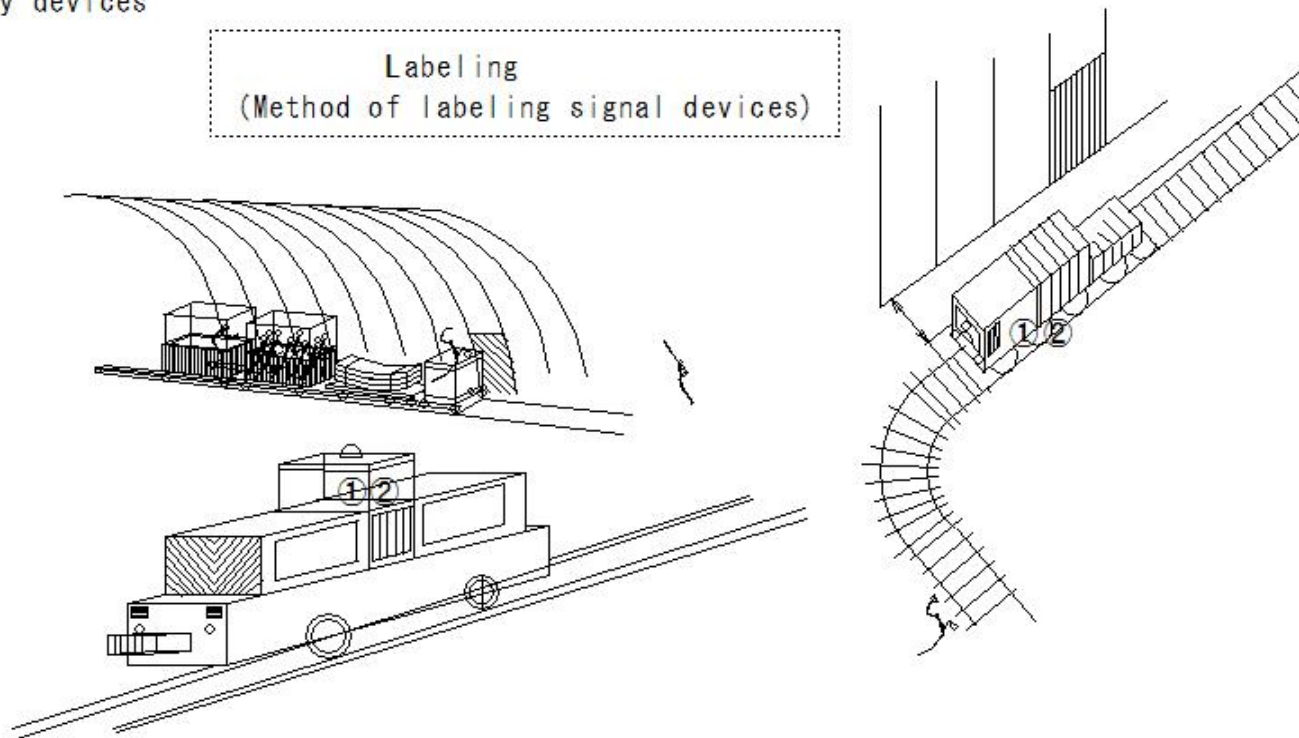
Places where labeling is required

Article 219 of the Safety and Health Regulations

(Method of labeling signal devices)

Railway devices

Labeling
(Method of labeling signal devices)



S126

S733

(S1595) Labeling

(S1595) Labeling

Places where labeling is required

Article 12-4 of the Safety and Health Regulations
Safety and Health Promoter

Labeling
Safety and Health Promoter



(S1596) Labeling

(S1596) Labeling

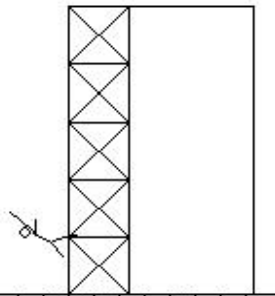
Places where labeling is required

Article 18 of the Safety and Health Regulations

Name of the work supervisor

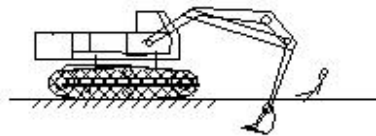
Labeling

Name of the work supervisor

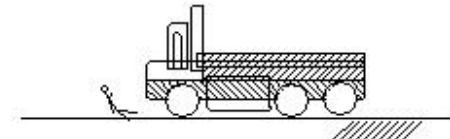


1 Accidents caused by falls

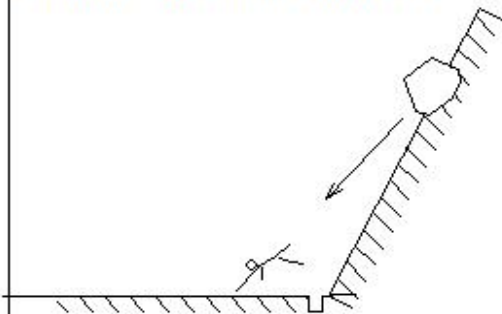
2 Accidents caused by construction machinery



3 Accidents caused by automobiles



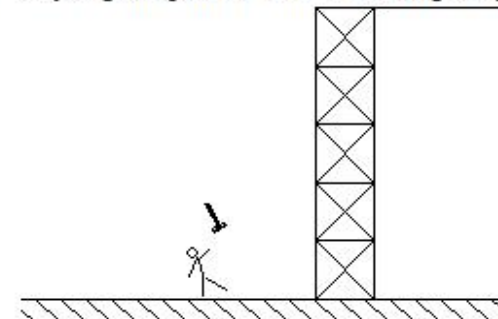
4 Landslides and rockfalls



5 Collapse



6 Flying objects and falling objects



S309

(S1597) Labeling

(S1597) Labeling

Places where labeling is required

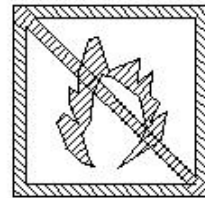
Article 288 of the Safety and Health Regulations

The use of fire is prohibited

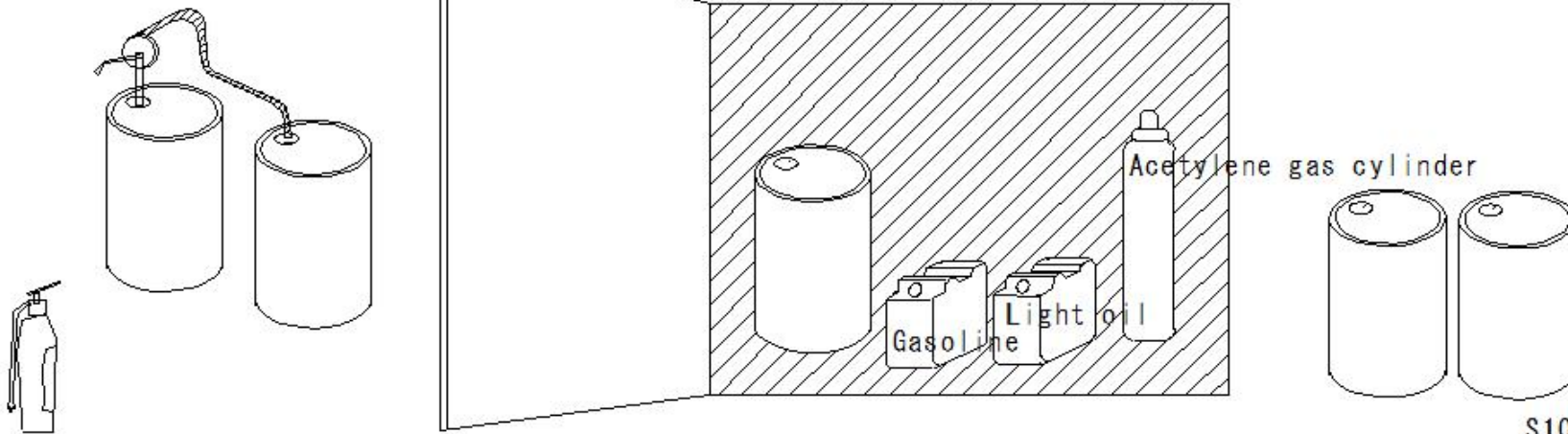
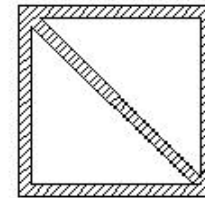
Labeling

The use of fire is prohibited

No open flames



No entry



S1017

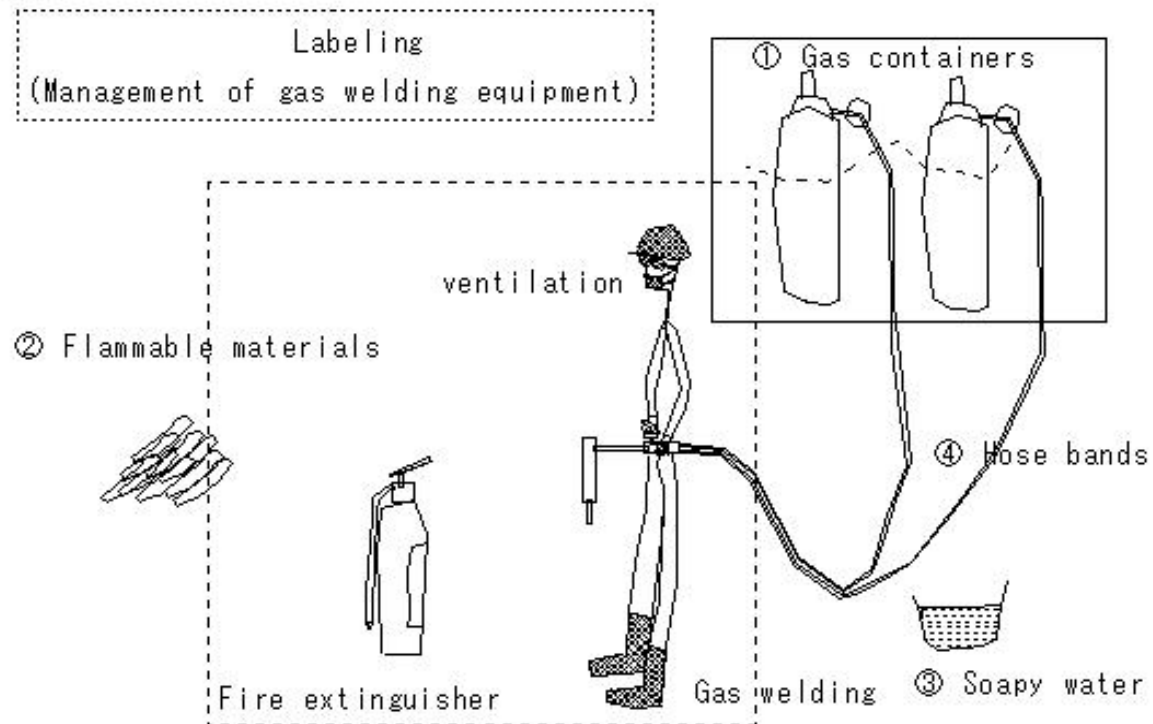
(S1598) Labeling

(S1598) Labeling

Places where labeling is required

Article 313 of the Safety and Health Regulations
(Management of gas welding equipment)

Name of gas



S966

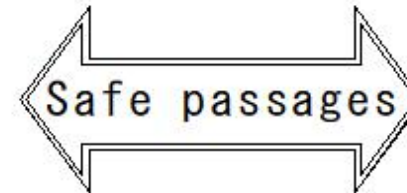
(S1599) Labeling

(S1599) Labeling

Places where labeling is required

Article 540 of the Safety and Health Regulations
(Aisles)

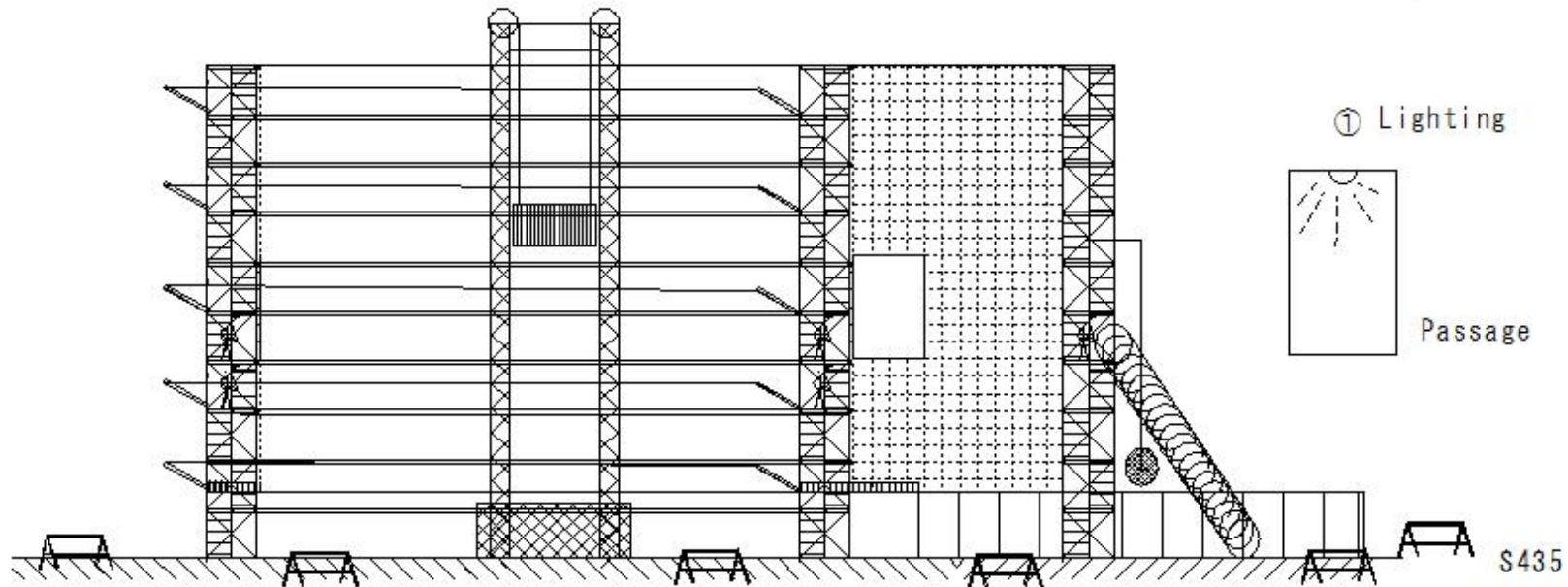
Labeling
(Aisles)



① Lighting



Passage



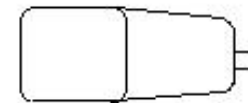
S435

S744

(S1600) Labeling

Article 549 of the Safety and Health Regulations
(Labeling of evacuation entrances, etc.)

Alarm equipment



①

Safe passages

Ensure safe passages



within 1.8 m

Passage

S435

S745

\$750

(S1601) Labeling

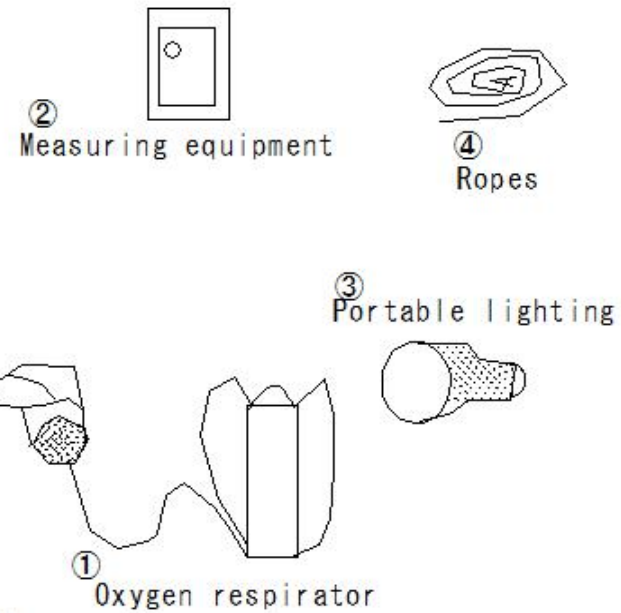
(S1601) Labeling

Places where labeling is required

Article 549 of the Safety and Health Regulations

(Labeling of evacuation entrances, etc.)

Evacuation equipment



Labeling
Evacuation equipment

Measures for rescue in tunnels, etc.

Rescue technical manager

Entrance/exit

Vertical shafts
50 meters

0.1 megapascals

S1093

(S1602) Labeling

(S1602) Labeling

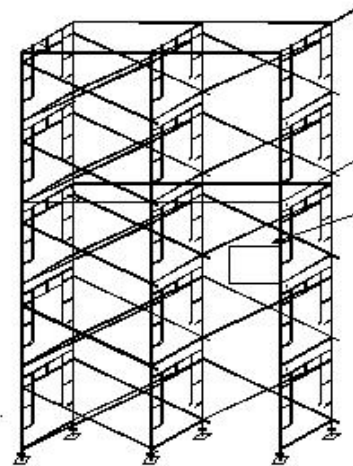
Places where labeling is required

Article 562 of the Safety and Health Regulations

Maximum load capacity of scaffolding

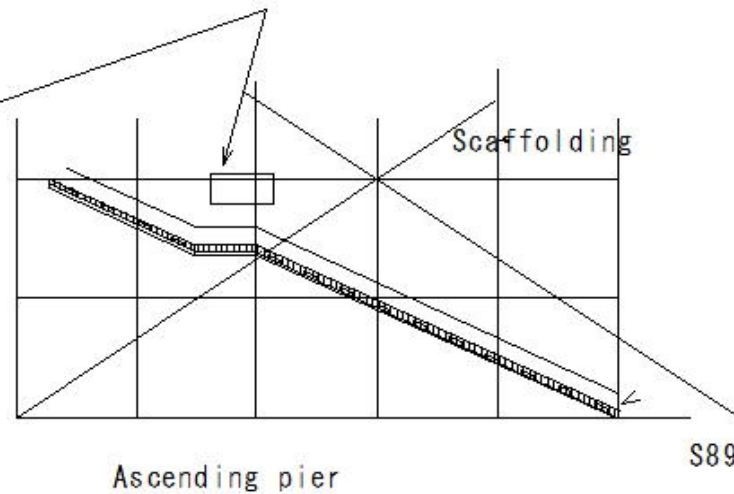
Labeling
Maximum load capacity of scaffolding

Maximum Load	
	kg/m ² or span
	person
	piece



S85

S86



S89

Ascending pier

S781

(S1603) Labeling

(S1603) Labeling

Places where labeling is required

Article 655 of the Safety and Health Regulations

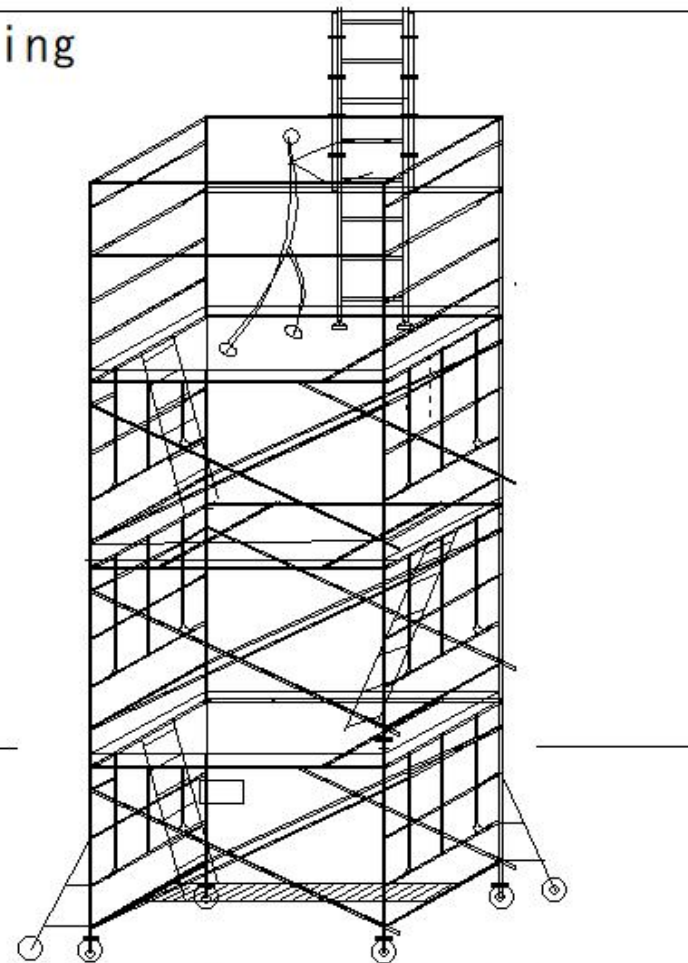
(Measures for scaffolding)

Maximum load

Places where scaffolding is easily visible

Labeling
Maximum load

Maximum Load
kg/m ² or span
person
piece



(Mobile Scaffolding)

S801

S798

(S1604) Labeling

(S1604) Labeling

Places where labeling is required

Article 575-4 of the Safety and Health Regulations

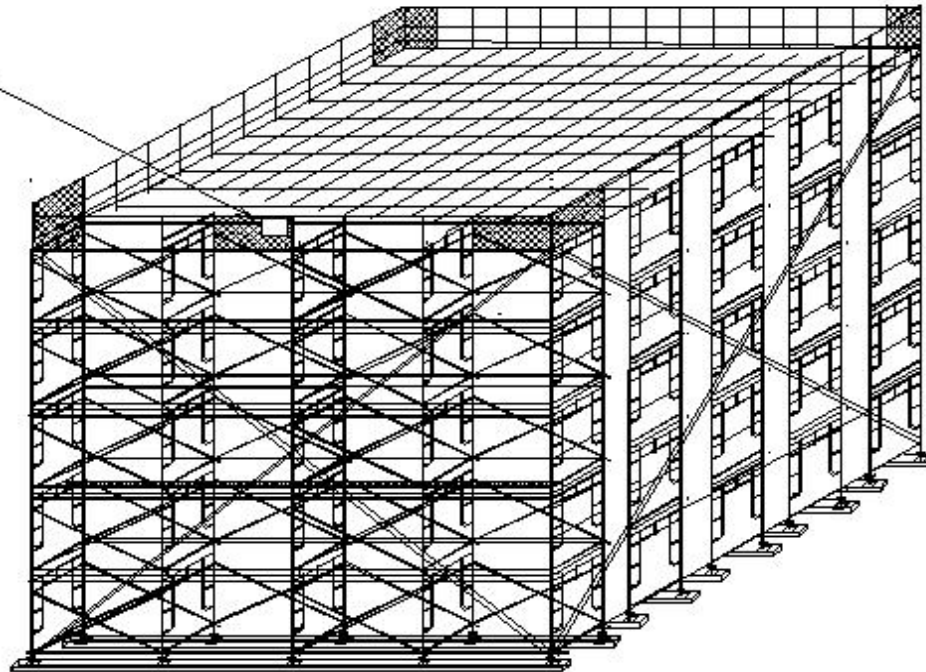
Work platform

Maximum load capacity

Labeling

Maximum load capacity

Platform
Maximum load
t/m²



S806

(S1605) Labeling

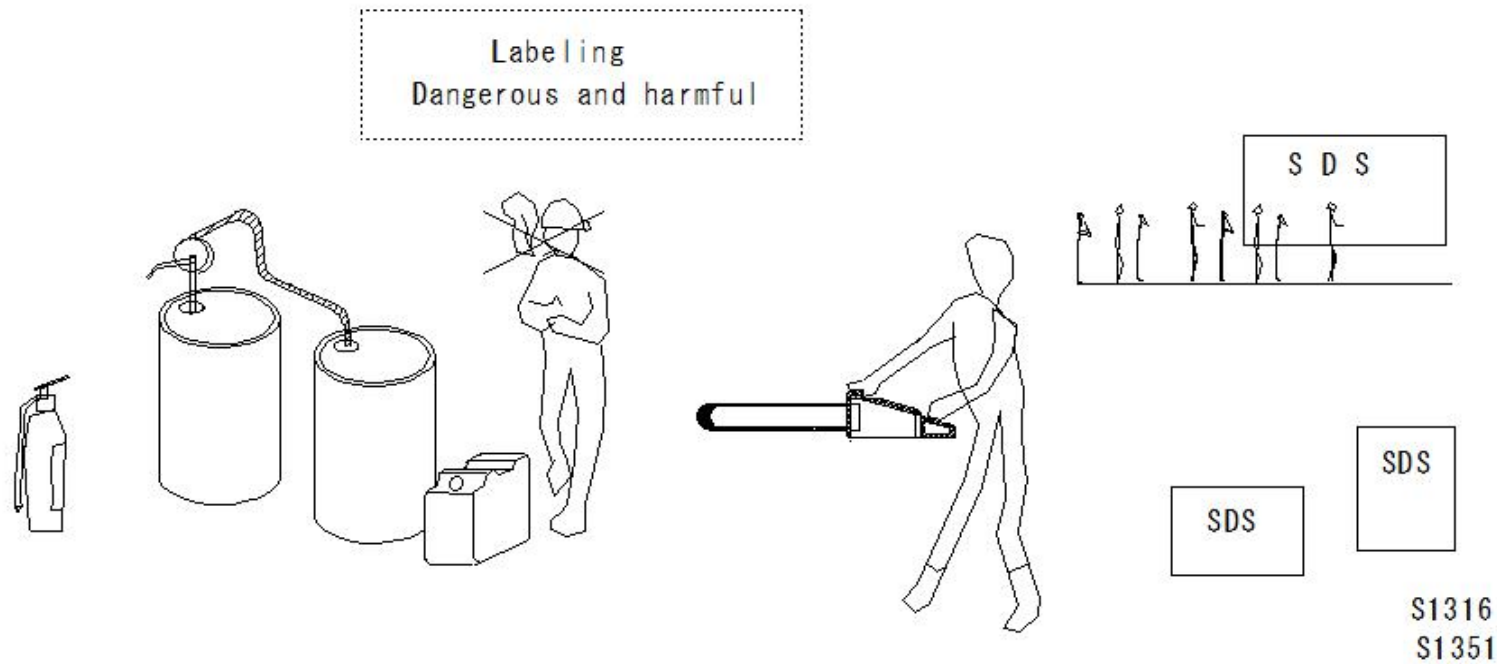
(S1605) Labeling

Places where labeling is required

Article 31-57 of the Safety and Health Regulations

Harmful substances, etc.

Dangerous and harmful



(S1606) Labeling

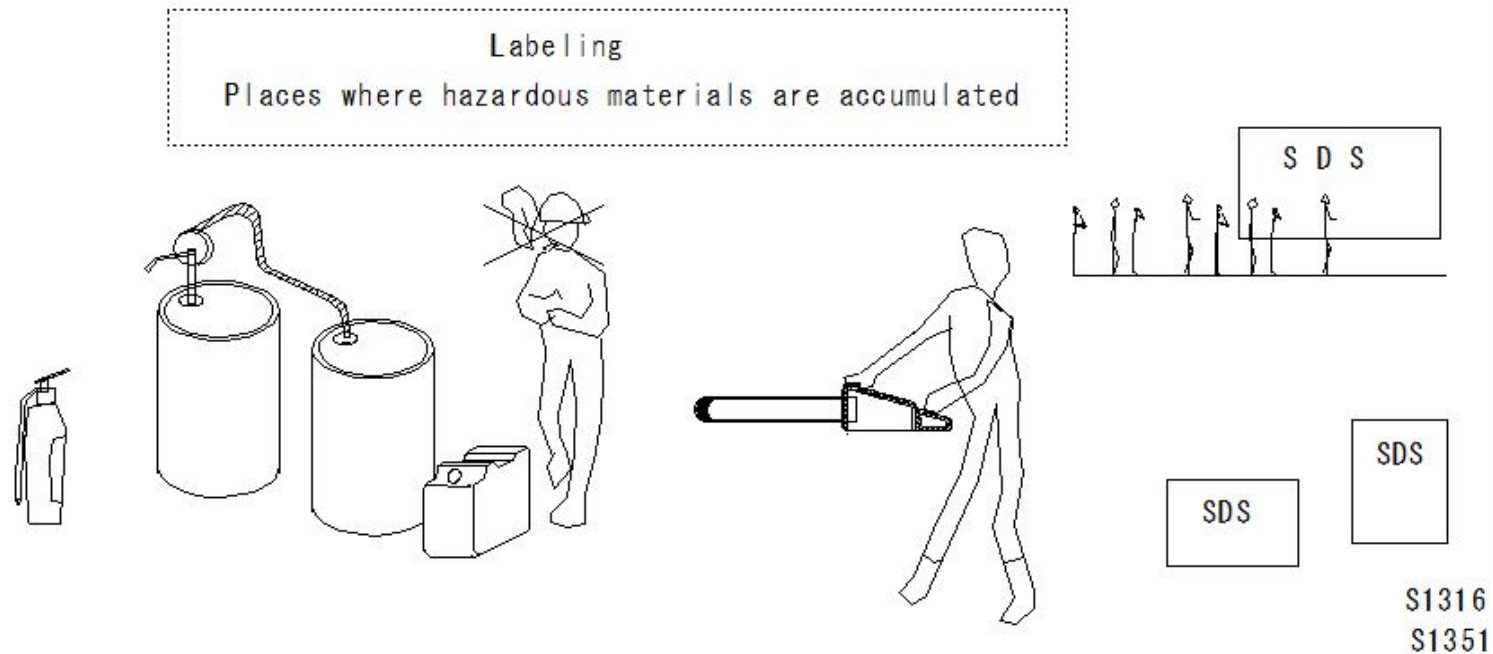
(S1606) Labeling

Places where labeling is required

Article 586 of the Safety and Health Regulations

(Labeling, etc.)

Places where hazardous materials are accumulated



(S1607) Labeling

(S1607) Labeling

Places where labeling is required

Article 640 of the Safety and Health Regulations

(Standardization of signs for accident sites, etc.)

Labeling
(Standardization of signs for accident sites, etc.)

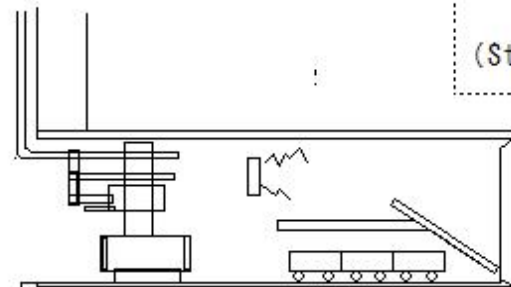
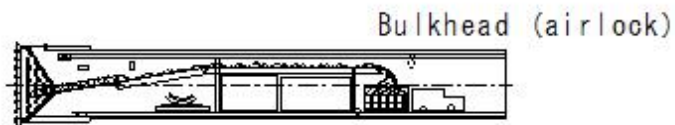
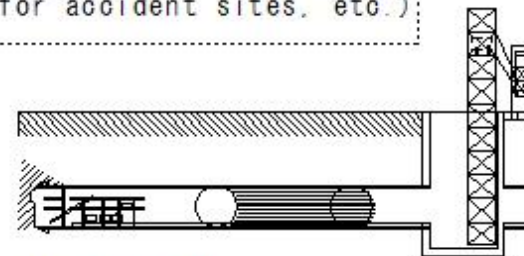


Fig. 3.24 Equipment for compressed air work
S141

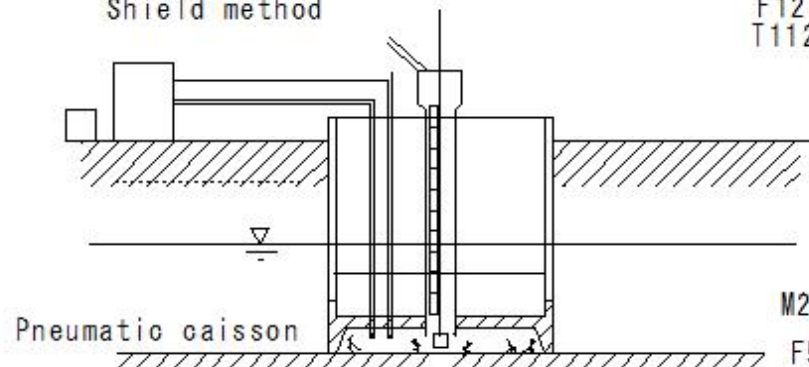


Air pressure shield tunneling T157



Shield method

F127
T112



Pneumatic caisson

M262
F59
S1129

(S1608) Labeling

(S1608) Labeling

Places where labeling is required

Article 24 of the Organic Solvent Law

Prevention of organic solvent poisoning

Labeling

Prevention of organic solvent poisoning



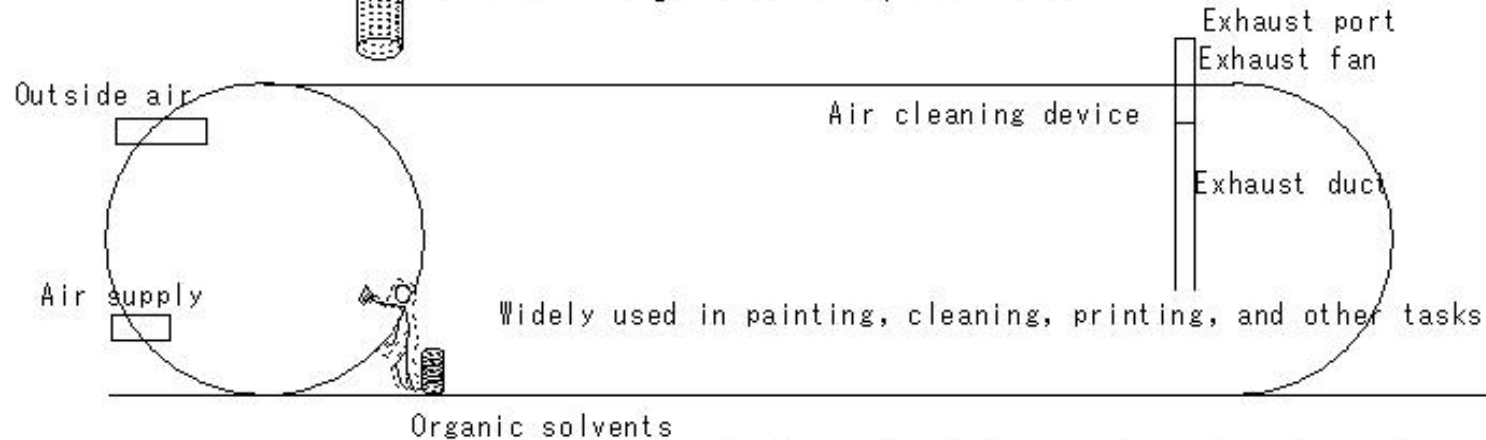
1. Class 1 organic solvents, etc.: Red



2. Class 2 organic solvents, etc.: Yellow



3. Class 3 organic solvents, etc.: Blue



Organic solvents

Organic compounds that have the ability to dissolve other substances S1237

(S1609) Labeling

(S1609) Labeling

Places where labeling is required

Article 25 of the Organic Solvents Act

Organic Solvents

Labeling

Organic Solvents



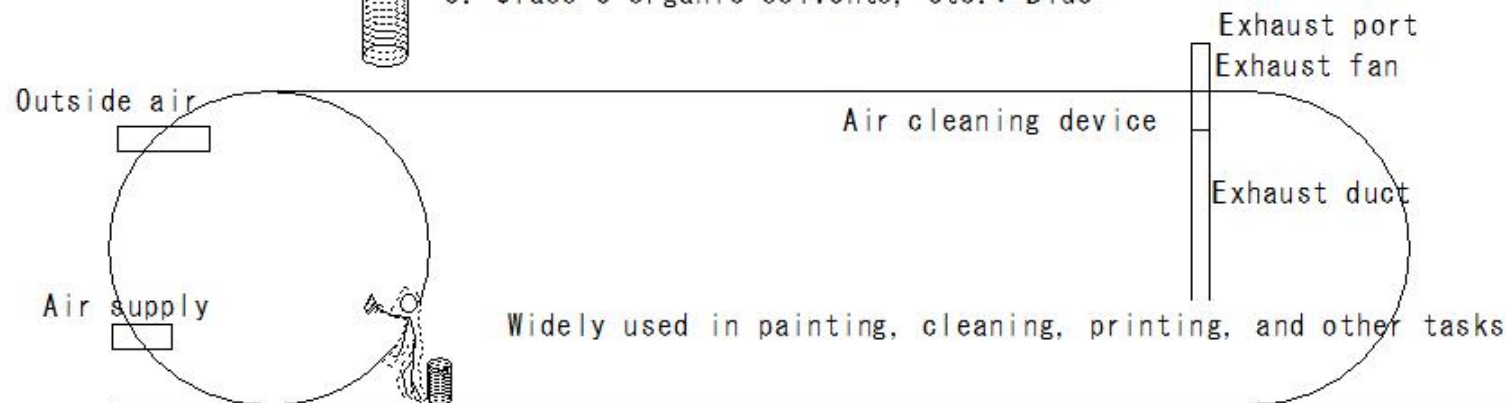
1. Class 1 organic solvents, etc.: Red



2. Class 2 organic solvents, etc.: Yellow



3. Class 3 organic solvents, etc.: Blue



Organic solvents

Organic compounds that have the ability to dissolve other substances S1237

(S1610) Labeling

(S1610) Labeling

Places where labeling is required

Article 19 of oxygen deficiency measurement

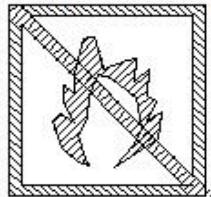
(Measures related to fire extinguishing equipment, etc.)

Basements, engine rooms, holds, and other places with insufficient ventilation

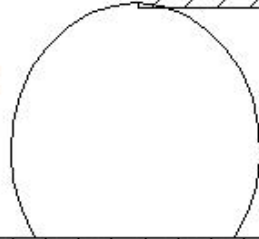
Labeling

(Measures related to fire extinguishing equipment, etc.)

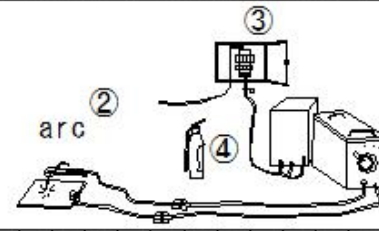
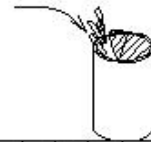
No open flames



matches, lighters



rags, wood chips, waste paper



S1075

(S1611) Labeling

(S1611) Labeling

Places where labeling is required

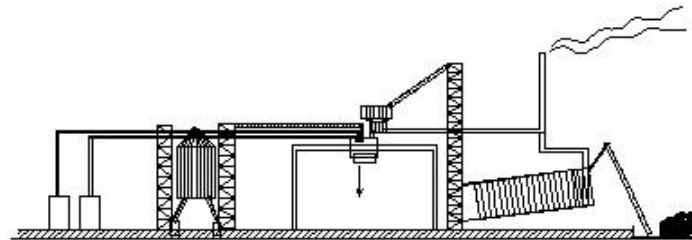
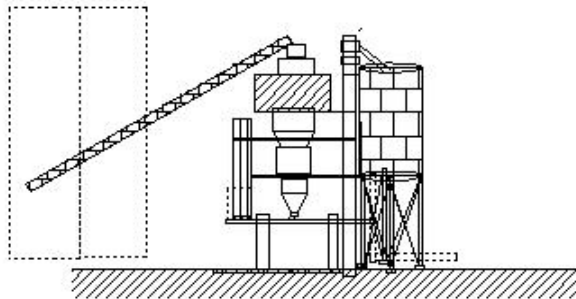
Article 583-2 of the Industrial Safety and Health Ordinance

(Indication of noise-emitting locations, etc.)

Labeling
(Indication of noise-emitting locations, etc.)

Concrete plants

asphalt plants



C1031

S1073

M80

S1339

S1340

(S1612) Labeling

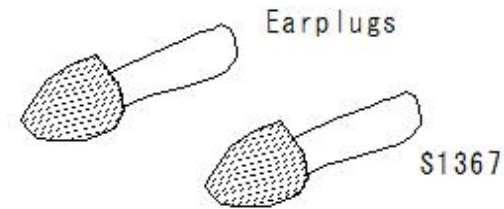
(S1612) Labeling

Places where labeling is required

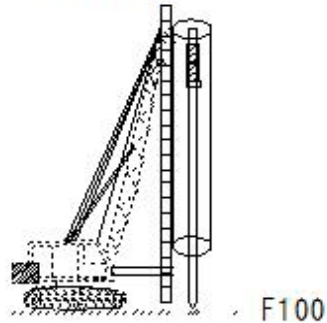
Article 595 of the Industrial Safety and Health Act

Places where intense noise is generated
Use protective equipment such as earplugs

Labeling

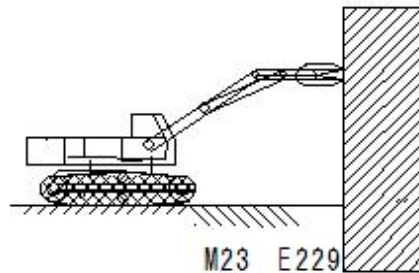


① Pile drivers



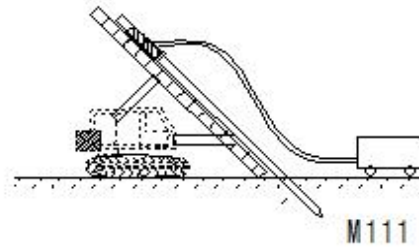
F100

② Rock drills



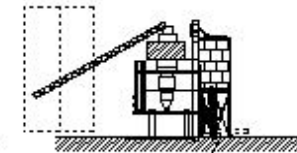
M23 E229

③ Air compressors



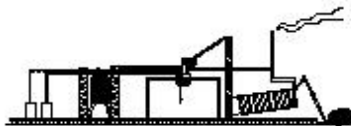
M111

④ Concrete plants



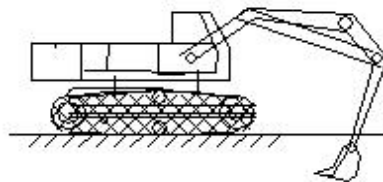
C1031

⑤ asphalt plants



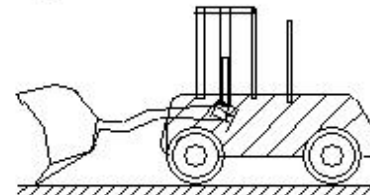
M80

⑥ Backhoes



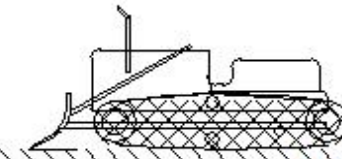
M1

⑦ Tractor shovels



M392
E292

⑧ Bulldozers



S1334
M14
S1456

(S1613) No Entry

(S1613) No Entry

Places where entry prohibition measures are required

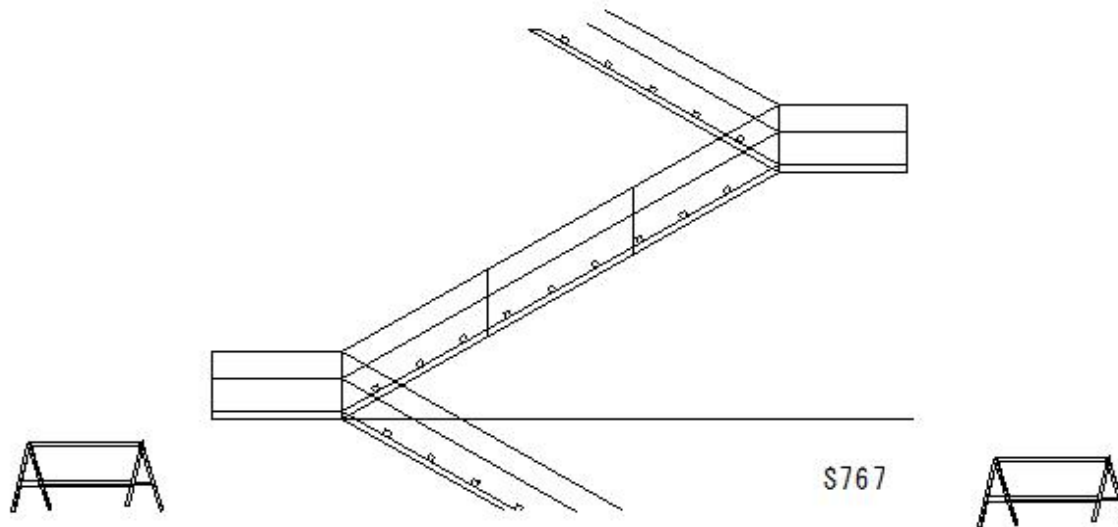
Article 552 of the Safety and Health Regulations

(construction passages)

No Entry

In case of handrails, railings, etc. are removed

No Entry



(S1614) No Entry

(S1614) No Entry

Places where entry prohibition measures are required

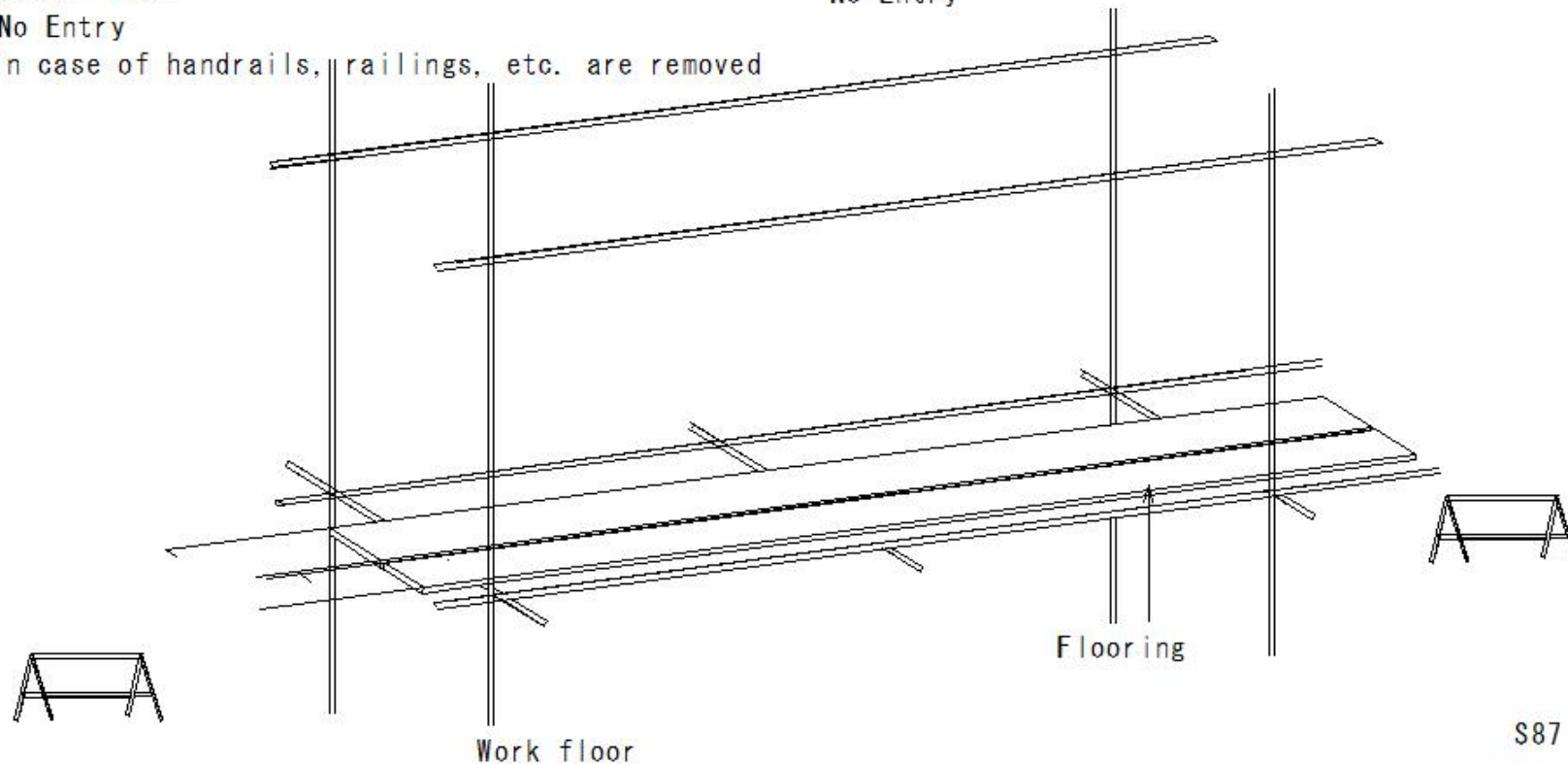
Article 563 of the Safety and Health Regulations

(Work floor)

No Entry

In case of handrails, railings, etc. are removed

No Entry



S87

(S1615) No Entry

(S1615) No Entry

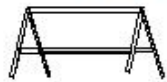
Places where entry prohibition measures are required

Article 575-6 of the Safety and Health Regulations

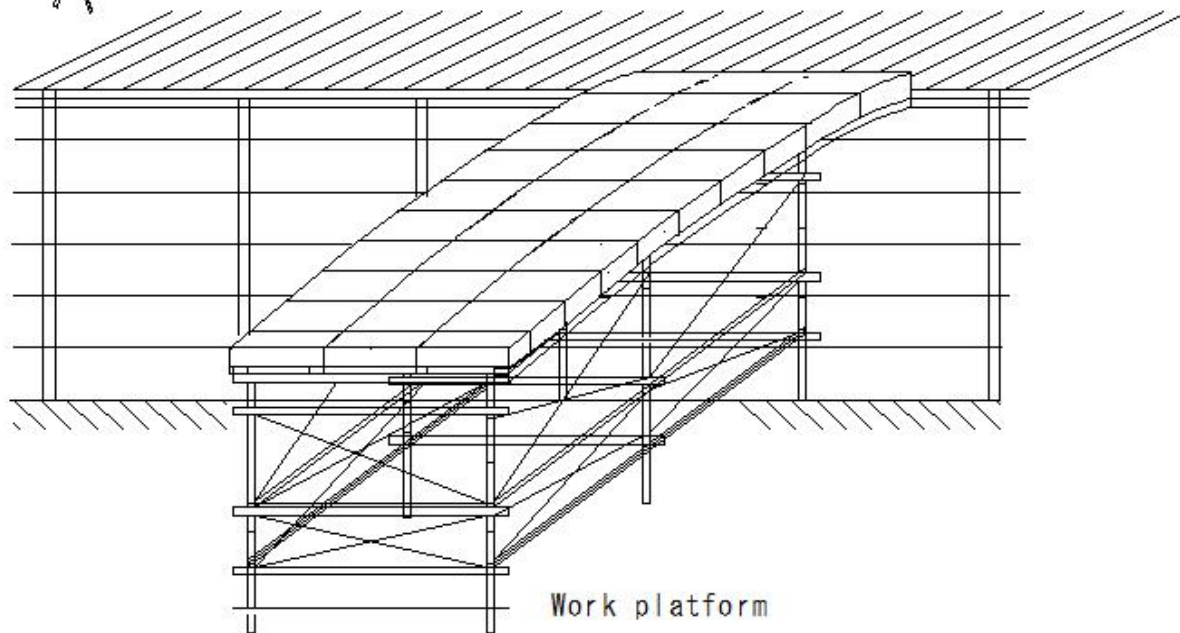
(Measures for work platforms)

No Entry

In case of handrails, railings, etc. are removed



No Entry



Work platform

S109

(S1616) No Entry

(S1616) No Entry

Places where entry prohibition measures are required

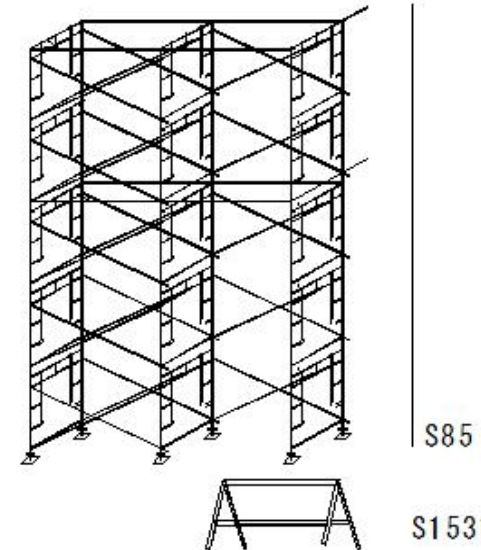
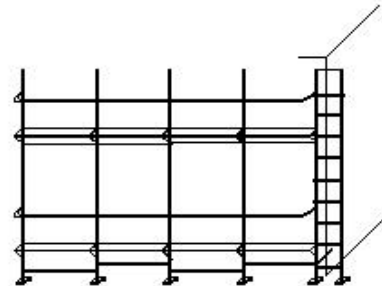
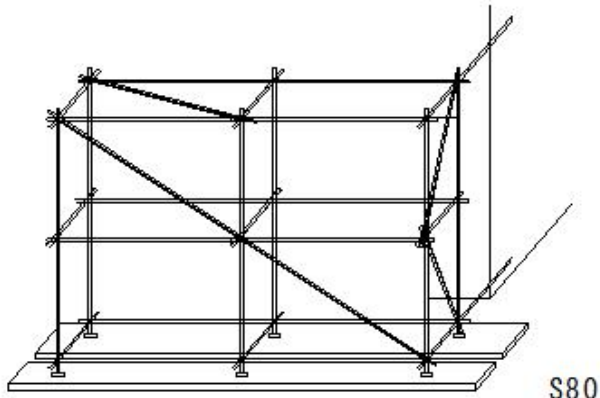
Article 564 of the Safety and Health Regulations

(Work such as assembling scaffolding)

No Entry

In case of assembling, dismantling or modifying

No Entry



(S1617) No Entry

(S1617) No Entry

Places where entry prohibition measures are required

Article 530 of the Safety and Health Regulations

No Entry

Working at height

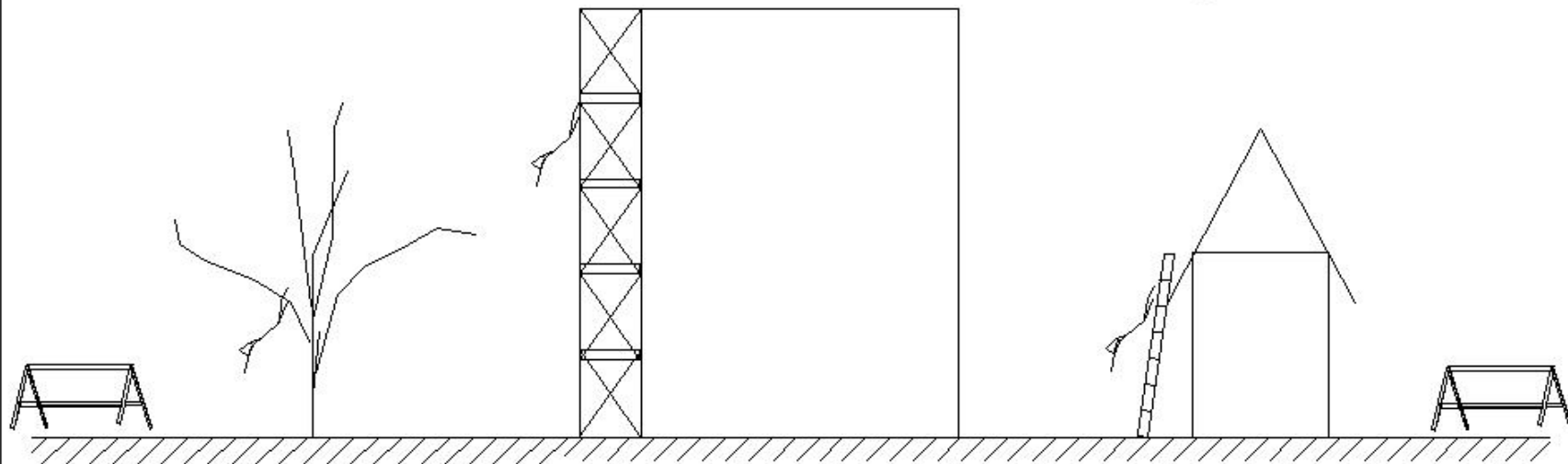
Danger to workers from falling

No Entry

falling from a tree

falling from a scaffolding

falling from a ladder



S273

(S1618) No Entry

(S1618) No Entry

Places where entry prohibition measures are required

Article 537 of the Safety and Health Regulations

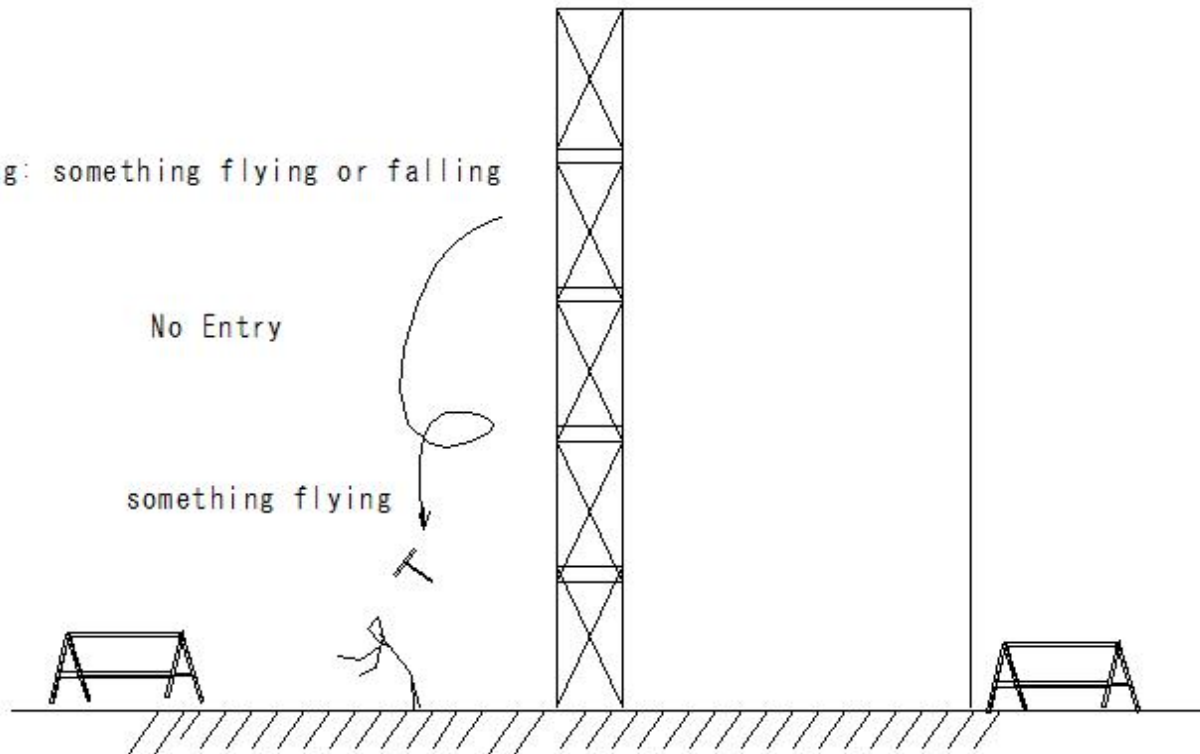
(Prevention of danger from falling objects)

No Entry

Flying, falling: something flying or falling

No Entry

something flying



S276

(S1619) No Entry

(S1619) No Entry

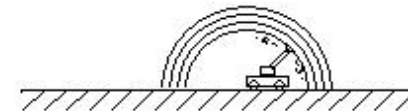
Places where entry prohibition measures are required

Article 585 of the Safety and Health Regulations

Harmful places that emit dust

Places where harmful materials are handled

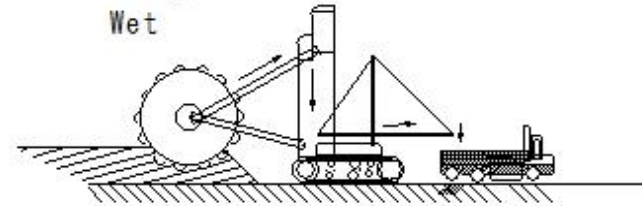
(No entry)



Concrete sprayed

T51

Watering
Wet



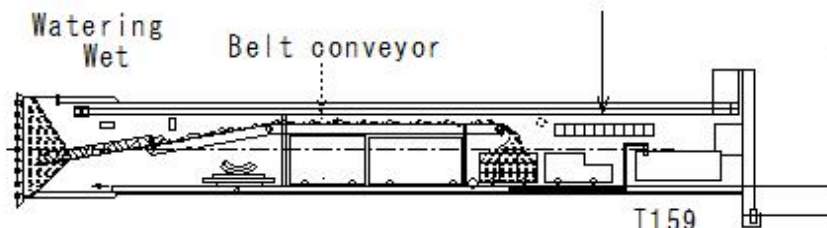
M169

Clothing brush (Rest Room)

(No entry)

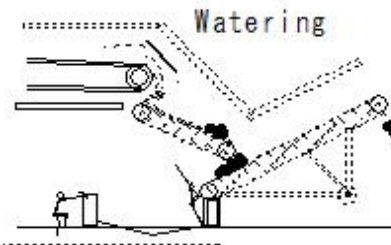


Ventilation fan



T159

Watering



Respiratory protective
equipment

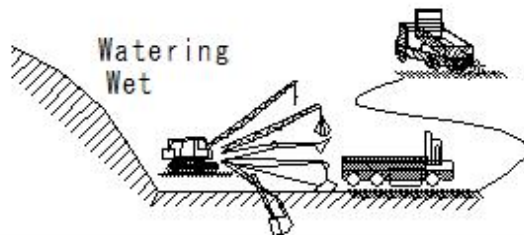


S1248



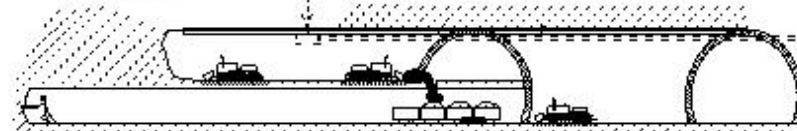
S60
T148
S1289

Watering
Wet



M169

Watering
Wet



(S1620) No Entry

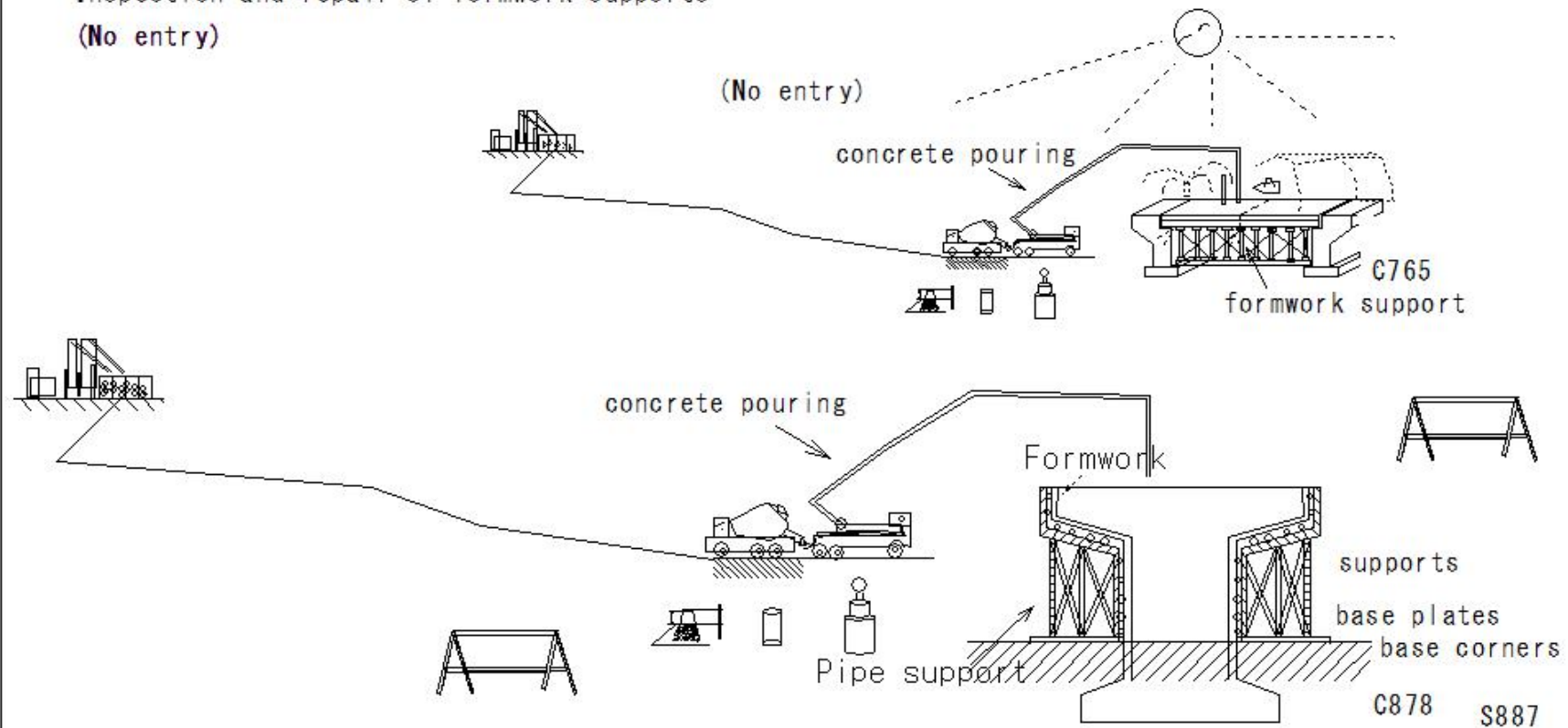
(S1620) No Entry

Places where entry prohibition measures are required

Article 245 of the Safety and Health Regulations

Inspection and repair of formwork supports

(No entry)



(S1621) No Entry

(S1621) No Entry

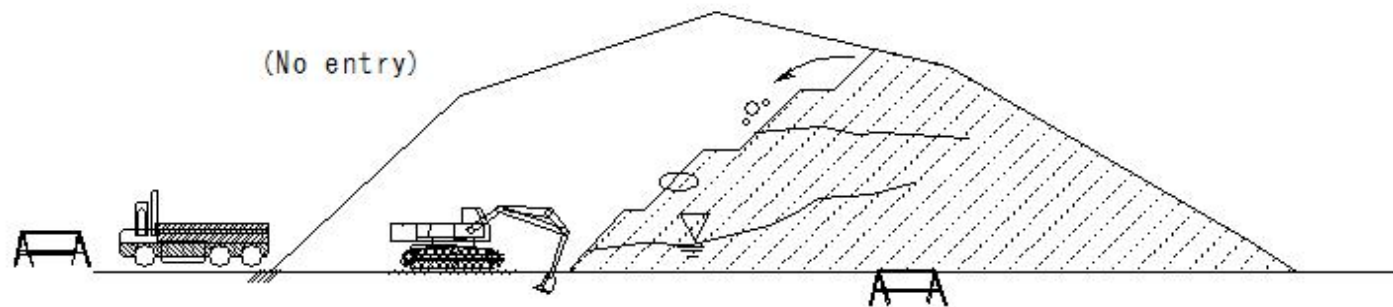
Places where entry prohibition measures are required

Article 361 of the Safety and Health Regulations

(Prevention of dangers due to ground collapse, etc.)

Open excavation

(No entry)



S1497

(S1622) No Entry

(S1622) No Entry

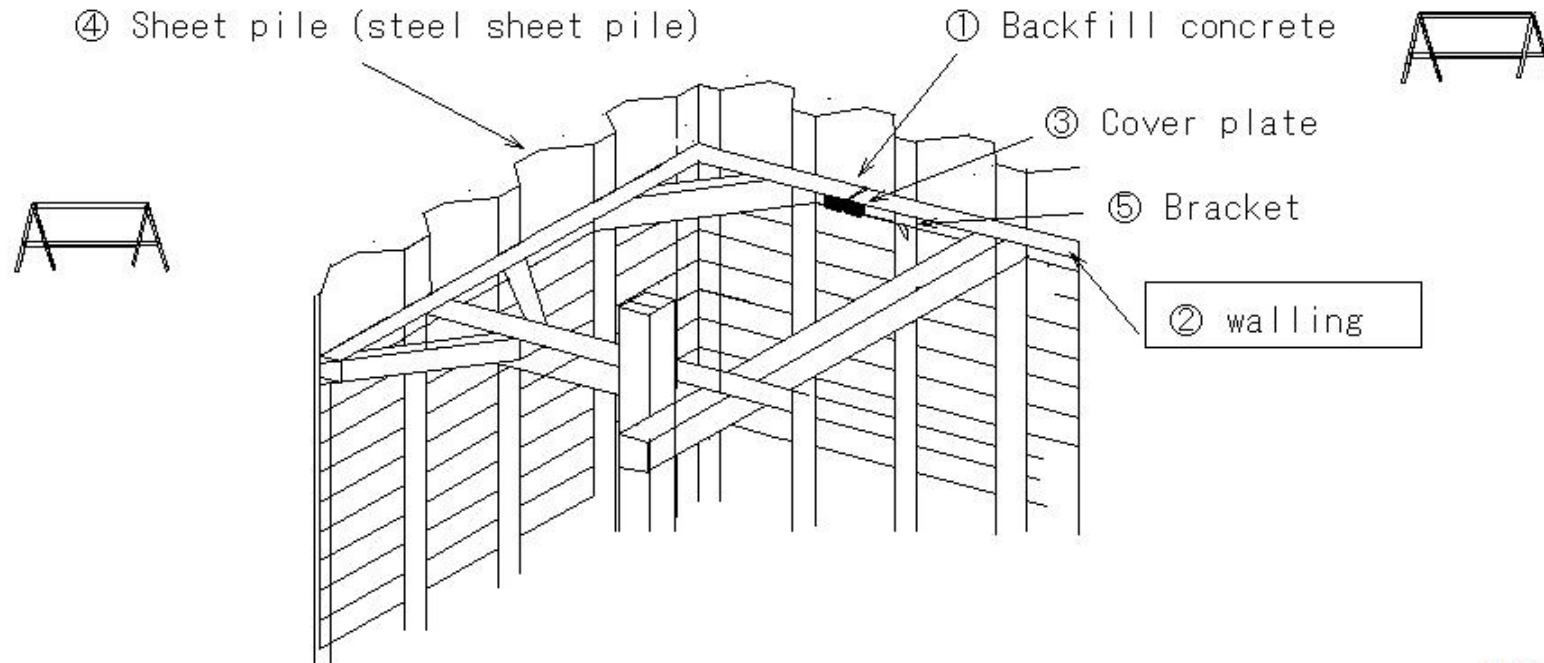
Places where entry prohibition measures are required

Article 372 of the Safety and Health Regulations

(Work such as struts)

(No entry)

(No entry)



E518

(S1623) No Entry

(S1623) No Entry

Places where entry prohibition measures are required

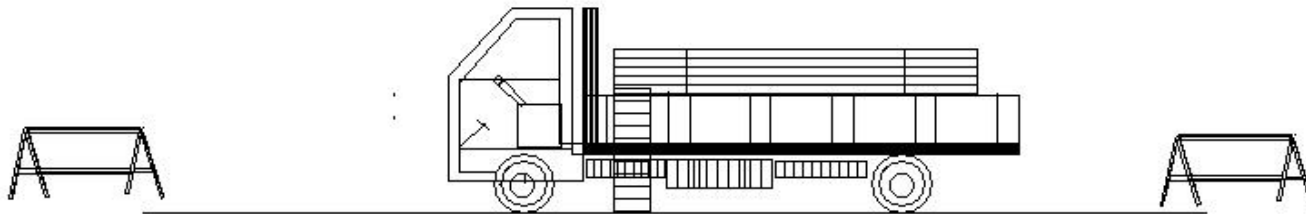
Article 420 of the Safety and Health Regulations

Cargo Handling

Loads weighing 100 kilograms or more

(No entry)

(No entry)



(S1624) No Entry

(S1624) No Entry

Places where entry prohibition measures are required

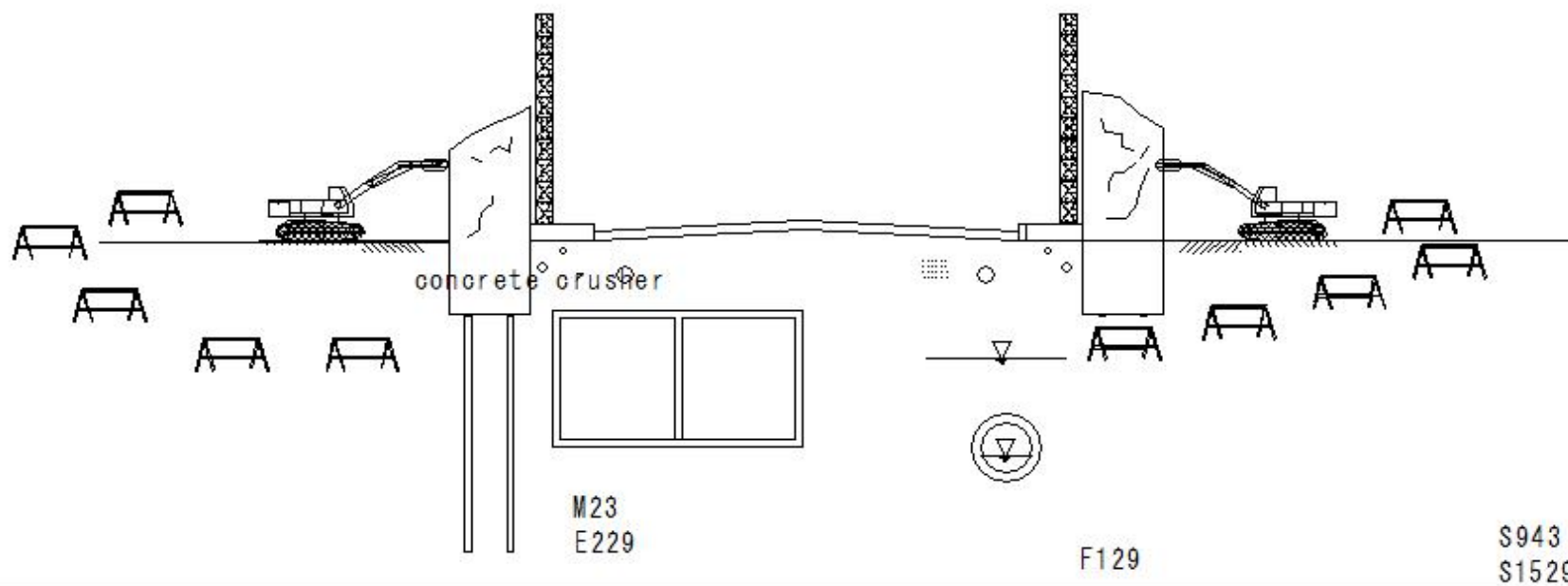
Article 517-15 of the Safety and Health Regulations

Concrete structures

Concrete demolition

Areas where demolition and destruction work is carried out

(No entry)



(S1625) No Entry

(S1625) No Entry

Areas requiring entry restrictions

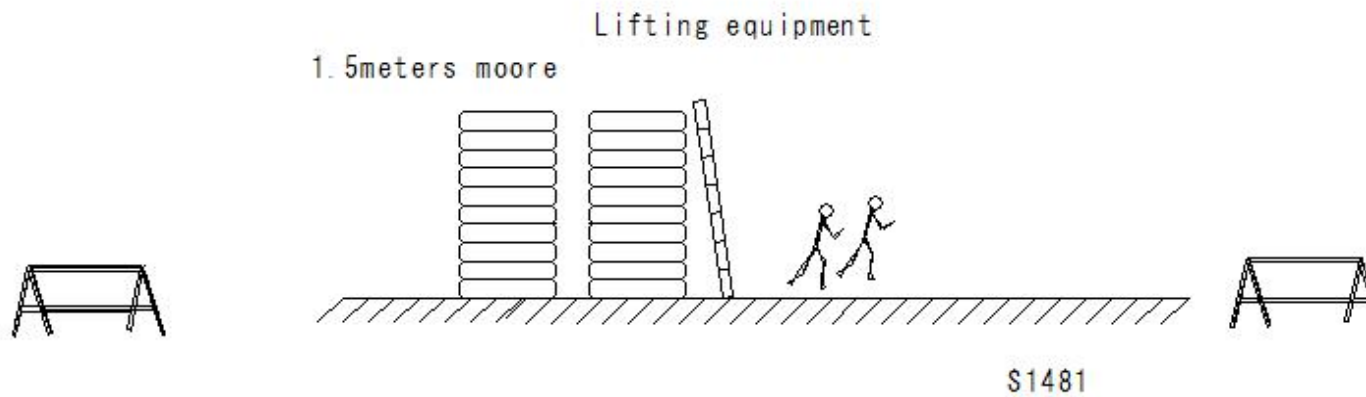
Article 433 of the Safety and Health Regulations

Installation or removal work

(No entry)

(No entry)

Piling, demolition, etc.



(S1626) No Entry

(S1626) No Entry

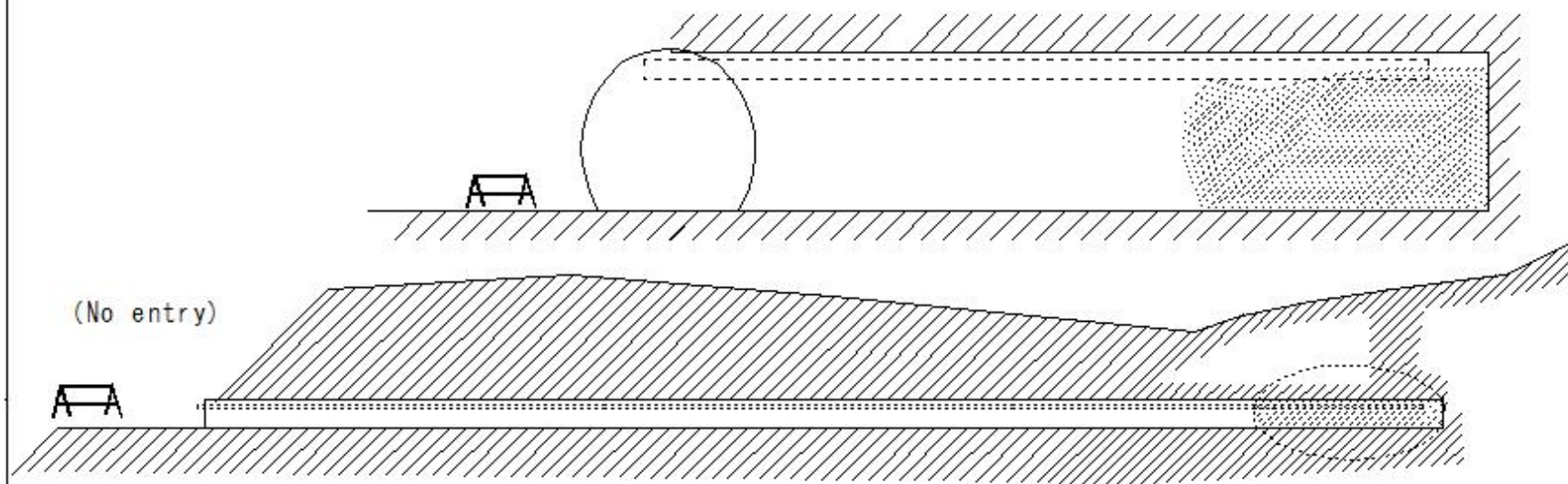
Areas requiring entry restrictions

Article 288 of the Safety and Health Regulations

Explosive dust

(No entry)

(No entry)



S1105

(S1627) No Entry

(S1627) No Entry

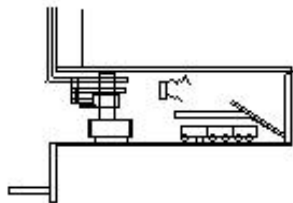
Areas requiring entry restrictions

Oxygen deficiency measurement Article 14

Work in areas at risk of oxygen deficiency

(No entry)

(No entry)



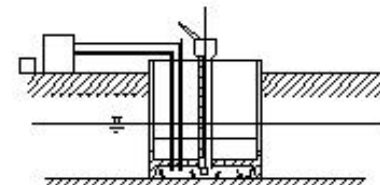
S141



T157



T112
F127



M262
F59
S1206

S1431

(S1628) No Entry

(S1628) No Entry

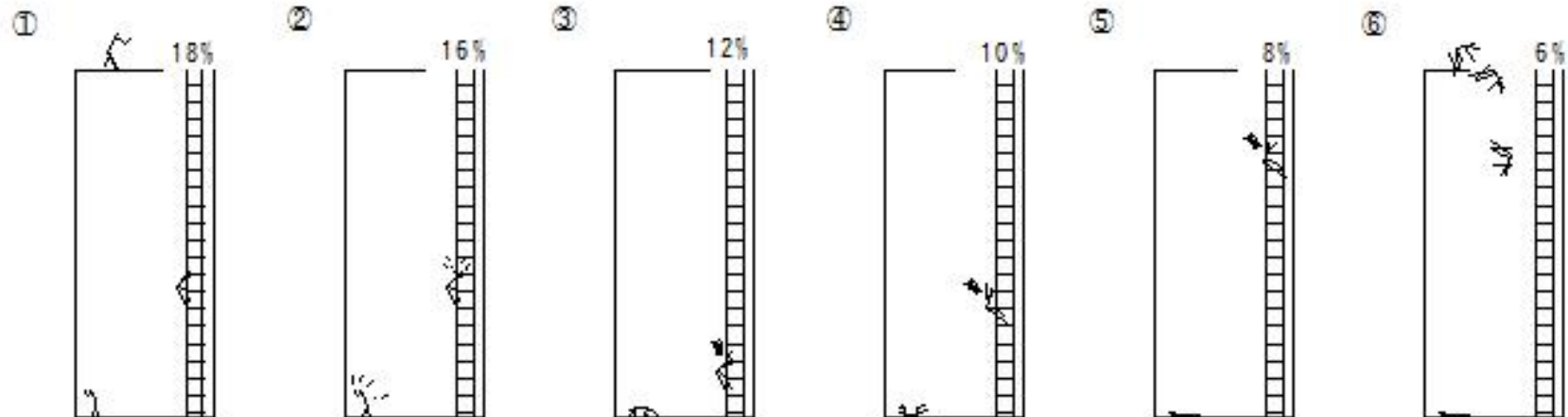
Areas requiring entry restrictions

Oxygen deficiency measurement Article 9

Places at risk of oxygen deficiency

(No entry)

(No entry)



(S1629) No Entry

(S1629) No Entry

Areas requiring entry restrictions

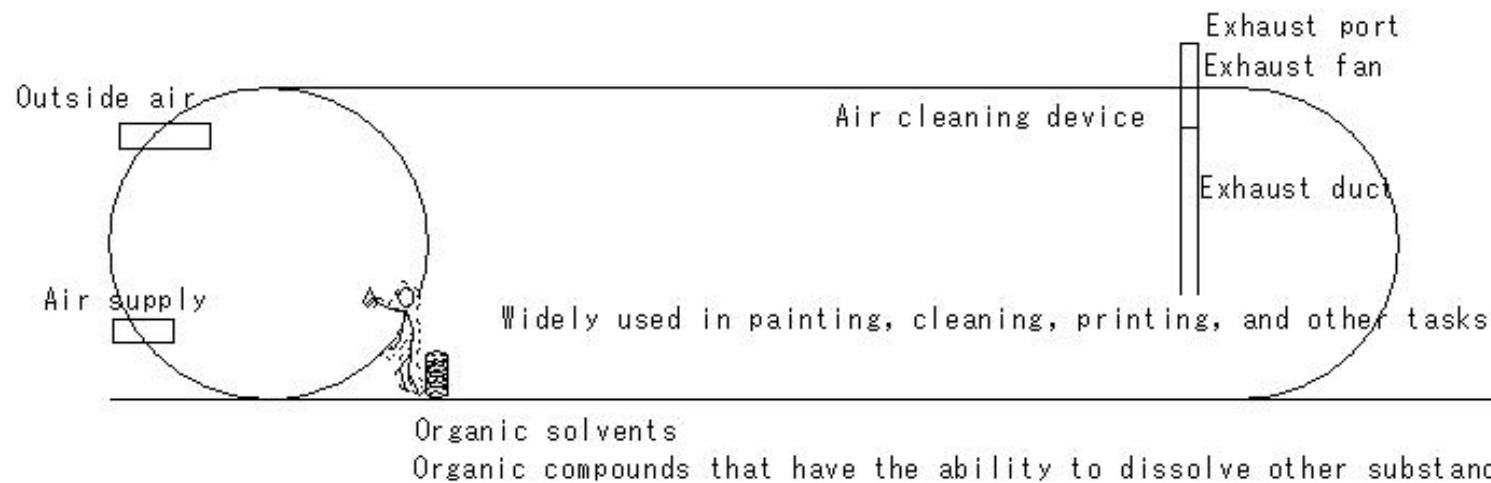
Organic solvent measurement Article 27

Organic solvent work

Local exhaust ventilation equipment installed for ventilation, push-pull type ventilation equipment

(No entry)

(No entry)



(S1630) No Entry

(S1630) No Entry

Areas requiring entry restrictions

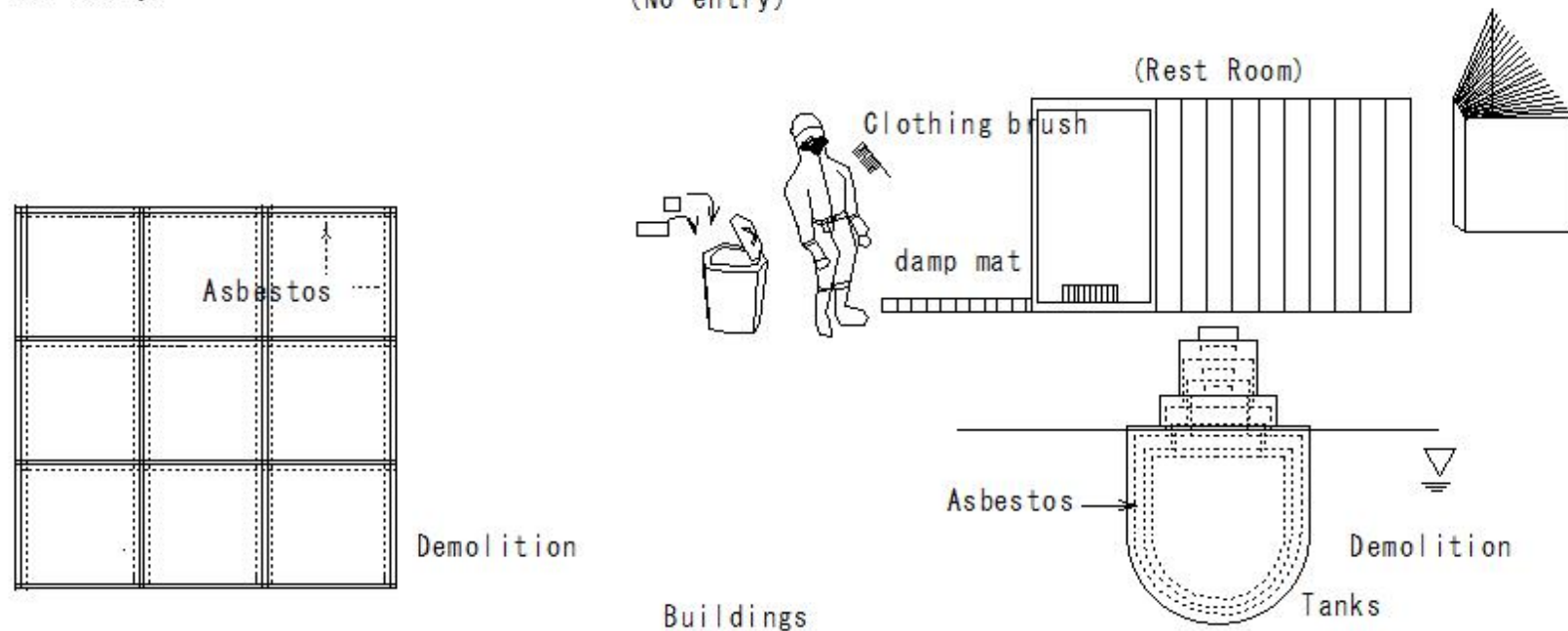
Article 7. Paragraph 1 of the Asbestos Regulations

Places where asbestos is emitted

Asbestos work

(No entry)

(No entry)



S1276

(S1631) No Entry

(S1631) No Entry

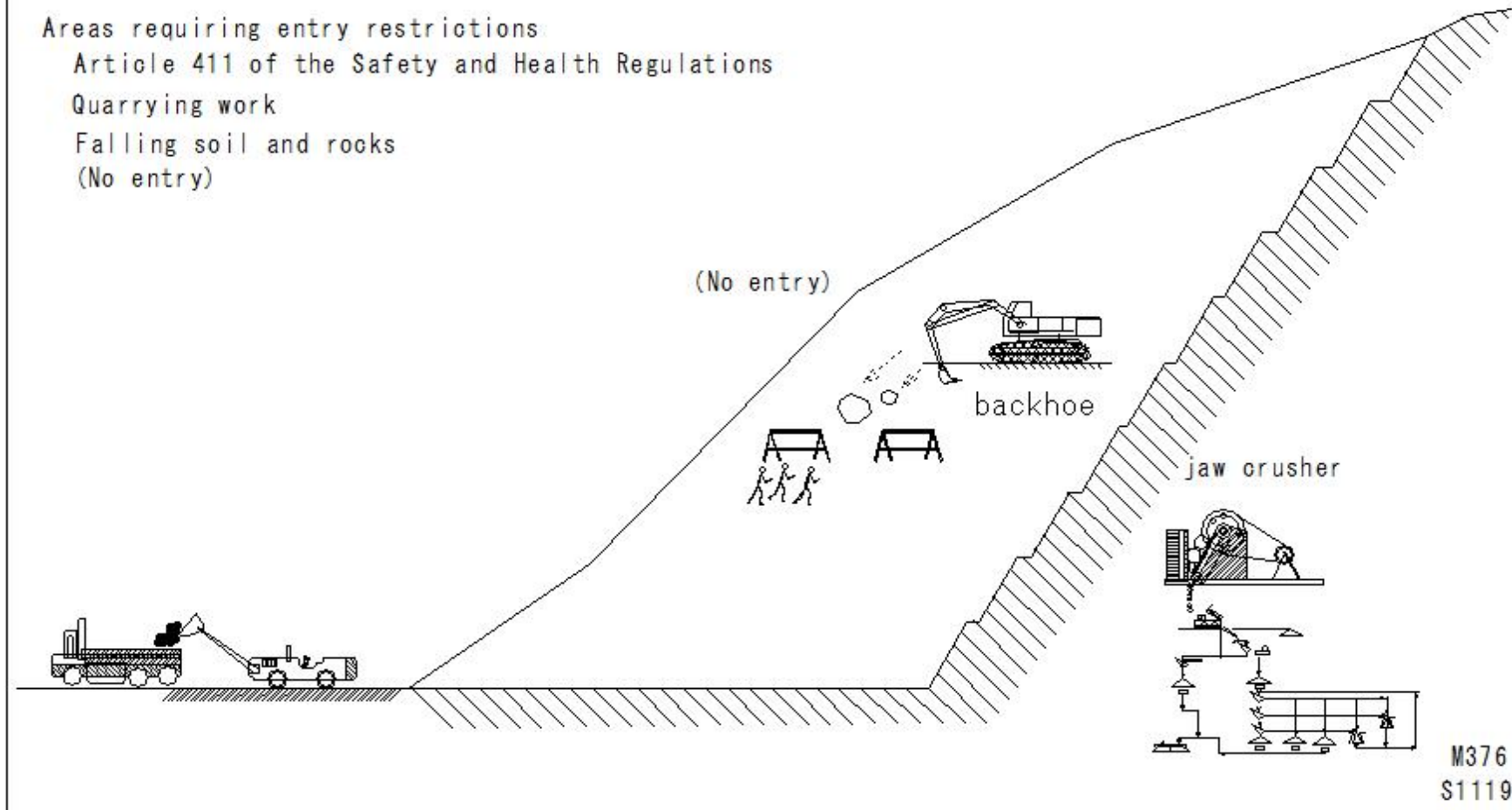
Areas requiring entry restrictions

Article 411 of the Safety and Health Regulations

Quarrying work

Falling soil and rocks

(No entry)



(S1632) No Entry

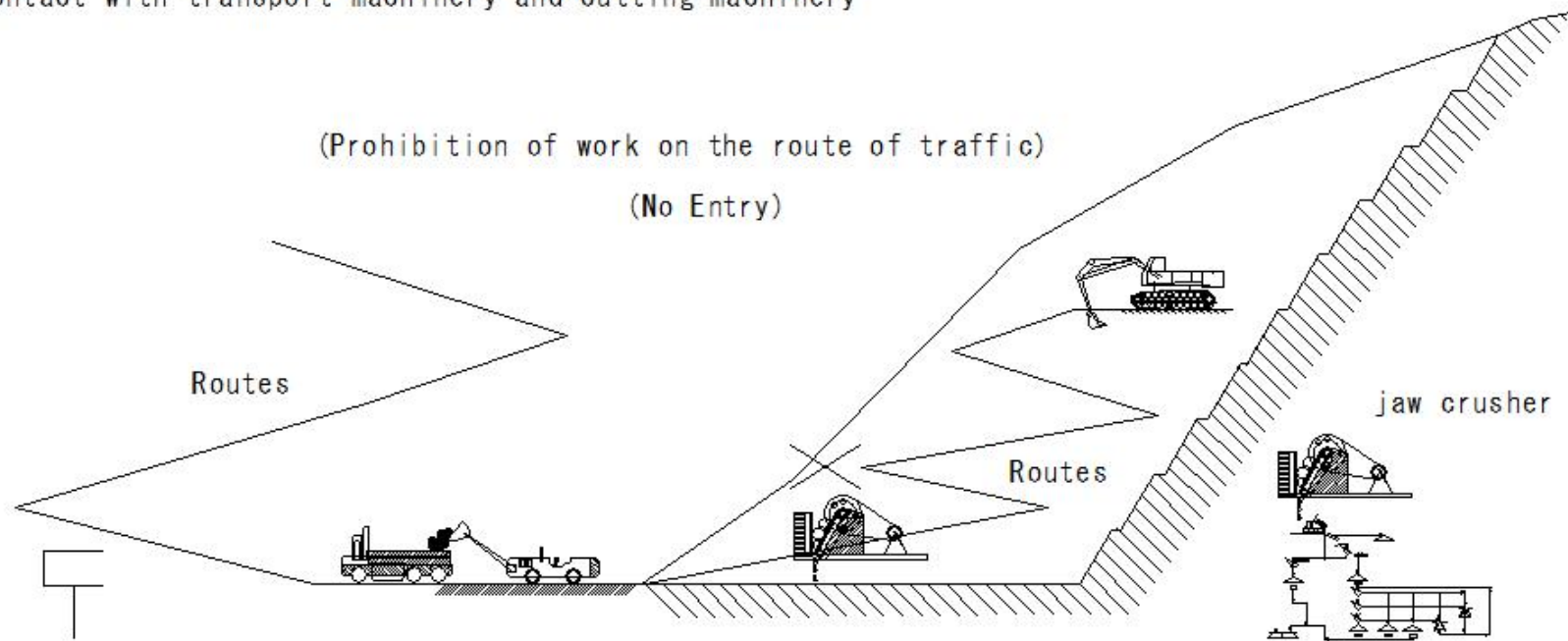
(S1632) No Entry

Areas requiring entry restrictions

Article 415 of the Safety and Health Regulations
(No Entry)

Quarrying work

Contact with transport machinery and cutting machinery



S1121

(S1633) No Entry

(S1633) No Entry

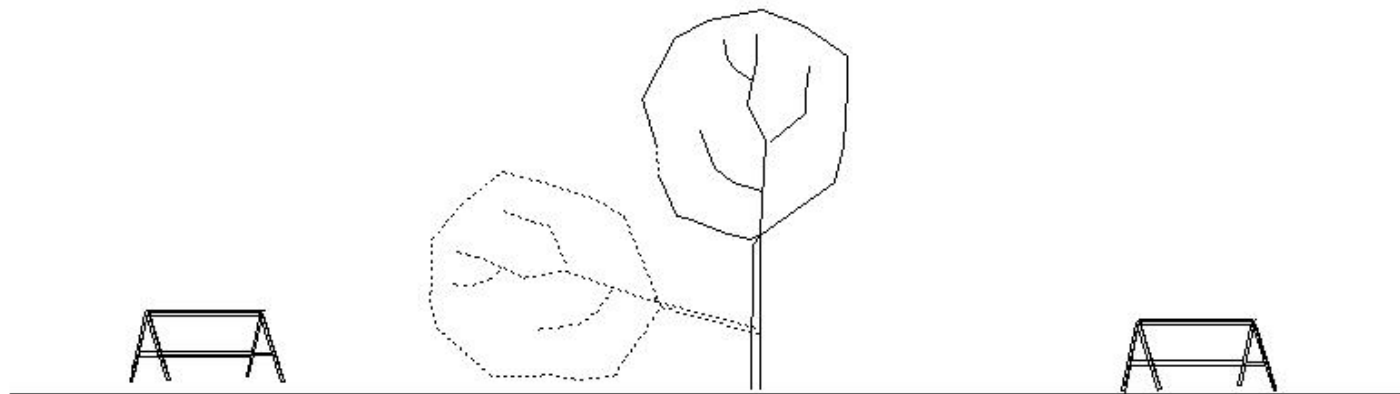
Areas requiring entry restrictions

Article 481 of the Safety and Health Regulations

Fell trees, cut logs, dead and damaged trees, etc.

(No entry)

(No entry)



(S1634) No Entry

(S1634) No Entry

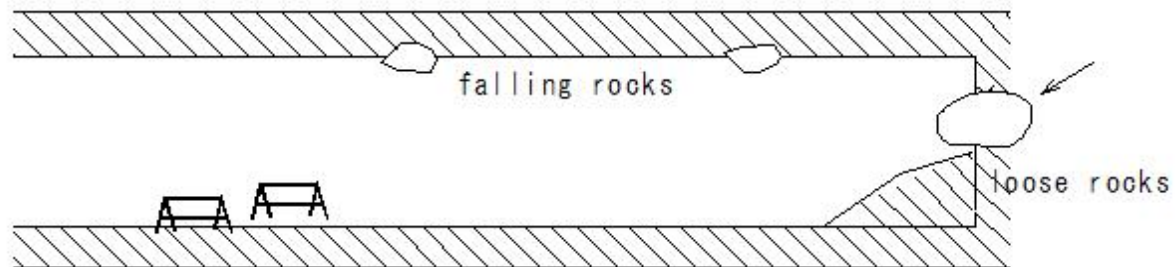
Areas requiring entry restrictions

Article 386 of the Safety and Health Regulations

(No entry)

Tunnel

Floating rocks



E497

S863

(S1635) No Entry

(S1635) No Entry

Areas requiring entry restrictions

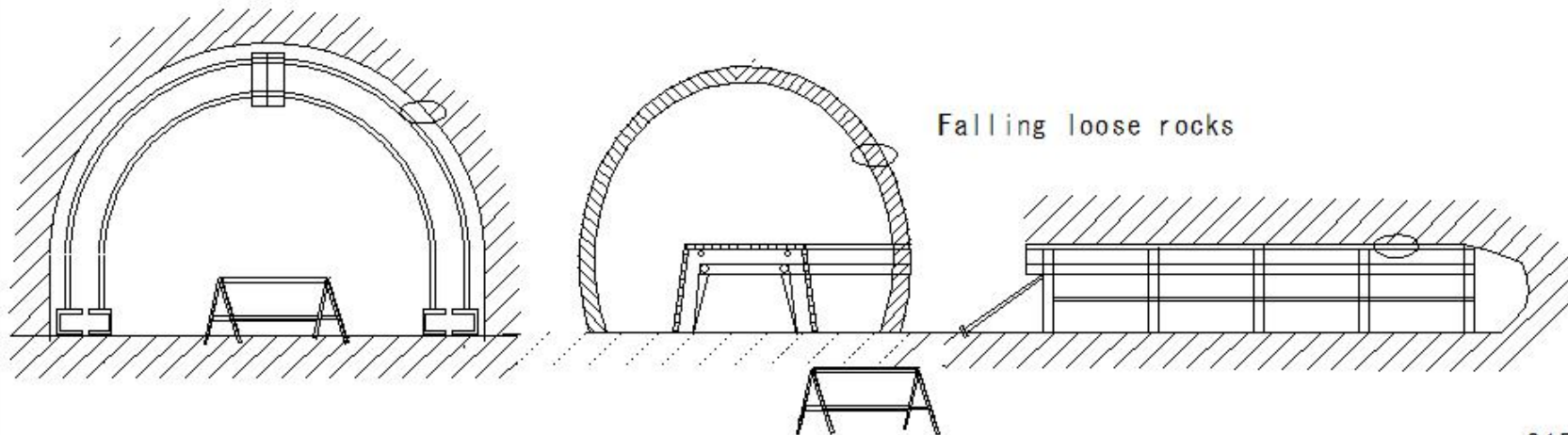
Article 386 of the Safety and Health Regulations

(No entry)

Reinforcement or repair work for tunnel supports

Falling loose rocks

Rockfall



S1548

(S1636) No Entry

(S1636) No Entry

Areas requiring entry restrictions

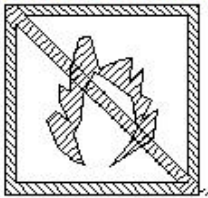
Article 389-8 of the Safety and Health Regulations

Tunnels

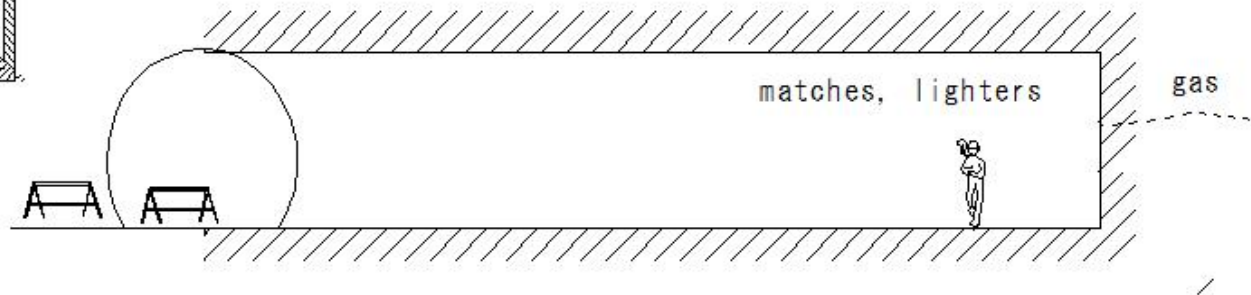
Rockfall, flooding, gas explosions, fires

(No entry)

No open flames



(No entry)



S1069

(S1637) No Entry

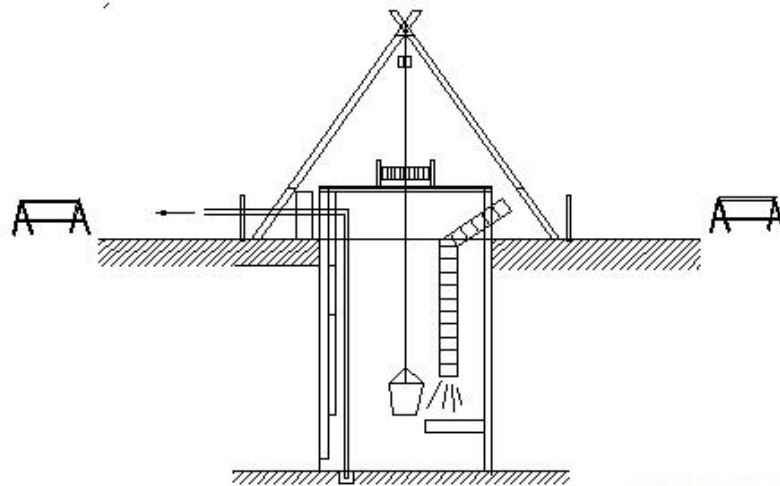
(S1637) No Entry

Areas requiring entry restrictions

Article 24 of the Oxygen Deficiency Safety Law

Oxygen-deficient air leaks

(Measures related to compressed air construction)



Deep foundation method

F152

(S1638) No Entry

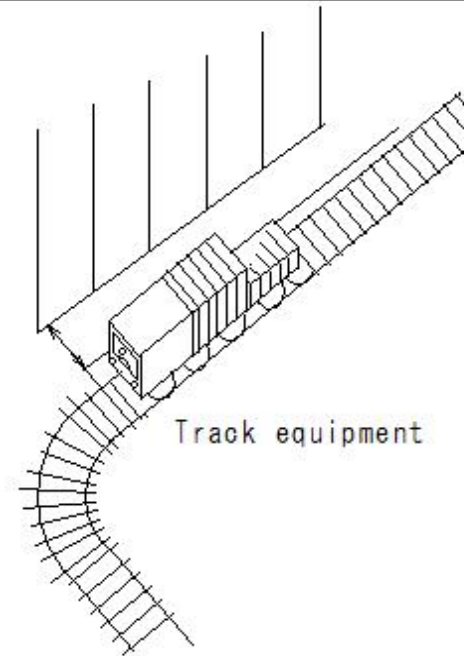
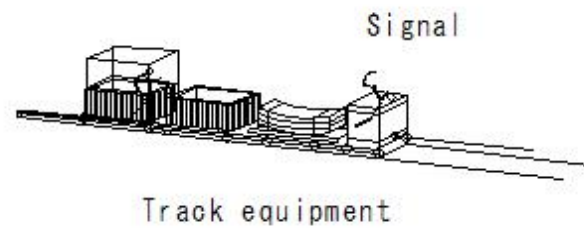
(S1638) No Entry

Areas requiring entry restrictions

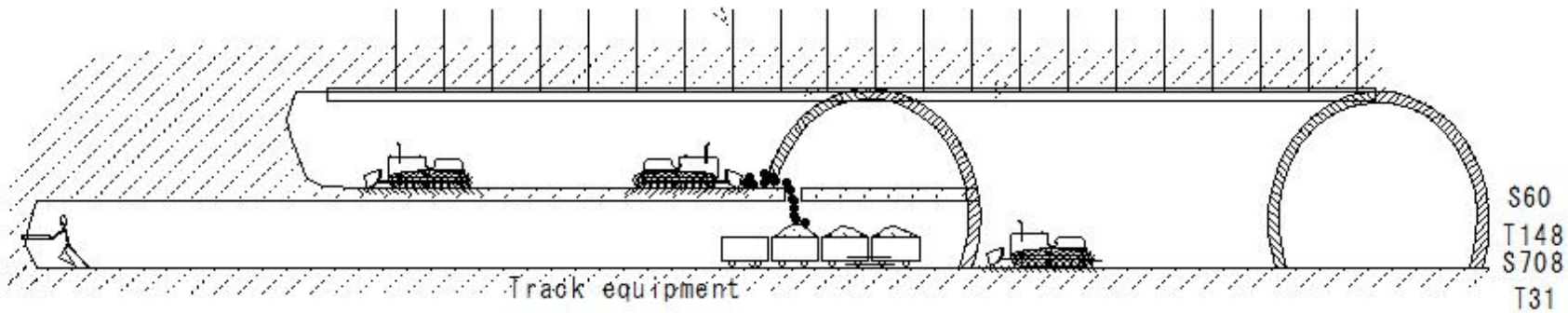
Article 224 of the Safety and Health Regulations

Operation of track equipment

(No entry)



S126



(S1639) No Entry

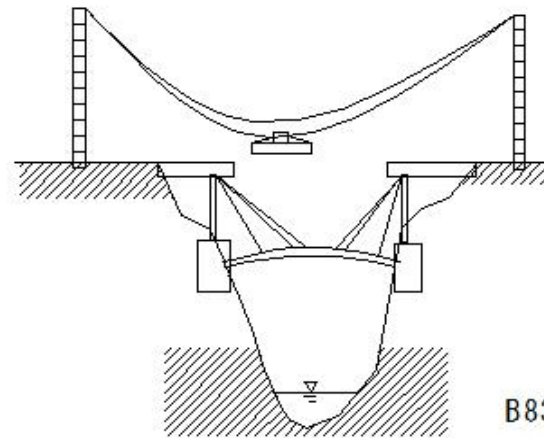
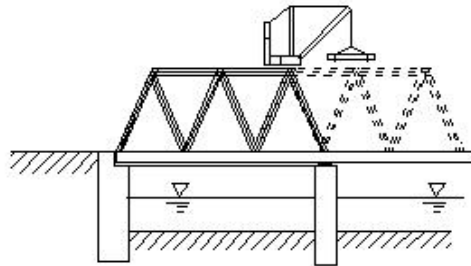
(S1639) No Entry

Areas requiring entry restrictions

Article 517-7,21 of the Safety and Health Regulations

(Work such as erecting steel bridges)

(No entry)



B83

S1421

S1527

(S1640) No Entry

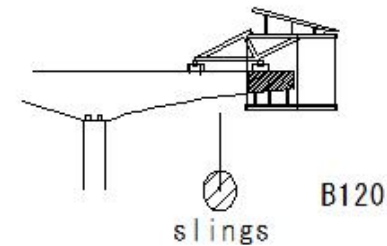
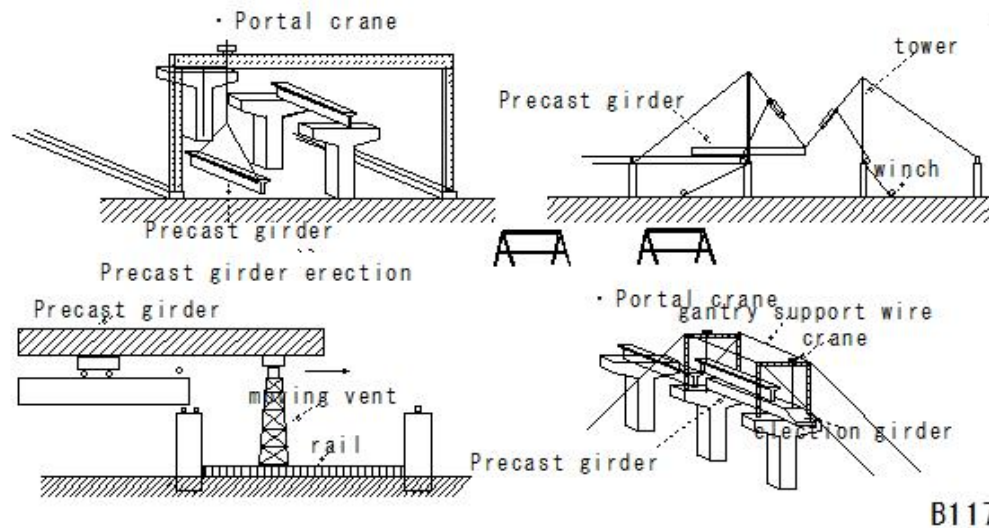
(S1640) No Entry

Areas requiring entry restrictions

Article 517-7-21 of the Safety and Health Regulations

(Concrete bridge construction work, etc.)

(No entry)



cantilever erection B190

S1197

S1528

(S1641) No Entry

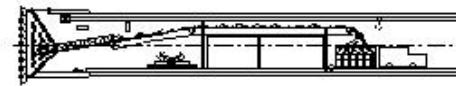
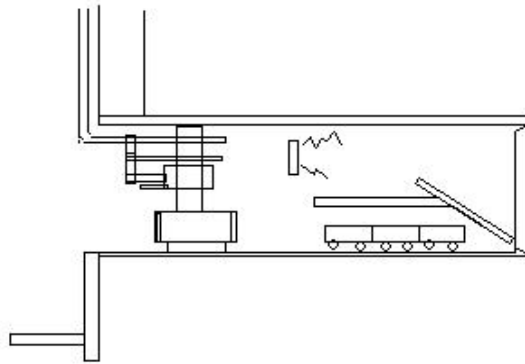
(S1641) No Entry

Areas requiring entry restrictions

High Pressure Regulations Article 13

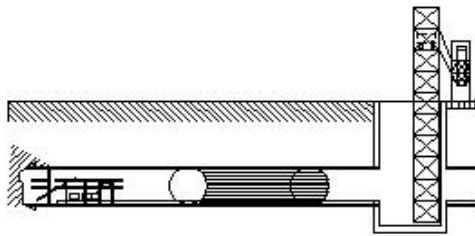
Cabinet, diving bell, air pressure shield, etc.

(No entry)



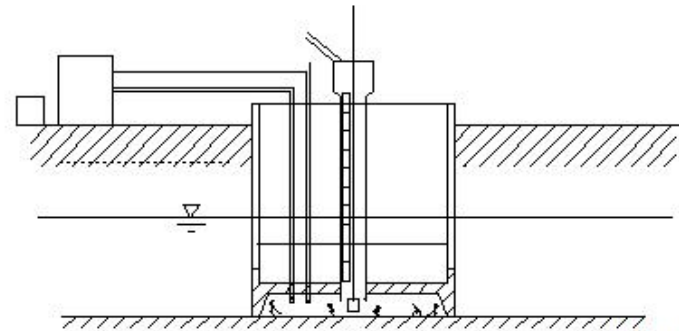
S141

T157



T112

F127



M262
F59

S1206
S1431

(S1642) No Entry

(S1642) No Entry

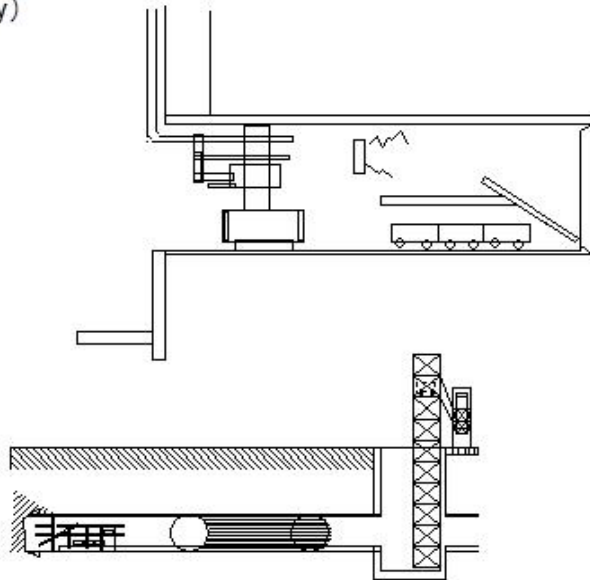
Areas requiring entry restrictions

Article 43 of the High Pressure Act

High Pressure Act (High Pressure Work Safety and Health Regulations)

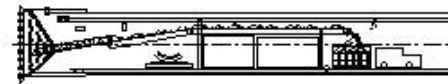
Recompression chamber

(No entry)



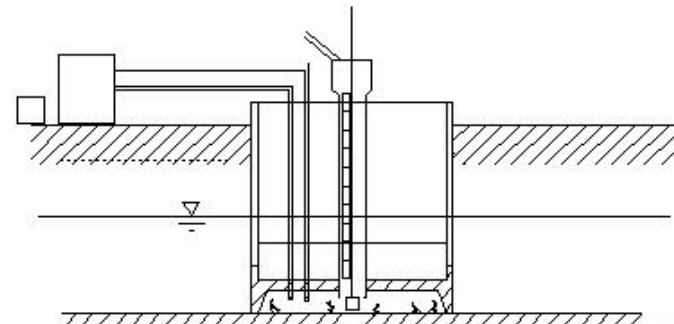
T112

F127



T157

S141



M262
F59

S1206
S1431

(S1643) No Entry

(S1643) No Entry

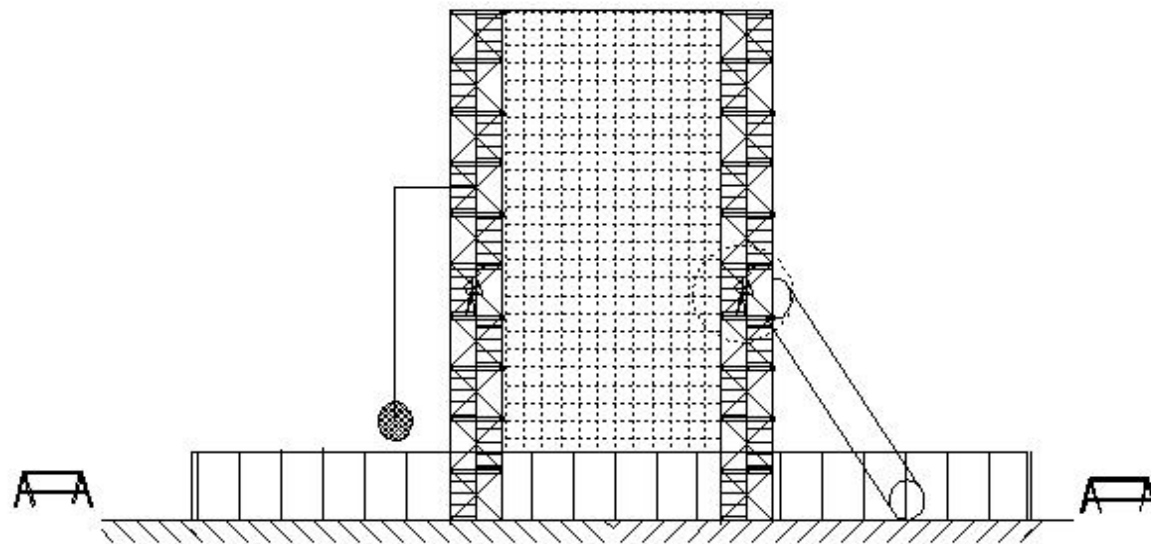
Areas requiring entry restrictions

Article 517-3 of the Safety and Health Regulations

(Work such as assembling steel frames of buildings, etc.)

Workers are prohibited from entering

(No entry)



S1525

(S1644) No Entry

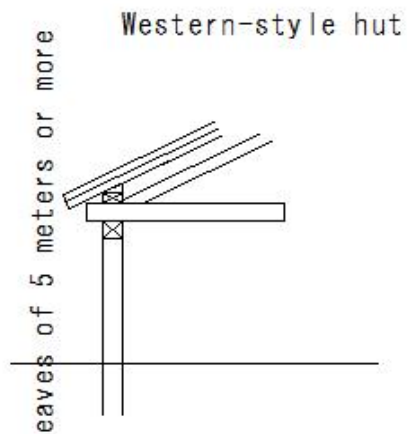
(S1644) No Entry

Areas requiring entry restrictions

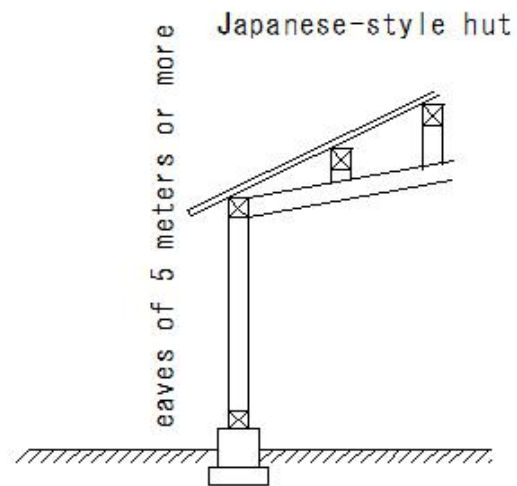
Article 517-11 of the Safety and Health Regulations

Assembly of wooden buildings

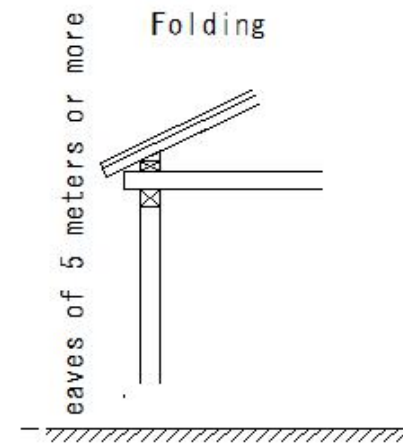
(No entry)



S1492



S1493



S1494

S1526

(S1645) No Entry

(S1645) No Entry

Areas requiring entry restrictions

Article 151-9 of the Safety and Health Regulations

Vehicle-type loading and transport machinery, etc.

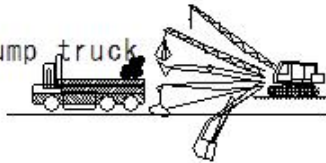
Forks, shovels, arm

(No Entry)

construction machinery

power source

+ dump truck



Towed scraper



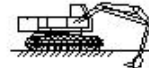
scrape dozer



motor scraper



Excavator



backhoe



drag line



clamshell



Tractor excavator
+ dump truck

E238

M10

(S1646) No Entry

(S1646) No Entry

Areas requiring entry restrictions

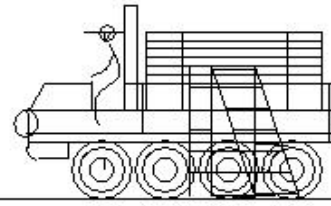
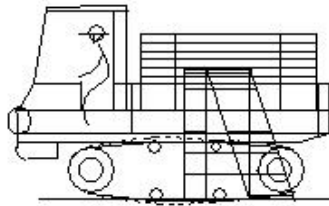
Article 151-48 of the Safety and Health Regulations

(Loading and unloading)

Loading cargo weighing 100 kilograms or more

Work involving loading onto an off-road vehicle

(No entry)



Off-road vehicle

S611

S1426

(S1647) No Entry

(S1647) No Entry

Areas requiring entry restrictions

Article 151-62 of the Safety and Health Regulations

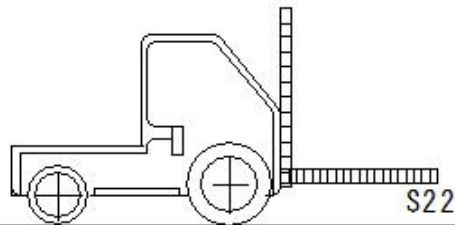
(Loading and unloading)

In-plant transport vehicles

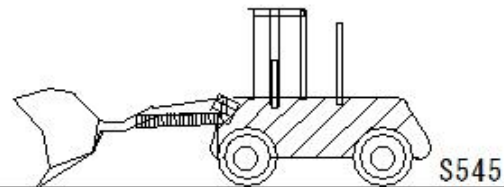
Loads weighing 100 kilograms or more are transported by in-plant transport vehicles

(No entry)

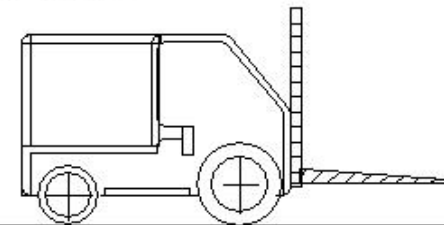
① Forklift



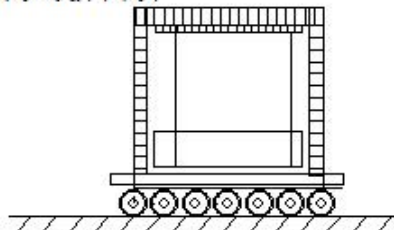
② Shovel loader



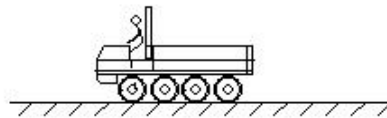
③ Fork loader



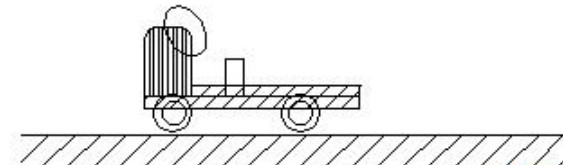
④ Straddle carrier



⑤ Off-road transport vehicle



⑥ In-plant transport vehicle



S568

(S1648) No Entry

(S1648) No Entry

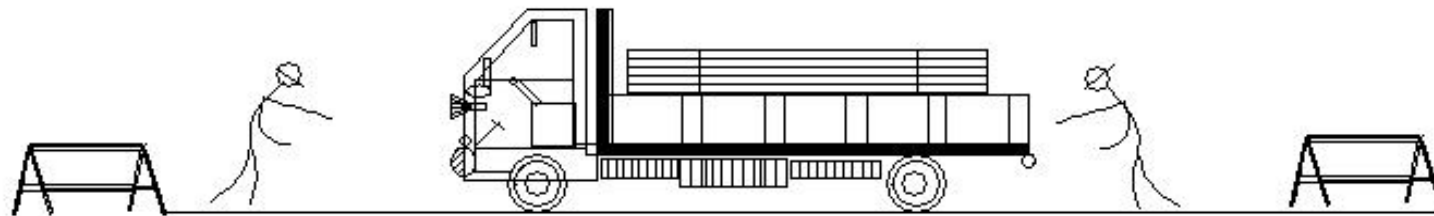
Areas requiring entry restrictions

Article 151-70 of the Safety and Health Regulations

Loading and unloading

Loading items weighing 100 kg or more onto a truck

(No entry)



Freight vehicle

S622

S1425

(S1649) No Entry

(S1649) No Entry

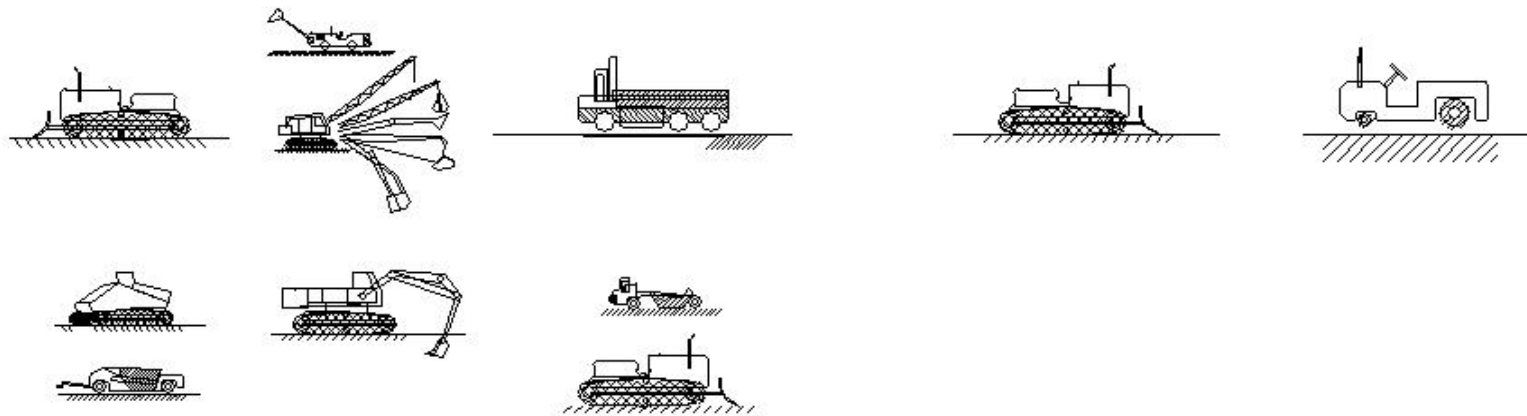
Areas requiring entry restrictions

Article 158 of the Safety and Health Regulations

(Prevention of contact)

Vehicle-mounted construction machinery

(No entry)



E341
M1

(S1650) No Entry

(S1650) No Entry

Areas requiring entry restrictions

Article 164 of the Safety and Health Regulations

(Restrictions on use other than the main purpose)

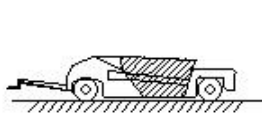
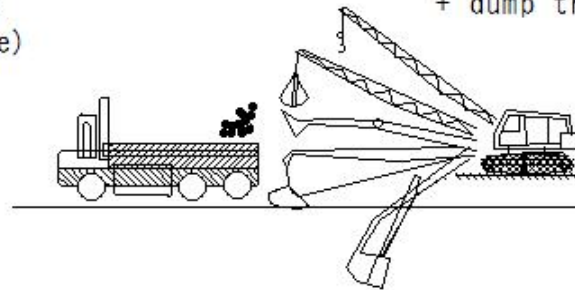
Lifting loads with a power shovel

(No entry)

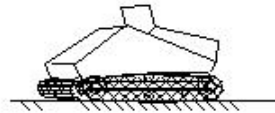
construction machinery

power source

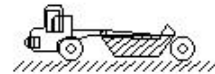
+ dump truck



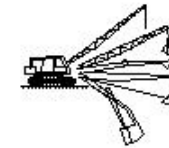
Towed scraper



scrape dozer



motor scraper



Excavator



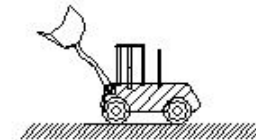
backhoe



drag line



clamshell



Tractor excavator
+ dump truck

E238
M10

(S1651) No Entry

(S1651) No Entry

Areas requiring entry restrictions

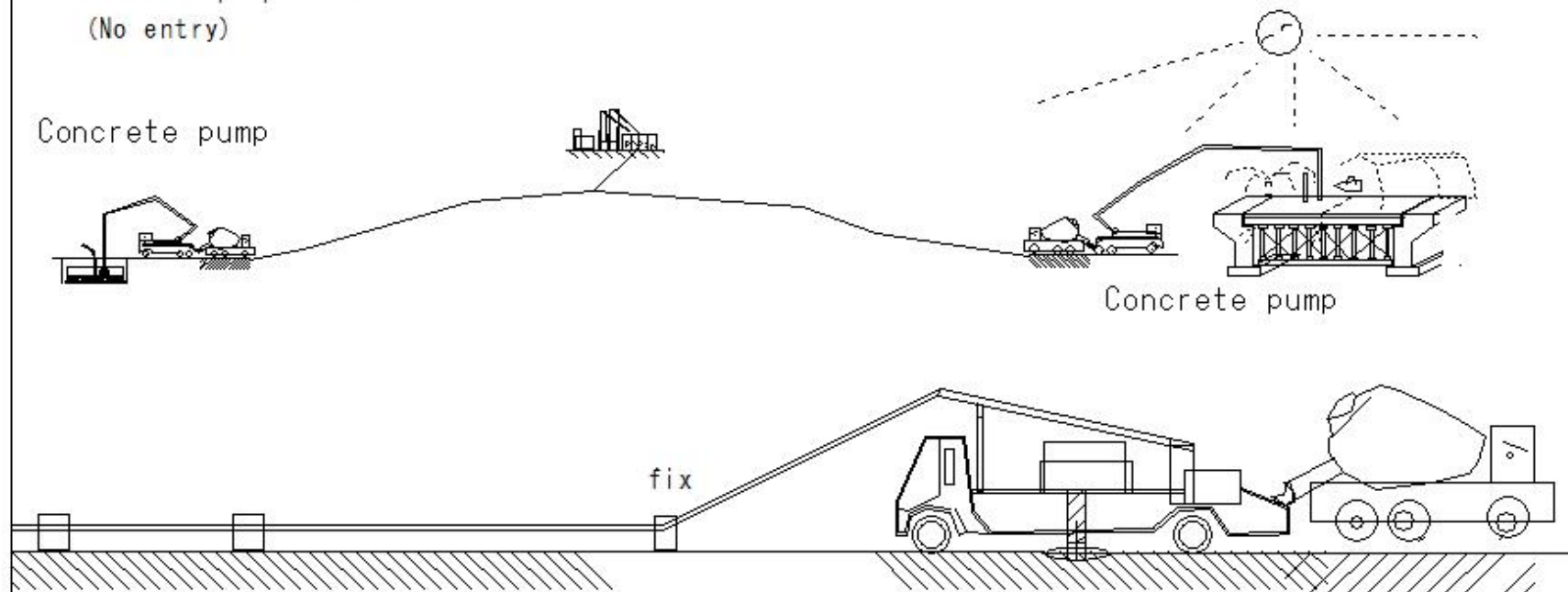
Article 171-2 of the Safety and Health Regulations

(Prevention of falling and shaking of transport pipes, etc.)

Concrete pump trucks

(No entry)

Concrete pump



S560
C1208

(S1652) No Entry

(S1652) No Entry

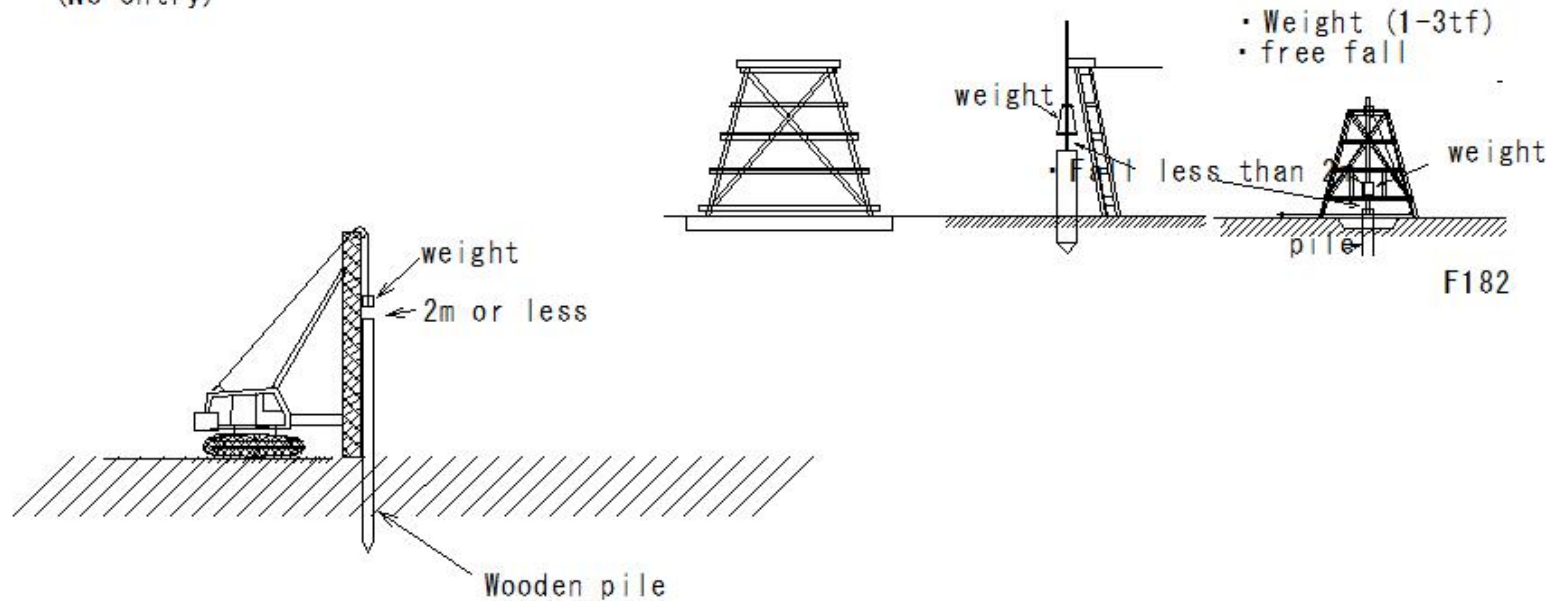
Areas requiring entry restrictions

Article 187 of the Safety and Health Regulations

Pile drivers, boring machines

Wire ropes may fly off, or sheaves, pulleys, etc. may fly in

(No entry)



Wooden pile

RC Pile

Less pollution, noise and vibration F254

M68

(S1653) No Entry

(S1653) No Entry

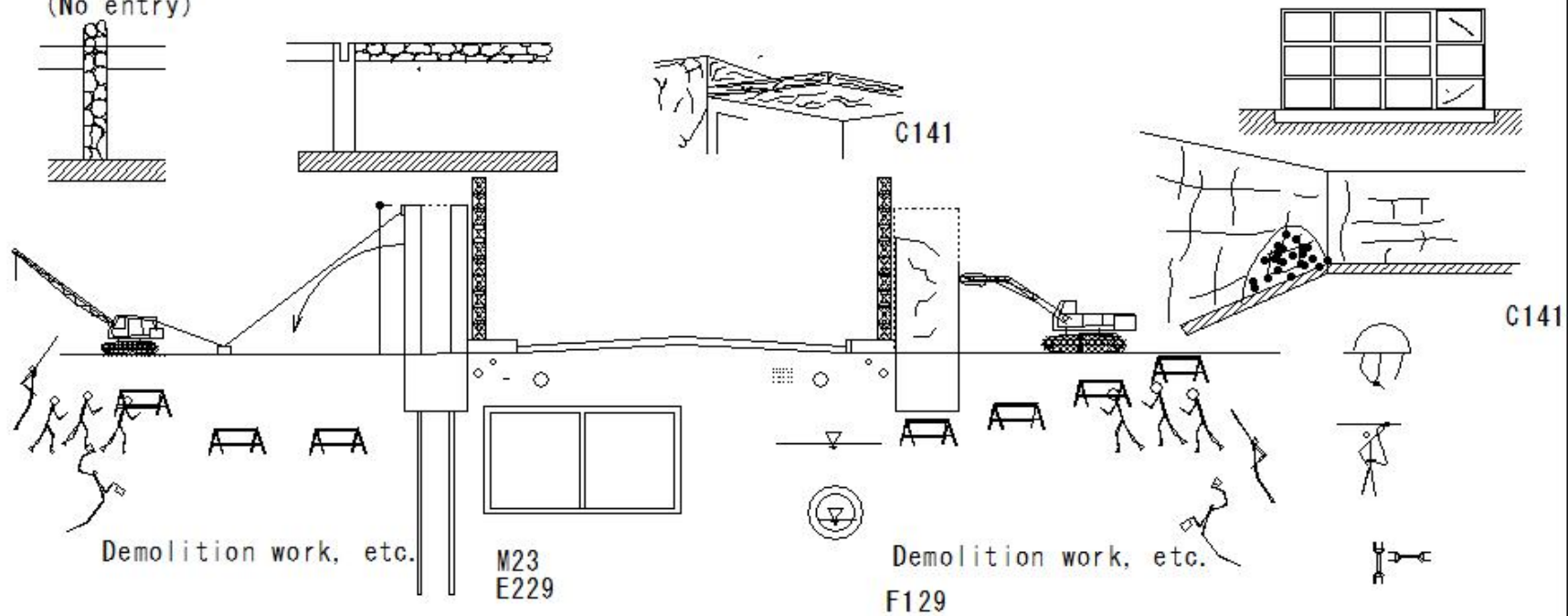
Areas requiring entry restrictions

Article 171, Section 6 of the Safety and Health Regulations

Demolition machinery

Demolition work

(No entry)



(S1654) No Entry

(S1654) No Entry

Areas requiring entry restrictions

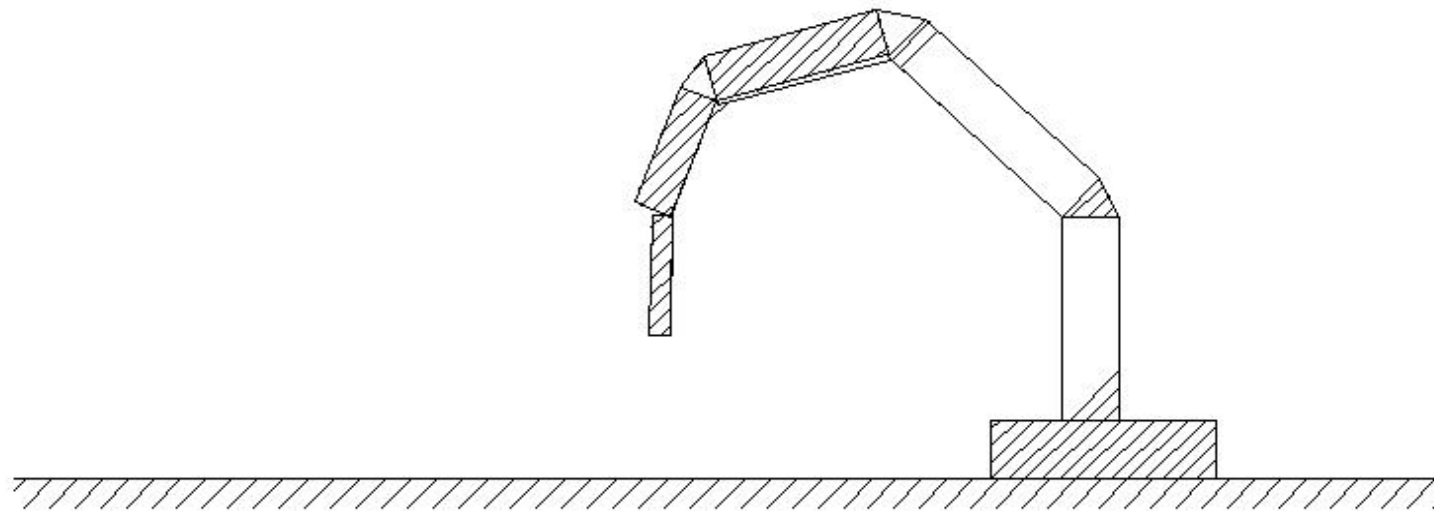
Article 150. Paragraph 4 of the Safety and Health Regulations

(Prevention of hazards during operation)

Industrial robots

(No entry)

Industrial robots



S1577

(S1655) No Entry

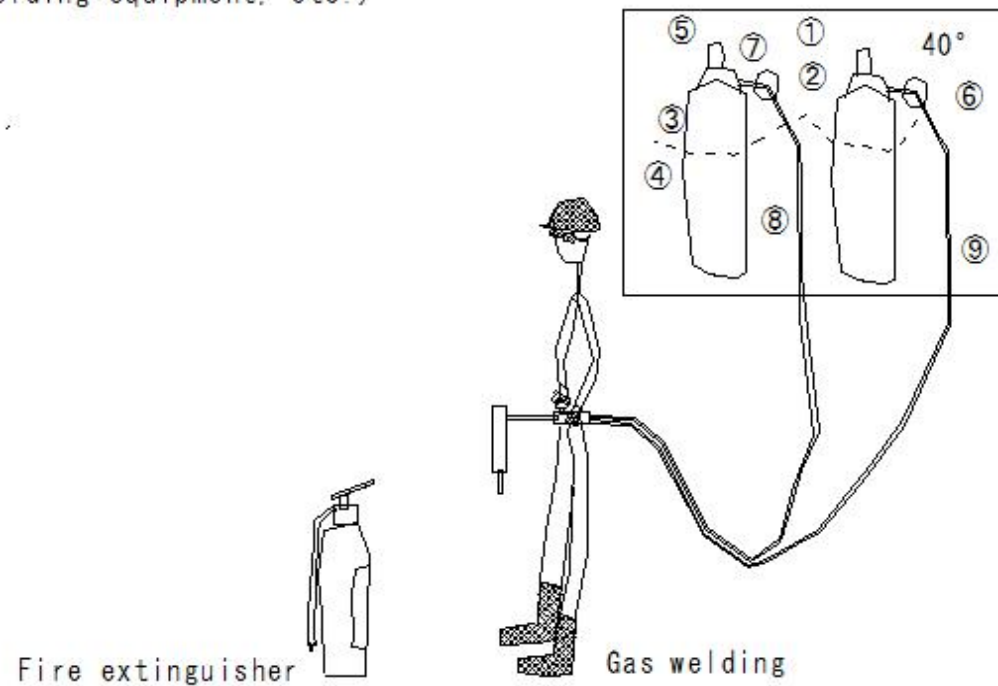
(S1655) No Entry

Areas requiring entry restrictions

Article 313 of the Safety and Health Regulations

(Management of gas welding equipment, etc.)

(No entry)



(S1656) No Entry

(S1656) No Entry

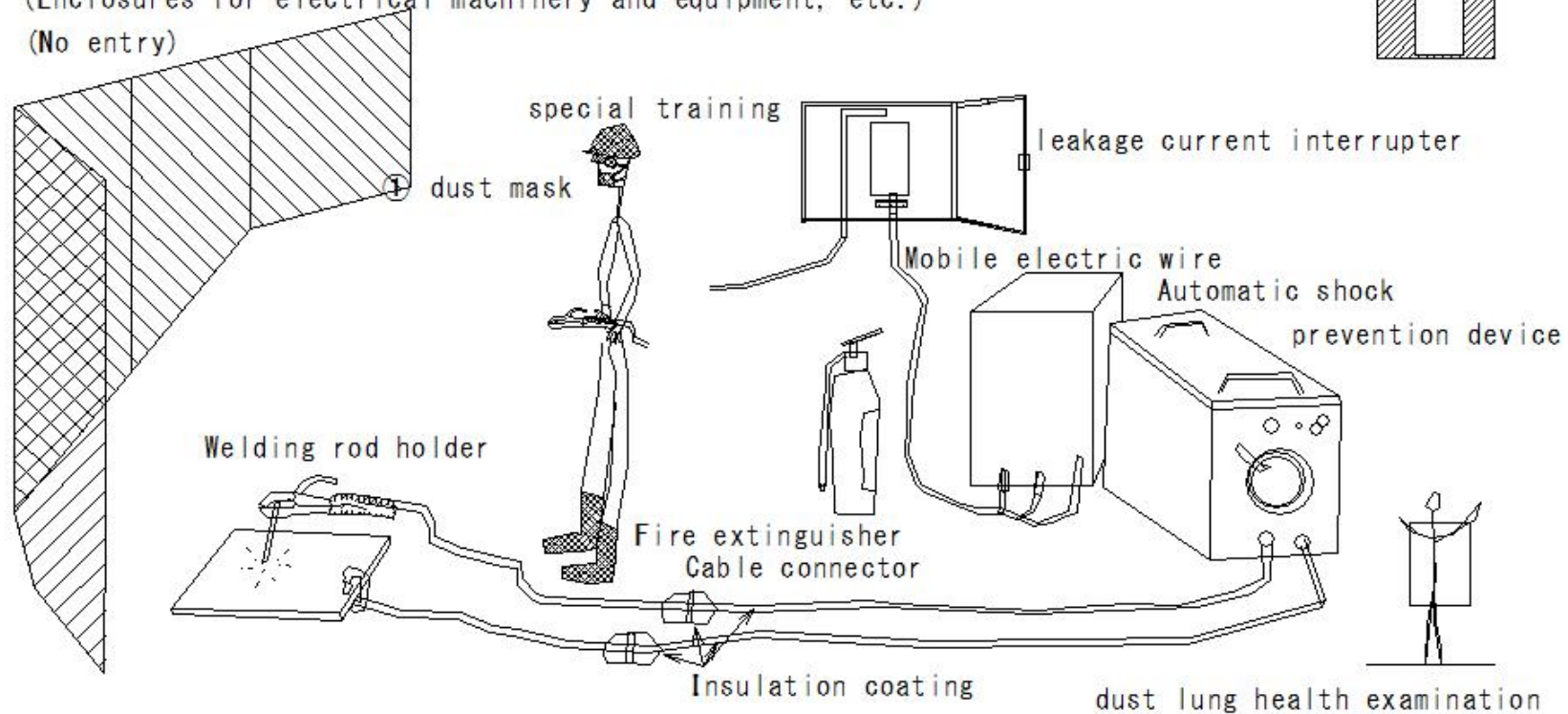
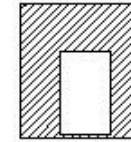
Areas requiring entry restrictions

Article 329 of the Safety and Health Regulations

(Enclosures for electrical machinery and equipment, etc.)

(No entry)

rest facilities



S975

(S1657) No Entry

(S1657) No Entry

Places where entry prohibition measures are required

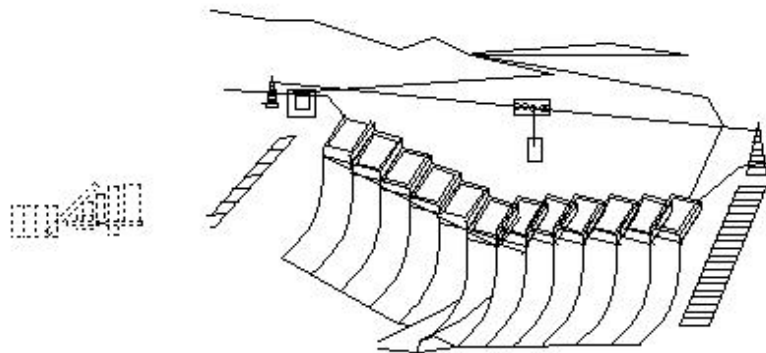
Crane Regulations Article 28

(Entry Prohibited)

Cable crane

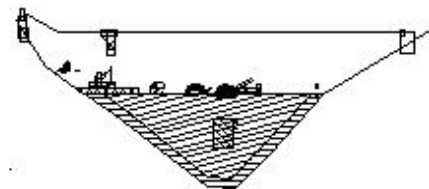
Hoisting wire rope or traversing wire rope

cable crane



D269

cable crane



D24

M47

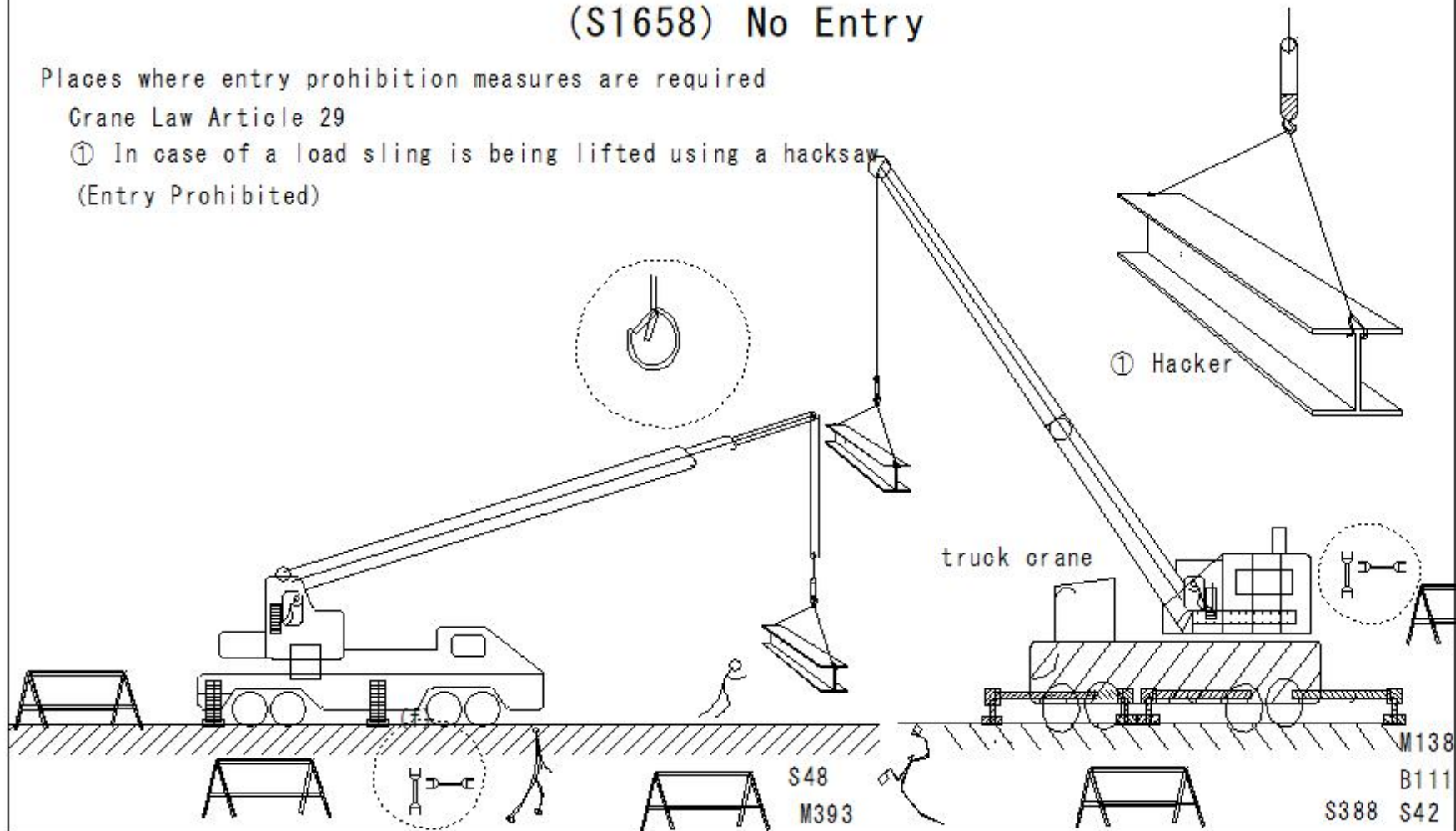
(S1658) No Entry

(S1658) No Entry

Places where entry prohibition measures are required

Crane Law Article 29

- ① In case of a load sling is being lifted using a hacksaw
(Entry Prohibited)



(S1659) No Entry

(S1659) No Entry

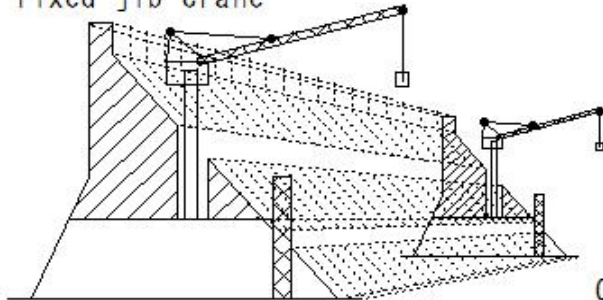
Places where entry prohibition measures are required

Crane Regulations Article 33

(Assembly work, etc.)

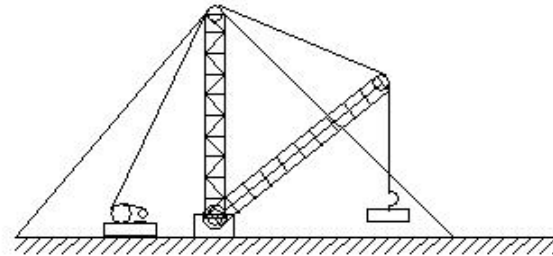
(Entry Prohibited)

fixed jib crane



C1036

jib crane



D189

M48

(S1660) No Entry

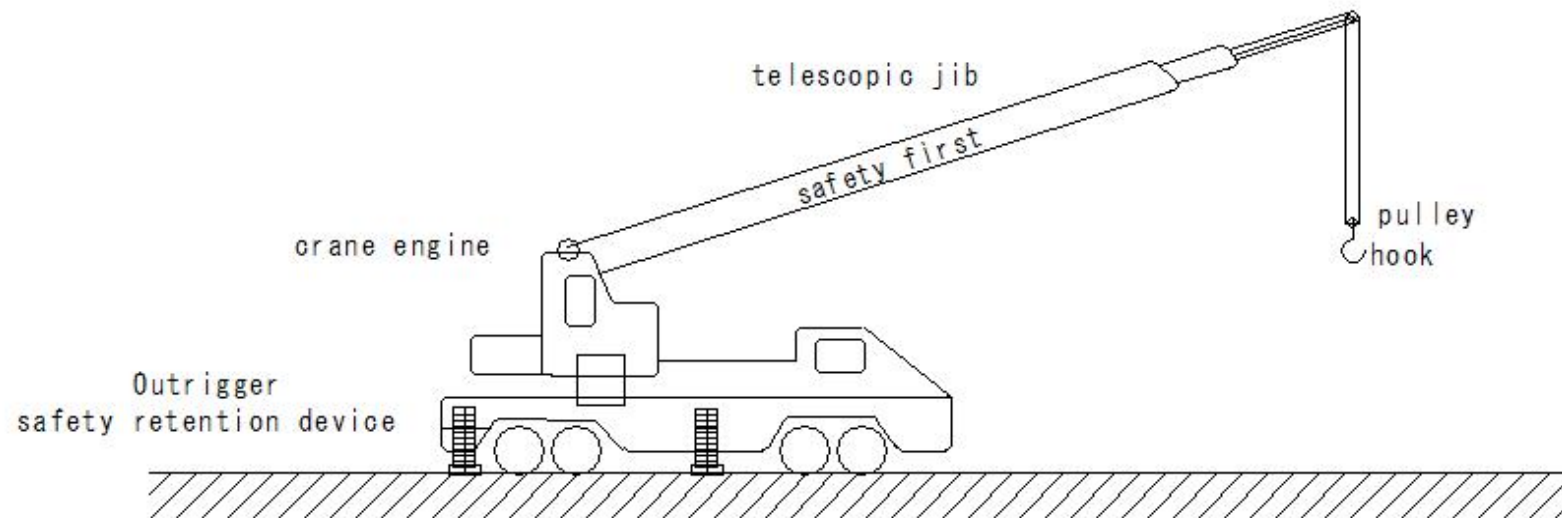
(S1660) No Entry

Places where entry prohibition measures are required

Crane Law Article 74

Contact with the upper rotating body of a mobile crane

(No entry)



M393

(S1661) No Entry

(S1661) No Entry

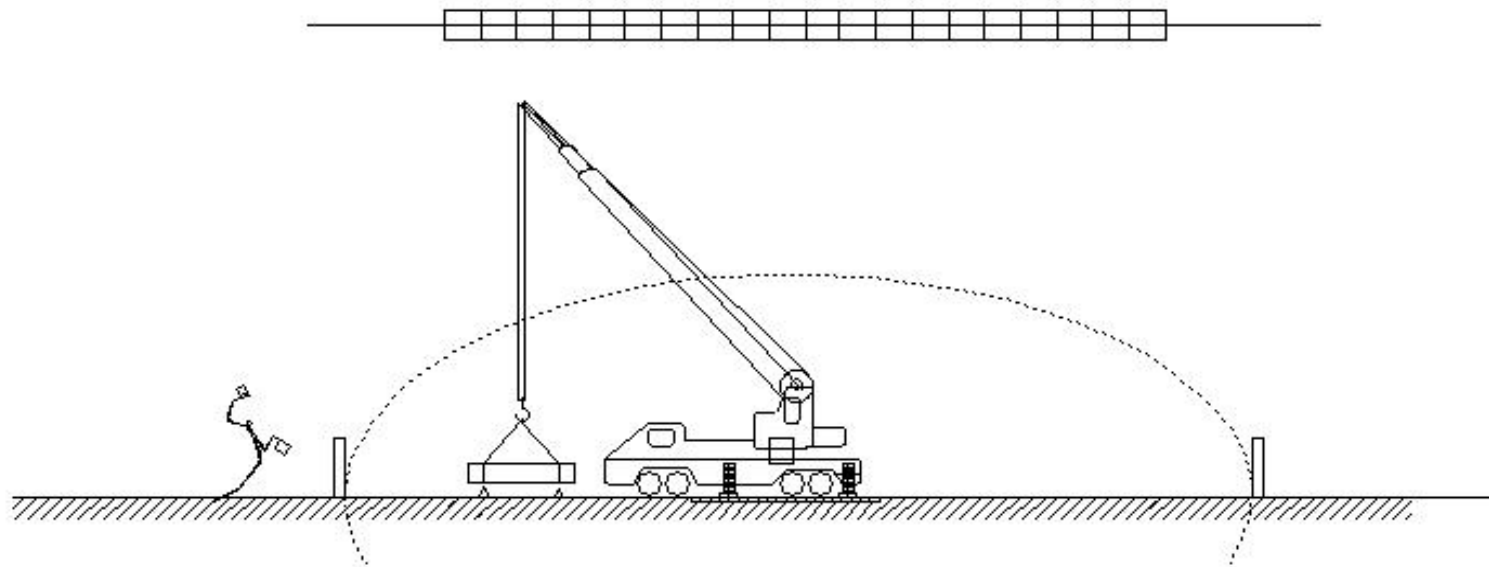
Places where entry prohibition measures are required

Crane Regulations Article 74-2

Mobile crane

In case of a load sling is being lifted using a hacksaw.

(No Entry)



S231

(S1662) No Entry

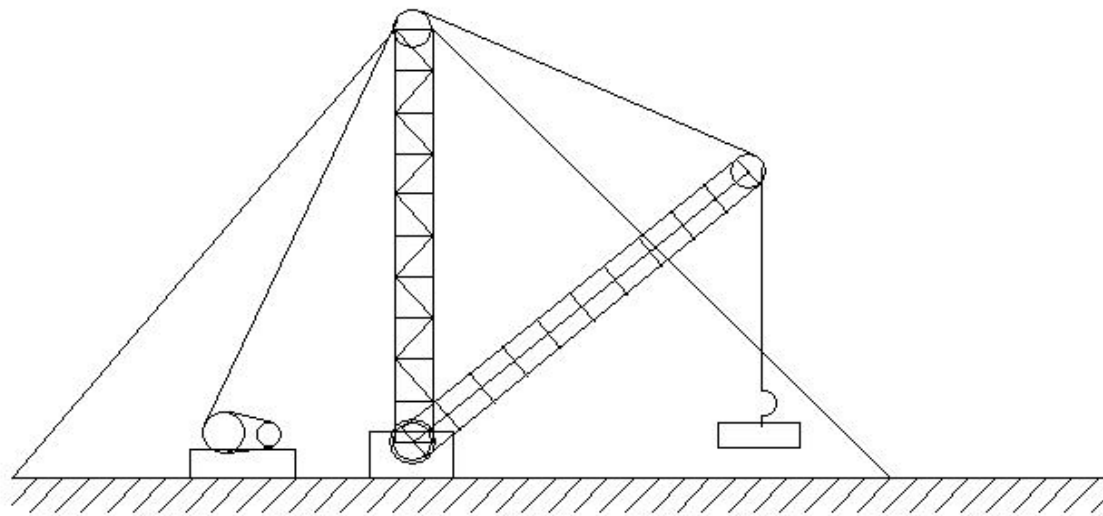
(S1662) No Entry

Places where entry prohibition measures are required

Crane Regulations Article 75-2

(Assembling the jib, etc.)

(No entry)



M371

(S1663) No Entry

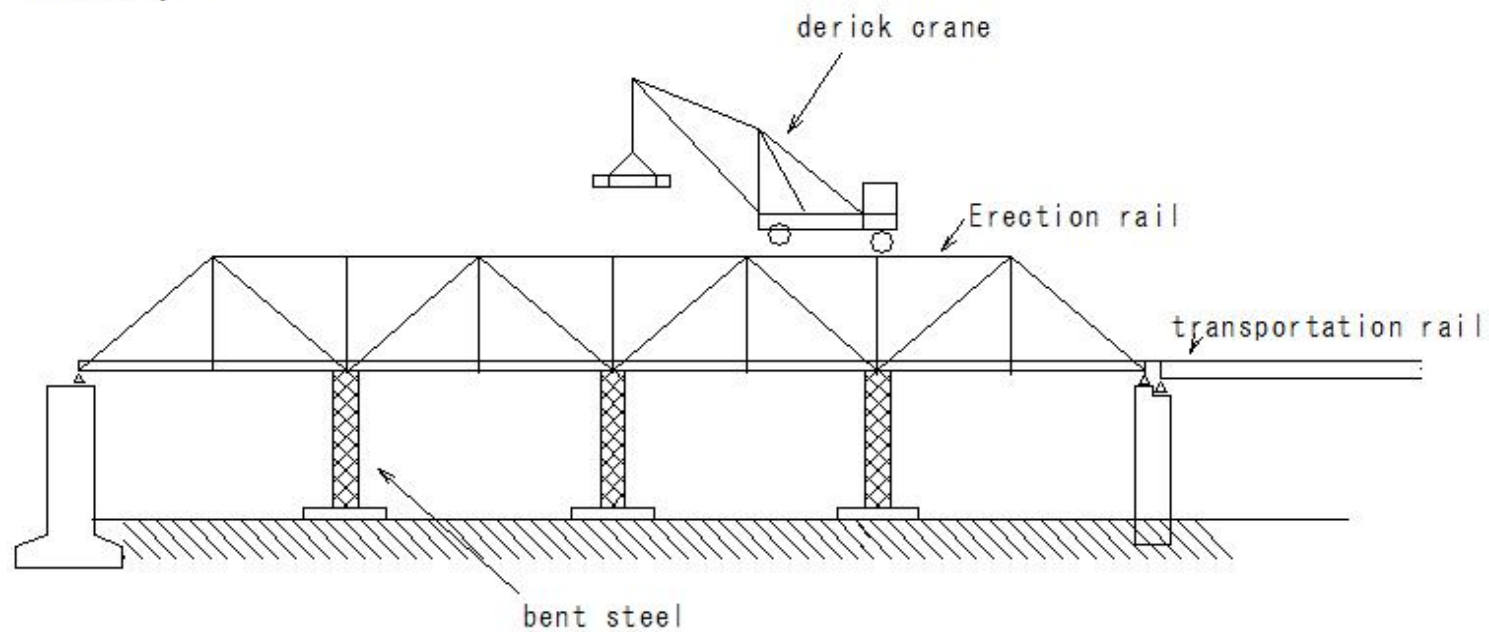
(S1663) No Entry

Places where entry prohibition measures are required

Crane Regulations Article 114

Working with a derrick

(No Entry)



S30

B417

M49

S1522

(S1664) No Entry

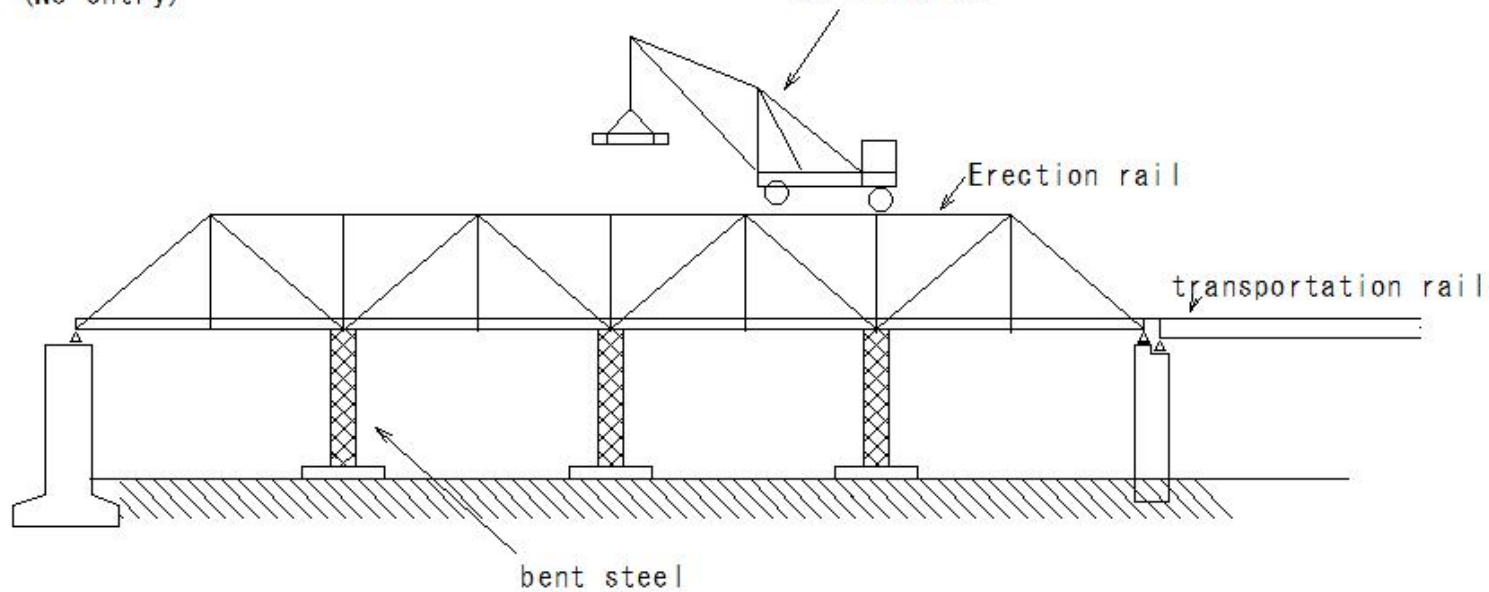
(S1664) No Entry

Places where entry prohibition measures are required

Crane Regulations Article 115

Work related to derricks

In case of a load sling is being lifted using a hacksaw.
(No entry)



S30
B417
M49
S1552

(S1665) No Entry

(S1665) No Entry

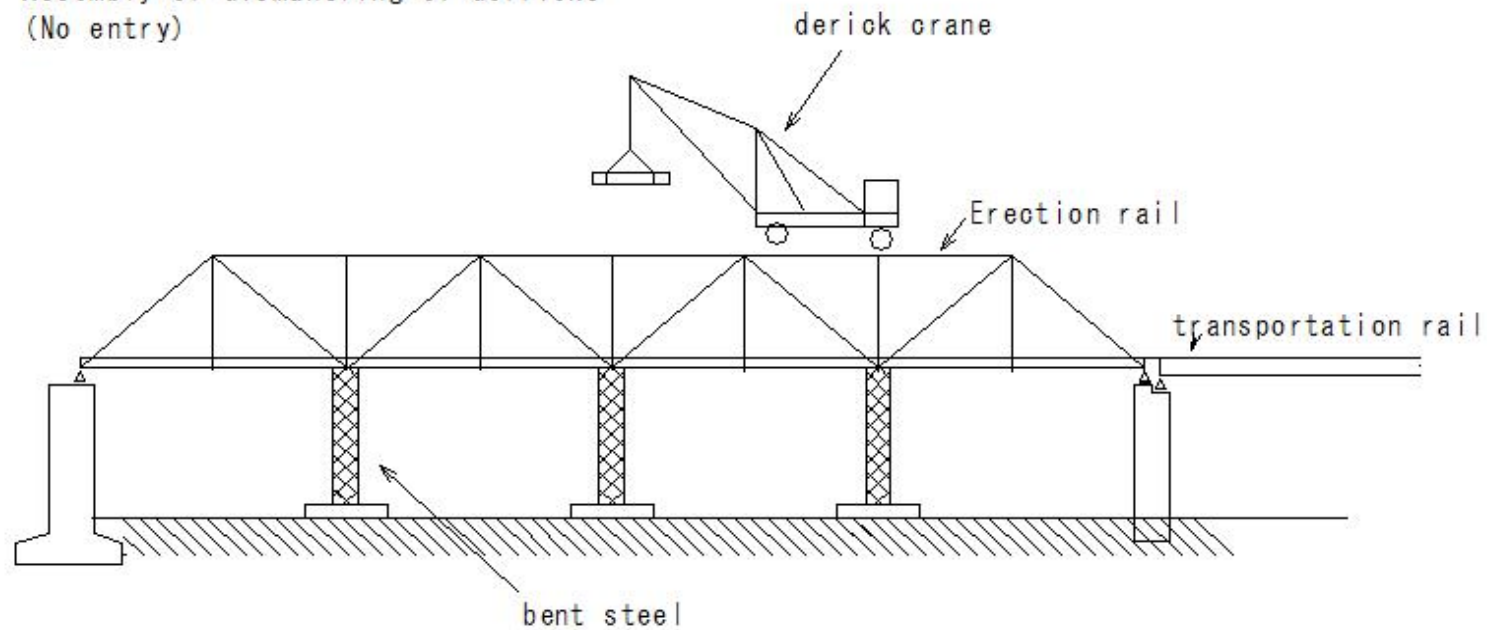
Places where entry prohibition measures are required

Crane Regulations Article 118

(Assembly and other work)

Assembly or dismantling of derricks

(No entry)



S30
B417
M49
S1552

(S1666) No Entry

(S1666) No Entry

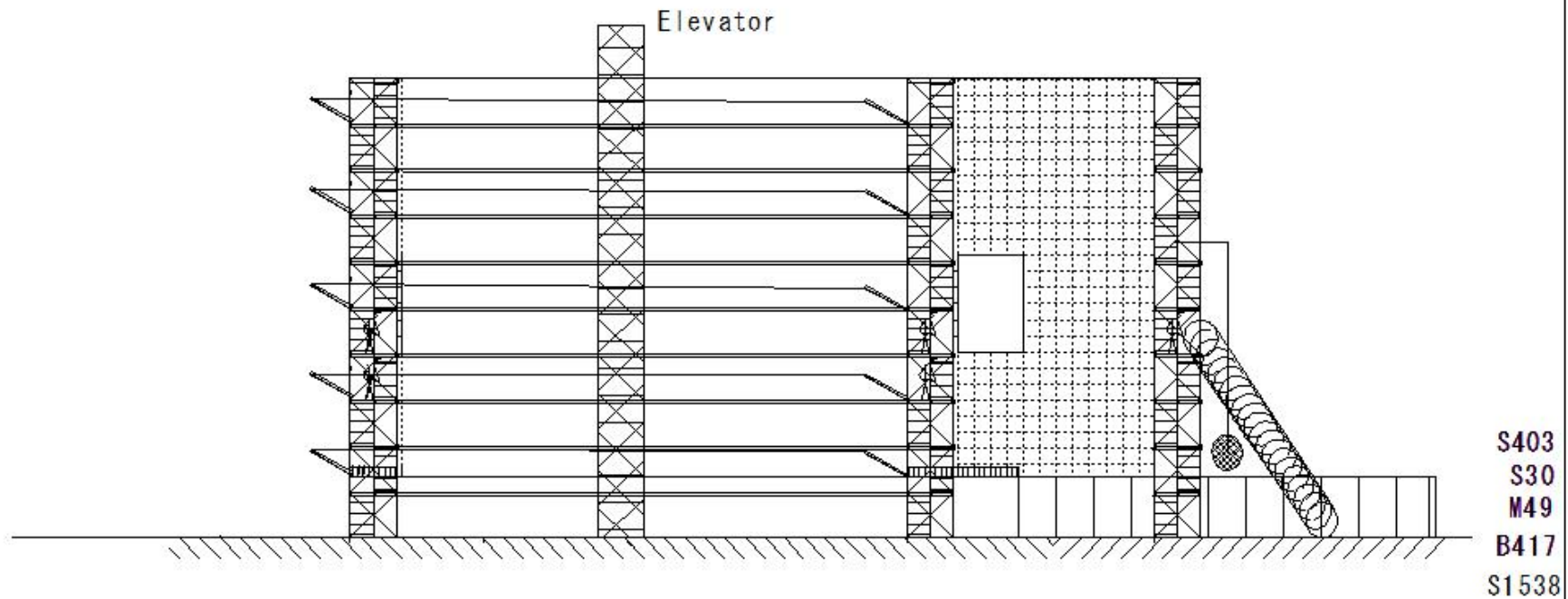
Places where entry prohibition measures are required

Crane Regulations Article 153

(Assembly work, etc.)

Elevator hoistway towers installed outdoors

(No entry)



(S1667) No Entry

(S1667) No Entry

Places where entry prohibition measures are required

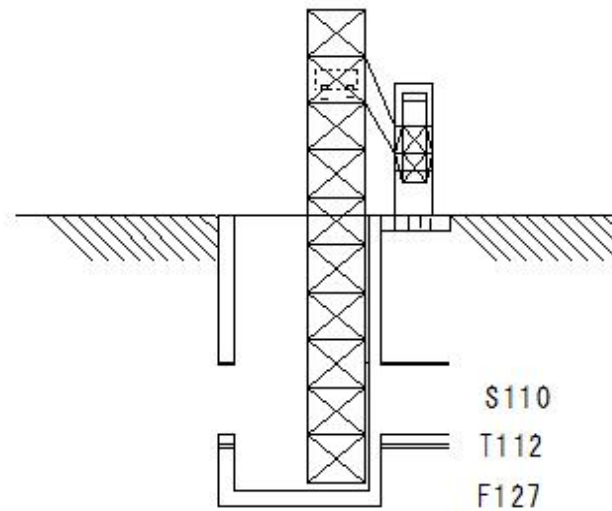
Crane Law Article 187

Construction lift

Inner corner of hoisting wire rope

(No entry)

Elevator with lifting
load of 1t or more



S1539

(S1668) No Entry

(S1668) No Entry

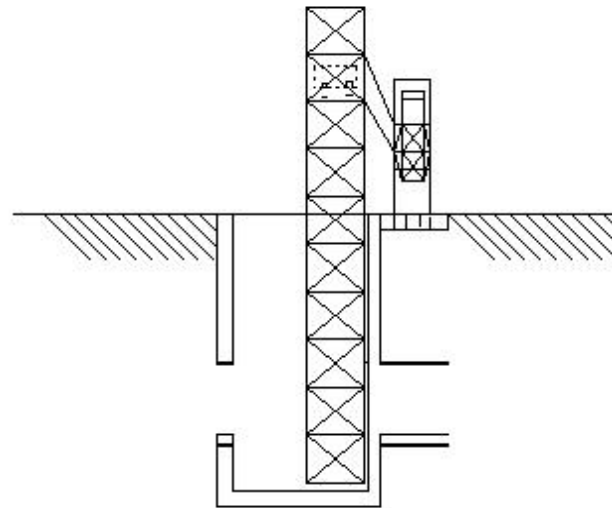
Places where entry prohibition measures are required

Crane Law Article 187

Raising and lowering the carriage of a construction lift

(No entry)

Elevator with lifting
load of 1t or more



S110

T112

F127

S1539

(S1669) No Entry

(S1669) No Entry

Places where entry prohibition measures are required

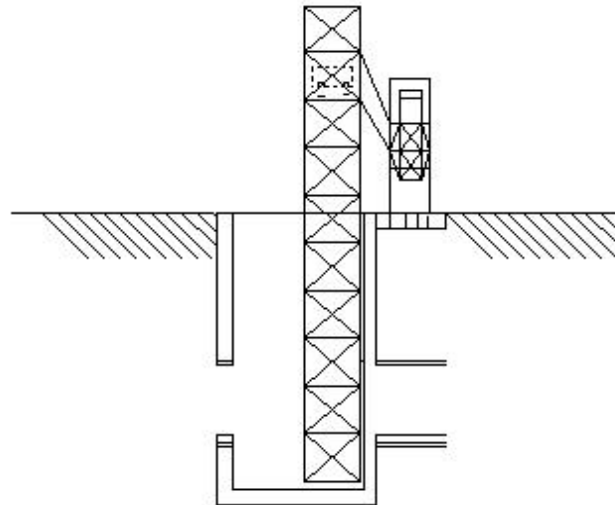
Crane Regulations Article 191

(assembly, etc.)

Construction lift

(No entry)

Elevator with lifting
load of 1t or more



S110

T112

F127

S1539

(S1670) No Entry

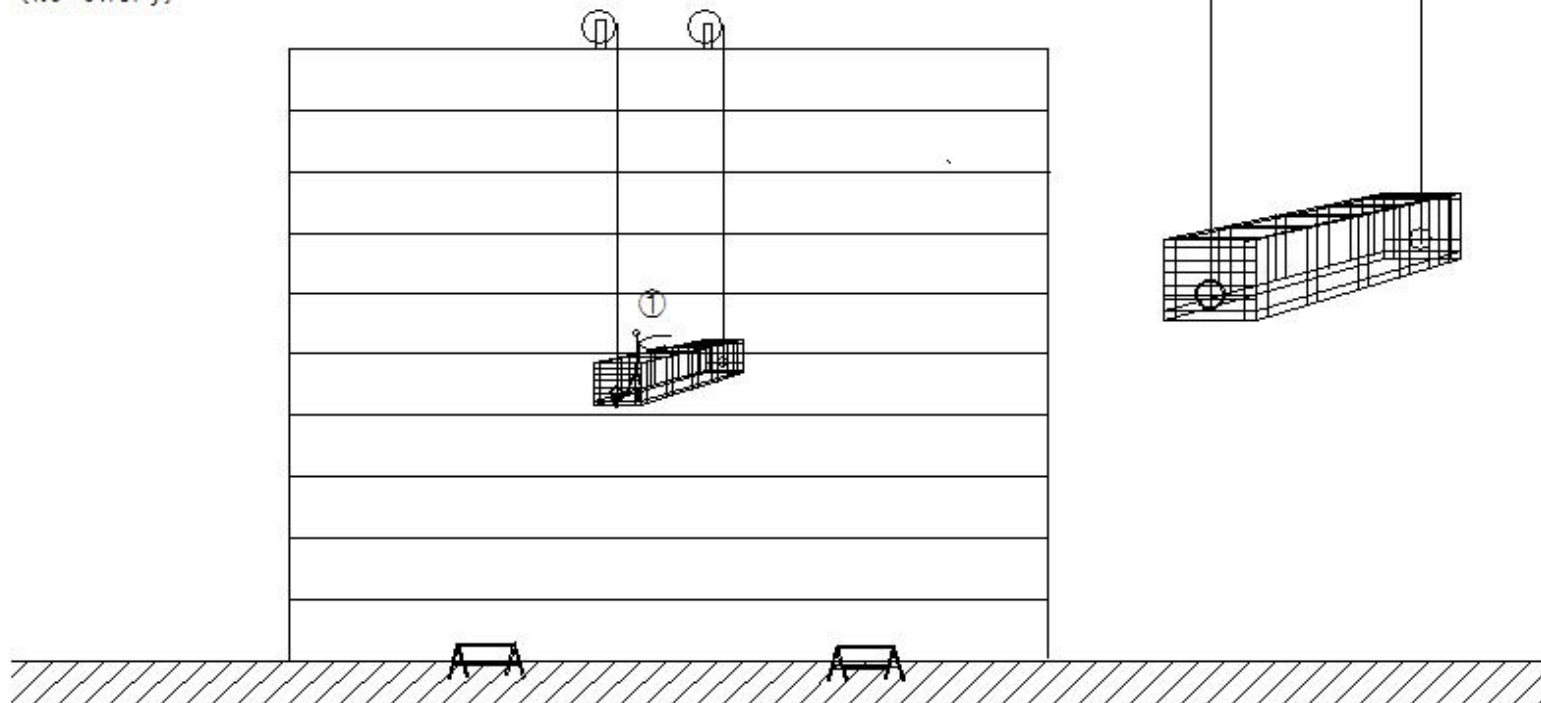
(S1670) No Entry

Places where entry prohibition measures are required

Gondola Regulations Article 18

Below the gondola work area

(No entry)



S437
S1540

(S1671) Signals

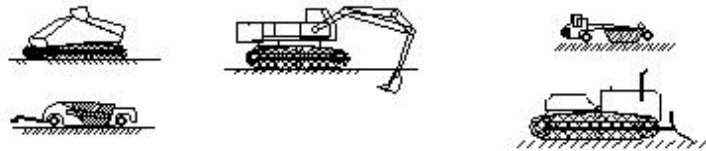
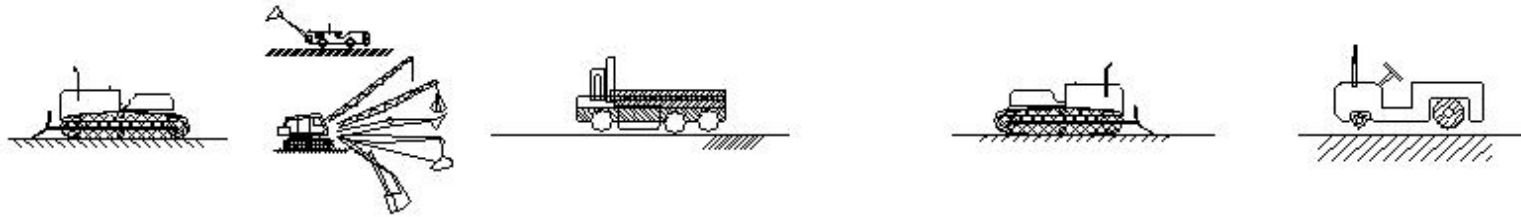
(S1671) Signals

Work requiring signals, etc.

Article 104 of the Safety and Health Regulations

(Signals to start operation)

In case of starting operation of machinery

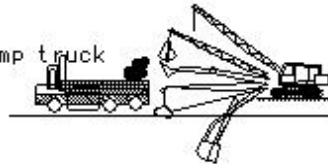


E341

construction machinery

power source

+ dump truck



Towed scraper



scrape dozer



motor scraper



Excavator



backhoe



drag line



clamshell



Tractor excavator
+ dump truck

E238

M1, M10

(S1672) Signals

(S1672) Signals

Work requiring signals, etc.

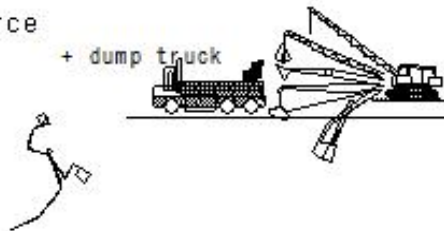
Article 151-8 of the Safety and Health Regulations
(Guidance signal)

Vehicle-mounted loading and unloading machinery

construction machinery

power source

+ dump truck



Towed scraper



scrape dozer



motor scraper



Excavator



backhoe



drag line



clamshell



Tractor excavator
+ dump truck

E238

(S1673) Signals

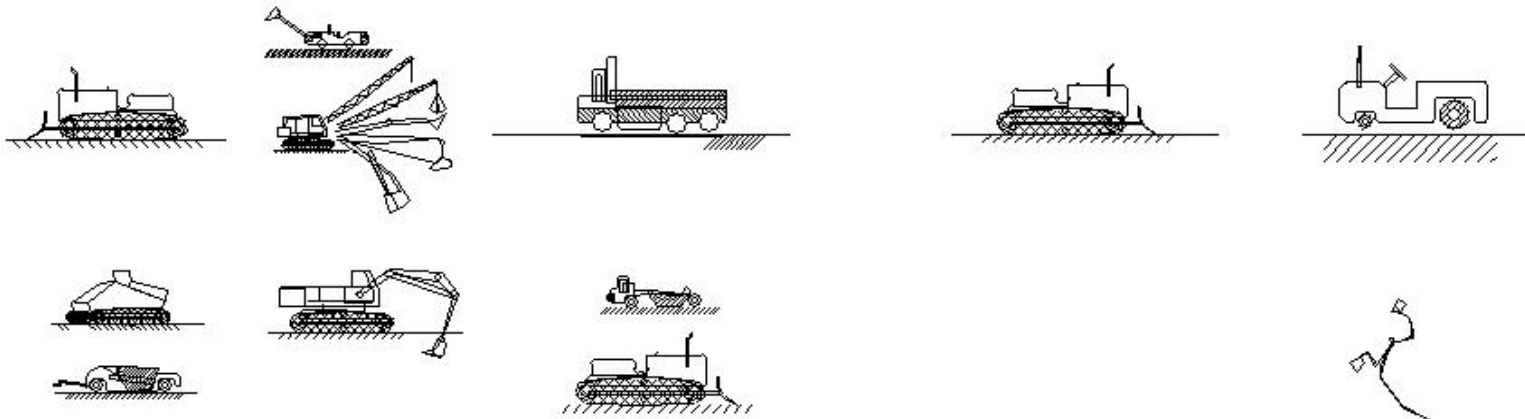
(S1673) Signals

Work requiring signals, etc.

Article 159 of the Safety and Health Regulations
(Guidance signal)

Operator of vehicle-type construction machinery

The guide gives signals



E341
M1

(S1674) Signals

(S1674) Signals

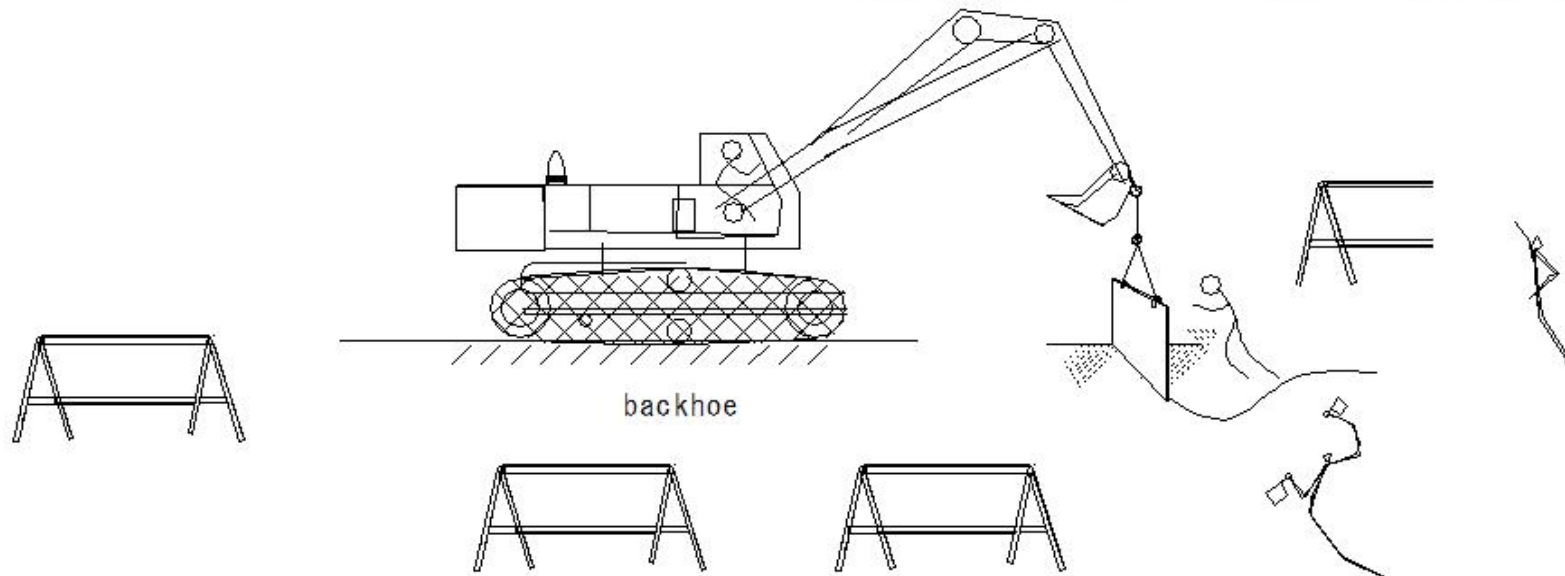
Work requiring signals, etc.

Article 164 of the Safety and Health Regulations

(Driving signals)

Vehicle-mounted construction machinery (for excavation)

Rigging work: Qualified person for rigging



S552

(S1675) Signals

(S1675) Signals

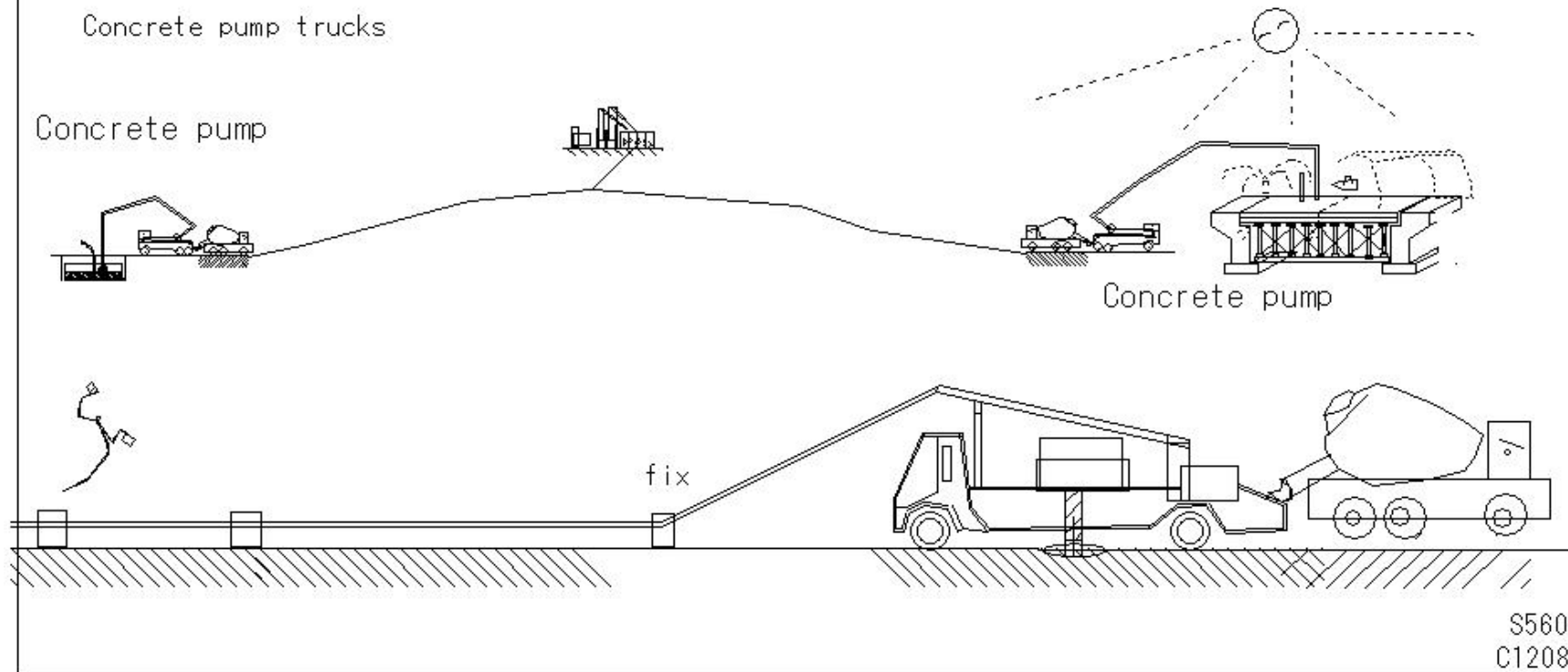
Work requiring signals, etc.

Article 171-2 of the Safety and Health Regulations

(Driving signals)

(Prevention of falling and shaking of transport pipes, etc.)

Concrete pump trucks



(S1676) Signals

(S1676) Signals

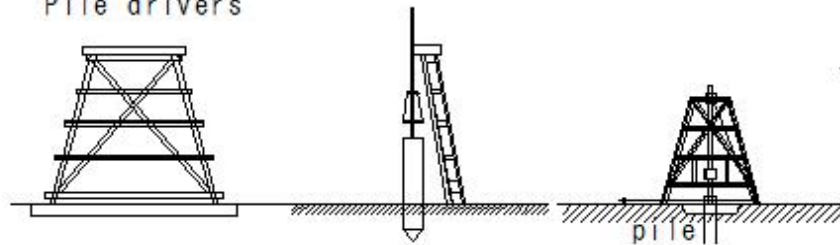
Work requiring signals, etc.

Article 189 of the Safety and Health Regulations

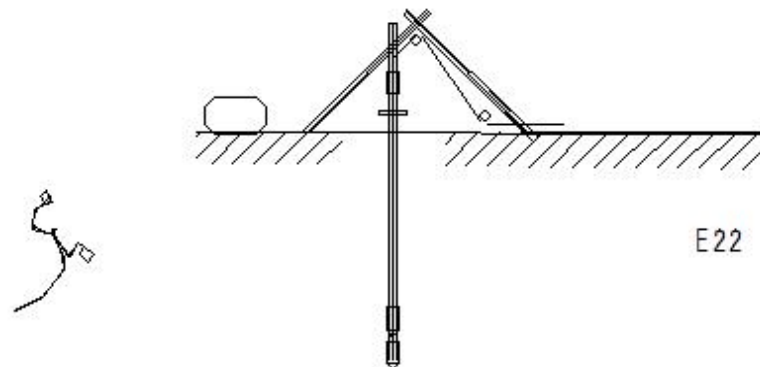
(Signals for operation)

Operation of pile drivers, pile extractors, or boring machines

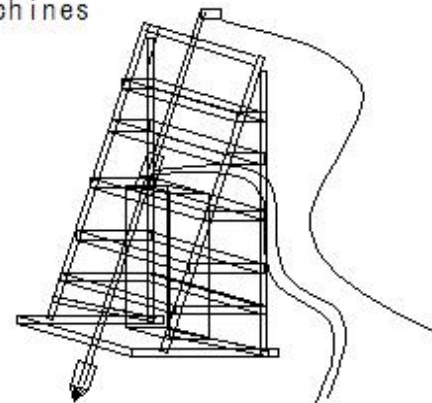
Pile drivers



Standard penetration test



Boring machines



(S1677) Signals

(S1677) Signals

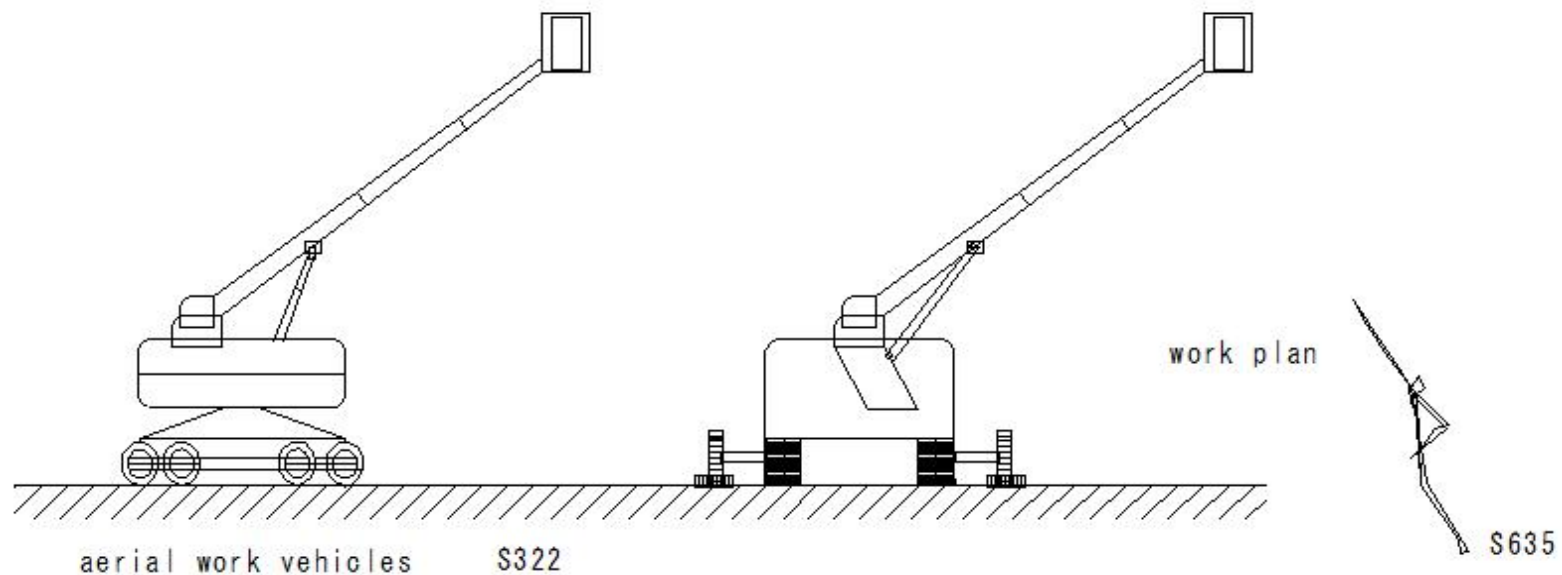
Work requiring signals, etc.

Article 194-12 of the Safety and Health Regulations

(Signals for operation)

Elevated work vehicles

In case of operating a work platform at a location other than the work platform



(S1678) Signals

(S1678) Signals

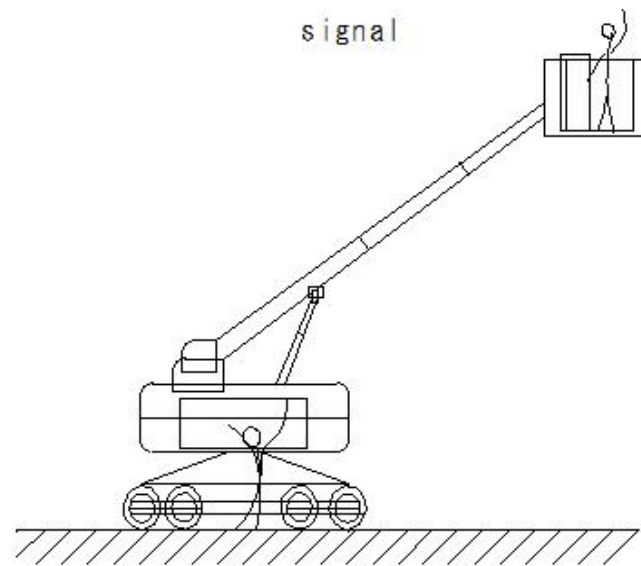
Work requiring signals, etc.

Article 194-20 of the Safety and Health Regulations

(Signals for driving)

(Restrictions on boarding the work platform, etc.)

Aerial work platform



aerial work vehicles

S322



S637

(S1679) Signals

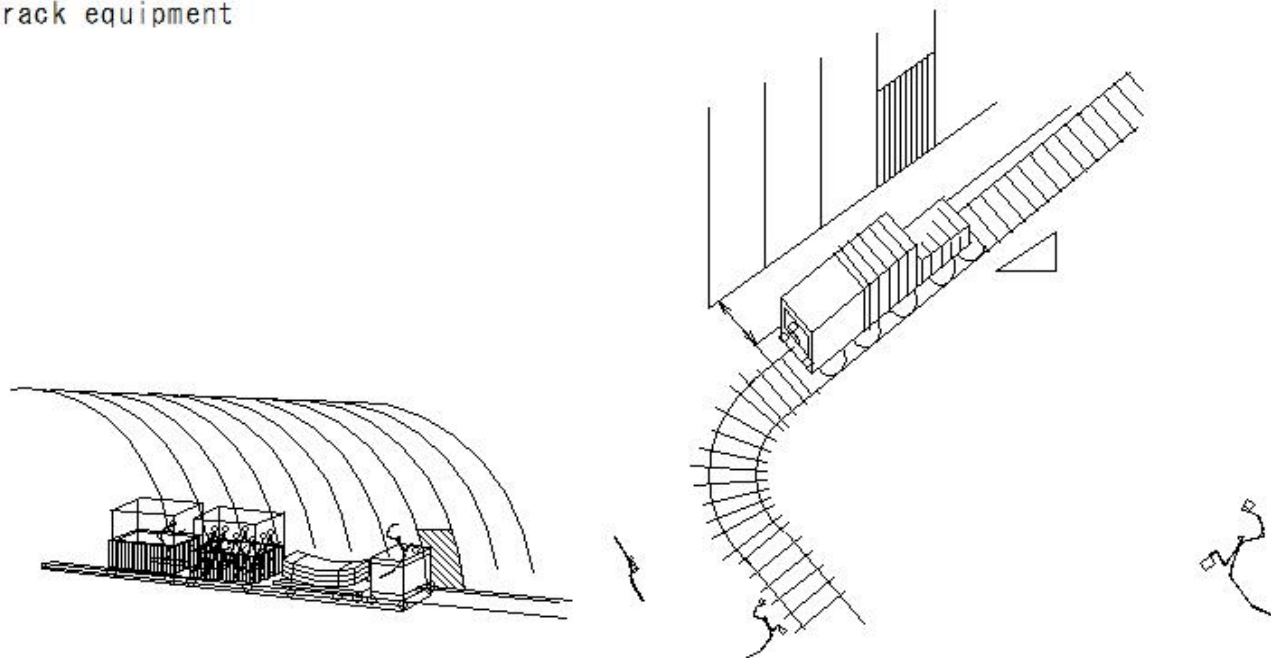
(S1679) Signals

Work requiring signals, etc.

Article 220 of the Safety and Health Regulations

(Signals for operation)

Operation of track equipment



S126

S730

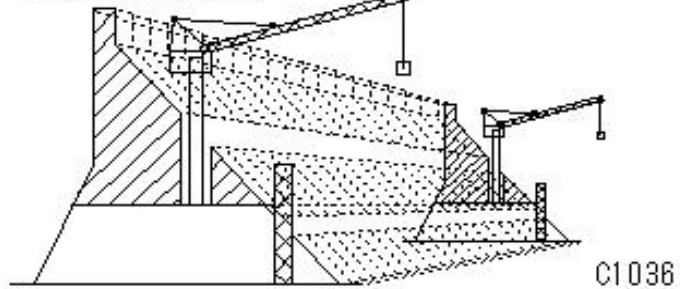
(S1680) Signals

(S1680) Signals

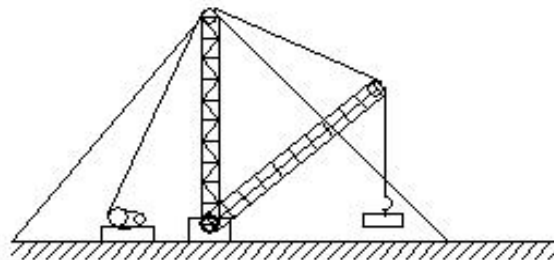
Work requiring signals, etc.

Crane Law Article 25
(Signals for operation)
Crane operation

fixed jib crane



jib crane



(S1681) Signals

(S1681) Signals

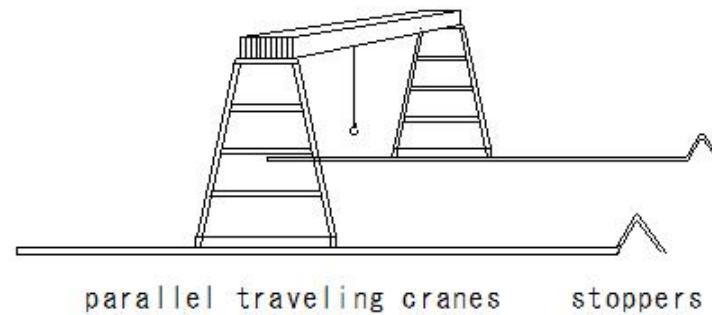
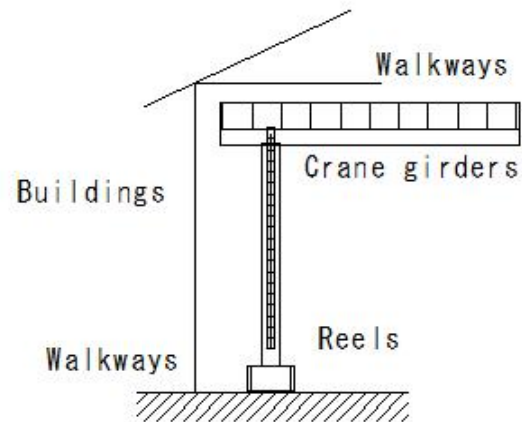
Work requiring signals, etc.

Crane Regulations Article 30-2

(Signals for operation)

Overhead crane

In case of carrying out inspection, repair, painting, etc.



S344



(S1682) Signals

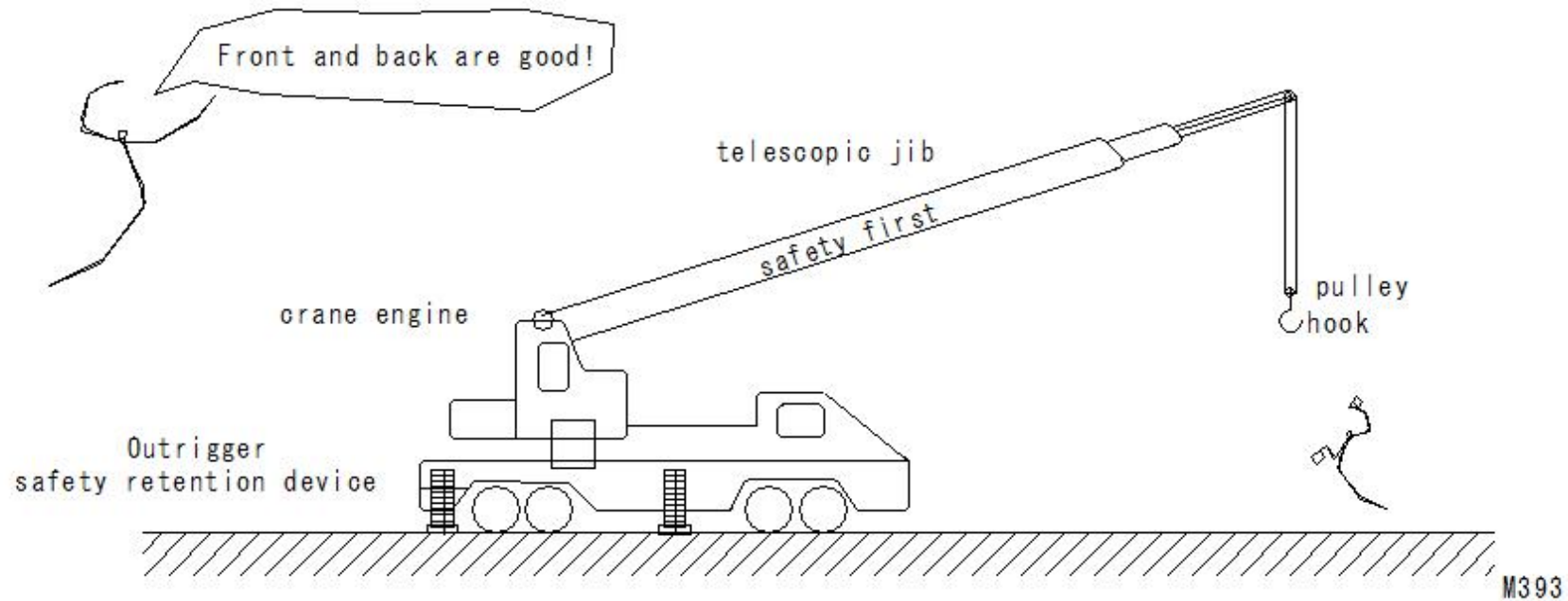
(S1682) Signals

Work requiring signals, etc.

Crane Law Article 71

(Signals for operation)

In case of operating a mobile crane



(S1683) Signals

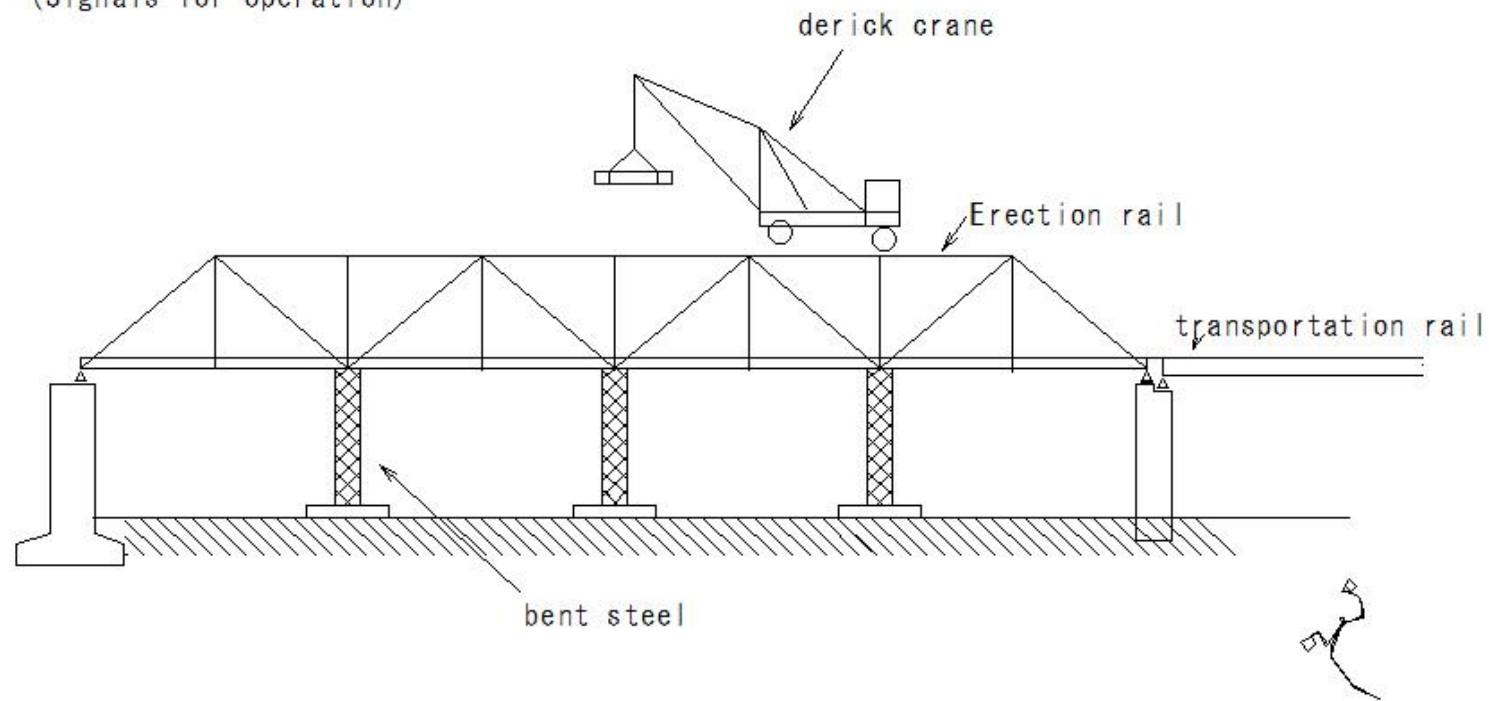
(S1683) Signals

Work requiring signals, etc.

Crane Law Article 111

Work using derricks

(Signals for operation)



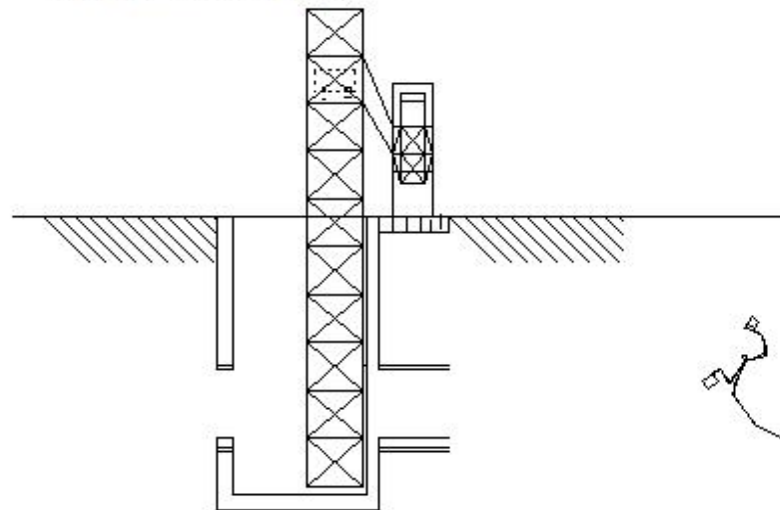
S30
B417
M49
S1552

(S1684) Signals

(S1684) Signals

Work requiring signals, etc.
Crane Law Article 185
Construction lifts
(Signals for operation)

Elevator with lifting
load of 1t or more



S110
T112
F127
S1539

(S1685) Signals

(S1685) Signals

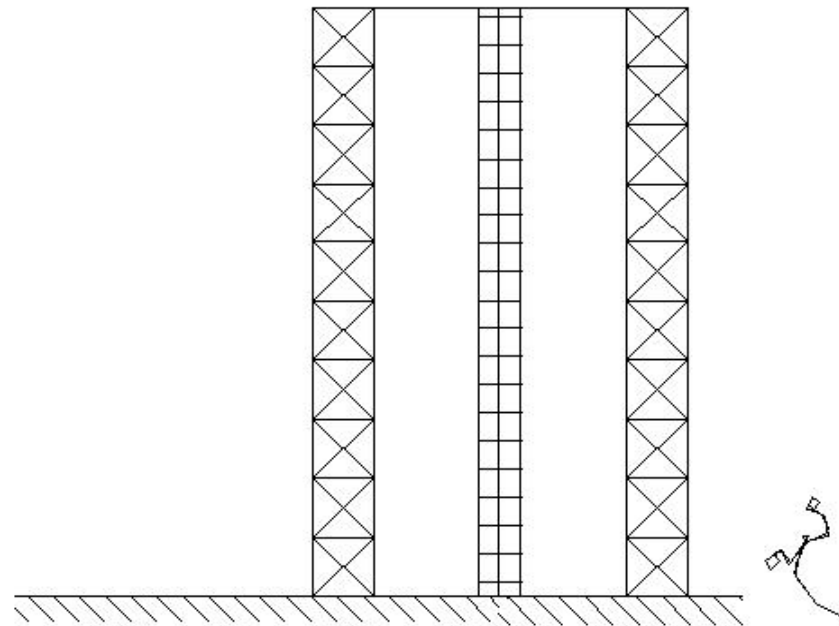
Work requiring signals, etc.

Crane Law Article 206

Simple lift

(Signals for operation)

Simple lift



(S1686) Signals

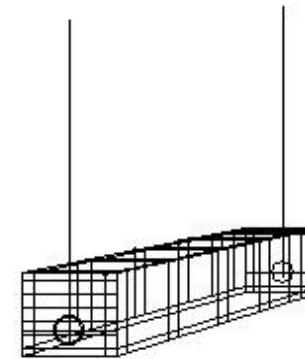
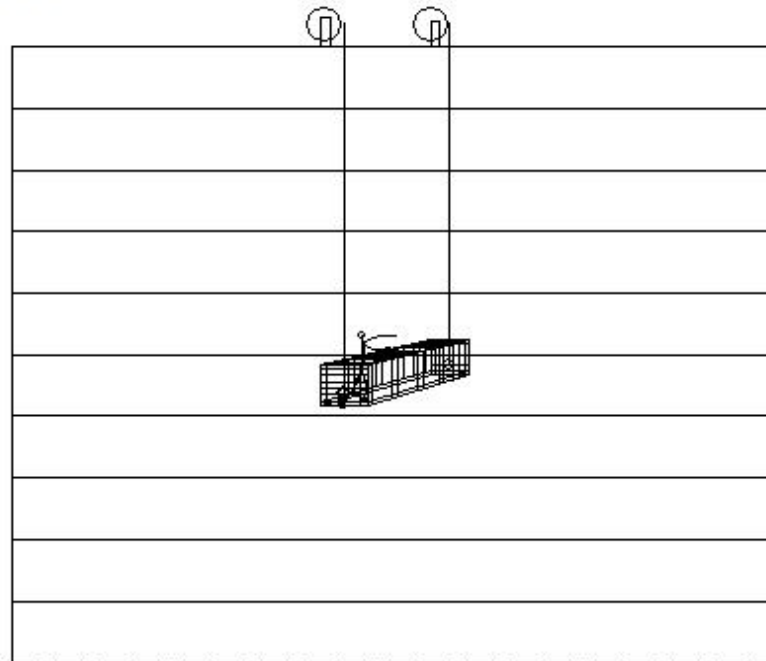
(S1686) Signals

Work requiring signals, etc.

Gondola Rules, Article 16

Gondola work

(Operation signals)



gondola



S437
S1448

(S1687) Signals

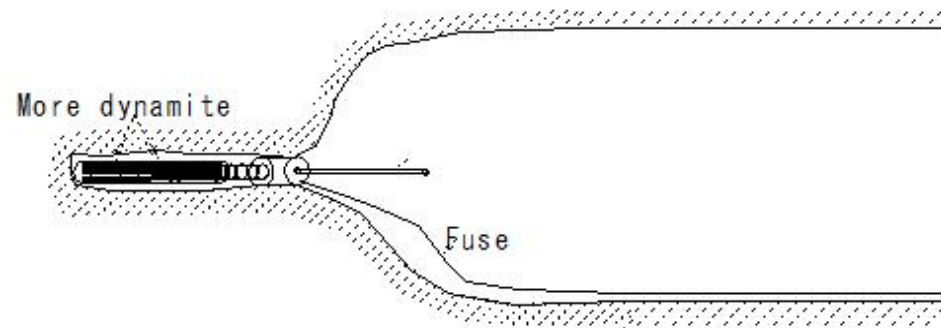
(S1687) Signals

Work requiring signals, etc.

Article 319 of the Safety and Health Regulations

Fuse blasting work

(Signals for blasting work)



blasting the fuse

(S1688) Signals

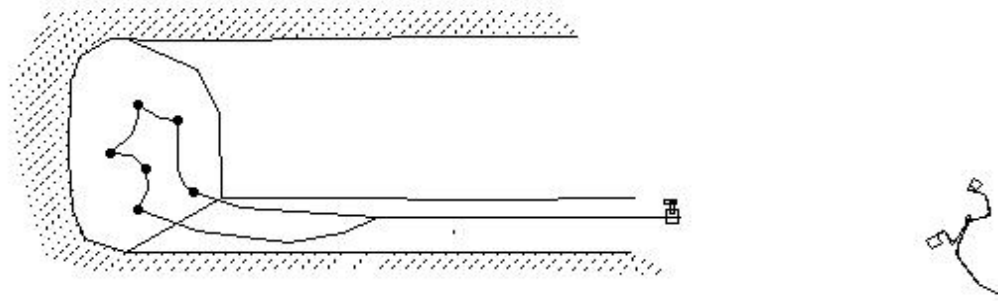
(S1688) Signals

Work requiring signals, etc.

Article 320 of the Safety and Health Regulations

Electric blasting work

(Signals for blasting work)



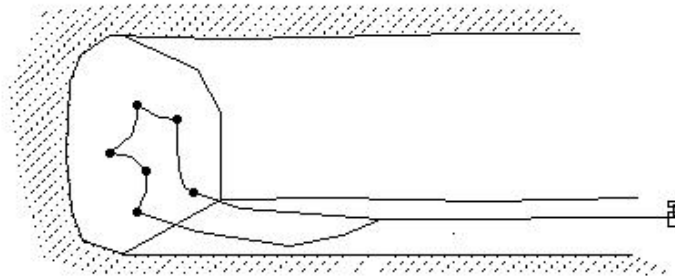
electric blasting

(S1689) Signals

(S1689) Signals

Work requiring signals, etc.
(Signals for blasting work)

Electric blasting work

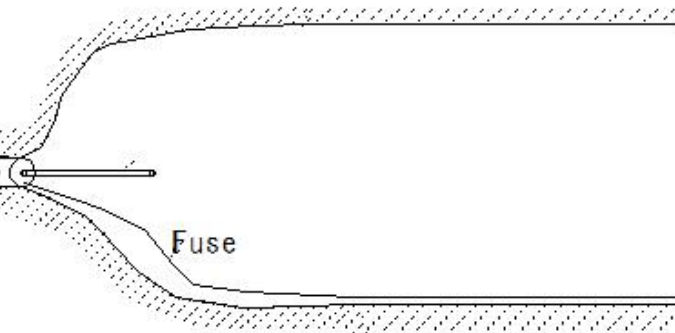


Fuse blasting work

More dynamite



Fuse



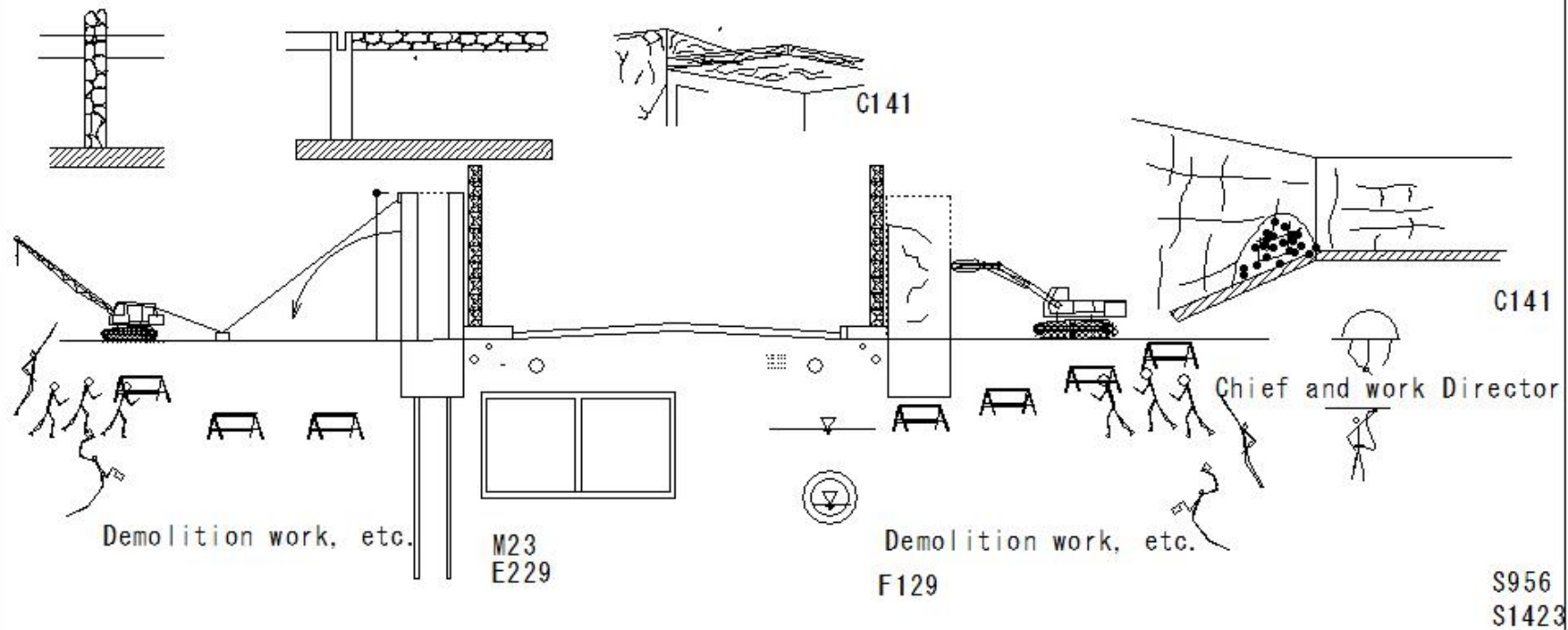
(S1690) Signals

(S1690) Signals

Work requiring signals, etc.

Article 517-16 of the Safety and Health Regulations

(Signals for work such as pulling down)



(S1691) Signals

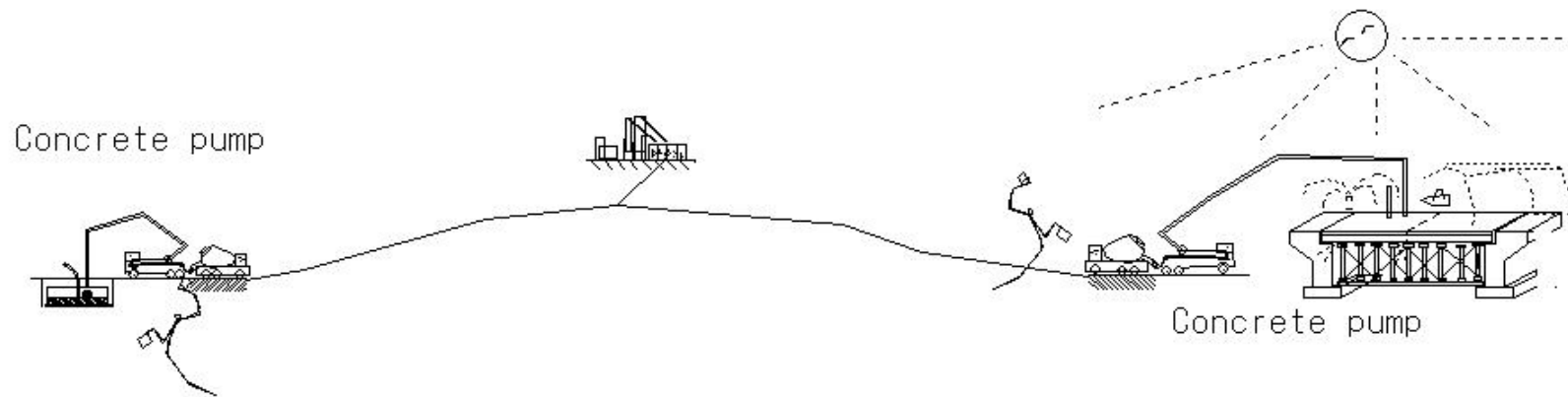
(S1691) Signals

Work requiring signals, etc.

Article 171-2 of the Safety and Health Regulations

(Prevention of falling and swinging of transport pipes, etc.)

Signal and warning equipment, etc.



(S1692) Signals

(S1692) Signals

Safe work on track equipment

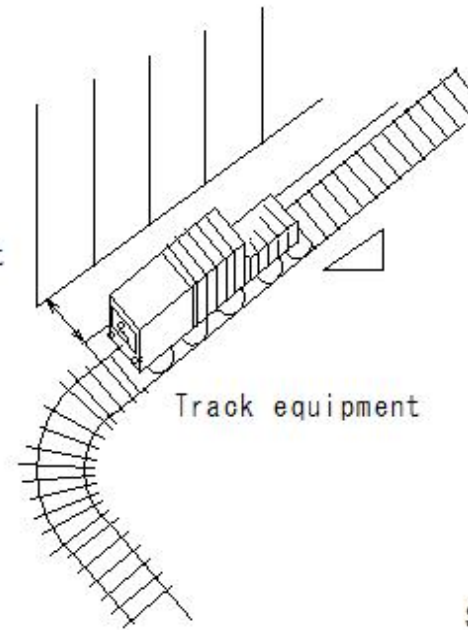
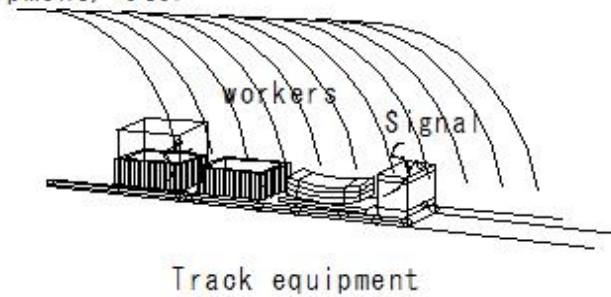
Signals, warning equipment, etc.

Article 207 of the Safety and Health Regulations

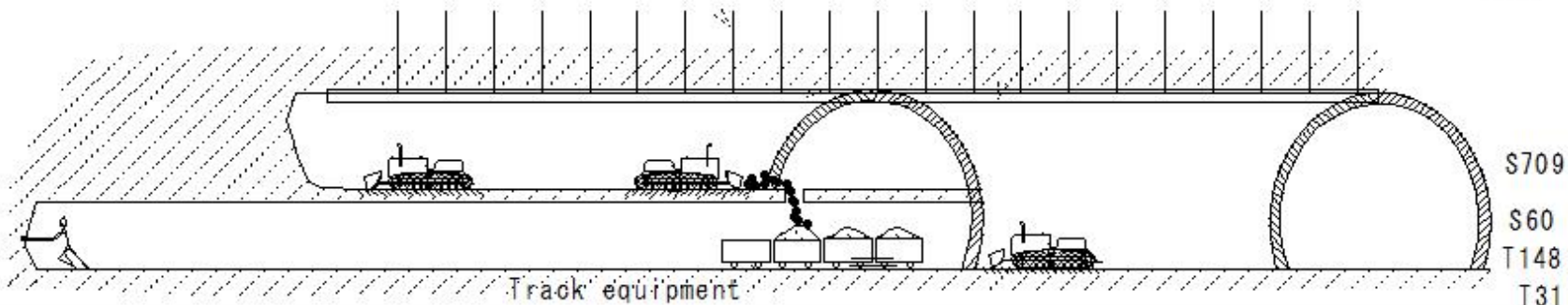
(Signal equipment)

Signal equipment according to the condition of the track equipment

Signal and warning equipment, etc.



S126



(S1693) Signals

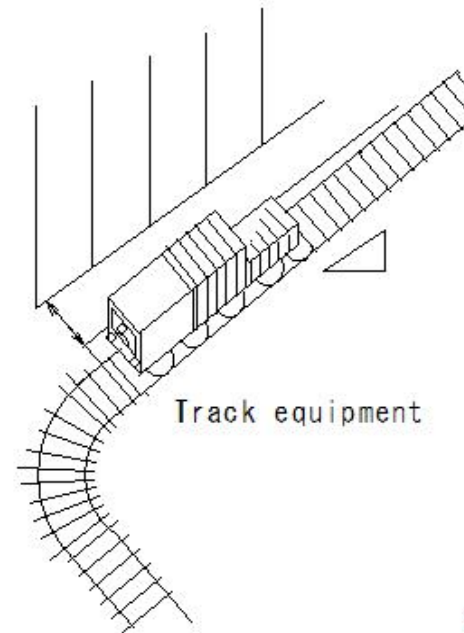
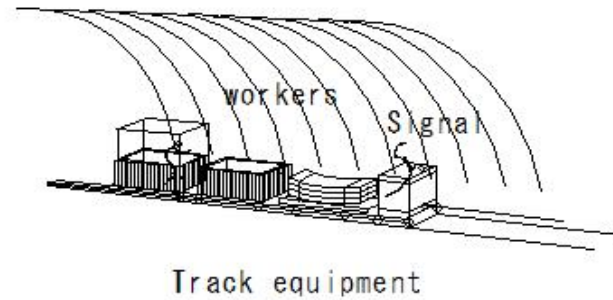
(S1693) Signals

Safe work on track equipment

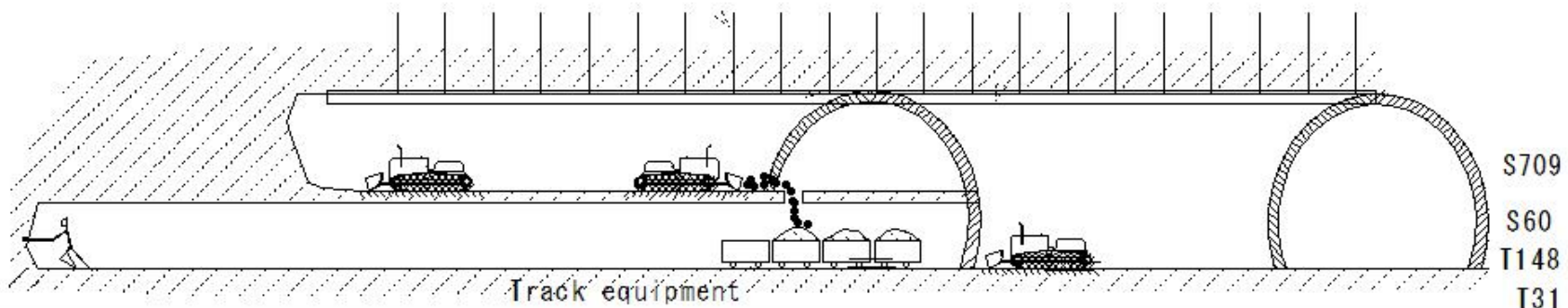
Article 209 of the Safety and Health Regulations

(Equipment for motor vehicles)

Signal and warning equipment, etc.



S126



(S1694) Signals

(S1694) Signals

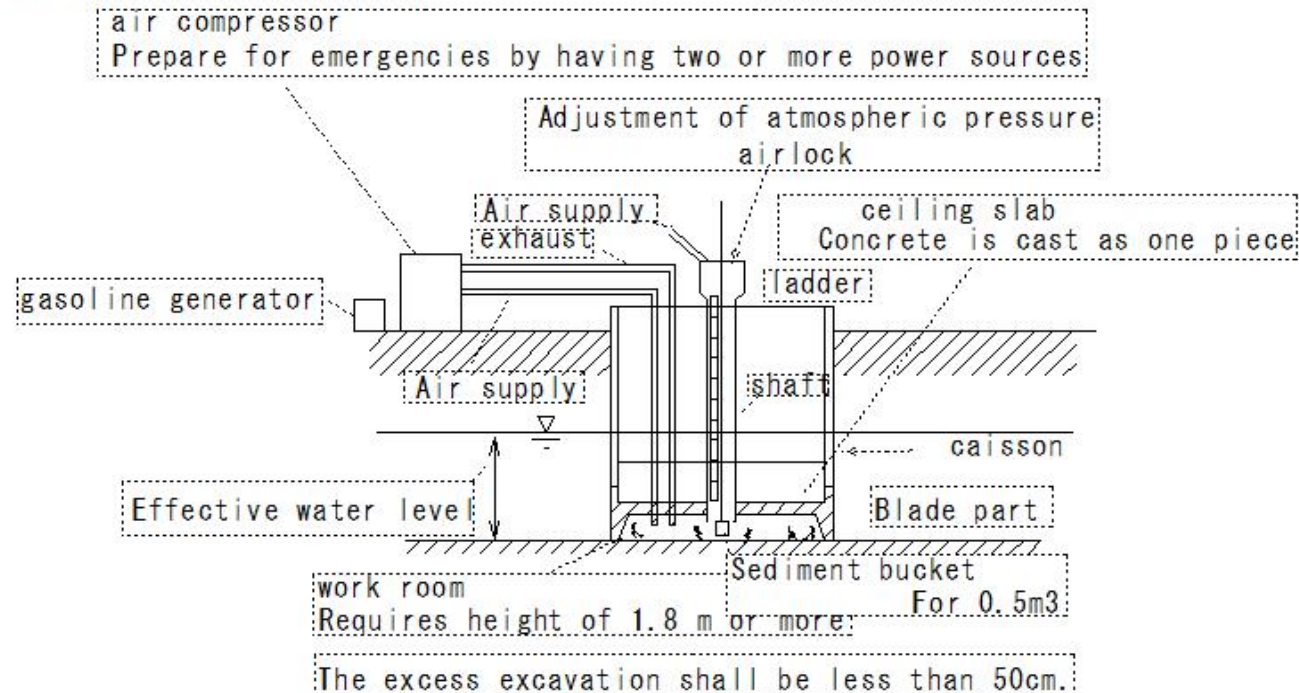
Work requiring signals, etc.

Signals, alarm equipment, etc.

Article 377 of the Safety and Health Regulations

(Work inside caissons, etc.)

Signal and warning equipment, etc.



F59

M262

(S1695) Signals

(S1695) Signals

Work requiring signals, etc.

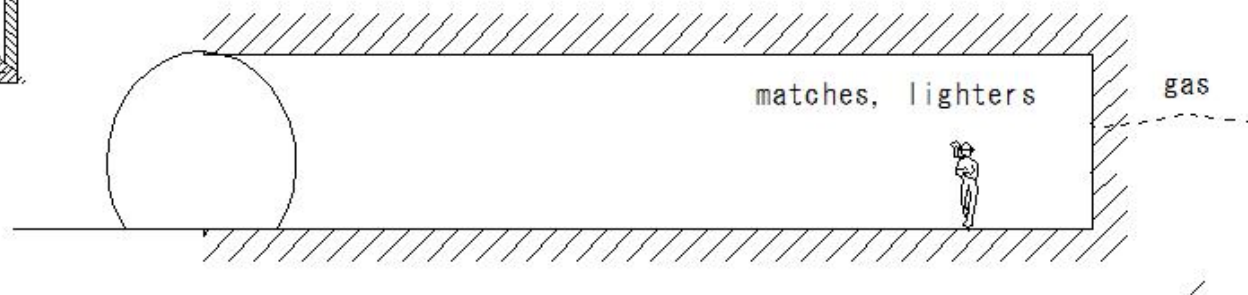
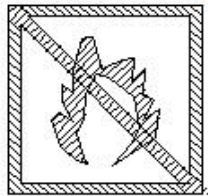
Article 382-3 of the Safety and Health Regulations

(Installation of automatic warning devices, etc.)

Explosion or fire due to the presence of flammable gas

Signal and warning equipment, etc.

No open flames



S1069

(S1696) Signals

(S1696) Signals

Work requiring signals, etc.

Article 389-9 of the Safety and Health Regulations

(Alarm equipment, etc.)

Construction of tunnels, etc.

In case of the distance from the entrance to the face reaches 100 meters

Signal and warning equipment, etc.

Labeling

Communication device

(alarm equipment) 100 meters

rock fall, flooding, gas explosion, fire

communication devices 500 meters

S1077

S1591

(S1697) Signals

(S1697) Signals

Work requiring signals, etc.

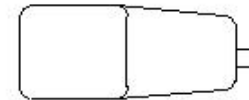
Signals, alarm equipment, etc.

Article 548 of the Safety and Health Regulations

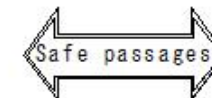
Indoor workplaces with 50 or more workers

Signal and warning equipment, etc.

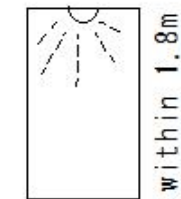
③ Alarm equipment



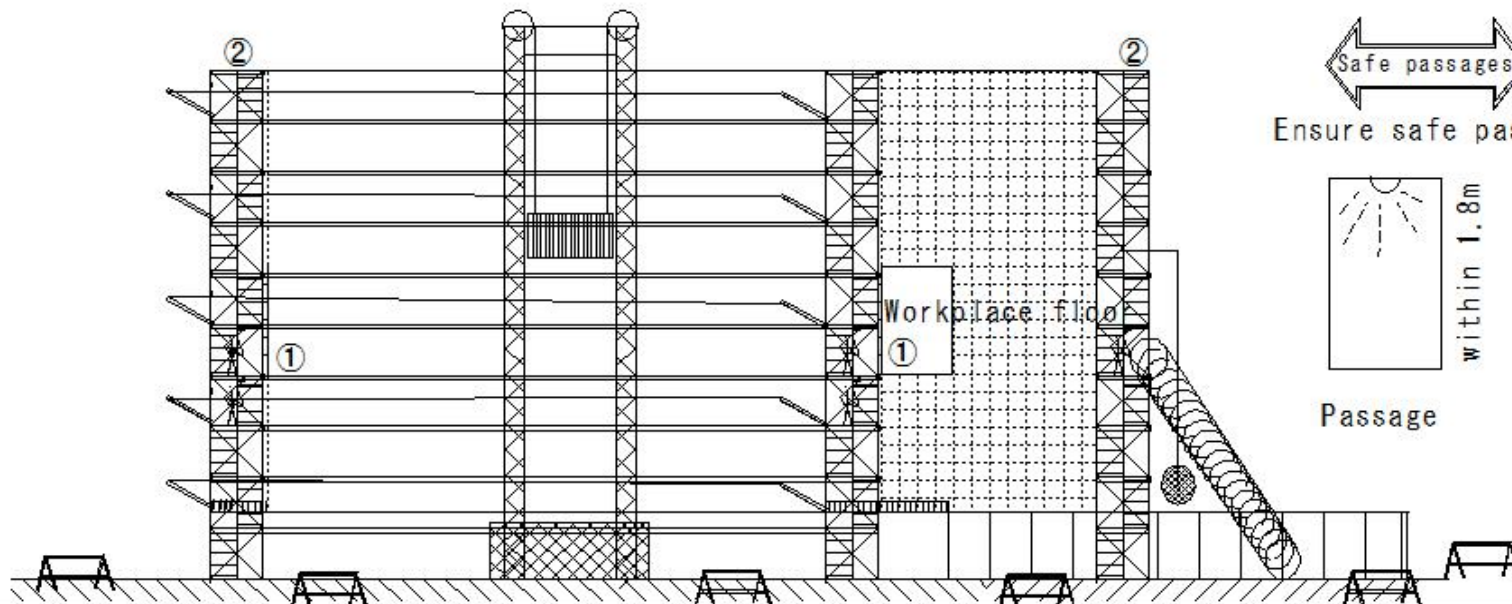
Evacuation



Ensure safe passages



Passage



S745
S435 S749

(S1698) Signals

(S1698) Signals

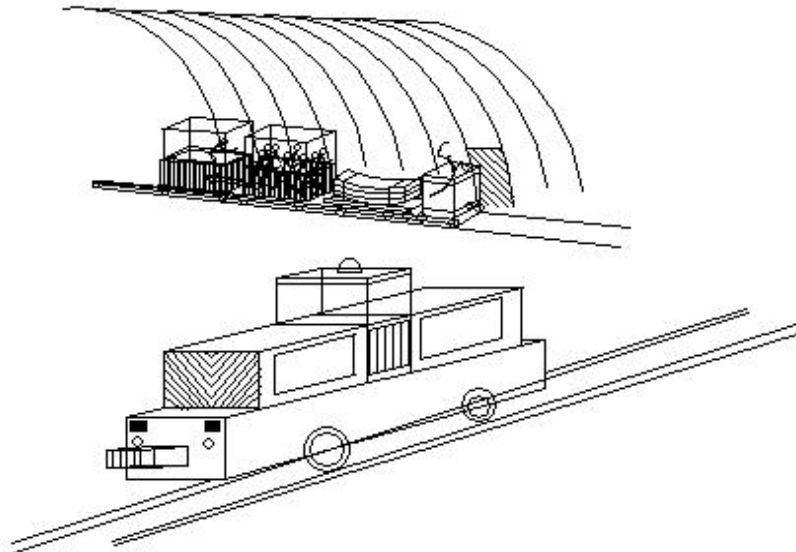
Work requiring signals, etc.

Signals, alarm equipment, etc.

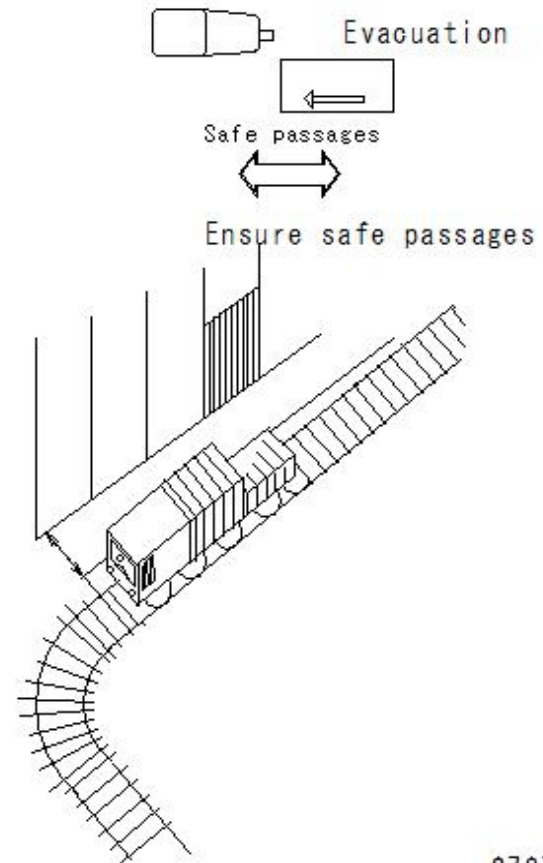
Article 548 of the Safety and Health Regulations

Indoor workplaces with 50 or more workers

Signal and warning equipment, etc.



Alarm equipment



S737

(S1699) Signals

(S1699) Signals

Work requiring signals, etc.

Signals, warning equipment, etc.

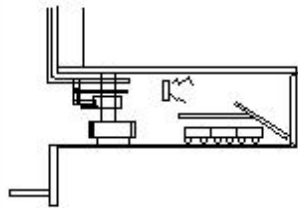
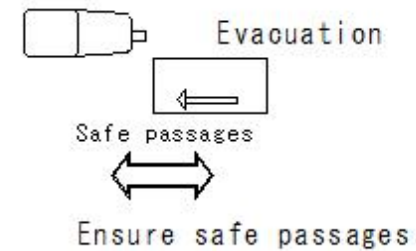
Article 207 of the Safety and Health Regulations

(Signal equipment)

Signal equipment according to the condition of the track equipment

Signal and warning equipment, etc.

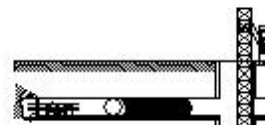
Alarm equipment



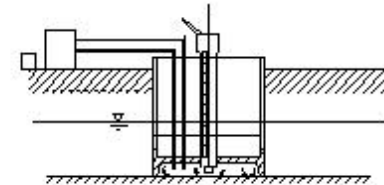
S141



T157



T112
F127



M262
F59

S1637

(S1700) Signals

(S1700) Signals

Work requiring signals, etc.

Signals, alarm equipment, etc.

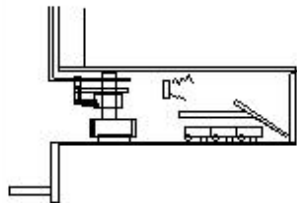
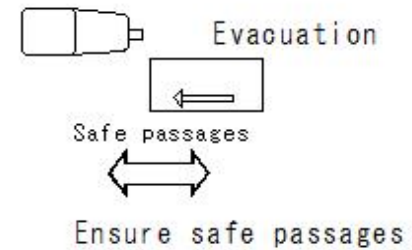
High Voltage Law Article 21

(Communication)

Signals, alarm equipment, etc.

Communication equipment

Alarm equipment



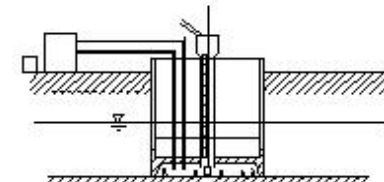
S141



T157



T112
F127



M262
F59

S1637

(S1701) Health and Safety Documents

(S1701) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

Boiler Law Article 32

Boiler

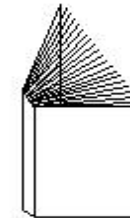
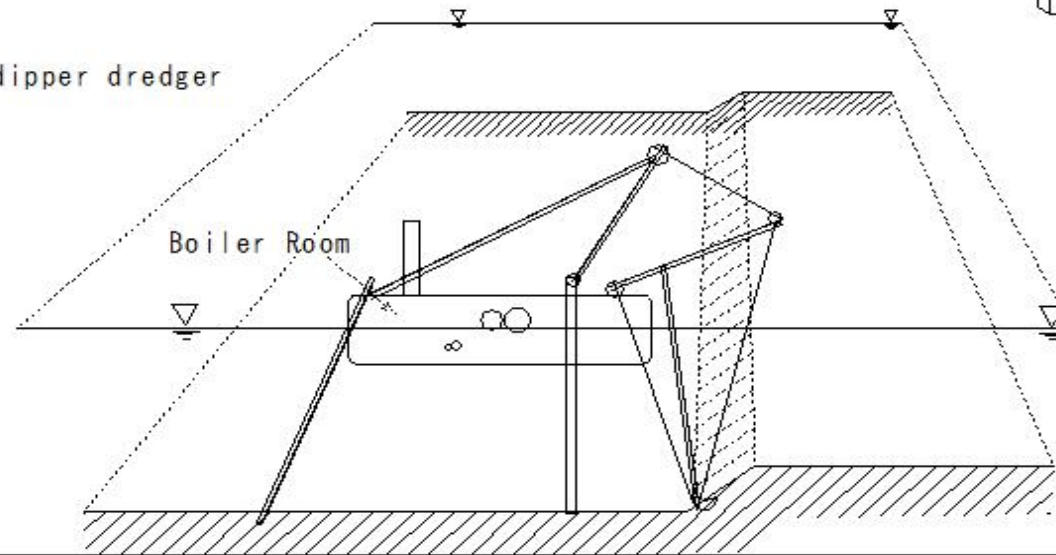
(Regular voluntary inspection)

Once a month

Record the results and keep them for three years

dipper dredger

Boiler Room



S40
R432
S1221

(S1702) Health and Safety Documents

(S1702) Health and Safety Documents

Retention period for health and safety related documents

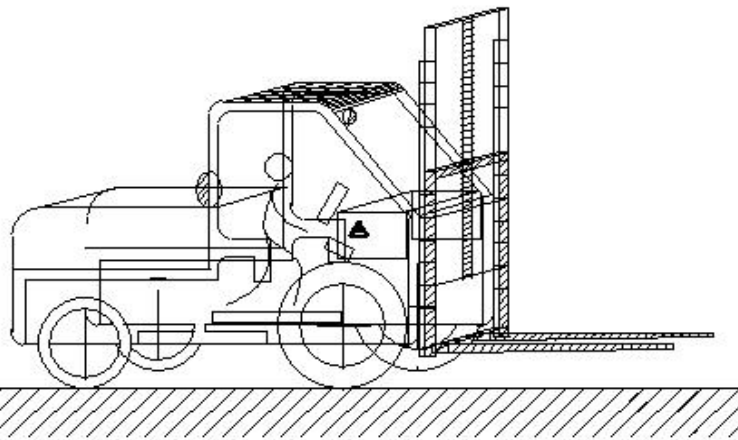
Inspection, inspection, planning (inspection, inspection)

Vehicle-mounted construction machinery

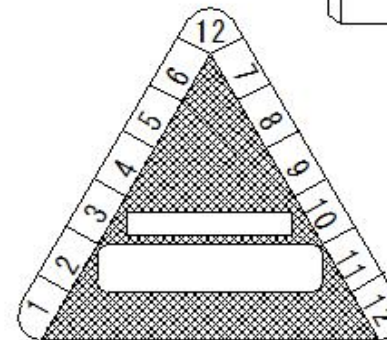
Safety and Health Regulations Article 169

Once a month

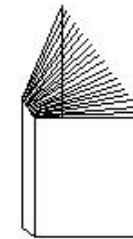
Record the results and keep them for three years



Forklift



Inspection mark



S22

S594

(S1703) Health and Safety Documents

(S1703) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

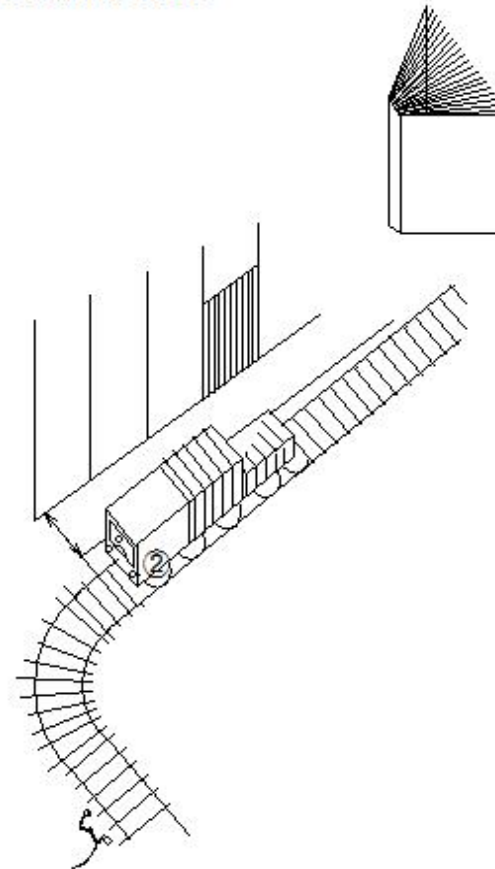
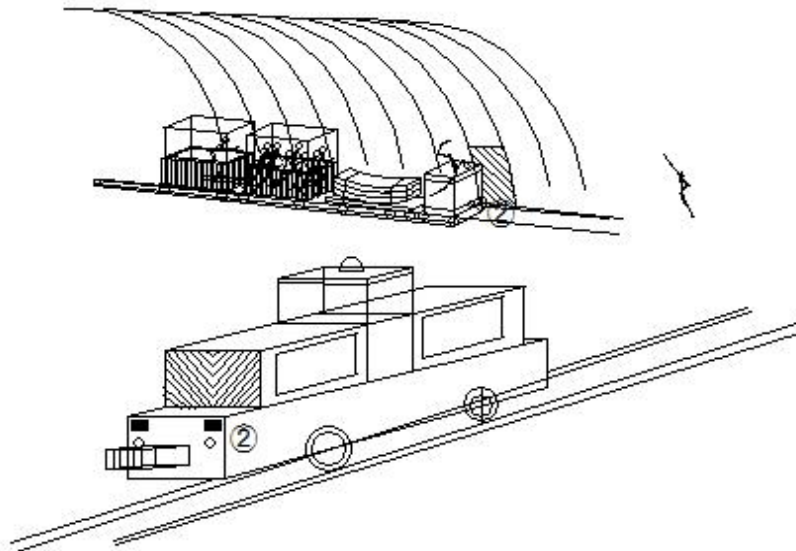
Article 231 of the Safety and Health Regulations

(Records of periodic self-inspection)

Electric locomotives

Once a month

Record the results and keep them for three years



S126
S732

(S1704) Health and Safety Documents

(S1704) Health and Safety Documents

Retention period for health and safety related documents

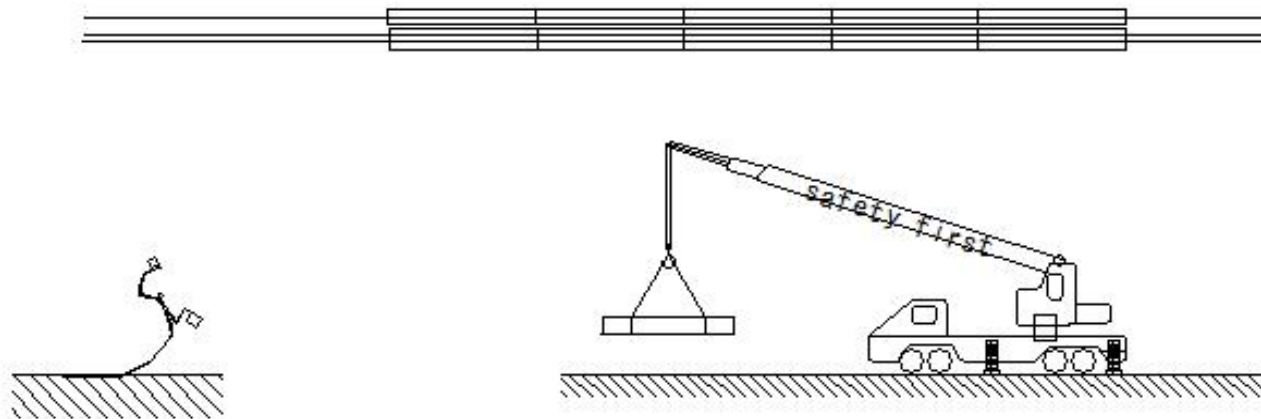
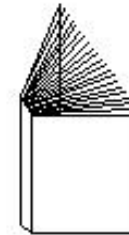
Inspection, inspection, planning (inspection, inspection)

Article 351 of the Safety and Health Regulations

(Periodic voluntary inspection of insulating protective equipment, etc.)

Once every six months

Record the results and keep them for three years



Measures to prevent electric shock

S697

S149

M393

S732

(S1705) Health and Safety Documents

(S1705) Health and Safety Documents

Retention period for health and safety related documents

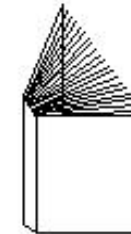
Inspection, inspection, planning (inspection, inspection)

Article 151 of the Safety and Health Regulations

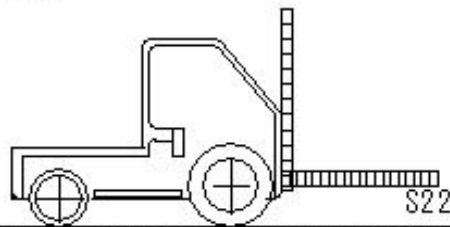
Vehicles, construction machinery, loading and transport machinery

Once per month

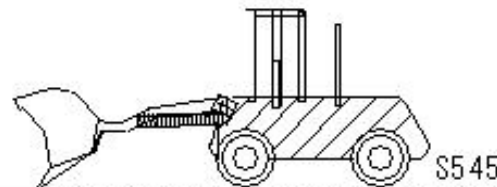
Record the results and keep them for three years



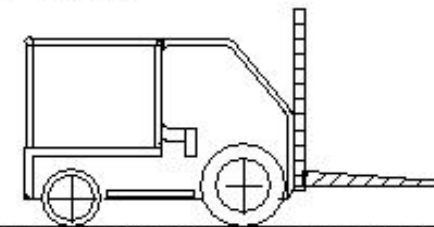
① Forklift



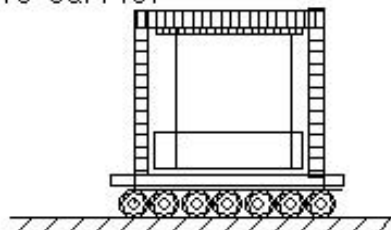
② Shovel loader



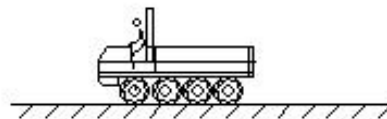
③ Fork loader



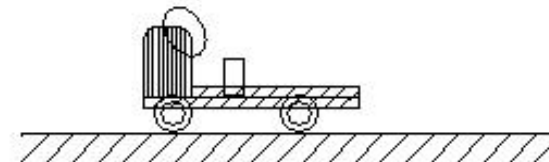
④ Straddle carrier



⑤ Off-road transport vehicle



⑥ In-plant transport vehicle



S568

(S1706) Health and Safety Documents

(S1706) Health and Safety Documents

Retention period for health and safety related documents

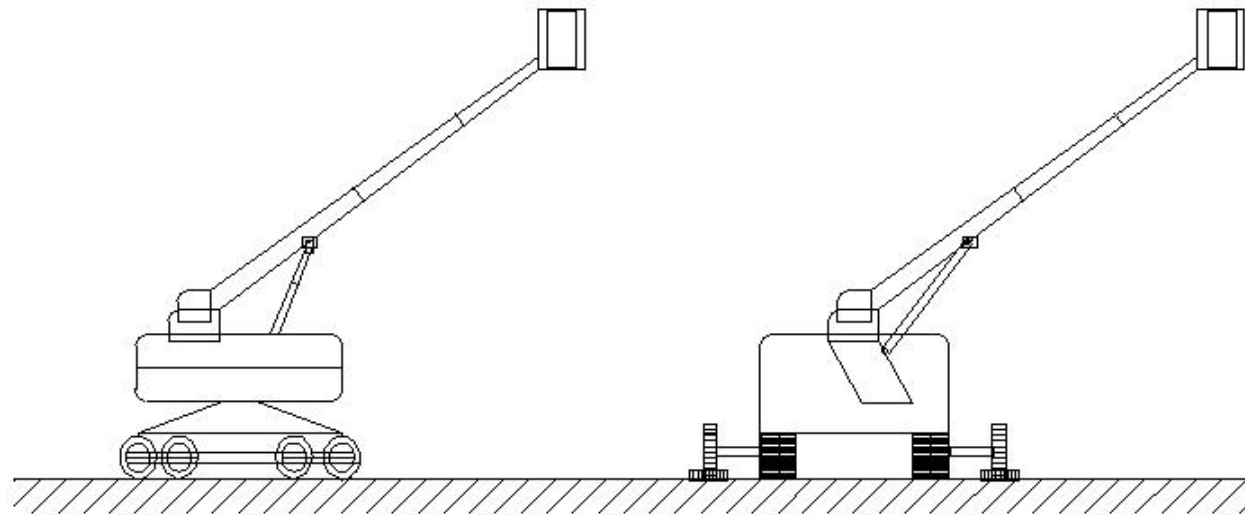
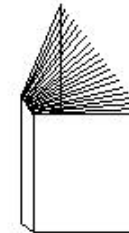
Inspection, inspection, planning (inspection, inspection)

Article 194-25 of the Safety and Health Regulations

Aerial work platform

Once per month

Record the results and keep them for three years



aerial work vehicles

S322

S635

(S1707) Health and Safety Documents

(S1707) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

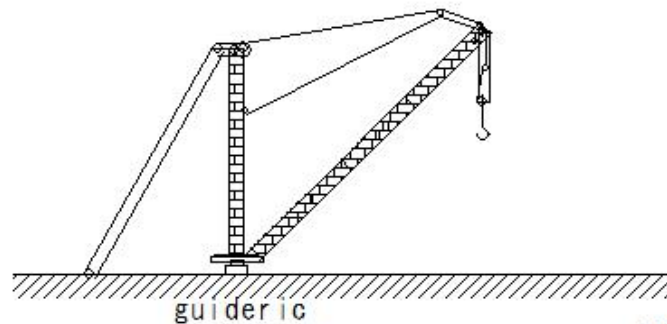
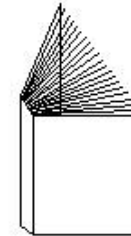
Crane Regulations Article 38

(Records of voluntary inspections, etc.)

Crane

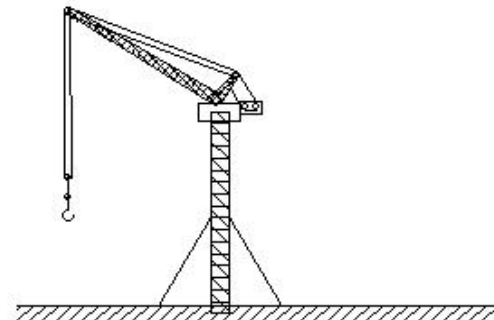
Once per month, after a storm

Record the results and keep them for three years



tower crane

M390



M391

S32

(S1708) Health and Safety Documents

(S1708) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

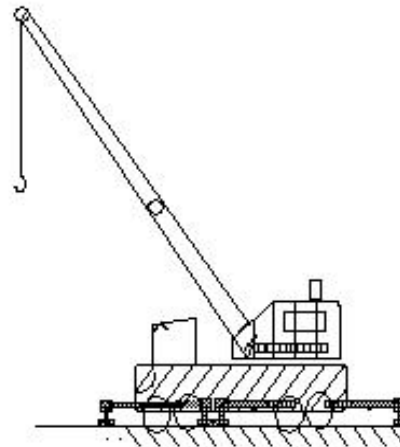
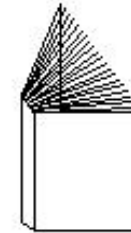
Crane Regulations Article 79

(Record of voluntary inspection)

Mobile crane

Once per month

Record the results and keep them for three years



Mobile crane

B111
M46

(S1709) Health and Safety Documents

(S1709) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

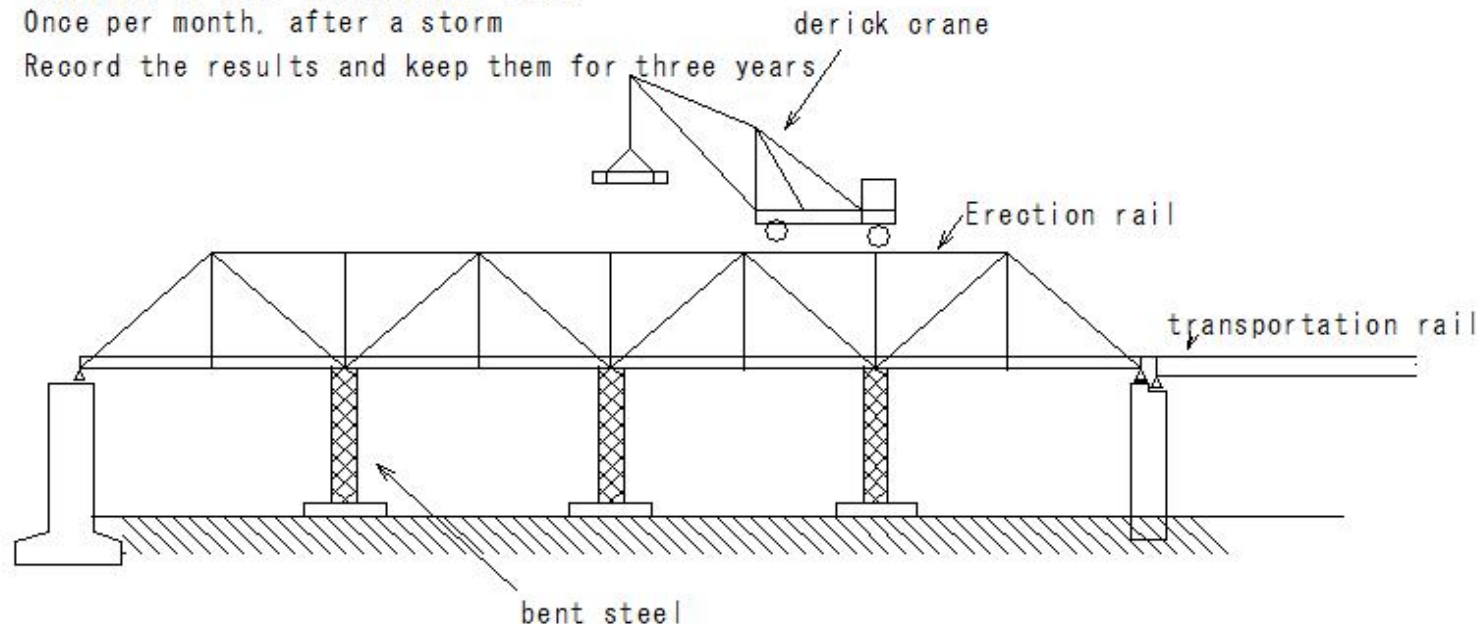
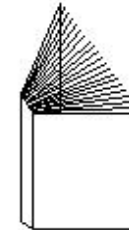
Crane Ordinance Article 123

Derrick

(Records of self-inspection, etc.)

Once per month, after a storm

Record the results and keep them for three years



S1552
S30
B417
M49

(S1710) Health and Safety Documents

(S1710) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

Crane Ordinance Article 157

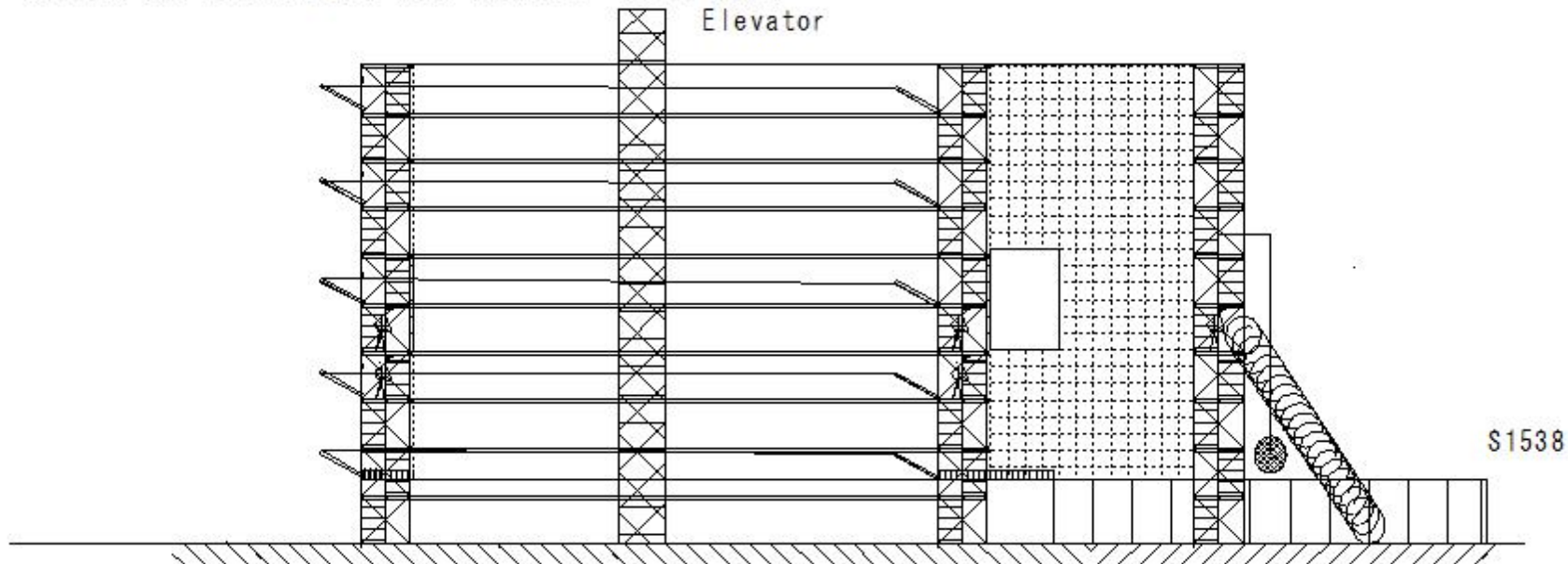
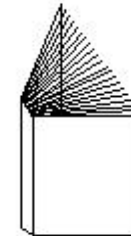
Elevator

(Records of voluntary inspection, etc.)

Once per month, after a storm

Record the results and keep them for three years

Elevator



(S1711) Health and Safety Documents

(S1711) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

Crane Regulations Article 195

Construction lifts

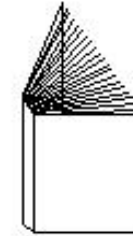
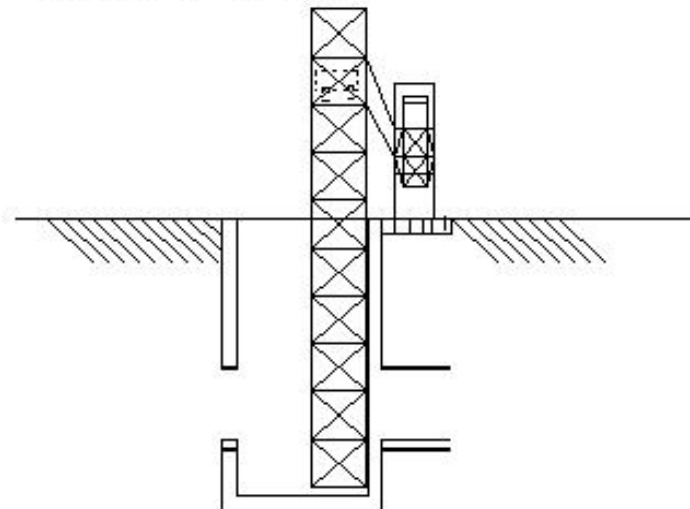
Periodic voluntary inspections, etc.

(Records of voluntary inspections, etc.)

Once per month, after a storm

Record the results and keep them for three years

Elevator with lifting
load of 1t or more



S110
T112
F127
S1539

(S1712) Health and Safety Documents

(S1712) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

Gondola Regulations Article 21

Dora Safety Regulations (Gondola Regulations)

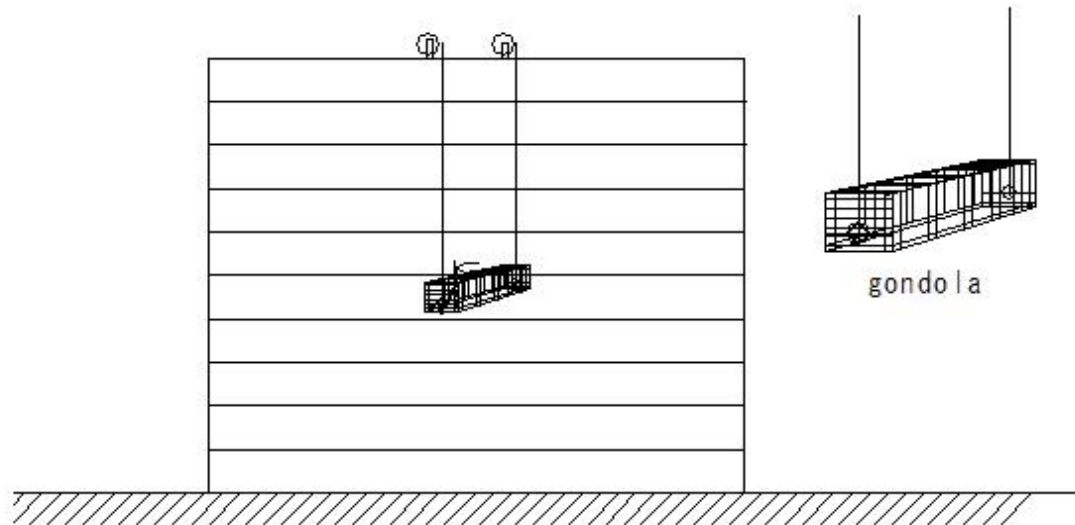
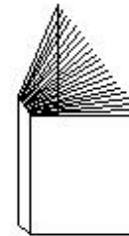
Periodic voluntary inspections, etc.

(Records of voluntary inspections, etc.)

Once per month, before reuse

Record the results and keep them for three years

Elevator with lifting



S1448

(S1713) Health and Safety Documents

(S1713) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

Article 18 of the Dust Law

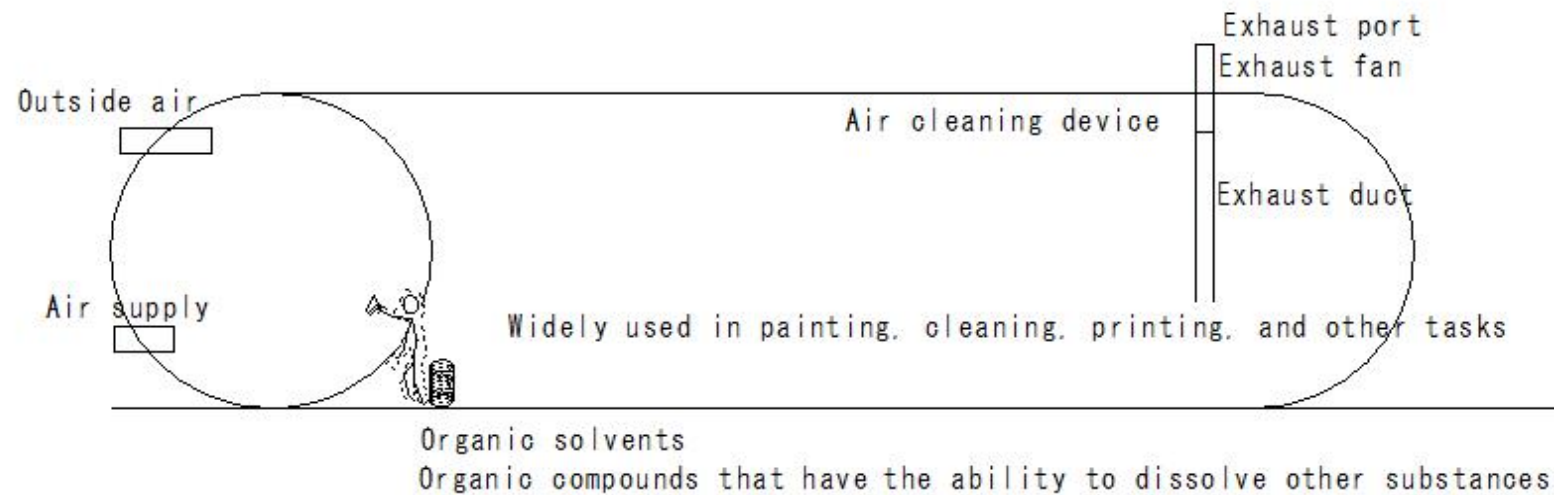
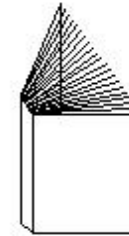
(Periodic voluntary inspection of local exhaust ventilation systems, etc.)

Periodic voluntary inspections, etc.

(Records of voluntary inspections, etc.)

Once a month, at the time of installation

Record the results and keep them for three years Elevator with lifting



S1229

(S1714) Health and Safety Documents

(S1714) Health and Safety Documents

Retention period for health and safety related documents

Inspection, inspection, planning (inspection, inspection)

Article 23 of the Asbestos Regulations

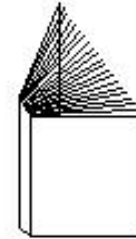
Exhaust, ventilation, dust collection equipment

Periodic voluntary inspections, etc.

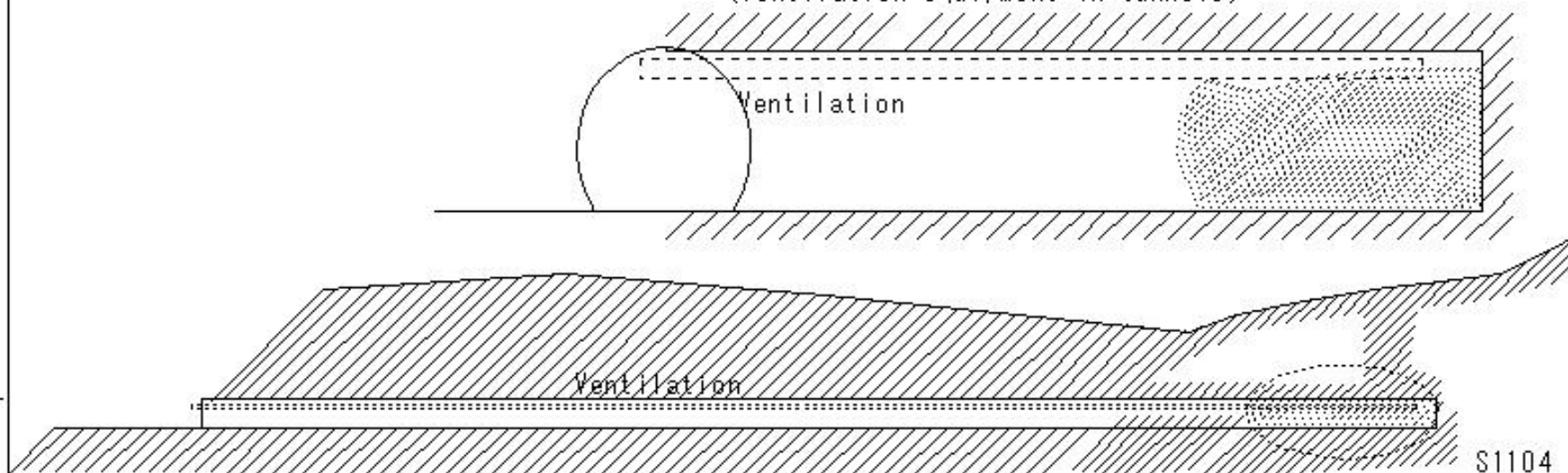
(Records of voluntary inspections, etc.)

Once a month

Record the results and keep them for three years



(Ventilation equipment in tunnels)



S1104

(S1715) Health and Safety Documents

(S1715) Health and Safety Documents

Retention period for health and safety related documents

Measurement

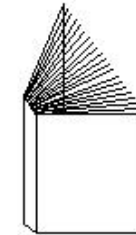
Article 603 of the Safety and Health Regulations

Underground work area

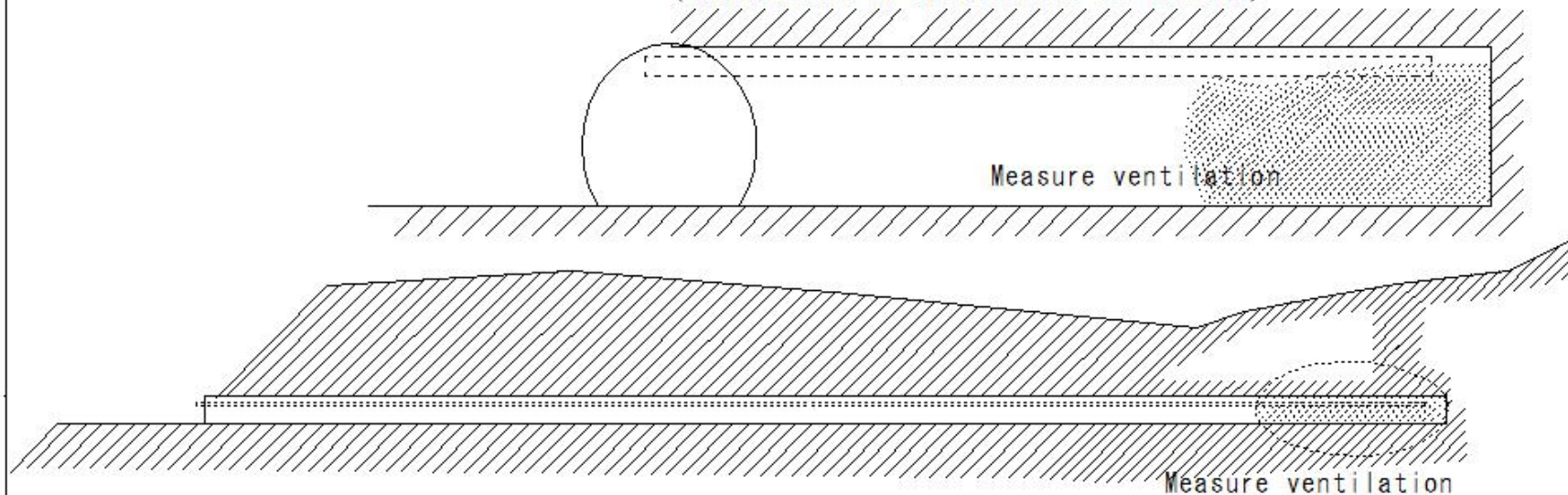
Ventilation volume

Once every two weeks

Record the results and keep them for three years



(Measurement of ventilation in tunnels)



S1105

(S1716) Health and Safety Documents

(S1716) Health and Safety Documents

Retention period for health and safety related documents

Measurement

Article 612 of the Safety and Health Regulations

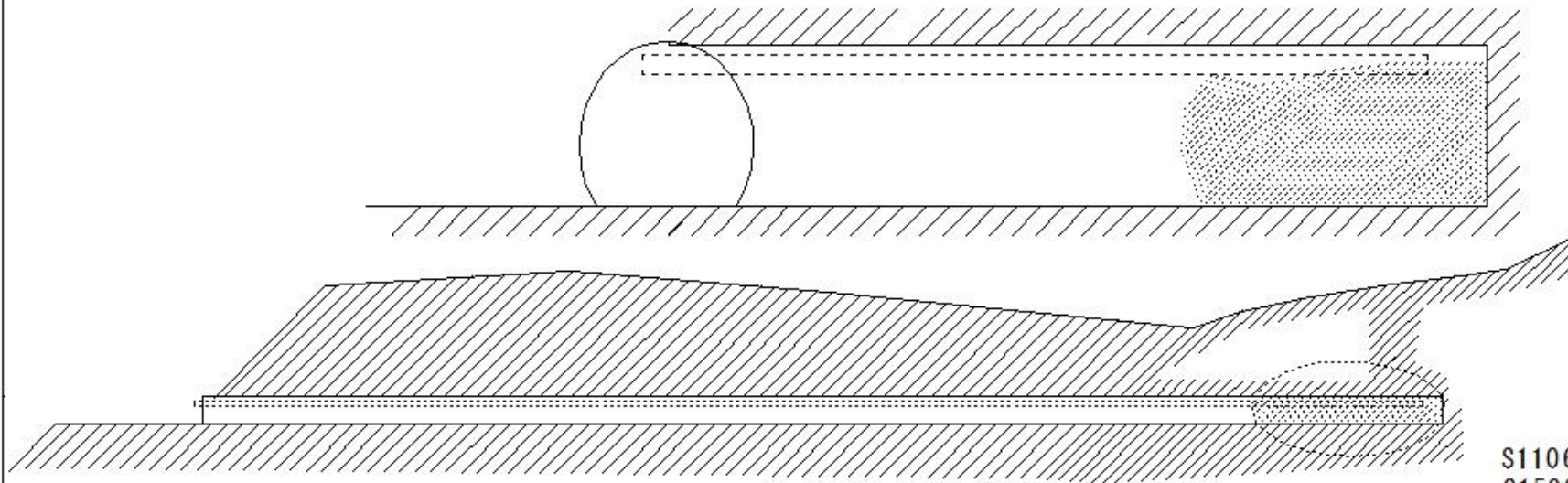
(Temperature measurement inside the mine, etc.)

Once every two weeks

Record the results and keep them for three years



Temperature inside the tunnel



S1106
S1509

(S1717) Health and Safety Documents

(S1717) Health and Safety Documents

Retention period for health and safety related documents

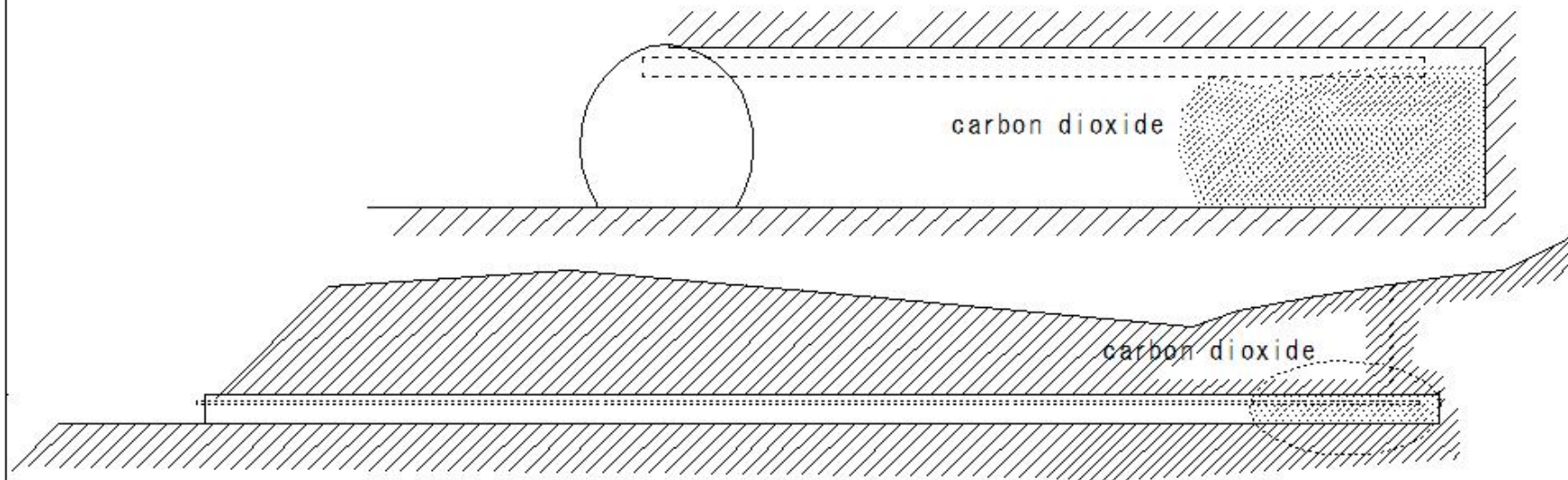
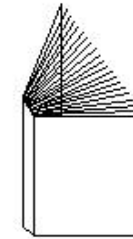
Measurement

Article 592 of the Safety and Health Regulations

(Measurement of carbon dioxide concentration in the mine, etc.)

Once every two weeks

Record the results and keep them for three years



S1102

(S1718) Health and Safety Documents

(S1718) Health and Safety Documents

Retention period for health and safety related documents

Measurement

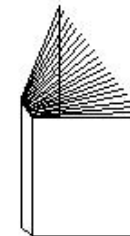
Oxygen deficiency measurement Article 3

(Work environment measurement, etc.)

Organic solvents, specific dust

Once every two weeks

Record the results and keep them for three years



Widely used in painting, cleaning, printing, and other tasks



Organic compounds that have the ability to dissolve other substances

Organic solvents

S1229

S1429

(S1719) Health and Safety Documents

(S1719) Health and Safety Documents

Retention period for health and safety related documents

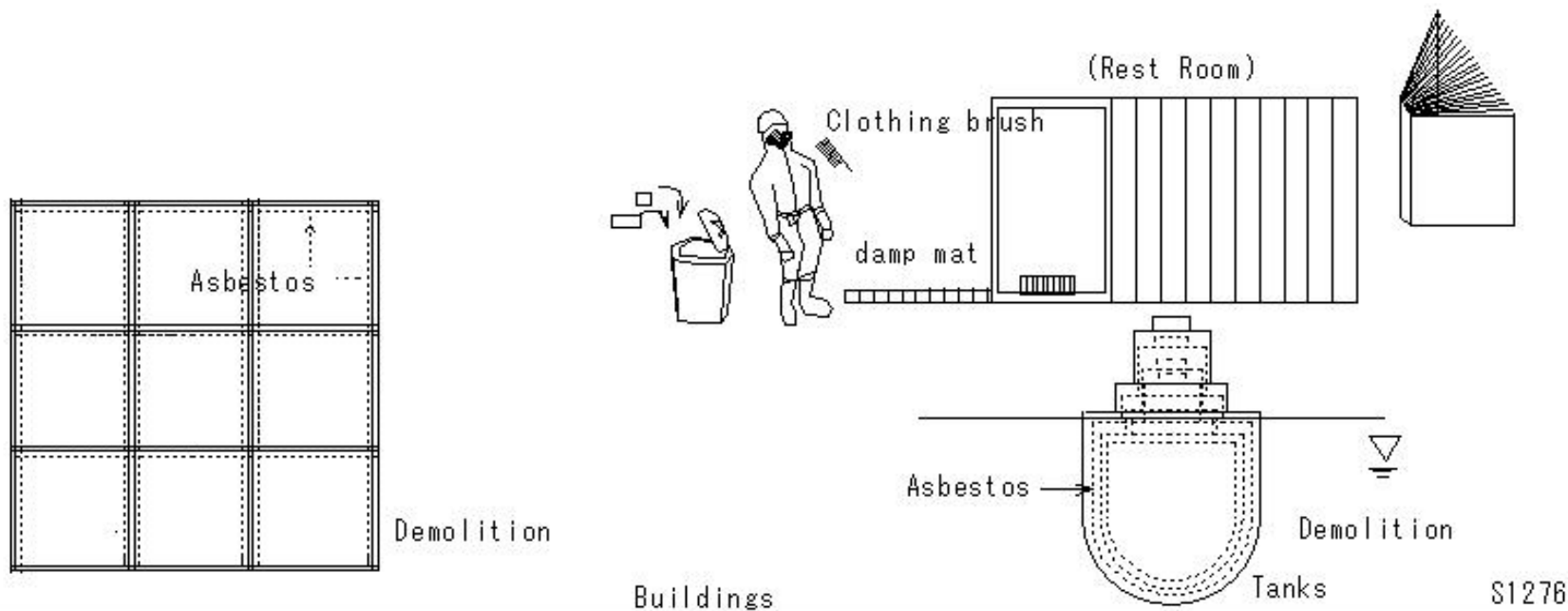
Measurement

Article 36 of the Asbestos Regulations

Asbestos Hazard Prevention Regulations (Asbestos Regulations)

Once every six months

Record the results and keep them for 40 years



(S1720) Health and Safety Documents

(S1720) Health and Safety Documents

Retention period for health and safety related documents

Measurement

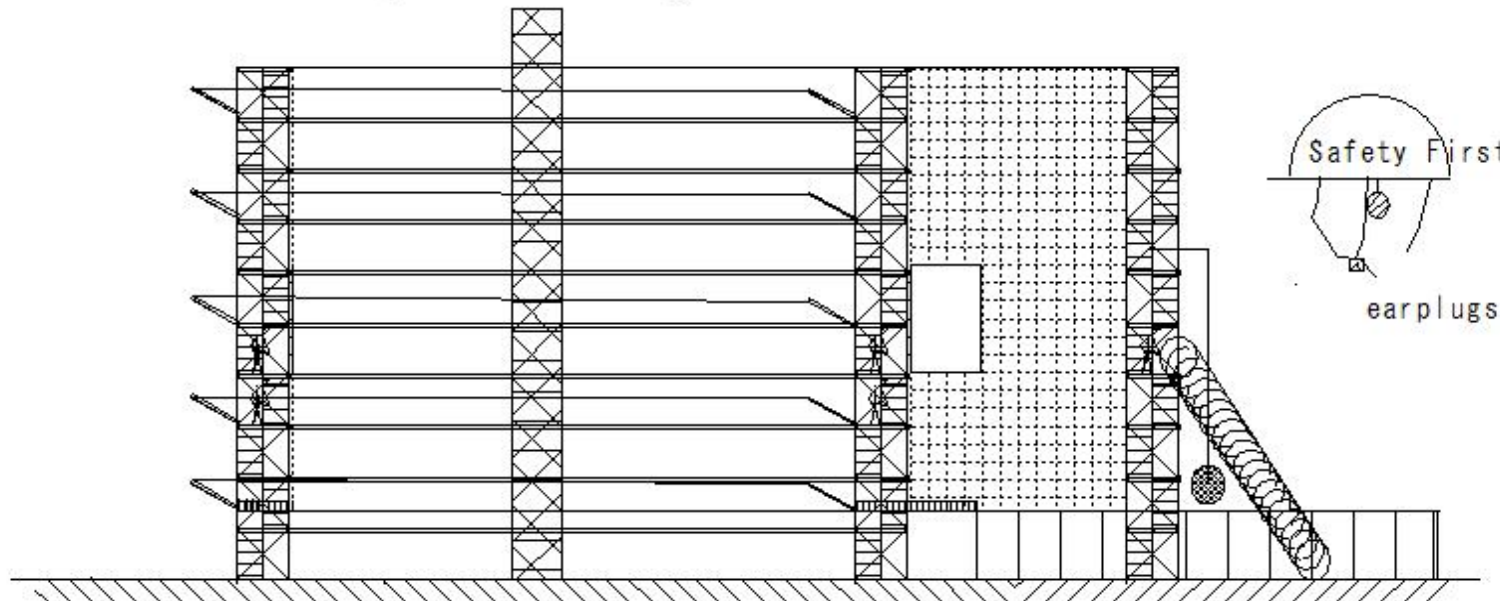
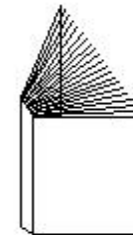
Article 590 of the Safety and Health Regulations

Indoor workplaces that emit significant noise

Measure noise levels

Once every six months

Record the results and keep them for three years



(S1721) Health and Safety Documents

(S1721) Health and Safety Documents

Retention period for health and safety related documents

High pressure equipment

Article 22 of the High Pressure Law

(Inspection and repair of equipment)

Retain these for three years

high-pressure indoor work supervisor license

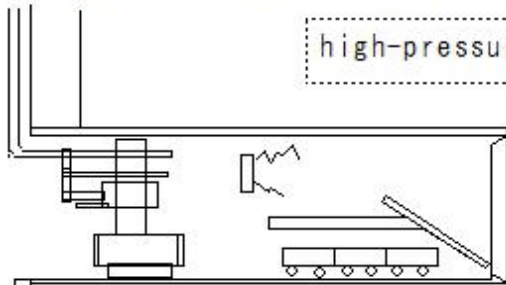
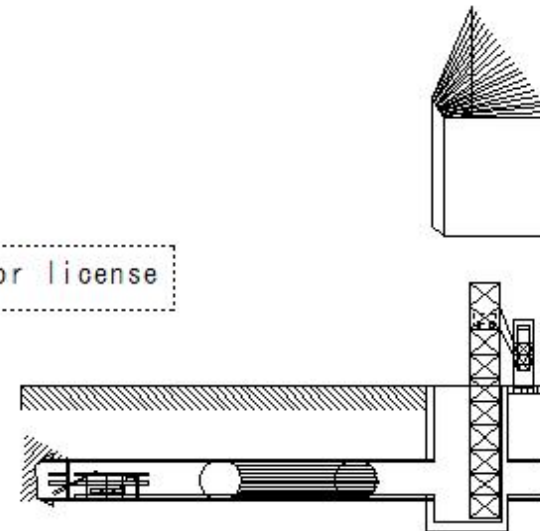
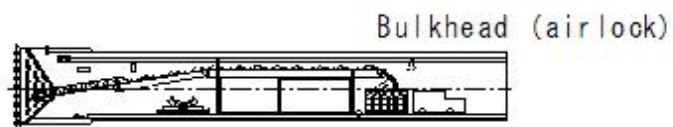


Fig. 3.24 Equipment for compressed air work
S141



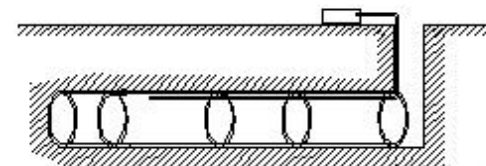
Shield method

F127
T112



Air pressure shield tunneling

T157



pneumatic method

T231
S144

(S1722) Health and Safety Documents

(S1722) Health and Safety Documents

Retention period for health and safety related documents

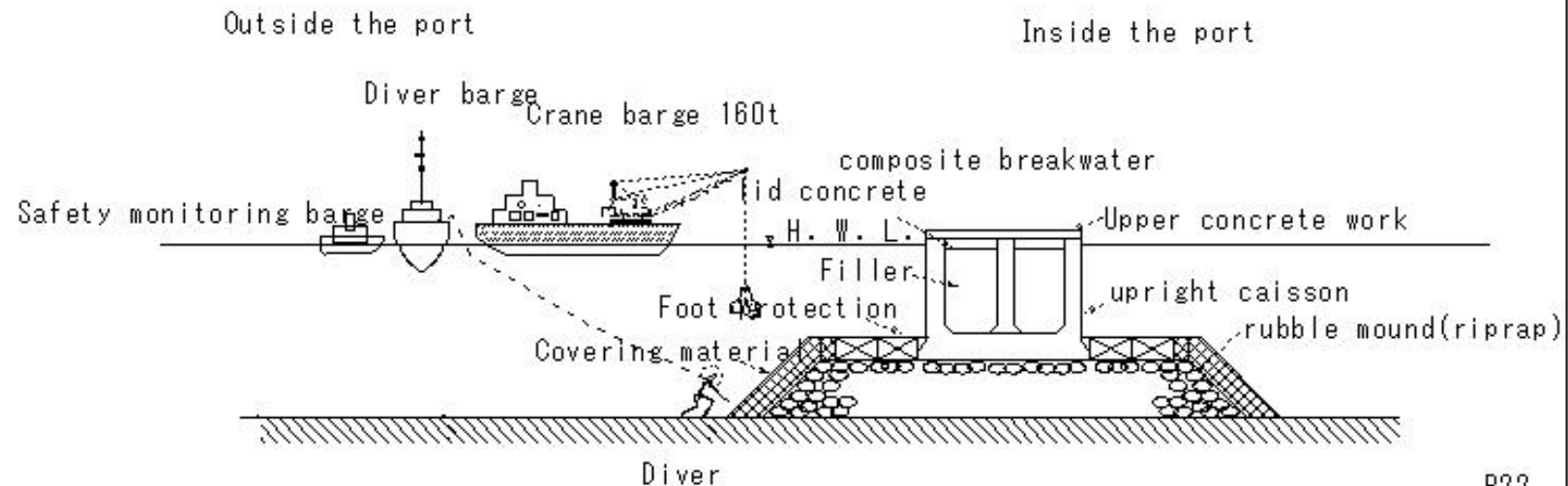
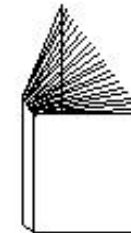
High pressure equipment

Article 34 of the High Pressure Law

(Inspection and repair of equipment, etc.)

Diving work

Inspect diving equipment



P22
P185

(S1723) Health and Safety Documents

(S1723) Health and Safety Documents

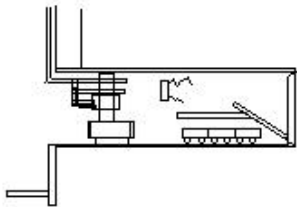
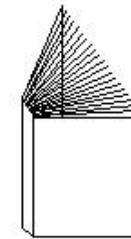
Retention period for health and safety related documents

High pressure equipment

Article 45 of the High Pressure Law
(Inspection)

Recompression chamber

Retention period for 3 years



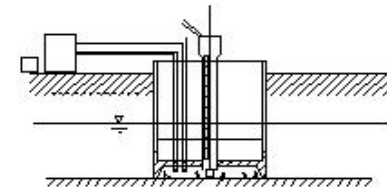
S141



T157



T112
F127



M262
F59

S1206
S1431

(S1724) Health and Safety Documents

(S1724) Health and Safety Documents

Retention period for health and safety related documents

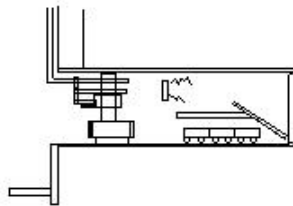
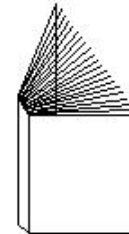
High pressure equipment

Article 20-2 of the High Pressure Law

(Records of work conditions, etc.)

Record the date and time of decompression

Keep for 3 years



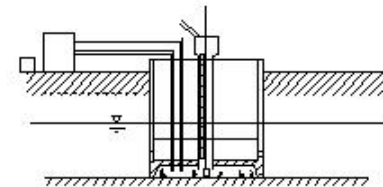
S141



T157



T112
F127



M262
F59

S1206
S1431

(S1725) Health and Safety Documents

(S1725) Health and Safety Documents

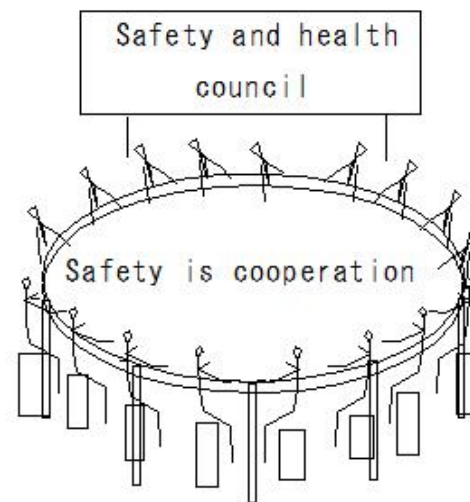
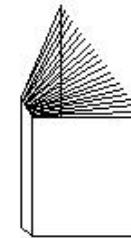
Retention period for health and safety related documents

Article 23 of the Health and Safety Act

(Committee meetings)

Health and Safety Committee

Keep for 3 years



(S1726) Health and Safety Documents

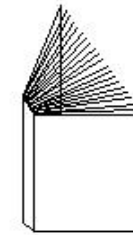
(S1726) Health and Safety Documents

Retention period for health and safety related documents

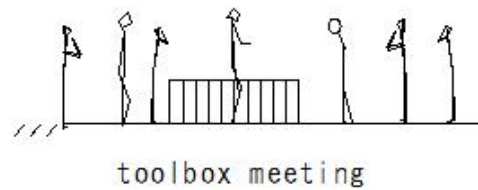
Article 38 of the Safety and Health Regulations

Special training

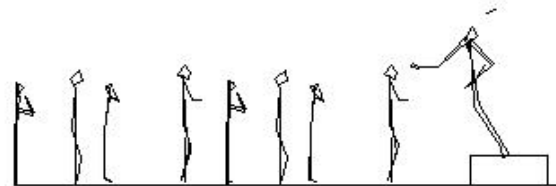
Keep for 3 years



Special training



Inform



(S1727) Health and Safety Documents

(S1727) Health and Safety Documents

Retention period for health and safety related documents

Article 51 of the Safety and Health Regulations
(Creating records of health examination results)

Health examination individual form

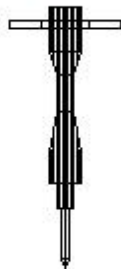
Keep for 5~30 years

(Medical Examination)

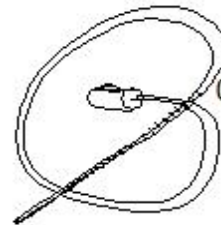


hand breakers

Concrete breaker



M425



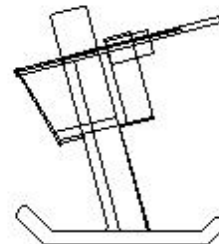
Generate vibrations

bar vibrator

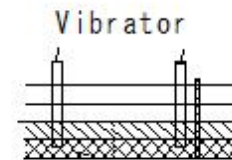
M85

Compaction

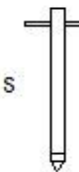
Tampa



M166



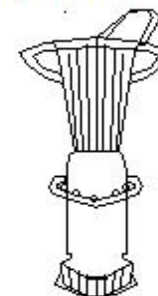
Vibrator



concrete compaction

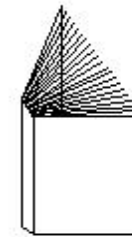
Compaction

Ranma



S1304

M166



(S1728) Health and Safety Documents

(S1728) Health and Safety Documents

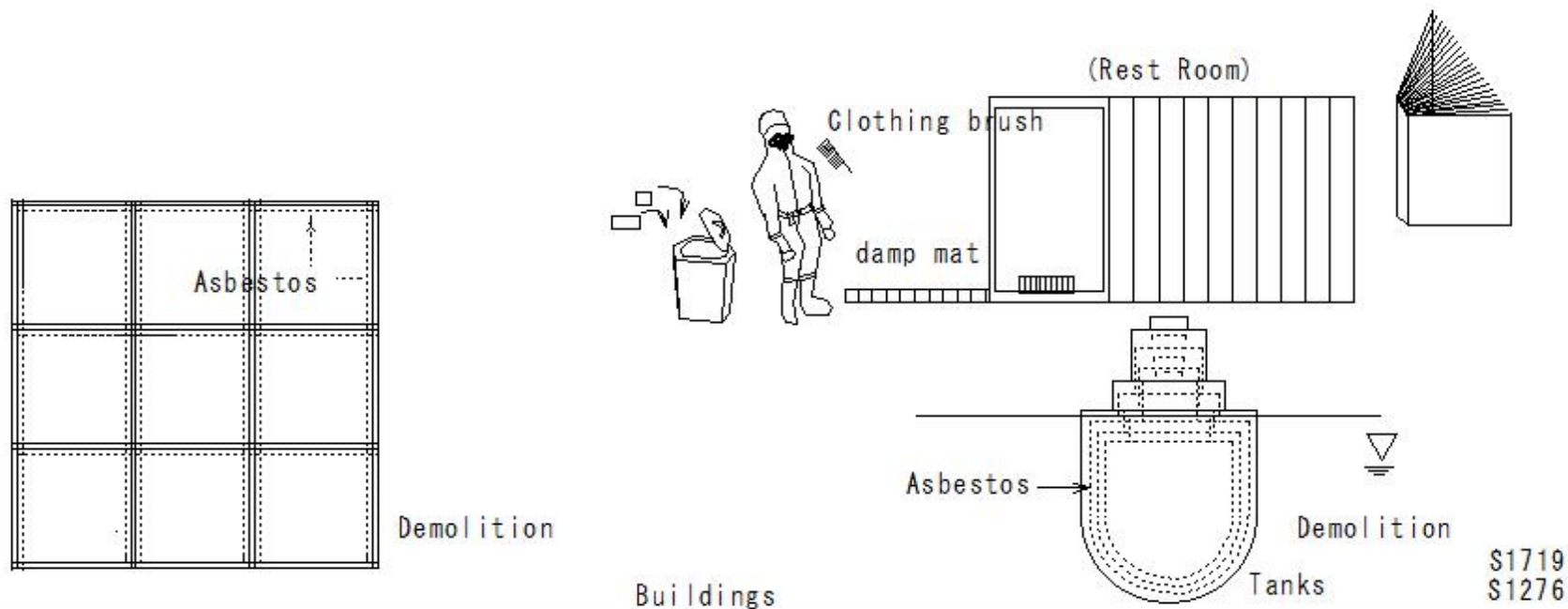
Retention period for health and safety related documents

Asbestos Regulations Article 41

(Recording of health examination results)

Asbestos health examination

Keep for 40 years



(S1729) Health and Safety Documents

(S1729) Health and Safety Documents

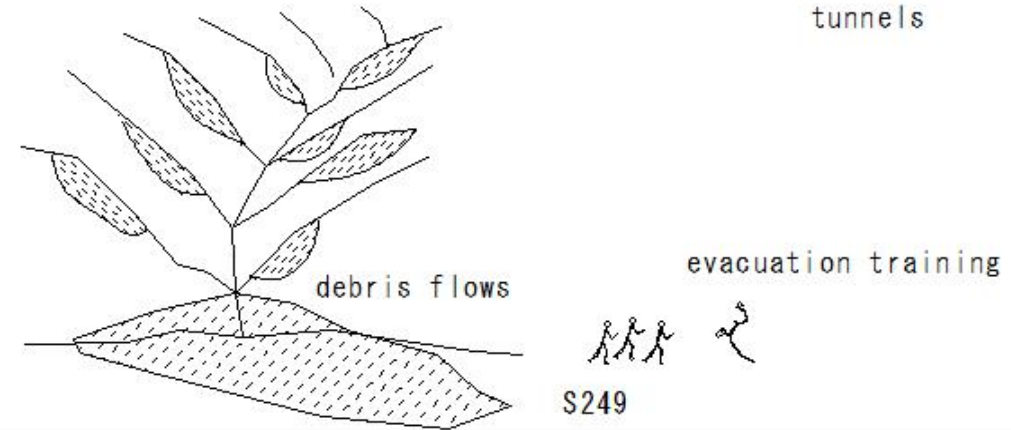
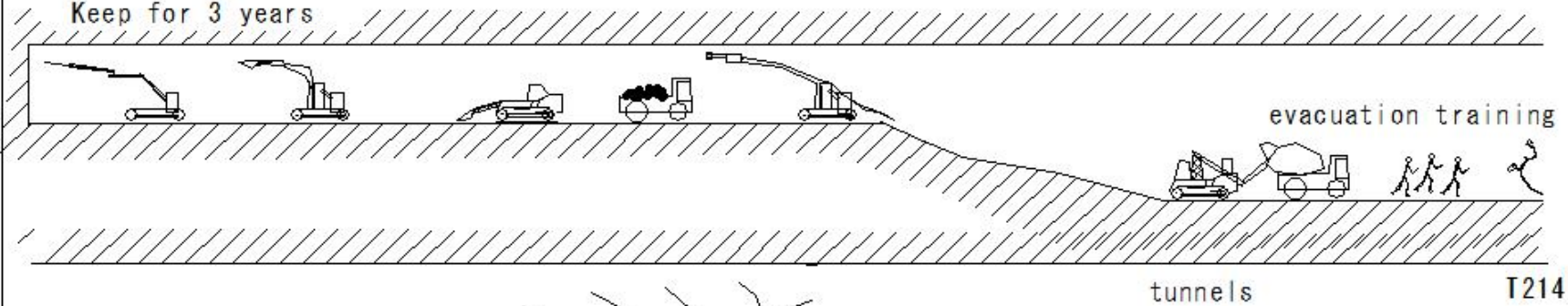
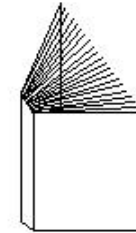
Retention period for health and safety related documents

Article 389-11 of the Safety and Health Regulations

Evacuation drills

Tunnels

Keep for 3 years



T214

S249

S262

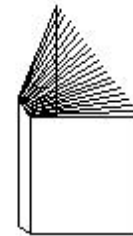
(S1730) Health and Safety Documents

(S1730) Health and Safety Documents

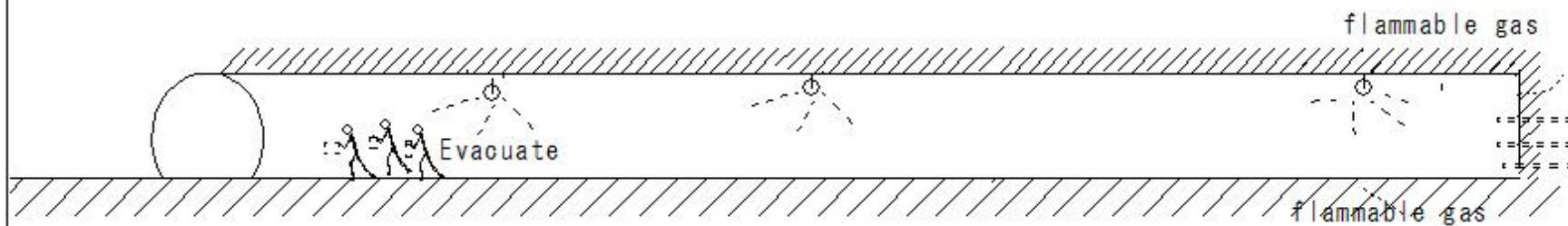
Retention period for health and safety related documents

Article 24-4 of the Safety and Health Regulations
(Rescue training)

Keep for 3 years



(Training for evacuation, etc.)



S1081

(S1731) Health and Safety Documents

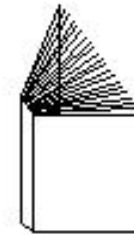
(S1731) Health and Safety Documents

Retention period for health and safety related documents

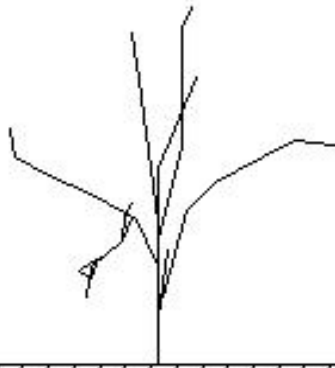
Workmen's Accident Compensation Insurance

Workmen's Accident Compensation Law Article 51

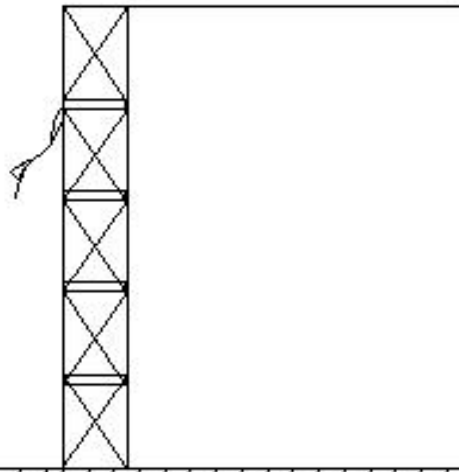
Keep for 3 years



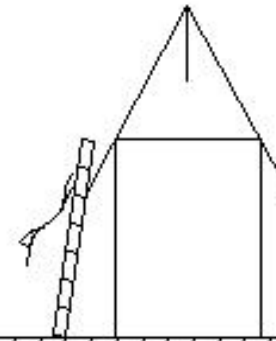
falling from a tree



falling from a scaffolding



falling from a ladder



(S1732) Health and Safety Documents

(S1732) Health and Safety Documents

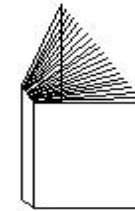
Retention period for health and safety related documents

Workmen's Accident Compensation Insurance

Workmen's Accident Compensation Law Article 51

Commuting Accidents

Keep for 3 years



accommodation §156

(S1733) Safety terminology

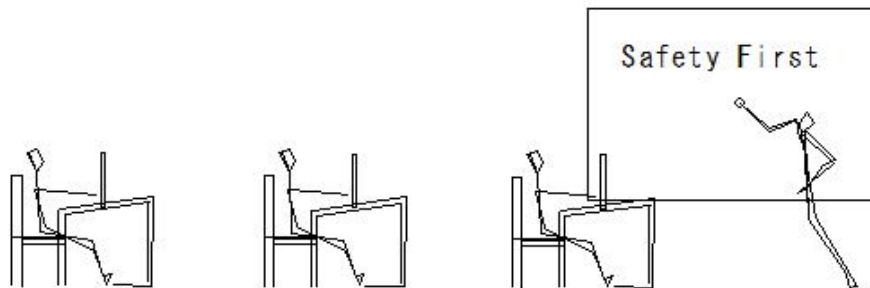
(S1733) Safety terminology

CFT

Construction Foreman Trainer

Article 60 of the Industrial Safety and Health Act

- ① A foreman who has been newly appointed to a position
- ② To those who directly supervise or guide
- ③ To provide education on safety or health



(S1734) Safety terminology

(S1734) Safety terminology

COHSMS

Construction Occupational Health and Safety Management System



(S1735) Safety terminology

(S1735) Safety terminology

Danger prediction (Kiken Yochi) (K.Y) activities

[Purpose of KY activities]

- ① Prevent possible workplace accidents at the workplace
- ② Raise safety awareness in the workplace
- ③ Employees take measures to protect their own safety and the safety of their colleagues
- ④ Improve the productivity and sustainability of the company

Date	Hazard prevention activity chart	
Work content		
Points of danger		
How what we do		
Group name	Leader name	Worker

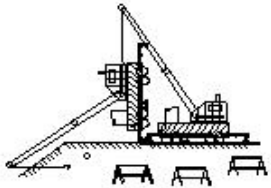
(S1736) Safety terminology

(S1736) Safety terminology

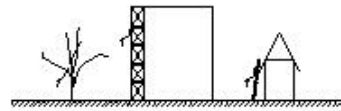
Hazard prediction training

Hazard prediction training (KYT)

Danger prediction (Kiken Yochi) (K.Y) activities



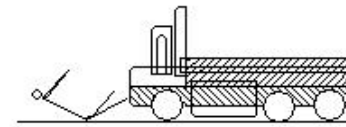
S272



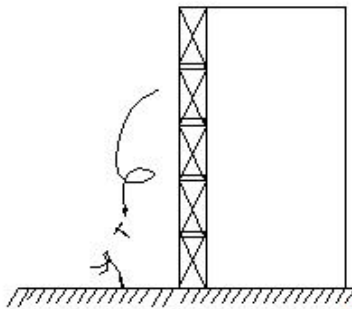
S273



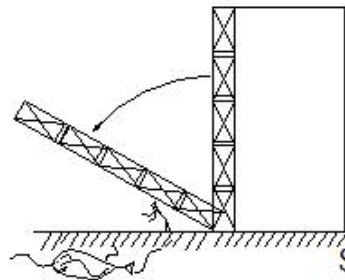
S274



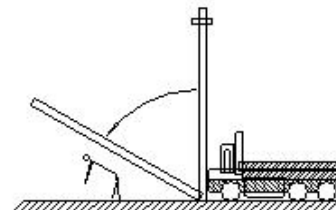
S275



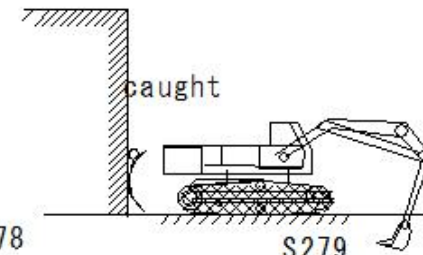
S276



S277



S278



S279

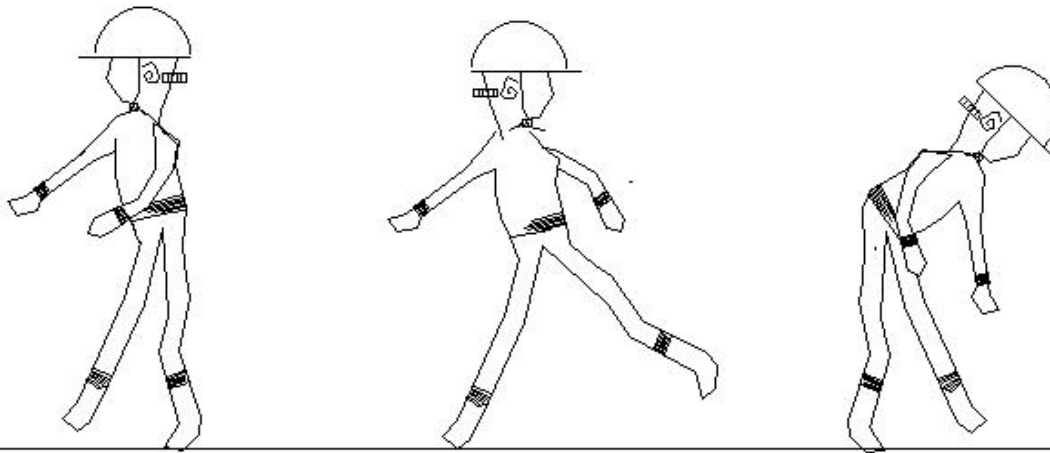
(S1737) Safety terminology

(S1737) Safety terminology

OHSAS

OHSAS is a management system for protecting the physical and mental health of people working in companies.

Exercises

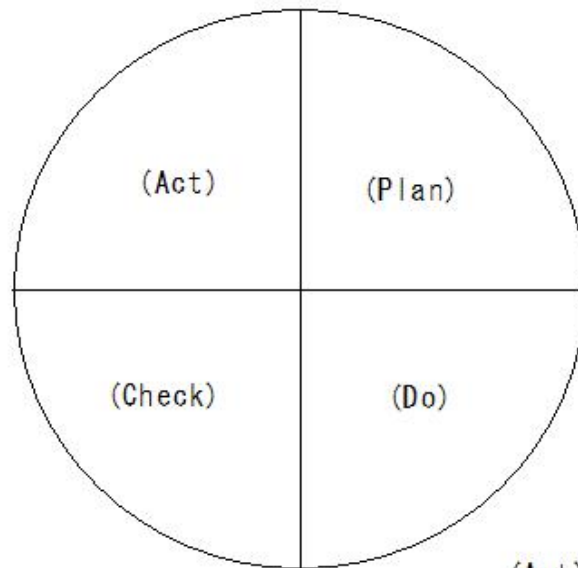


(S1738) Safety terminology

(S1738) Safety terminology

「OSHMS」 Occupational Safety and Health Management System

(Plan) - (Do) - (Check) - (Act) (PDCA Cycle)



(Act) (PDCA Cycle)

(S1739) Safety terminology

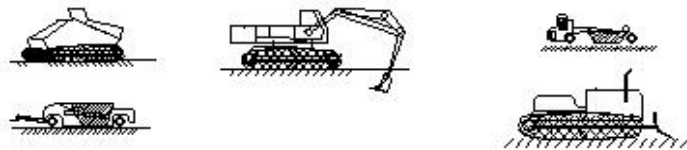
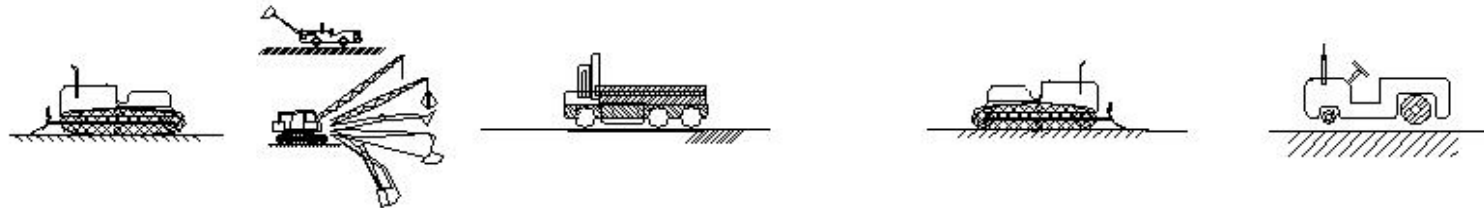
(S1739) Safety terminology

OJT

On-the-job training is an important topic of human resource management.

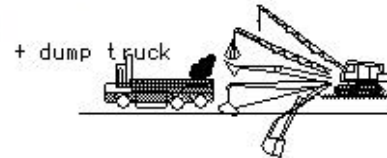
It helps develop the career of the individual and the prosperous growth of the organization.

On-the-job training is a form of training provided at the workplace.



construction machinery

power source



+ dump truck



Towed scraper



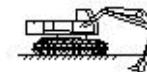
scrape dozer



motor scraper



Excavator



backhoe



drag line



clamshell



Tractor excavator
+ dump truck

E341

E238

M1, M10

(S1740) Safety terminology

(S1740) Safety terminology

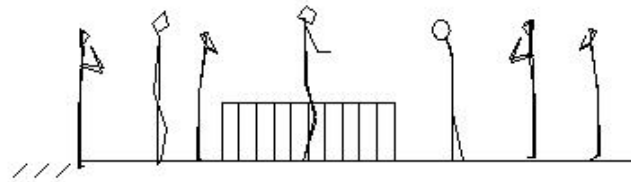
RST

Roadshop Safety and Health Education Trainer

Article 60 of the Industrial Safety and Health Act
Safety and health education (foreman education)

1. Safety and health knowledge for foremen
2. Work procedures, worker placement, and methods of instruction and education
3. Learn about risk and hazard investigations,
measures to take in the event of an abnormality or disaster, etc.

Roadshop Safety and Health Education Trainer



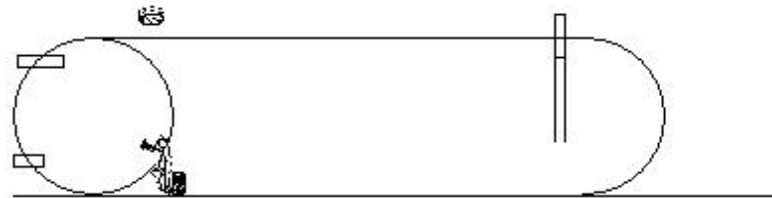
(S1741) Safety terminology

(S1741) Safety terminology

SDS

Documents regarding the handling of hazardous substances
and their guidance, composition and properties

- ① Product Name
- ② Hazard and hazard summary - Uses GHS-compliant pictograms and warning words
- ③ Composition and ingredient information
- ④ First aid measures
- ⑤ Fire measures
- ⑥ Leakage measures
- ⑦ Handling and storage precautions
- ⑧ Exposure prevention and personal protection measures
- ⑨ Physical and chemical properties
- ⑩ Stability and reactivity
- ⑪ Hazard information
- ⑫ Environmental impact information
- ⑬ Disposal precautions
- ⑭ Transportation precautions
- ⑮ Applicable laws and regulations
- ⑯ Other information



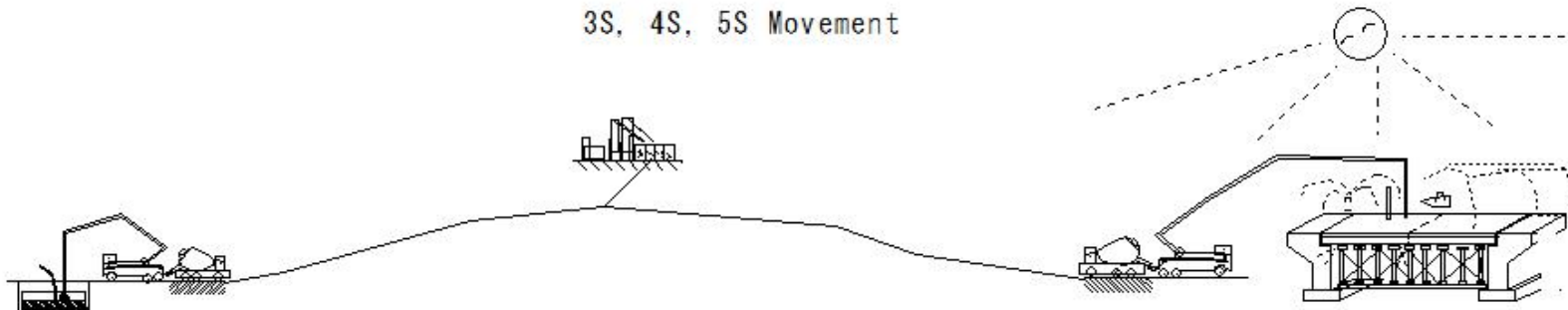
(S1742) Safety terminology

(S1742) Safety terminology

3S, 4S, 5S Movement

- ① Organization (Seiri)
- ② Order (Seiton)
- ③ Cleaning (Seiso)
- ④ Cleanliness (Seiketsu)
- ⑤ Discipline (Shitsuke)

3S, 4S, 5S Movement



C877

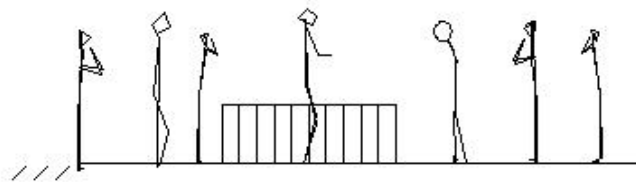
(S1743) Safety terminology

(S1743) Safety terminology

TBM

Tool Box Meeting

A meeting to discuss work details and health and safety before starting work



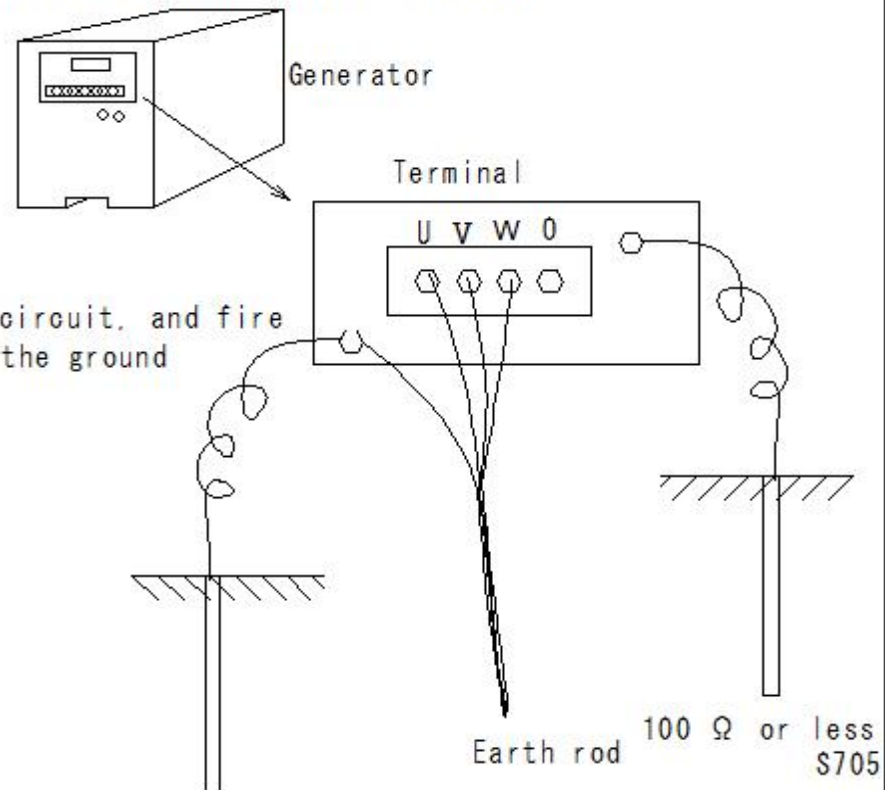
toolbox meeting

(S1744) Safety terminology

(S1744) Safety terminology

Earth

Grounding is the electrical connection of electrical equipment and circuits to the earth.
It is used to prevent accidents such as electric shock, short circuit, and fire.



[Purpose of grounding]

- ① Prevent accidents such as electric shock, short circuit, and fire
- ② Safely discharge current caused by lightning to the ground
- ③ Ensure stable operation of electrical equipment
- ④ Suppress the generation of static electricity

(S1745) Safety terminology

(S1745) Safety terminology

Eye splice

This is a technique for making a loop (eye) at the end of a wire rope to make a rope for slinging cargo or attaching to a platform.



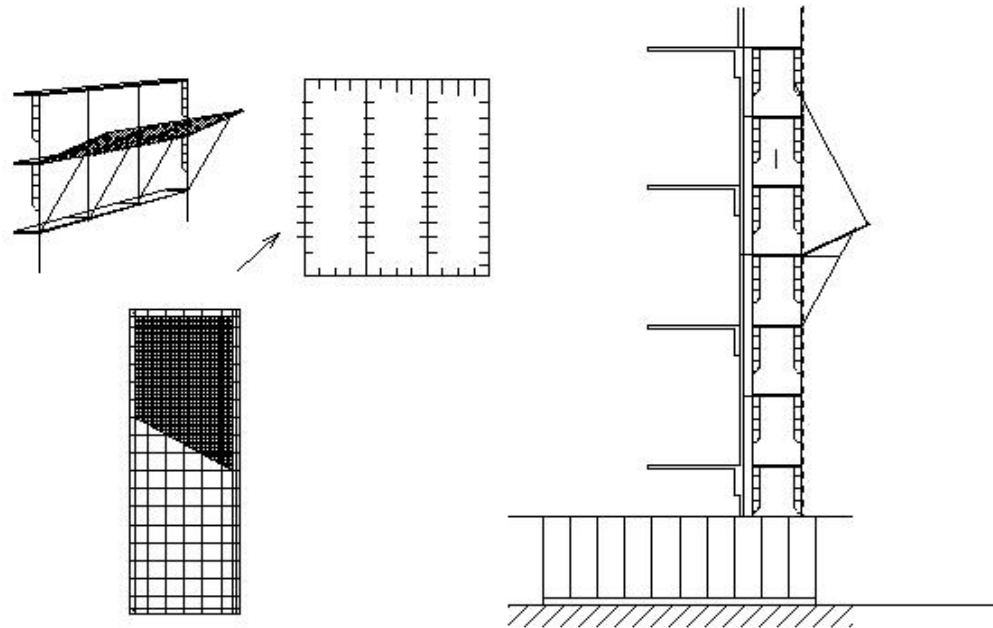
① Eye wire rope on both ends: Eye splice

(S1746) Safety terminology

(S1746) Safety terminology

protective fence

- ① In case of setting up temporary scaffolding for high-altitude work adjacent to public roads or sidewalks
- ② Installation of protective plates to prevent injury from falling objects



(S1747) Safety terminology

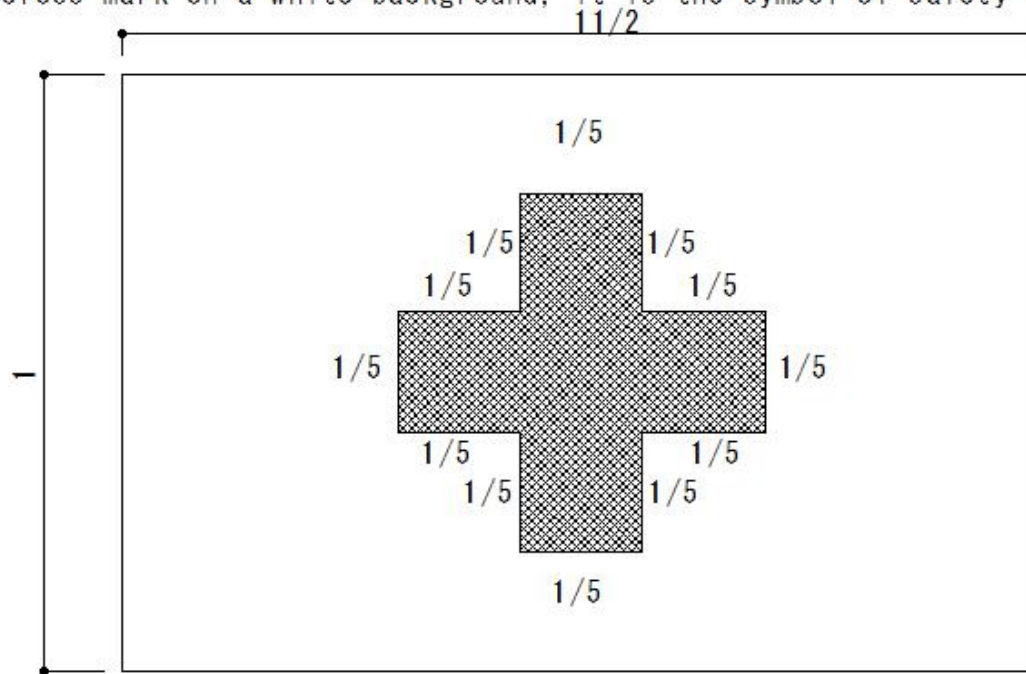
(S1747) Safety terminology

Safety flag

The safety flag is a flag that expresses wishes for safety and hygiene, and is used as a symbol of construction sites and safety weeks.

[Origin of the safety flag]

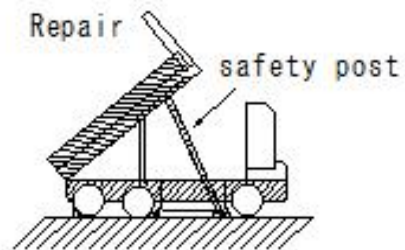
A green cross mark on a white background, it is the symbol of safety and hygiene.



(S1748) Safety terminology

(S1748) Safety terminology

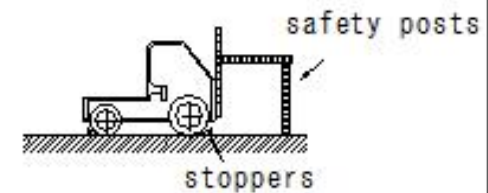
Safety pillar/safety block



S539



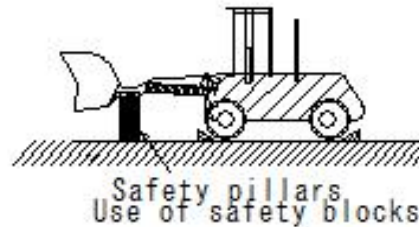
S545



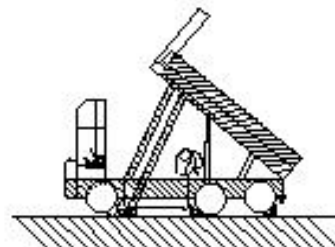
Forklift

S569

Shovel loader



S580



S596

(S1749) Safety terminology

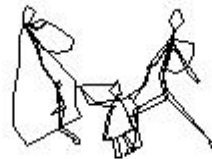
(S1749) Safety terminology

Safety first

Hazard prediction activity practice manual

Safety is the most important thing

Safety first

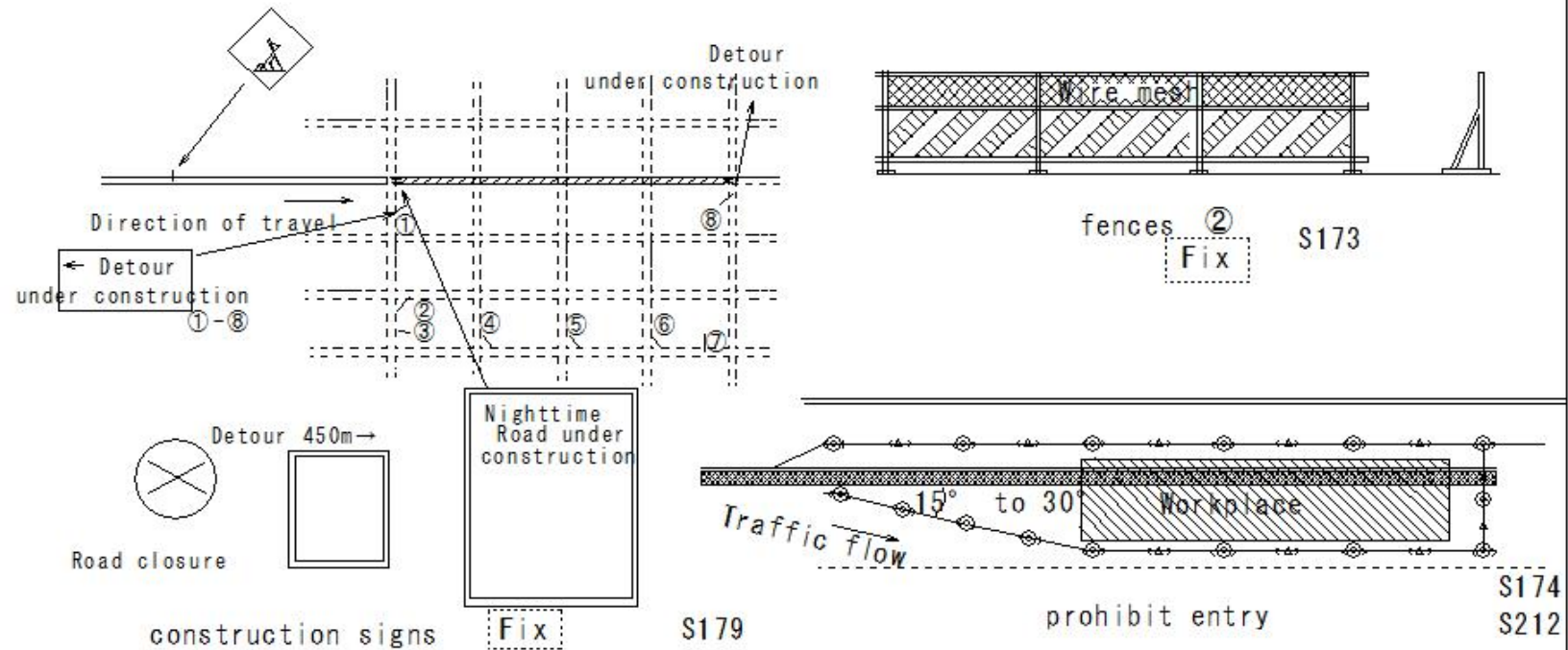


(S1750) Safety terminology

(S1750) Safety terminology

Safety signs

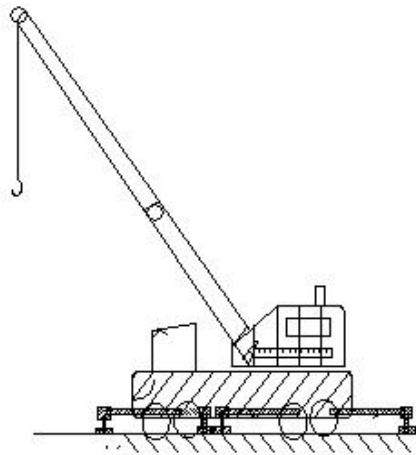
Safety signs are various signs used in workplaces, vehicles, ships, etc. to ensure safety.



(S1751) Safety terminology

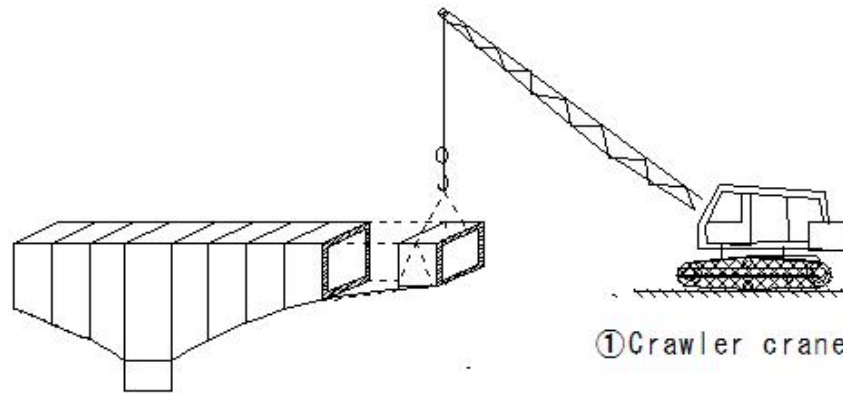
(S1751) Safety terminology

Mobile cranes



Mobile crane

B111
M46
S1708



① Crawler crane

F364
M45

(S1752) Safety terminology

(S1752) Safety terminology

Interlocking

Interlocking is a concept of safety devices and mechanisms that prevents other operations from occurring unless certain conditions are met.

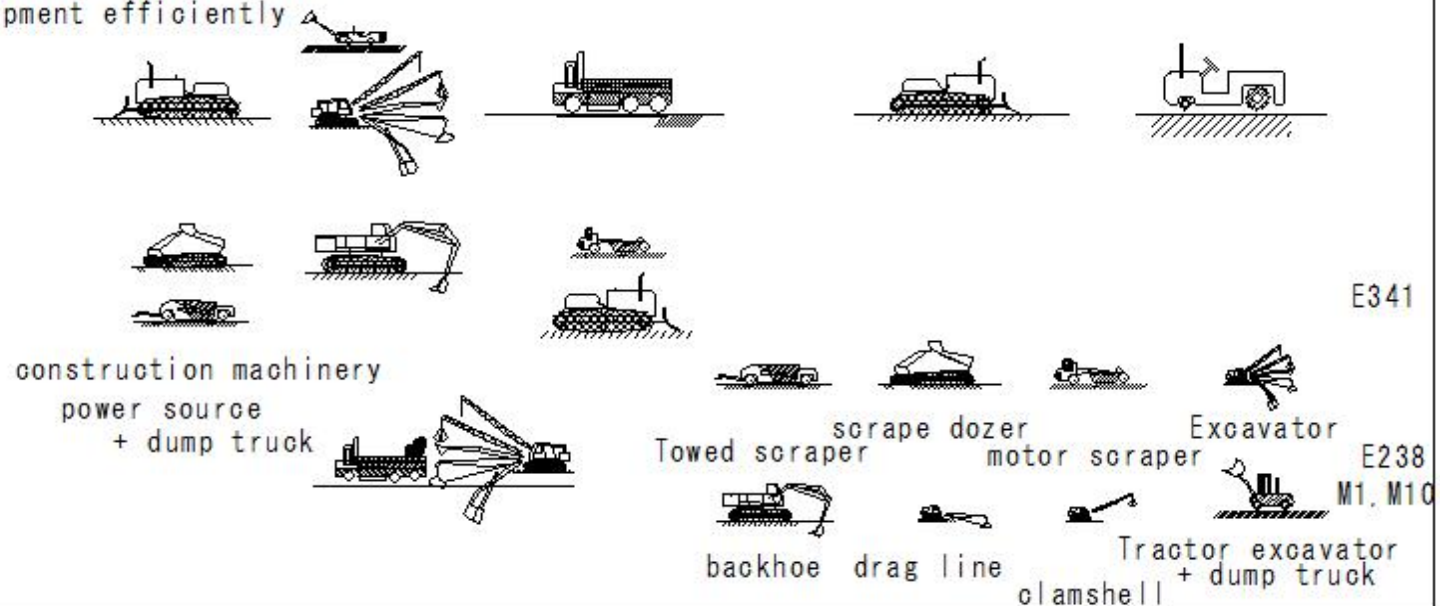
Interlock applications

Preventing equipment malfunctions and ensuring safety

Ensuring the safety of workers and people in the vicinity

Preventing accidents and injuries

Operating equipment efficiently



(S1753) Safety terminology

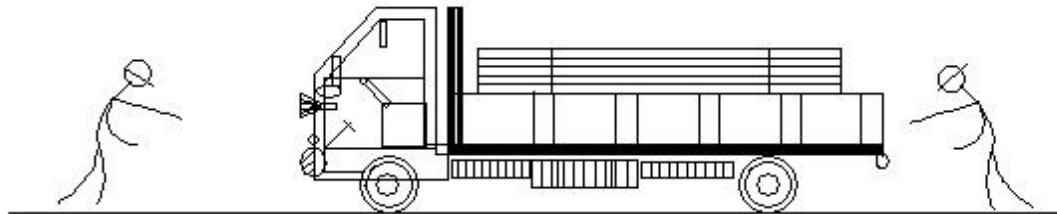
(S1753) Safety terminology

Freight vehicles

Freight vehicles are automobiles used to transport cargo, such as trucks and vans.

[Types of freight vehicles]

Trucks: Classified into large, medium and small depending on the size and weight of the vehicle body and the maximum load capacity.



Freight vehicle

S1425

S622

S1436

(S1754) Safety terminology

(S1754) Safety terminology

Ventilation equipment

Ventilation equipment is equipment that exchanges indoor and outdoor air.

It consists of air supply equipment and exhaust equipment, and in principle, it is mandatory to install it in all buildings.

[Purpose] Exhaust polluted air

Keep the room clean Ventilate while maintaining the room temperature
(Limits on gas partial pressure)

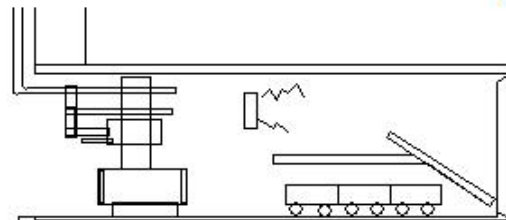
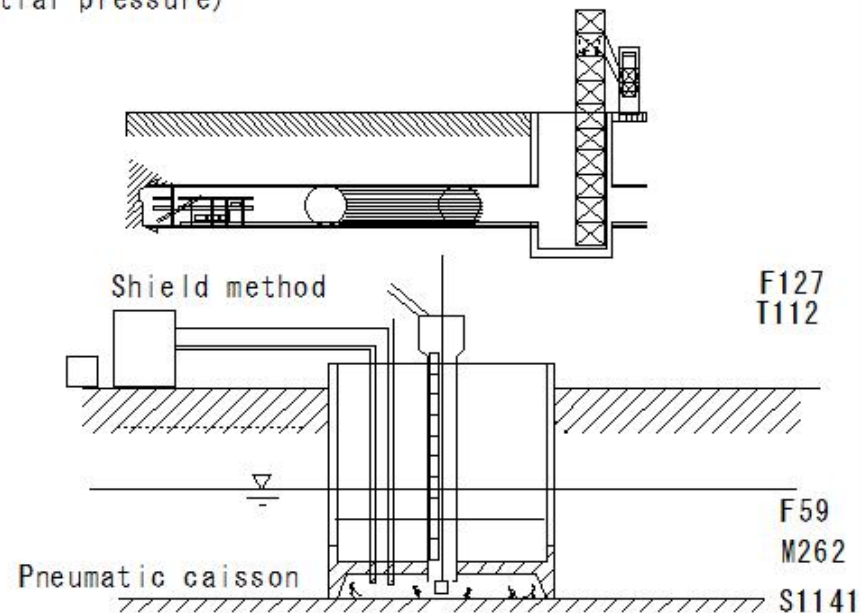


Fig. 3.24 Equipment for compressed air work
S141



Air pressure shield tunneling
T157

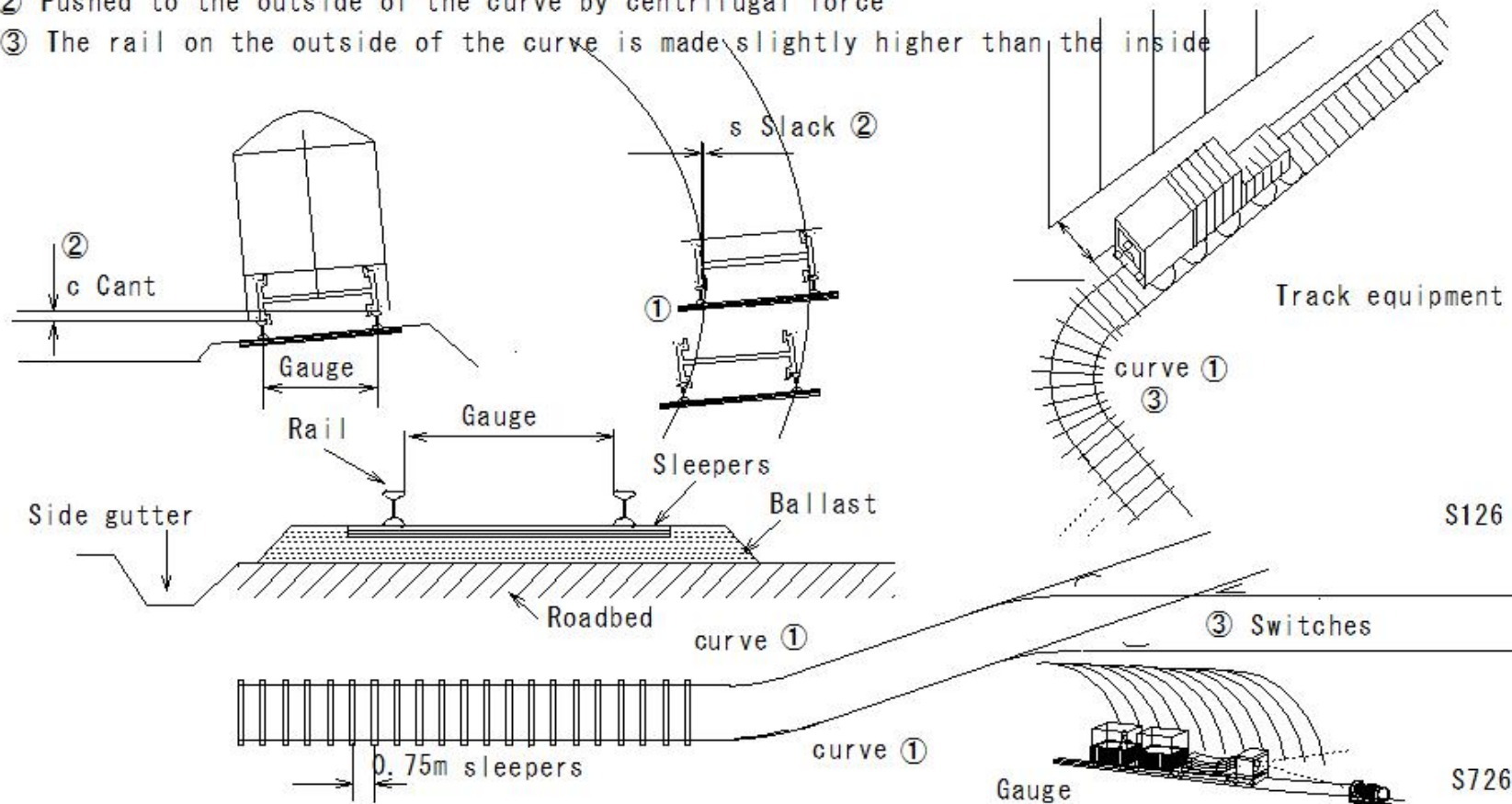


(S1755) Safety terminology

(S1755) Safety terminology

Cant

- ① A train running on a curve
- ② Pushed to the outside of the curve by centrifugal force
- ③ The rail on the outside of the curve is made slightly higher than the inside



(S1756) Safety terminology

(S1756) Safety terminology

Mechanical logging equipment

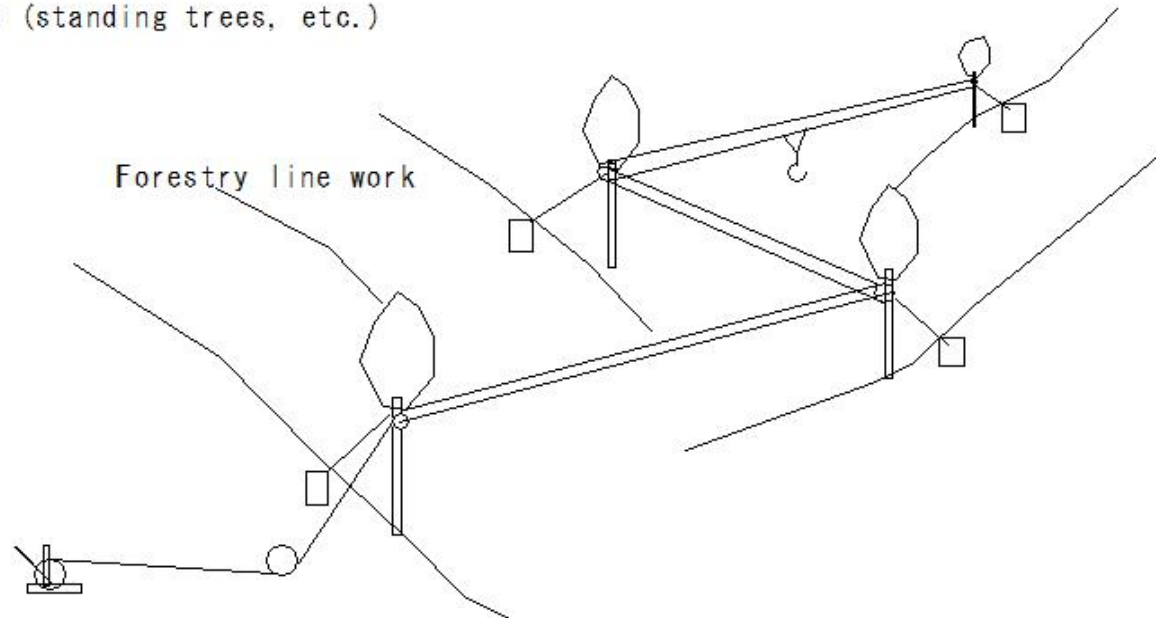
[Main components of mechanical logging equipment]

Logging equipment (forwarders, skidders, logging vehicles, logging tractors, etc.)

Overhead wires (wire ropes)

Carriers (containers for transporting logs)

Support poles (standing trees, etc.)



S1416

S1524

S1560

(S1757) Safety terminology

(S1757) Safety terminology

Air volume

Air volume is the total volume of indoor space calculated by multiplying the floor area by the ceiling height. It is measured in cubic meters (m³).

[Uses of air volume]

Used in designing and managing the space of offices and indoor work areas

Used when calculating ventilation volume

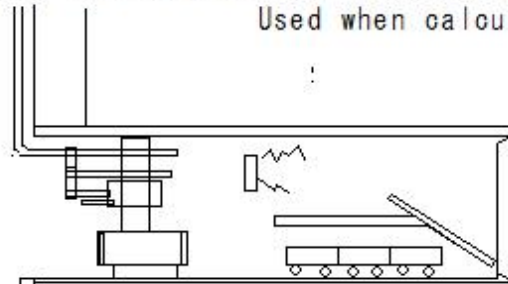
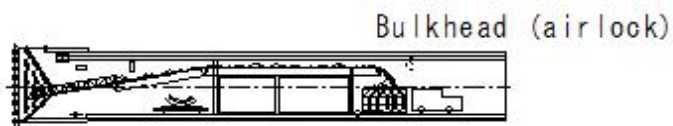
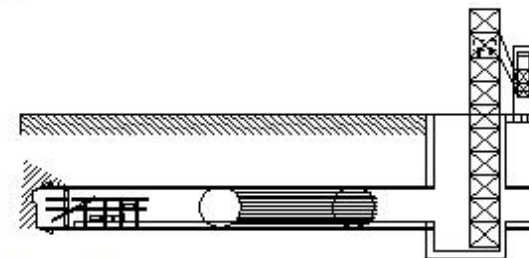


Fig. 3.24 Equipment for compressed air work
S141

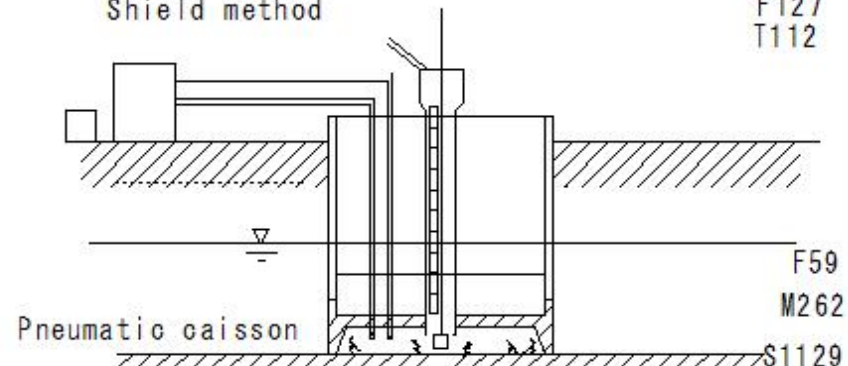


Air pressure shield tunneling T157



Shield method

F127
T112



Pneumatic caisson

F59

M262

S1129

(S1758) Safety terminology

(S1758) Safety terminology

Machine weight

Machine weight is the dry weight of the machine body only with the working equipment removed (weight without fuel, oil, water, etc.).

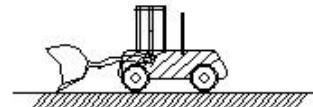
[Example of machine weight]

The machine weight of a vehicle-type construction machine is the weight of the machine body used for leveling, transporting, loading, and excavation.

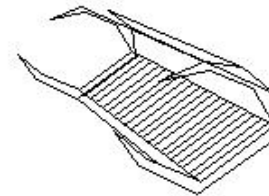
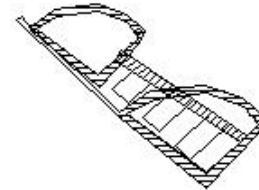
loading bucket



Crawler type tractor excavator



tractor excavator

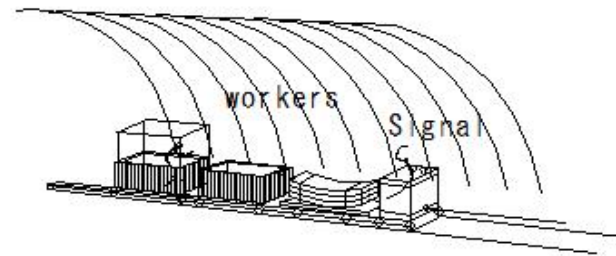


(S1759) Safety terminology

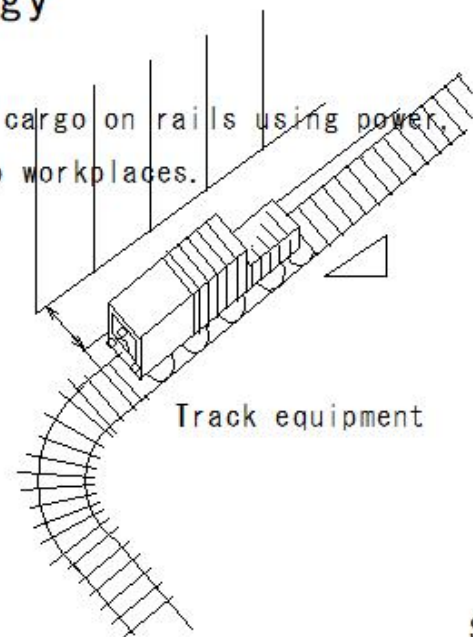
(S1759) Safety terminology

Track equipment

Track equipment refers to equipment used to transport workers and cargo on rails using power, such as tracks, vehicles, motorized cars, and hoists attached to workplaces.

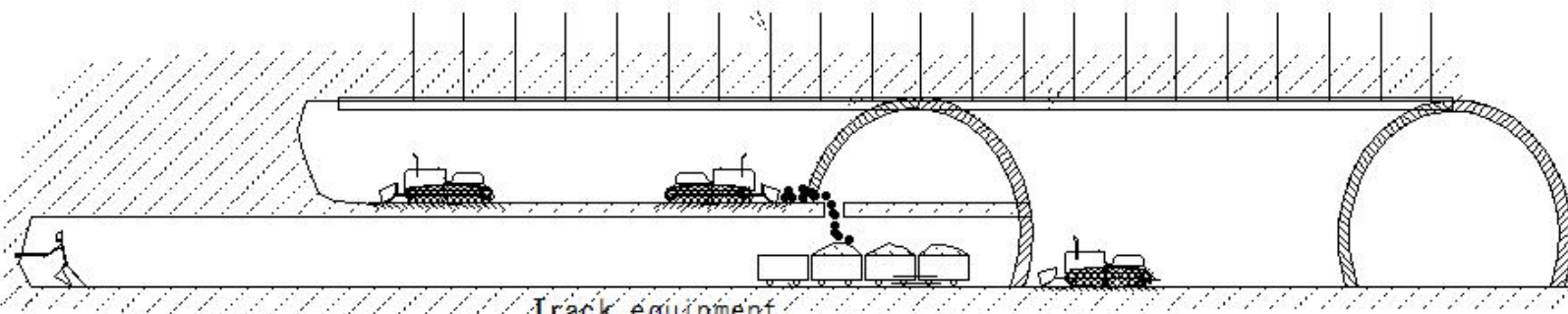


Track equipment



Track equipment

S126



Track equipment

S709

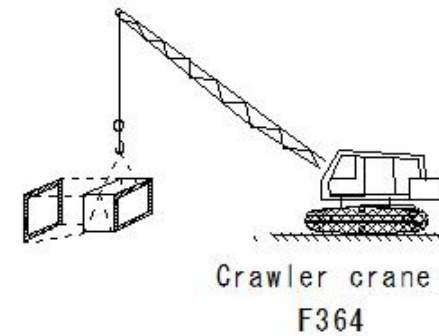
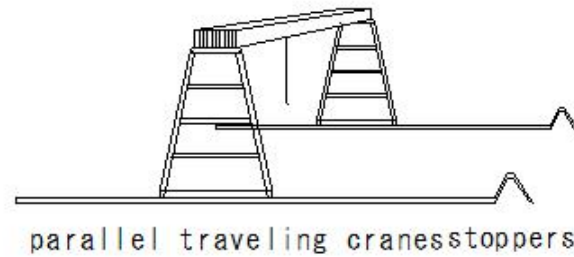
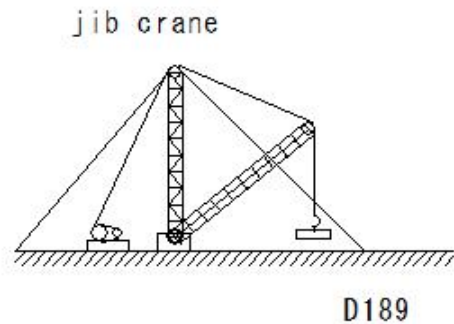
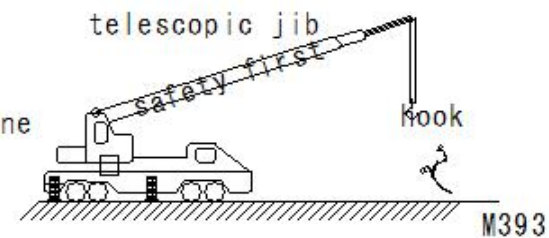
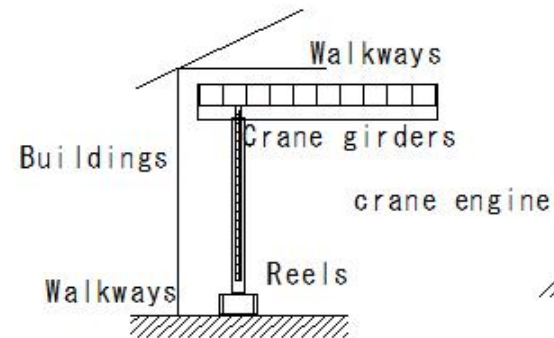
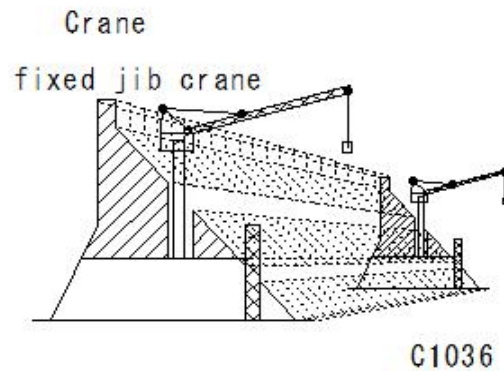
S60

T148

T31

(S1760) Safety terminology

(S1760) Safety terminology



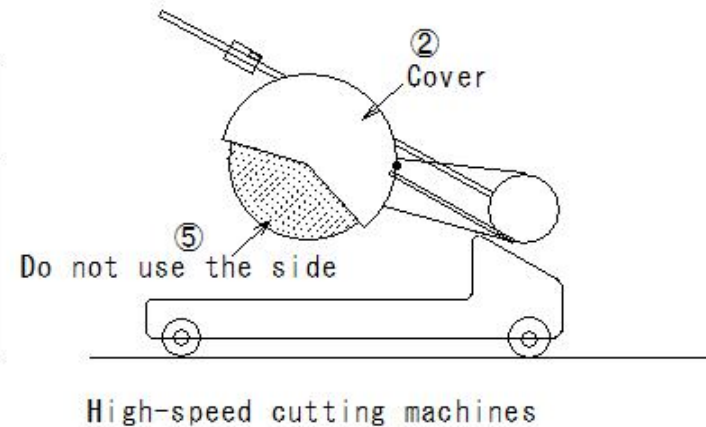
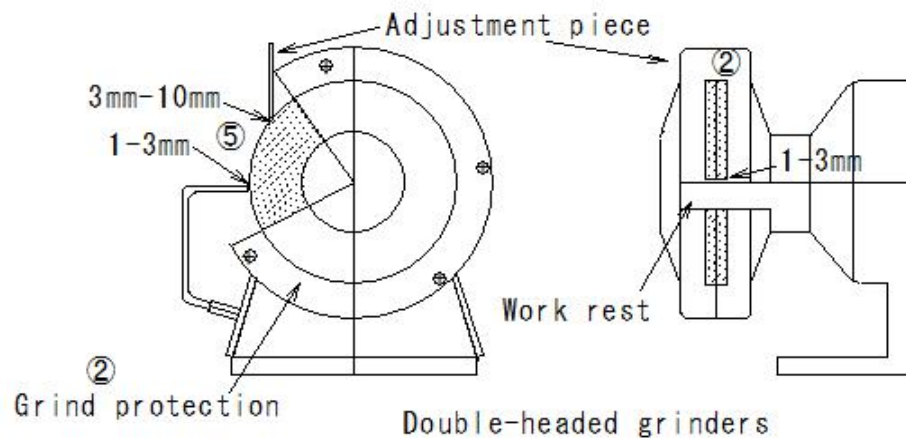
S1680
S1681
S1682

(S1761) Safety terminology

(S1761) Safety terminology

Grinding wheel

A grinding wheel is a cutting tool that rotates at high speeds with power to grind the workpiece with countless sharp grains, resulting in a beautiful finished surface and the correct dimensions.

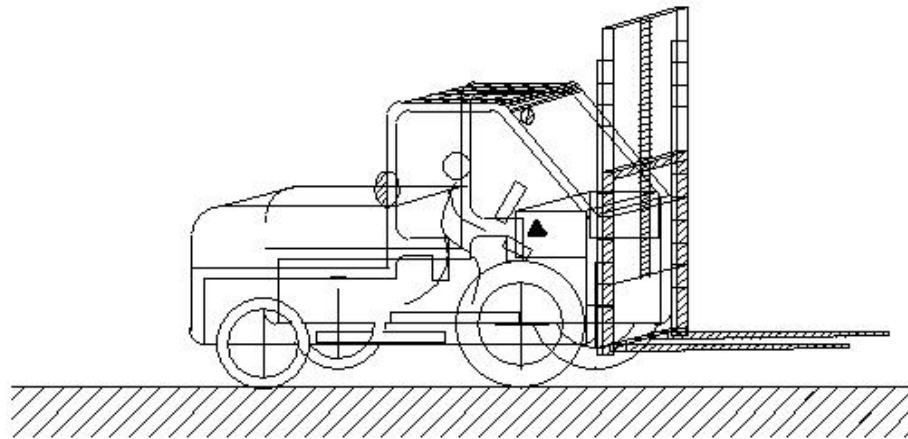


(S1762) Safety terminology

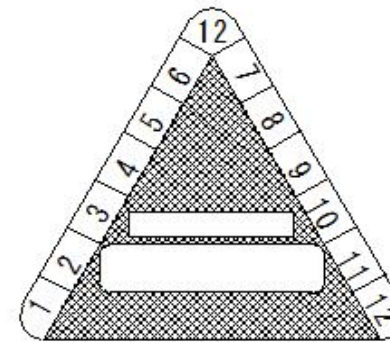
(S1762) Safety terminology

Inspection mark Vehicle-mounted construction machinery

- ① The government periodically checks whether an automobile complies with safety and environmental standards.



Forklift



Inspection mark

S22

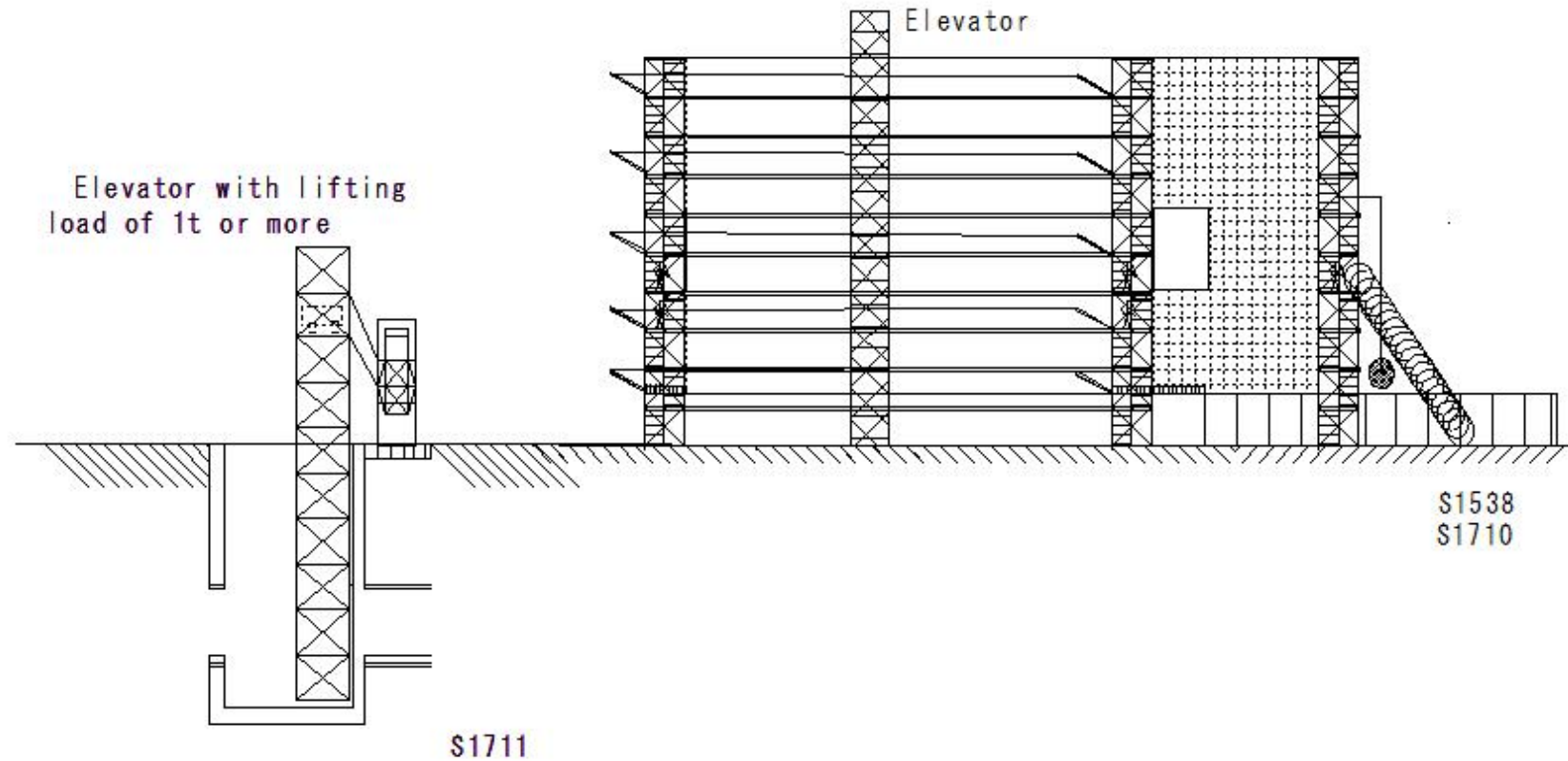
S594

(S1763) Safety terminology

(S1763) Safety terminology

Construction lift

- ① A construction lift is an elevator whose sole purpose is to transport materials.

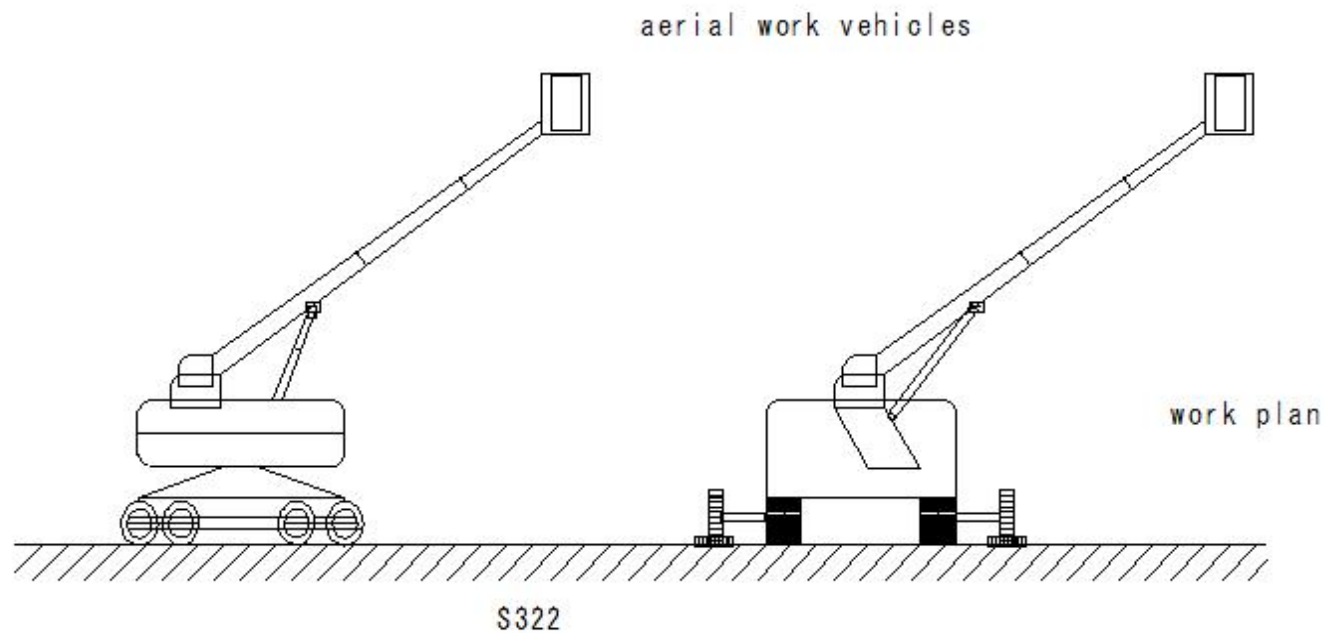


(S1764) Safety terminology

(S1764) Safety terminology

Aerial work platform

- ① Elevated work platform is a machine that can raise the work platform by 2m or more, and is composed of a lifting device, a running device, etc.



S635
S1444

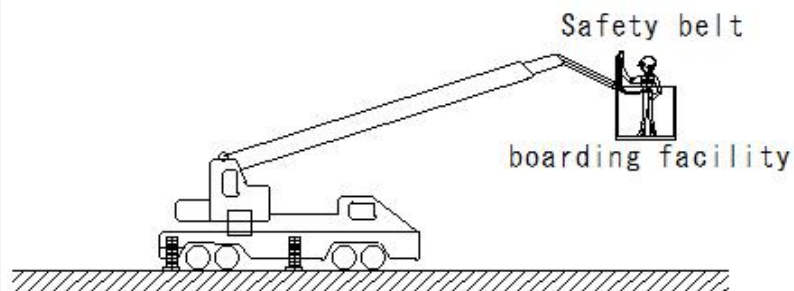
(S1765) Safety terminology

(S1765) Safety terminology

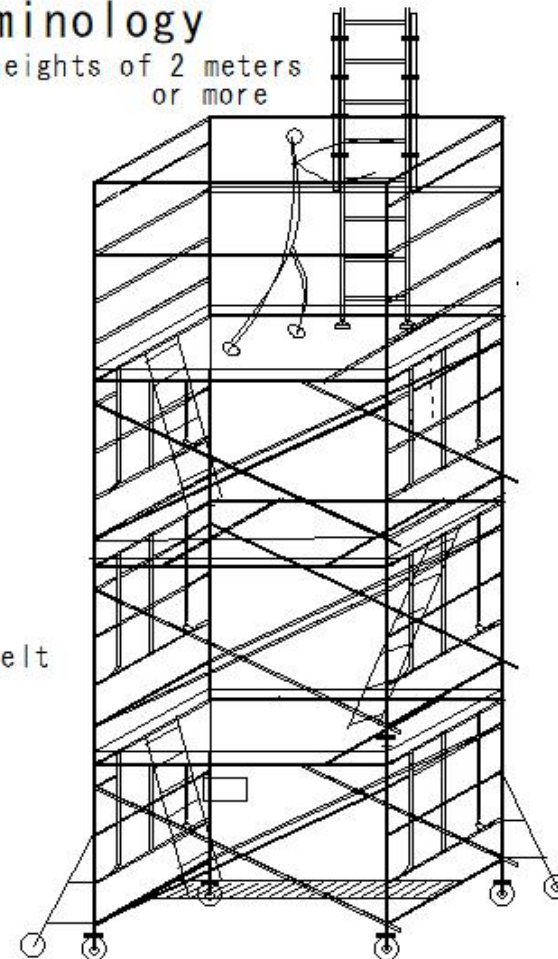
Aerial work

- ① Work where the work floor is more than 2 meters high
- ② Inspection work inside the ceiling
- ③ Cleaning windows in high-rise buildings
- ④ Use a safety rope or safety harness
- ⑤ Install handrails or enclosures to prevent falls
- ⑥ Instruct workers
- ⑦ Scaffolding suitable for the work
- ⑧ A work environment that does not cause strain

heights of 2 meters
or more



S1447



(Mobile Scaffolding)

S801

S798

S1445

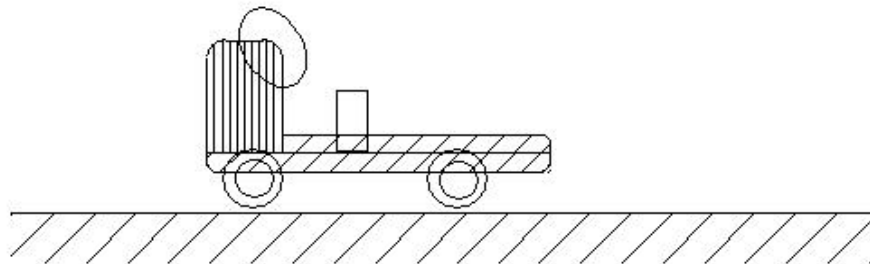
(S1766) Safety terminology

(S1766) Safety terminology

In-plant transport vehicle

- ① A vehicle that drives within the premises of a factory or warehouse to carry goods
- ② A cart-type vehicle
- ③ Only drives within the premises
- ④ Speed ??limited to 15km/h or less
- ⑤ Headlights and head guards
- ⑥ Brakes and other braking devices, horns, steering wheels and turn signals
- ⑦ Equipment to prevent collisions with people
- ⑧ A work environment that does not cause strain

⑥ In-plant transport vehicle



S568
S1647

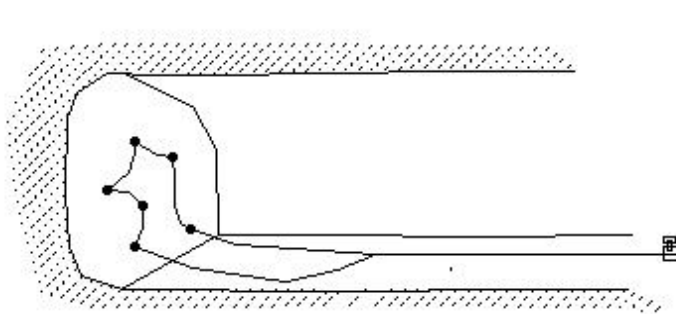
(S1767) Safety terminology

(S1767) Safety terminology

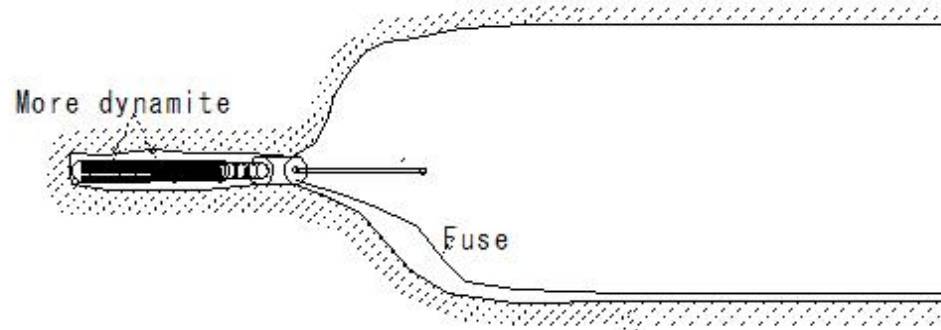
Loading material

Blazing load material

- ① Loading material must not damage the electric detonator's legs or fuse when loading.



electric blasting



blasting the fuse

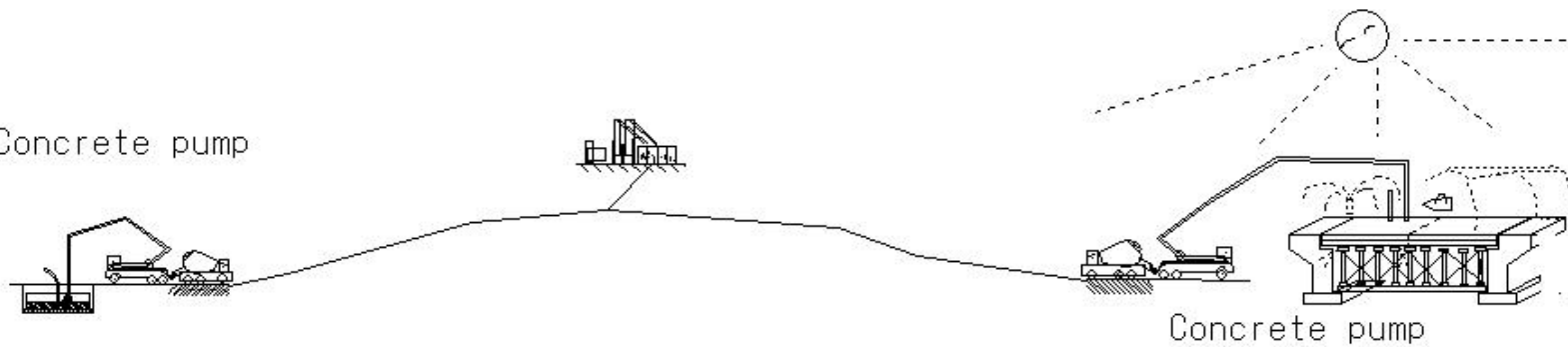
(S1768) Safety terminology

(S1768) Safety terminology

Concrete pump truck

- ① Fresh concrete (ready mixed concrete)
- ② Hydraulic pressure generated by PTO pump
- ③ Transport to formwork

Concrete pump



C877
S1691

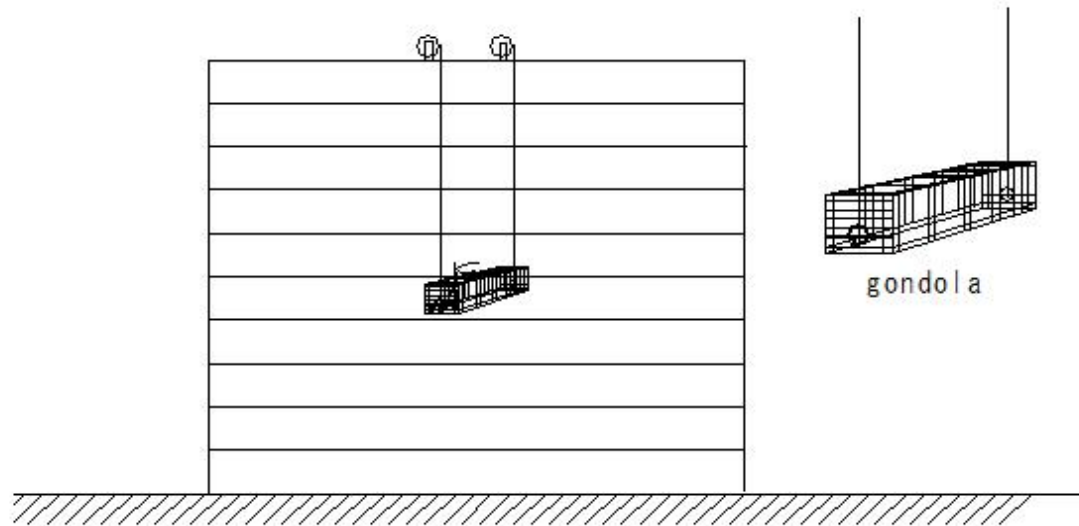
(S1769) Safety terminology

(S1769) Safety terminology

Gondola

1. Repairing and cleaning the exterior walls and windows of buildings
2. Suspended by wire ropes from the roof or middle floors of a building
3. Work performed by raising and lowering a gondola (work platform)

Elevator with lifting



S1448

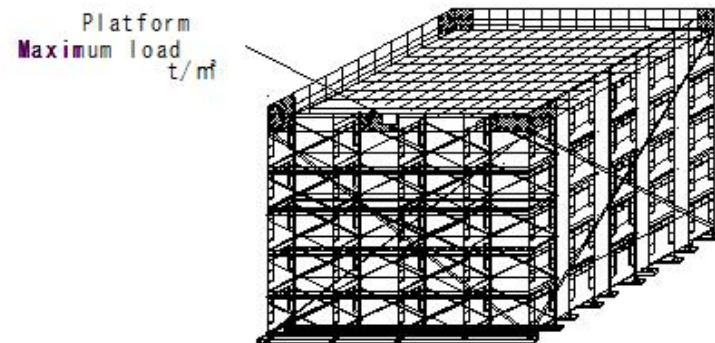
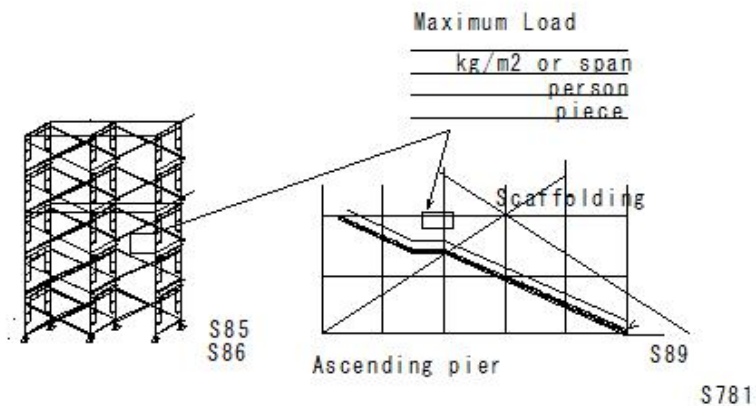
S1712

(S1770) Safety terminology

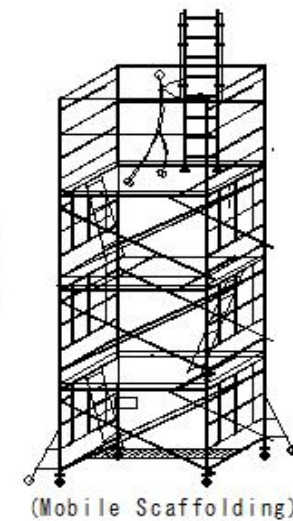
(S1770) Safety terminology

Maximum load

Maximum load is the maximum weight that a structure such as a scaffold or truck can safely support.



Maximum Load
kg/m² or span
person
piece



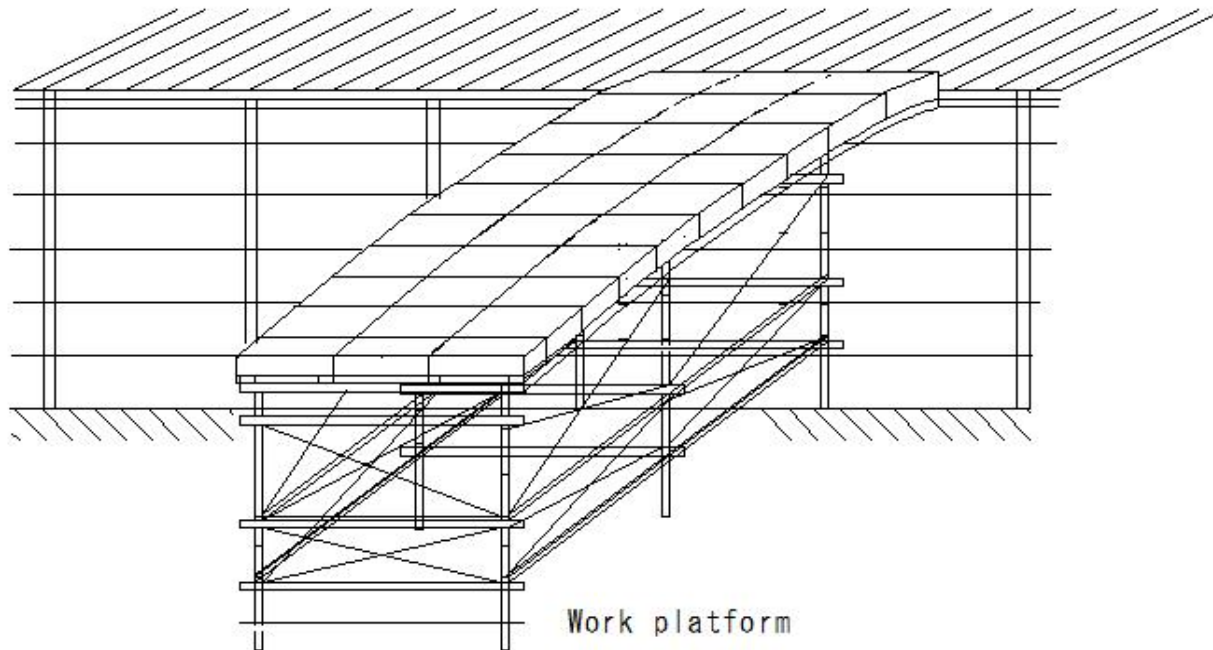
S1602
S1603
S1604

(S1771) Safety terminology

(S1771) Safety terminology

Work platform

A work platform is a temporary structure over 2m high that is installed at construction sites to store materials and machinery, and to set up and move construction



Work platform

S109
S1615

(S1772) Safety terminology

(S1772) Safety terminology

Countersunk board

A board laid down to prevent the building frame from sinking into the ground when assembling scaffolding

① Overlap and join, overlap by 1m or more, and tie at least two places

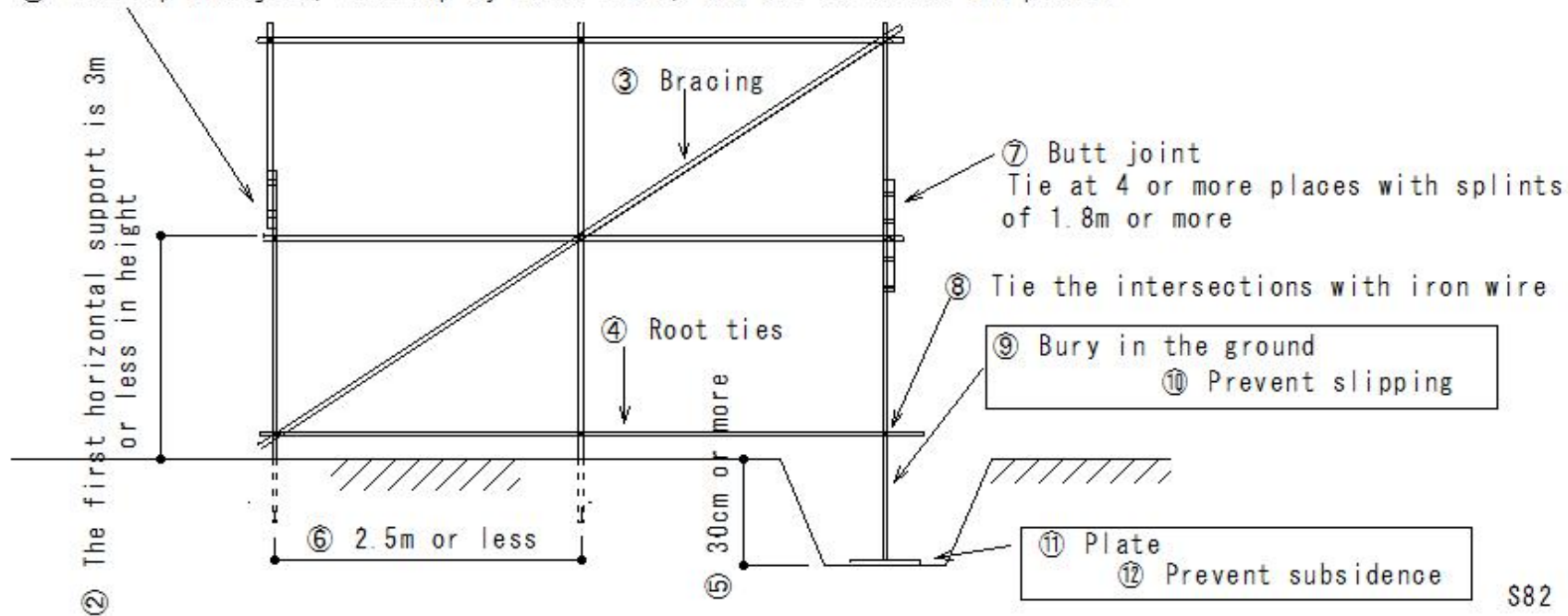


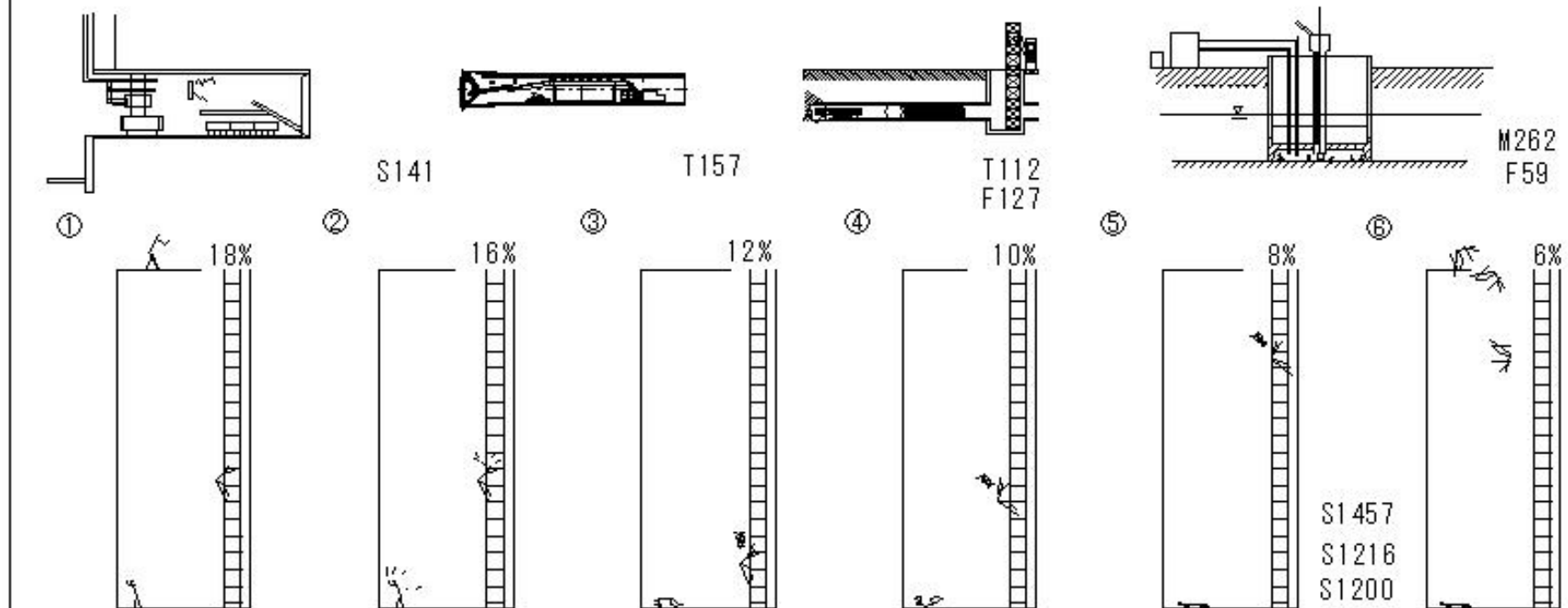
Fig. 3.5 One-sided scaffolding made of logs

(S1773) Safety terminology

(S1773) Safety terminology

Oxygen-deficient air

- ① Oxygen-deficient air refers to air with an oxygen concentration of less than 18%.
- ② Inhaling oxygen-deficient air can cause oxygen deficiency, which can be life-threatening.



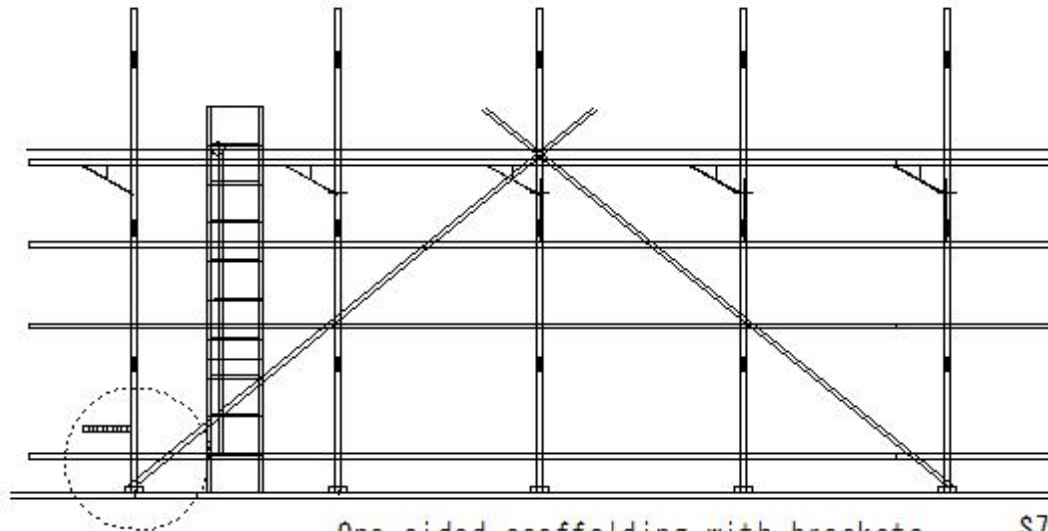
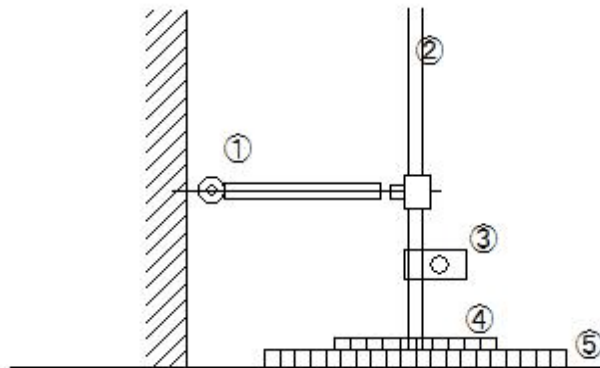
(S1774) Safety terminology

(S1774) Safety terminology

Plates and angles

- ① Prevent subsidence
- ② Prevent uneven subsidence
- ③ The plate must be at least 24cm square
- ④ Used for the contact surface of a single support
- ⑤ Wooden plate must be used at the angle

- ① Wall connection fittings
- ② Vertical supports (single pipe)
- ③ Root connection (single pipe)
- ④ Base fittings
- ⑤ Flooring



One-sided scaffolding with brackets

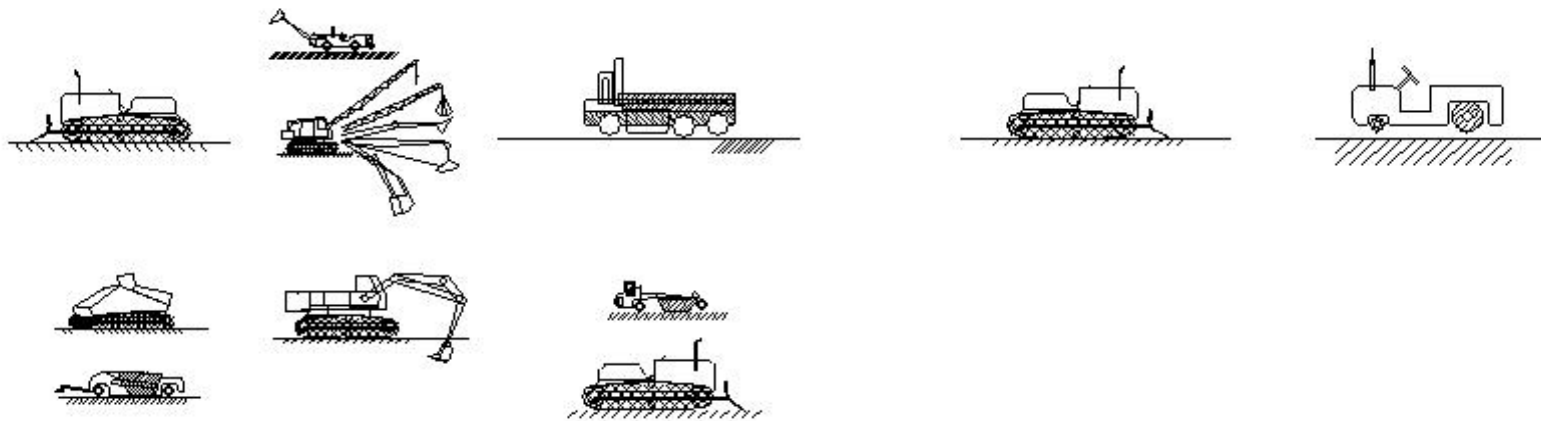
S791

(S1775) Safety terminology

(S1775) Safety terminology

Vehicle-mounted construction machinery

For leveling, transporting, and loading



E341

M1

S1673

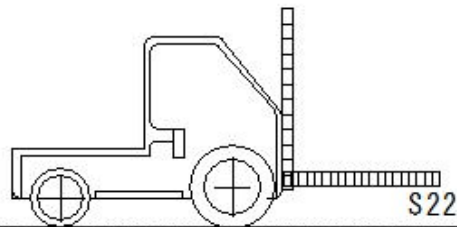
(S1776) Safety terminology

(S1776) Safety terminology

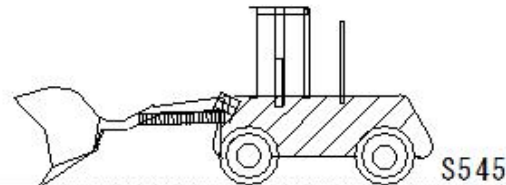
Vehicle-mounted loading and transporting machinery

Vehicle-mounted loading and transporting machinery refers to transporting vehicles such as forklifts and shovel loaders, and automobiles used on rough ground.

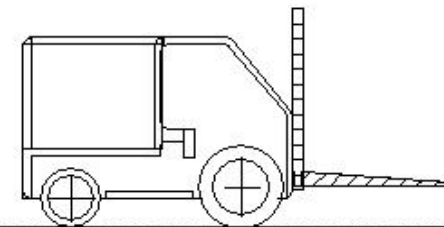
① Forklift



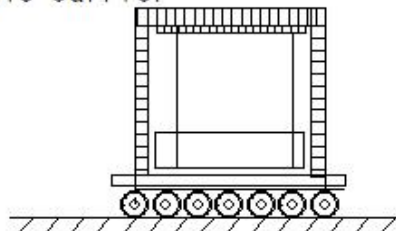
② Shovel loader



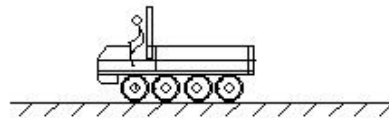
③ Fork loader



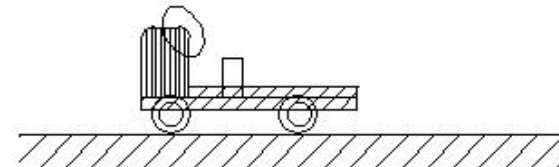
④ Straddle carrier



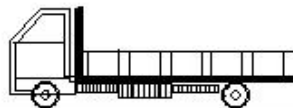
⑤ Off-road transport vehicle



⑥ In-plant transport vehicle



⑦ Freight vehicle



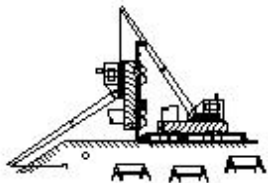
S568

S1777) Safety terminology

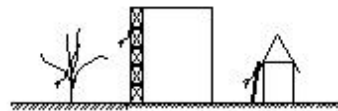
(S1777) Safety terminology

Major accidents

A major accident is an accident in which three or more workers are killed, injured, or become ill during the course of work at the same time.



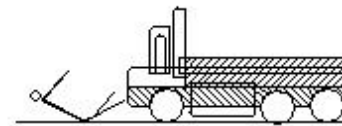
S272



S273

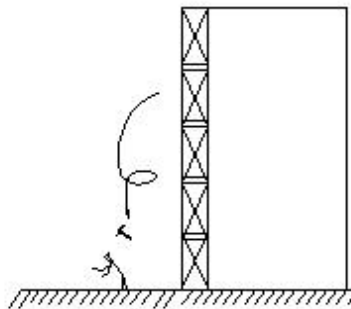


S274

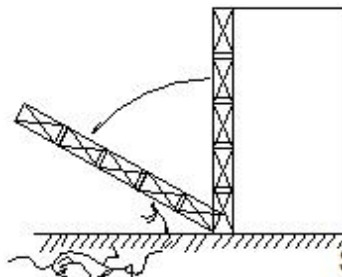


S275

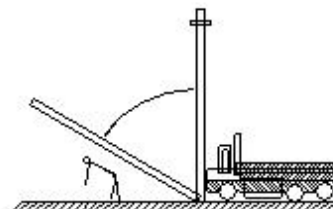
S1736



S276



S277



S278



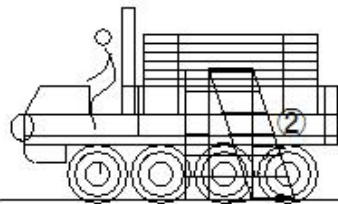
S279

(S1778) Safety terminology

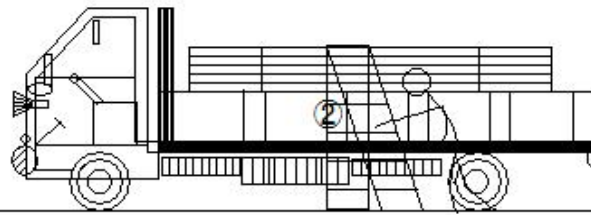
(S1778) Safety terminology

Installation of lifting equipment

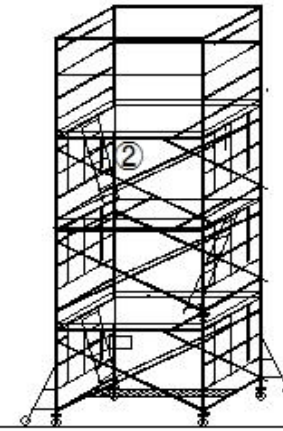
- ① Working at a height of more than 1.5m
- ② Installation of lifting equipment



S611



S623



S801

S838

(S1779) Safety terminology

(S1779) Safety terminology

Occupational diseases

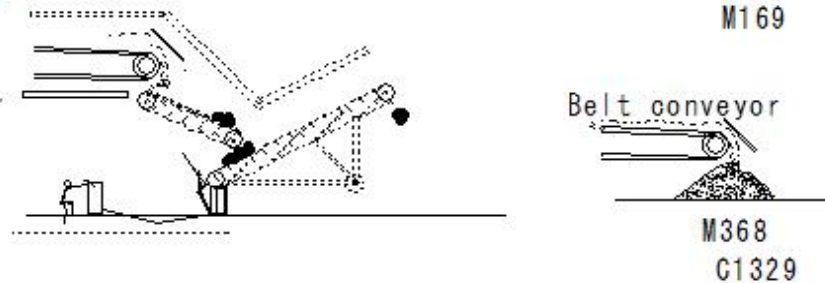
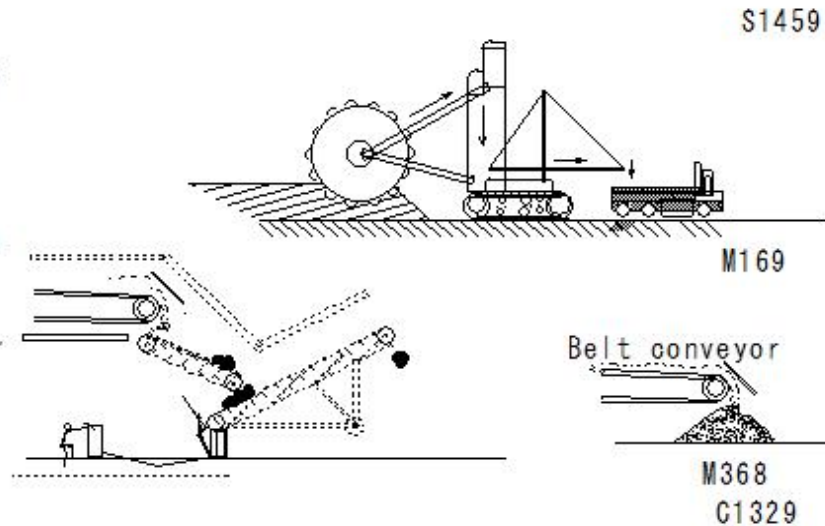
Diseases and disorders caused by occupational work, such as working conditions and the environment

[Examples of occupational diseases]

- ① Hearing loss due to noise
- ② Poisoning symptoms due to chemicals
- ③ Muscle and joint diseases caused by heavy work
- ④ Back pain
- ⑤ Pneumoconiosis
- ⑥ Infectious diseases
- ⑦ Death from overwork, mental disorders, suicide

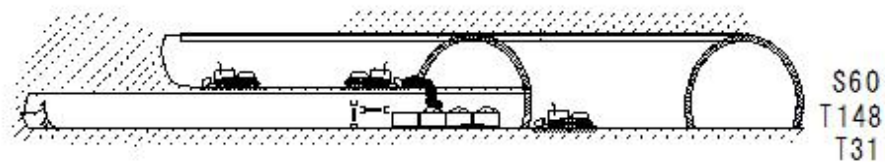
[Causes of occupational diseases]

- ⑧ Work environment (work style, work environment, working conditions, etc.)
- ⑨ Hygienic environment in the workplace



Belt conveyor

M368
C1329

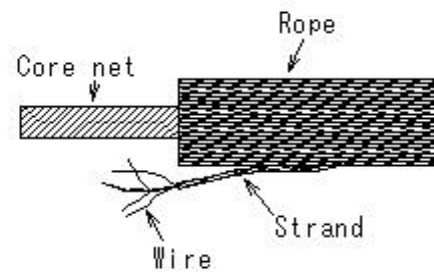


(S1780) Safety terminology

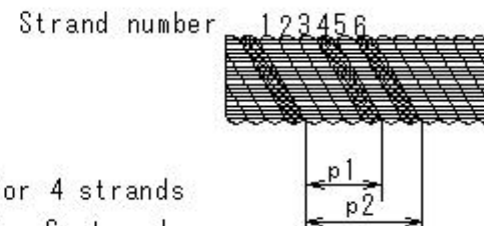
(S1780) Safety terminology

Strand

- ① The strand that makes up the strands of a wire rope or fiber rope.
- ② Made by twisting together several dozen wires (or yarns).
- ③ Several of these strands are further twisted together to form a single wire rope (or fiber rope)



S454



p1...For 4 strands
p2...For 6 strands

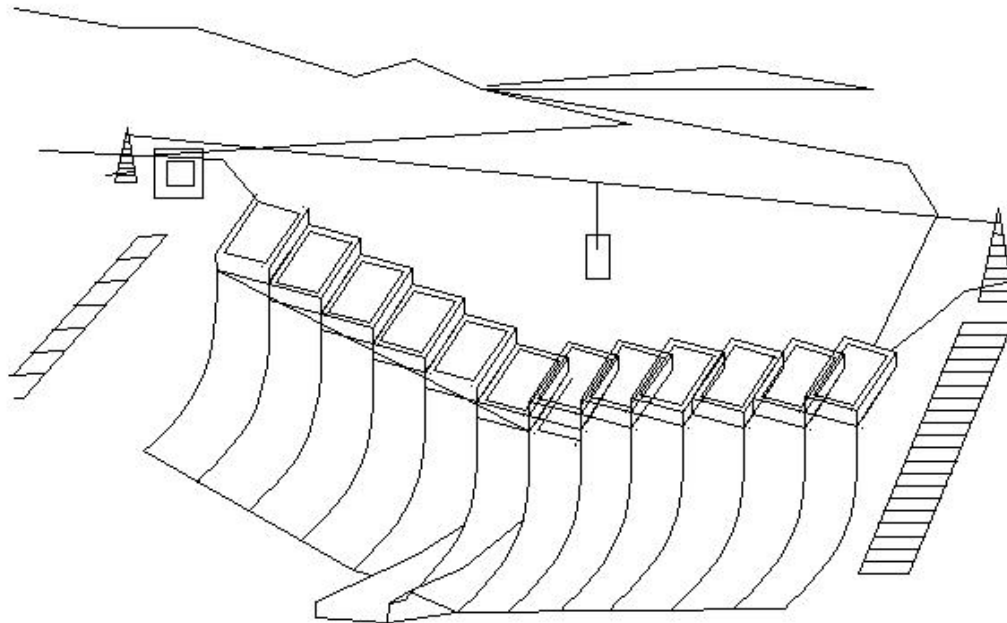
S455

(S1781) Safety terminology

(S1781) Safety terminology

Safety assessment

- ① Pre-assessment of safety before plant design or construction begins
- ② Procedures and methods for assessing risk and implementing countermeasures
- ③ Before introducing large-scale machinery and equipment
- ④ Performed before construction begins

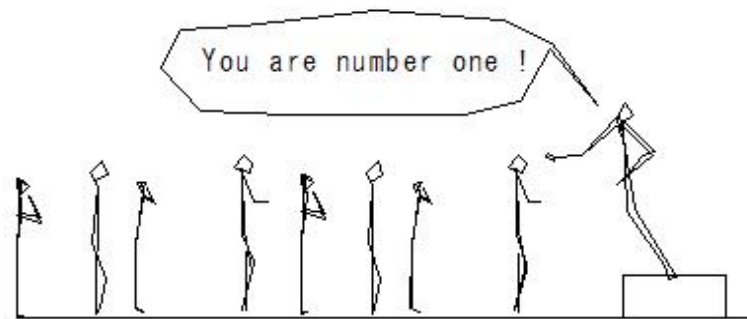


(S1782) Safety terminology

(S1782) Safety terminology

Safety Master

- ① Possessing excellent skills and experience
- ② In charge of the site or department
- ③ Excellent safety record
- ④ Person who directly supervises workers such as foreman or team leader
- ⑤ Awarded by the Minister of Labor



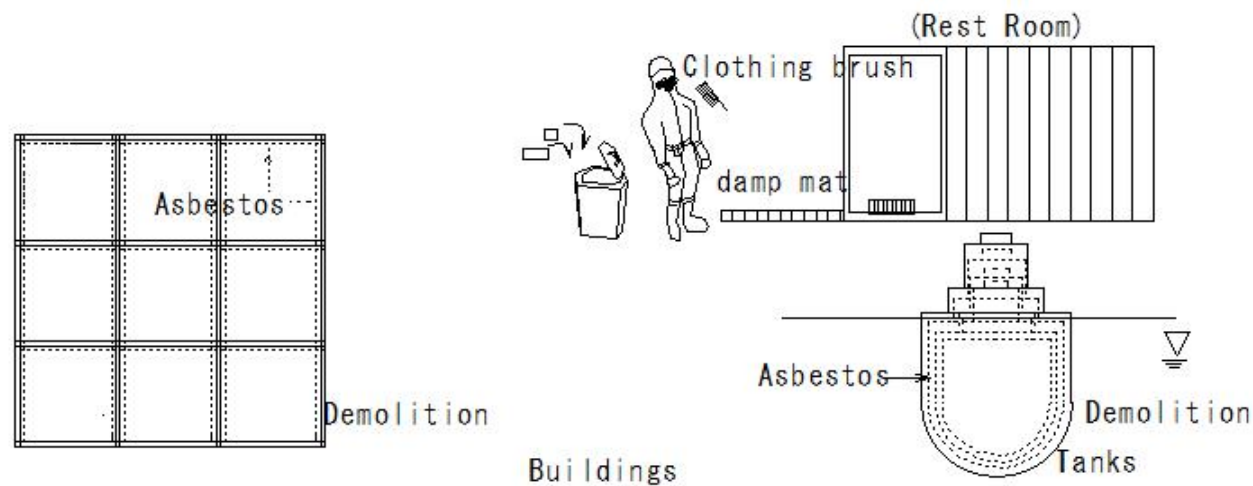
(S1783) Safety terminology

(S1783) Safety terminology

Asbestos-containing products

Asbestos-containing products include the following

- ① Fireproof covering boards, insulation materials, shaped boards
- ② Slate corrugated sheets, slate boards, calcium silicate boards
- ③ Slag gypsum boards, pulp cement boards, extruded cement boards
- ④ Ceramic siding, residential roof decorative slates
- ⑤ Rock wool sound-absorbing ceiling boards



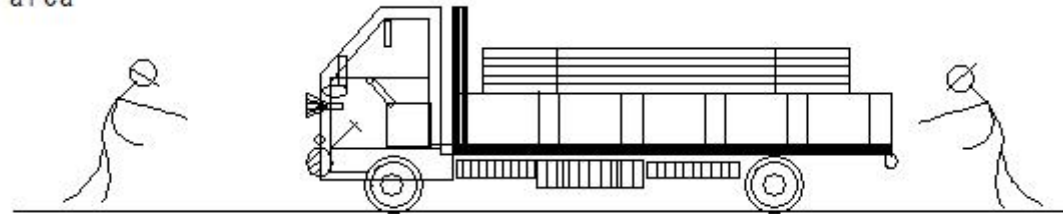
S1719

(S1784) Safety terminology

(S1784) Safety terminology

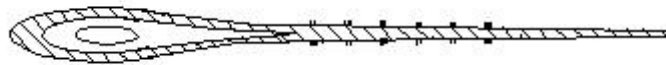
Platform attachment

- ① Construction and crane work sites
- ② Fixing and pulling materials
- ③ Auxiliary wire
- ④ Fastening cargo to a platform such as the bed of a truck or a storage area
- ⑤ Tying cargo together
- ⑥ Wrapping and fixing materials
- ⑦ Hooking and pulling materials

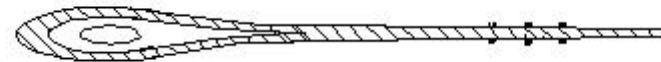


Freight vehicle

S1753



Wire rope for lifting
3 round inserts
2 half inserts (12 strands)



Wire rope with base
5 round inserts (6 strands)

S485

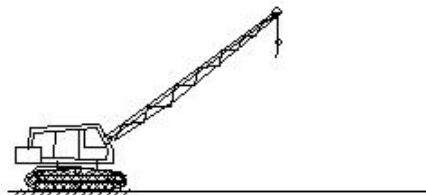
(S1785) Safety terminology

(S1785) Safety terminology

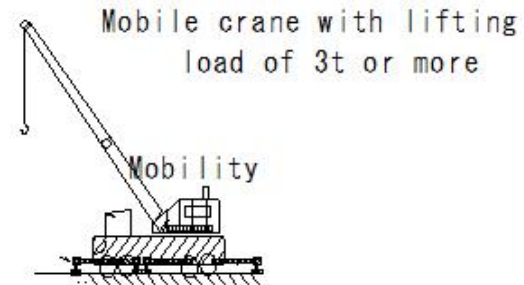
Lifting load

Lifting load refers to the maximum load (including the mass of the hook or other lifting equipment) that a crane can safely lift.

Lifting load of 3t or more



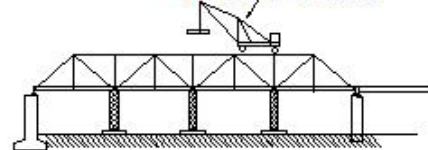
M138



B111

Derrick with lifting load of 2t or more

derrick crane



B417

S110

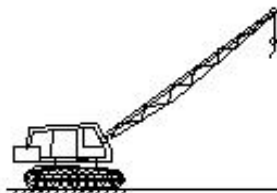
(S1786) Safety terminology

(S1786) Safety terminology

Rated load

- ① Rated load refers to the maximum load that can be applied when lifting a heavy object with a crane minus the mass of the lifting equipment.

Lifting load of 3t or more



M138

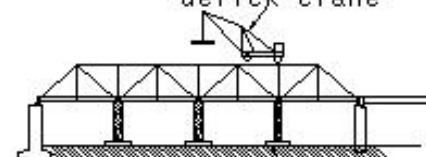
Mobile crane with lifting load of 3t or more



B111

Derrick with lifting load of 2t or more

derrick crane



B417

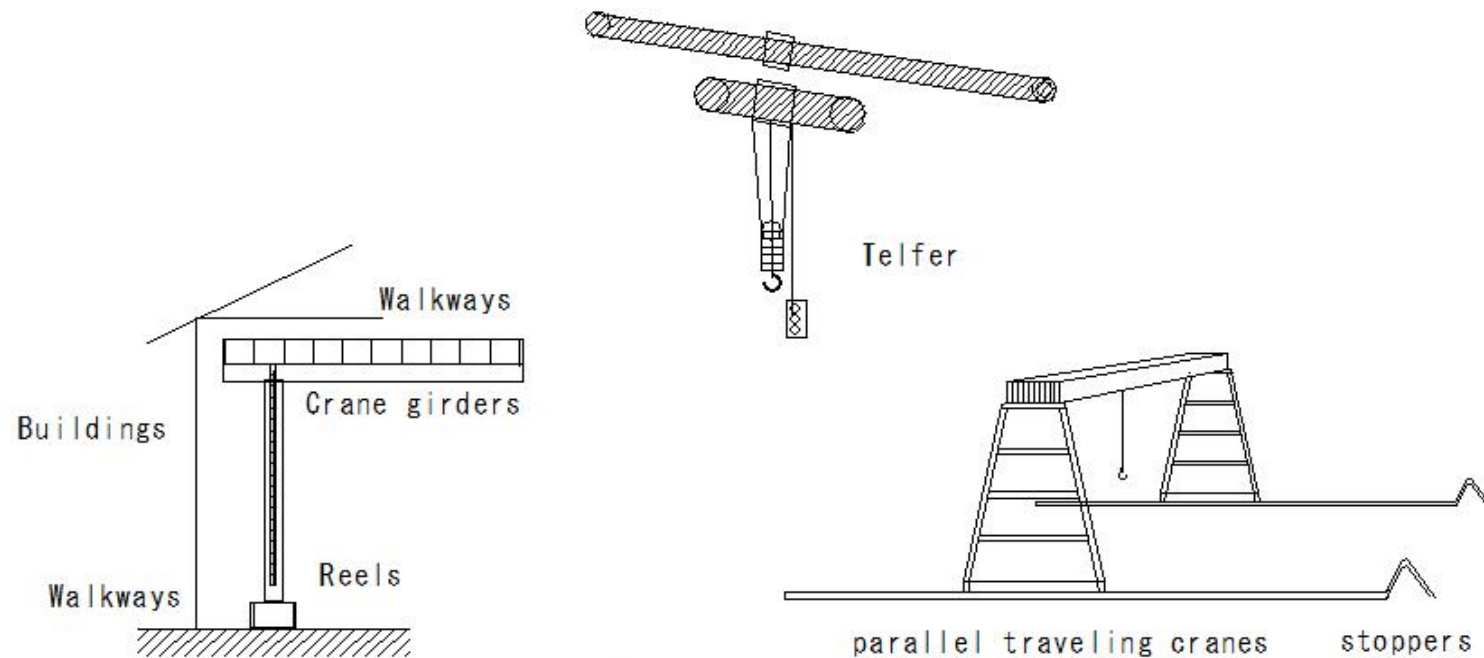
S110

(S1787) Safety terminology

(S1787) Safety terminology

Telfer

- ①Telfer is a hoist-type crane that moves along rails attached to the ceiling.
- ②widely used for handling and transporting goods in factories, warehouses, construction sites, etc.



S344

S1681

(S1788) Safety terminology

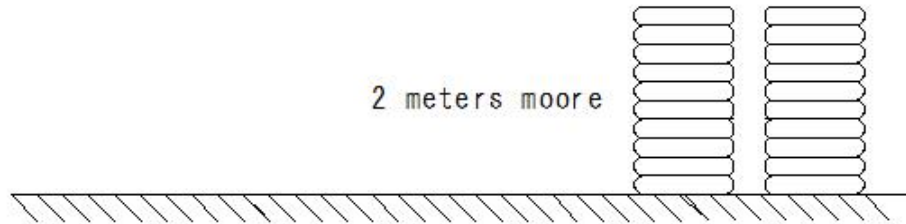
(S1788) Safety terminology

Loading (stacking luggage), unloading (unloading luggage)

The task of safely stacking and unloading cargo in a warehouse or on a yard

Loading, unloading

2 meters moore



S1475

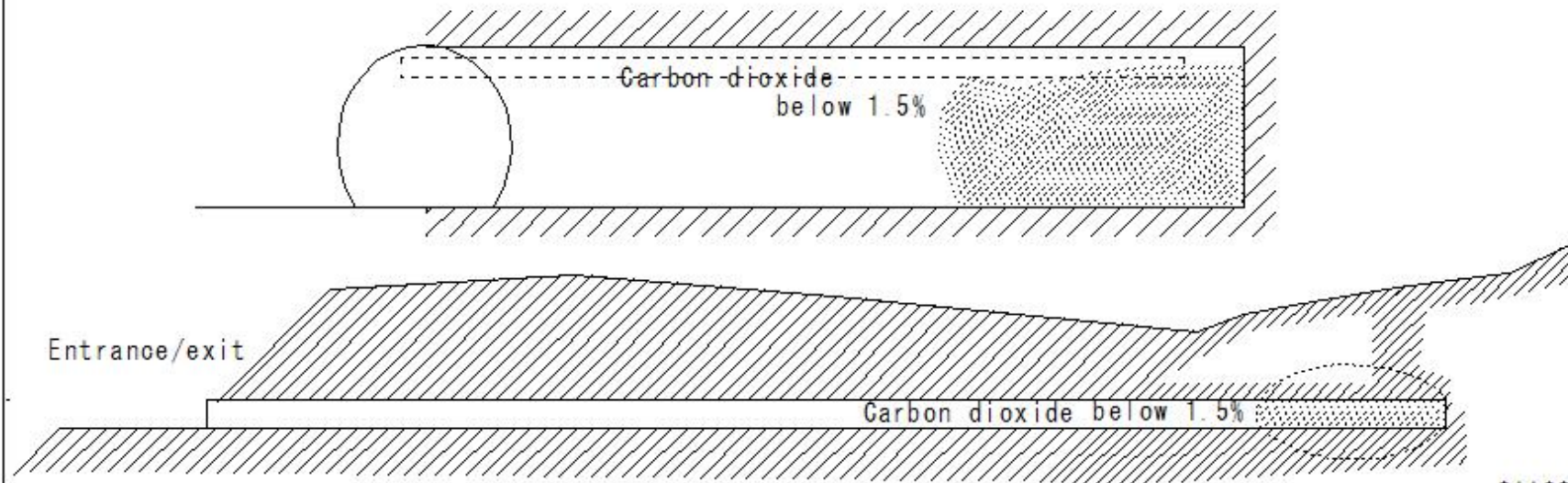
(S1789) Safety terminology

(S1789) Safety terminology

Explosion/Rupture

An "explosion" is a sudden chemical reaction that produces a lot of gas and heat,
causing destructive effects.

"Rupture" is when something bursts open with force due to pressure from inside it.



S1102

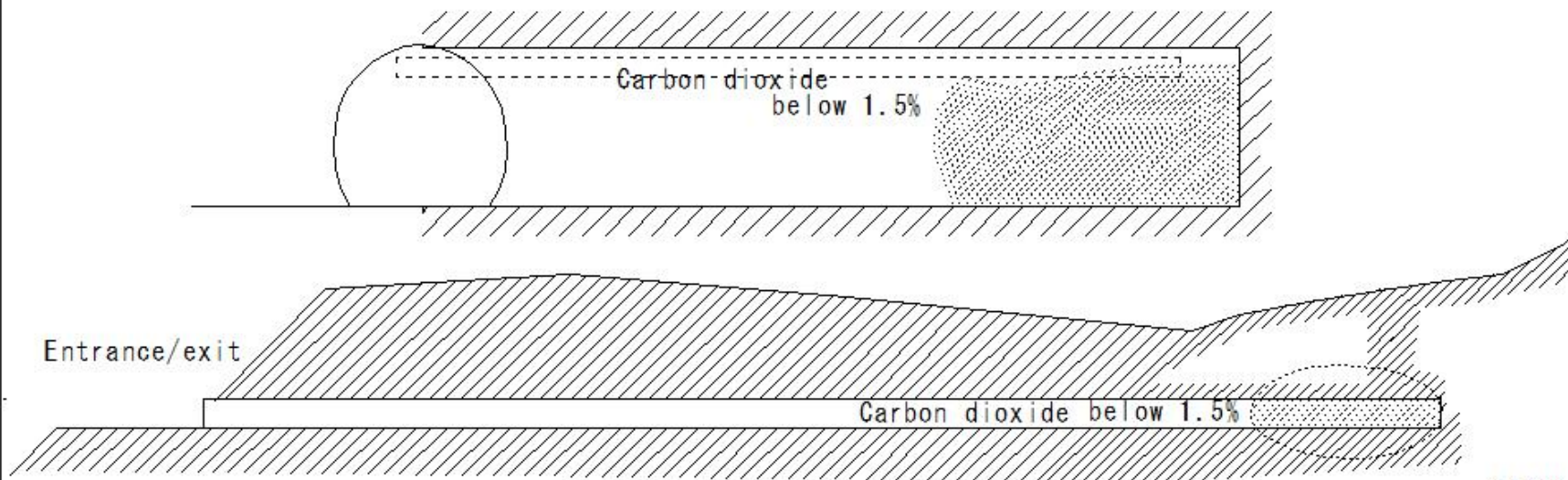
S1508

(S1790) Safety terminology

(S1790) Safety terminology

Explosive limits/flammable limits

The concentration range at which flammable vapor or gas (flammable gas) can explode when mixed with air.



S1102

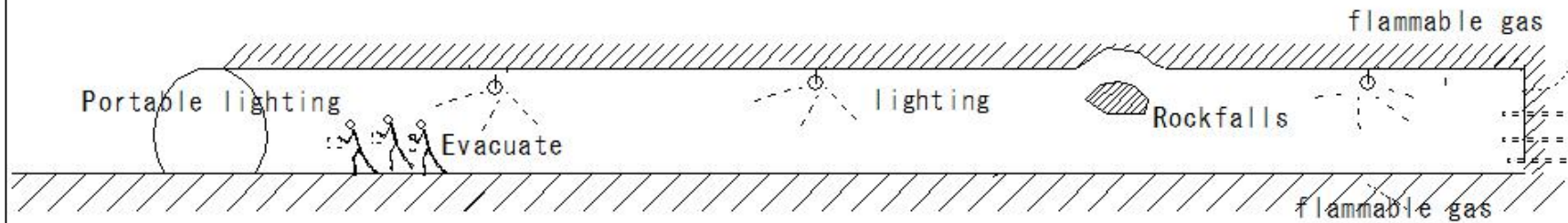
S1508

(S1791) Safety terminology

(S1791) Safety terminology

Rockfall

- ① Rockfall is the phenomenon in which rocks and earth fall from the excavation surface during tunnel construction.



S1080

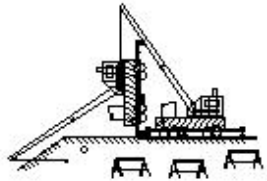
(S1792) Safety terminology

(S1792) Safety terminology

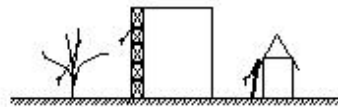
Human factors, human error

- ① Human factors refer to the abilities, limitations, and characteristics unique to humans
- ② Human error refers to actions that bring about unintended results due to those characteristics
- ③ To prevent human error, it is necessary to understand people's characteristics and create a safe working environment

S1777



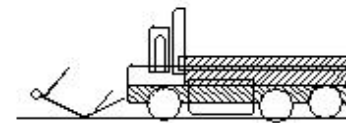
S272



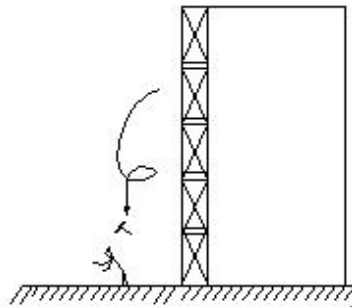
S273



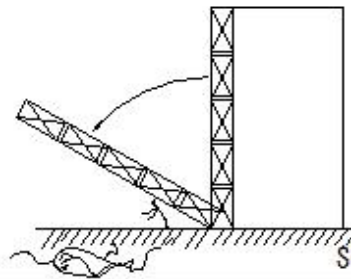
S274



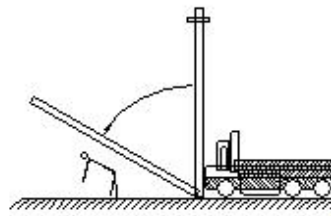
S275



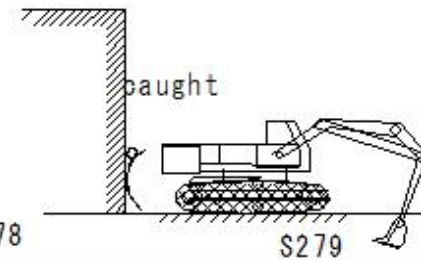
S276



S277



S278



S279

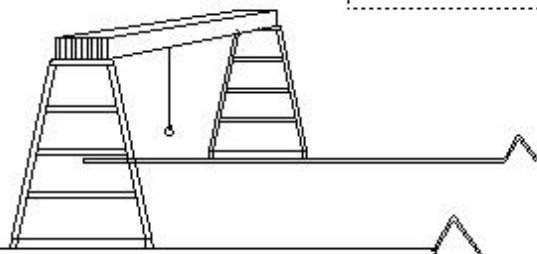
(S1793) Safety terminology

(S1793) Safety terminology

Foolproof

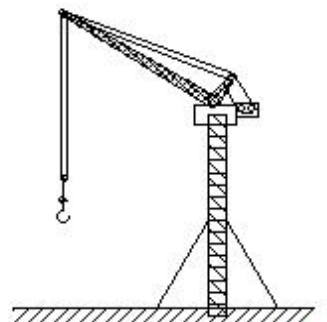
Measures taken in advance to ensure safety even if an operator makes a mistake

Overwinding prevention device



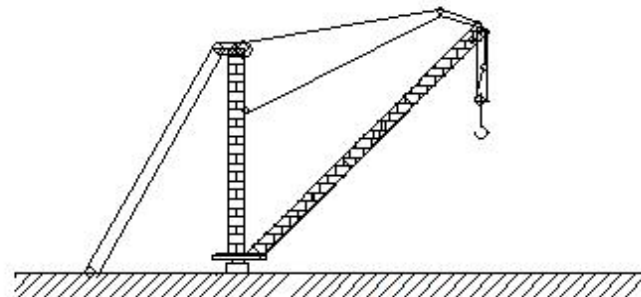
parallel traveling cranes

tower crane



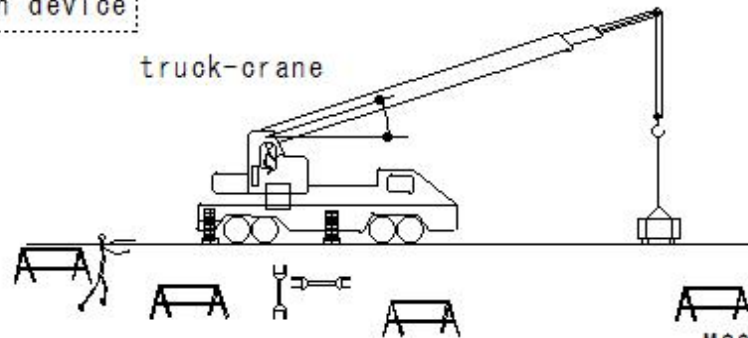
M391

derrick crane



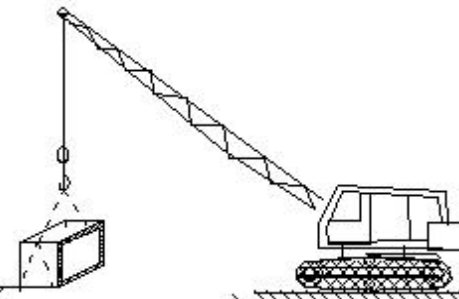
M390

truck-crane



M393

Crawler crane



M45
F364

S447

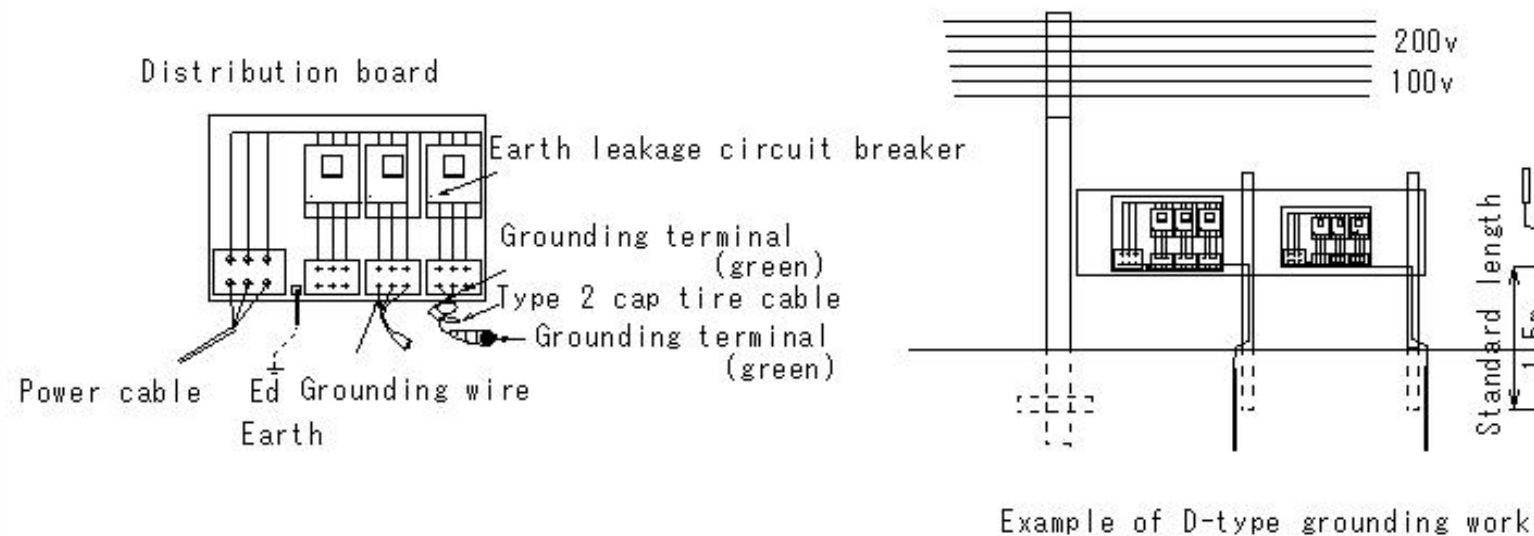
(S1794) Safety terminology

(S1794) Safety terminology

Fail-safe

A method of designing equipment or systems so that they can operate safely even if a failure or abnormality occurs

Earth-fault circuit breaker to prevent electric shock



S693

S695

(S1795) Safety terminology

(S1795) Safety terminology

Off-road vehicle

Off-road vehicles are vehicles that can travel in places where trucks and dump trucks cannot enter.



Off-road vehicle

S611

S1426

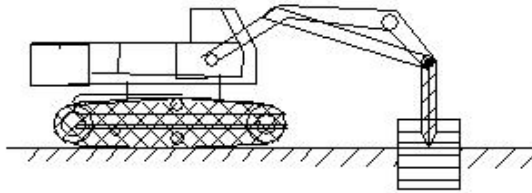
S1646

(S1796) Safety terminology

(S1796) Safety terminology

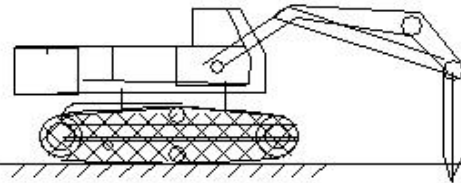
Breaker Vehicle Construction Machinery

In addition to breakers, steel frame cutting machines, concrete crushers and demolition grabbers

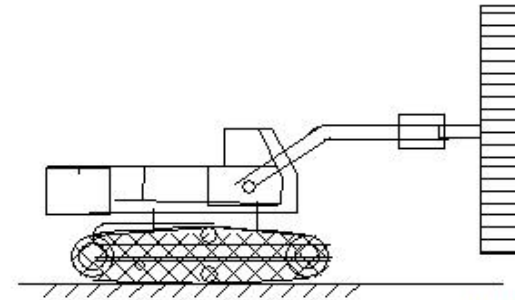


hydraulic breaker

M22



hydraulic breaker



concrete crusher

E290

M139

S527

(S1797) Safety terminology

(S1797) Safety terminology

Harmful gases

Harmful gases are gaseous or particulate substances that are harmful to human health and cause air pollution and fires.

[Types of Harmful Gases]

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Hydrogen sulfide (H₂S)

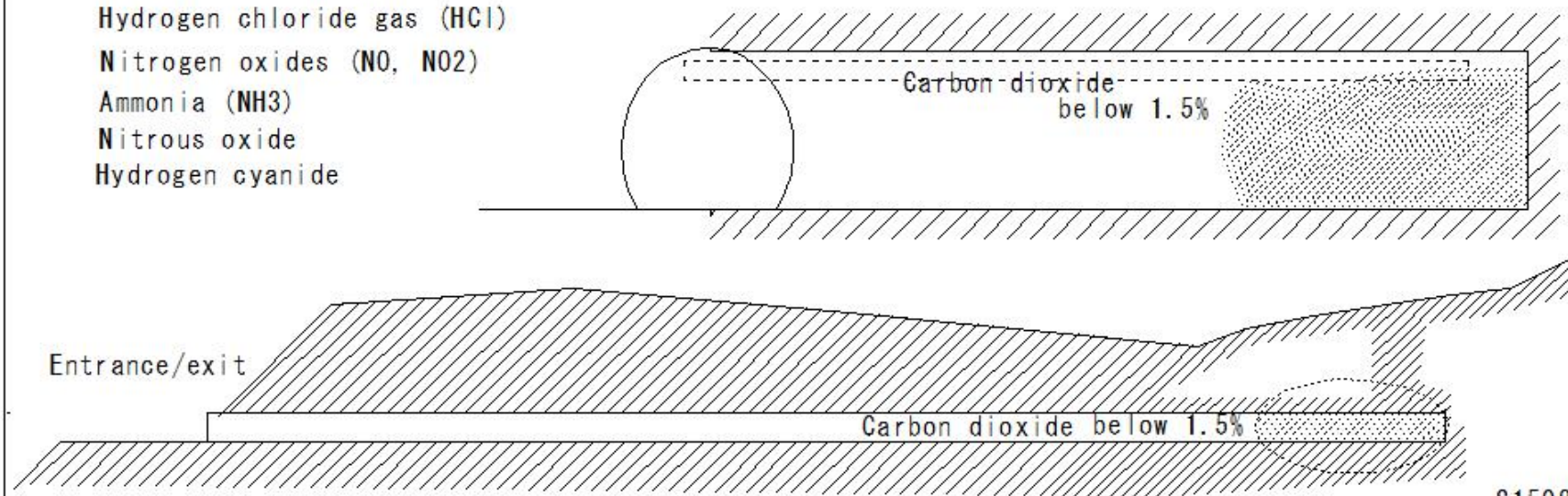
Hydrogen chloride gas (HCl)

Nitrogen oxides (NO, NO₂)

Ammonia (NH₃)

Nitrous oxide

Hydrogen cyanide



S1508

S1102

(S1798) Safety terminology

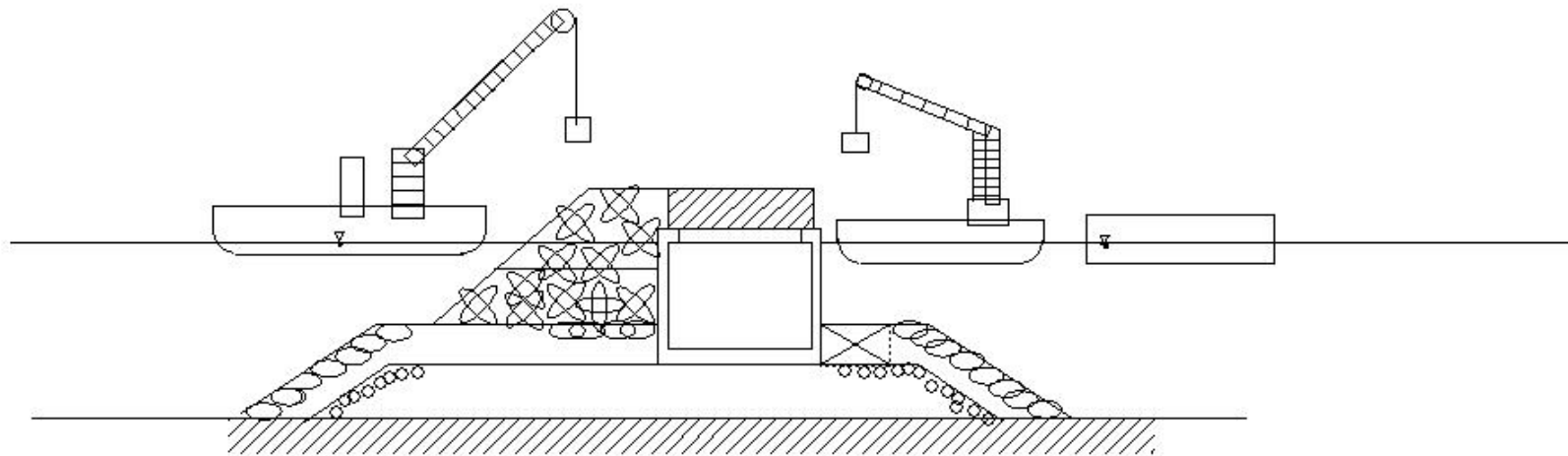
(S1798) Safety terminology

Hoisting equipment

Hoisting equipment is a crane or derrick installed on a ship, and is a machine used for loading and unloading operations at ports.

It is used when transferring cargo from land to ship or from ship to land.

Hoisting equipment

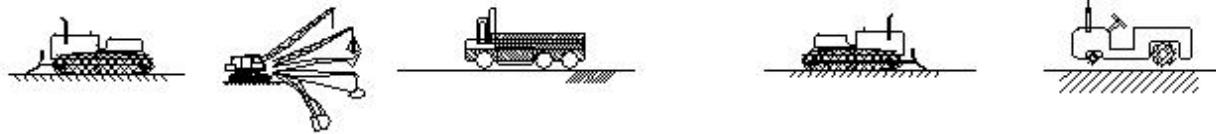


(S1799) Safety terminology

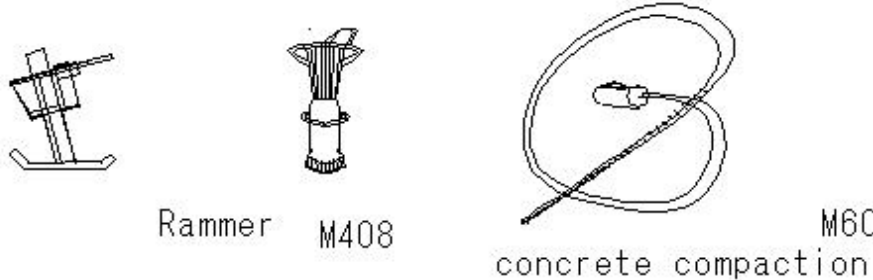
(S1799) Safety terminology

Leasing and rental : machinery and equipment

- ① "Leasing" means borrowing goods or materials from a leasing company for the medium to long term.
- ② (Rental) The rental company purchases the item in advance, and the user selects and rents it from the items in their possession.



S1752



Rammer M408

M60
concrete compaction

(S1800) Safety terminology

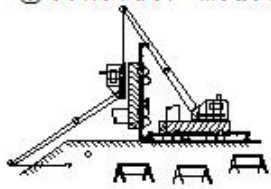
(S1800) Safety terminology

Risk assessment

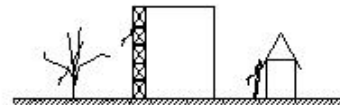
- ① Risk assessment is to identify dangers and harmfulness in work, evaluate the risks, and consider countermeasures

[Purpose of risk assessment]

- ② Identify potential dangers and harmfulness
- ③ Evaluate the severity and likelihood of workplace accidents
- ④ Determine the priority of countermeasures based on the magnitude of the risk
- ⑤ Consider measures to eliminate or reduce risks



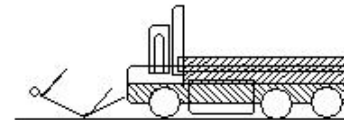
S272



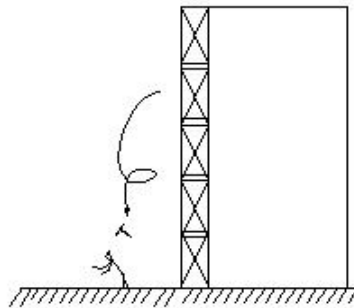
S273



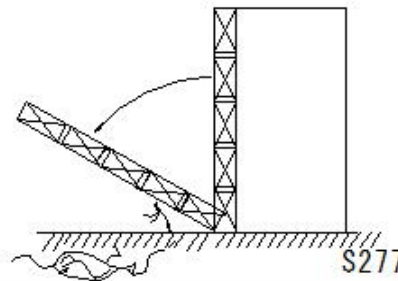
S274



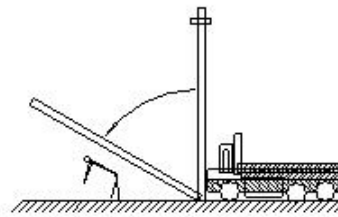
S275



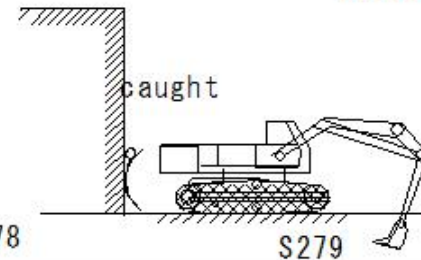
S276



S277



S278



S279

S1777

(S1801) Safety terminology

(S1801) Safety terminology

ROPS

ROPS is a rollover protection structure

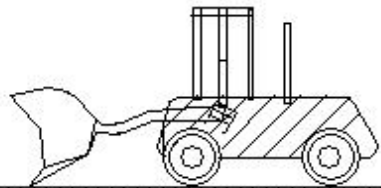
[Rollover protection structure]

A steel structure that protects the driver wearing a seat belt when construction machinery such as earthmoving machinery and tractors roll over

Especially important equipment for tractors, which often work on rough ground

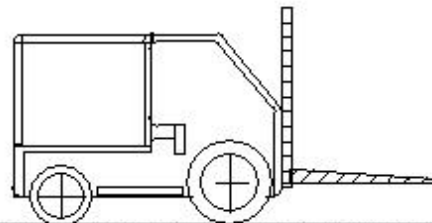
Protective structure

[Rollover protection structure]

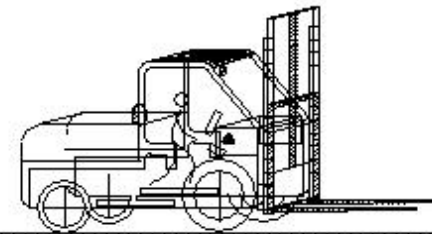


tractor excavator

E292
M392



Fork loader
S568



Forklift

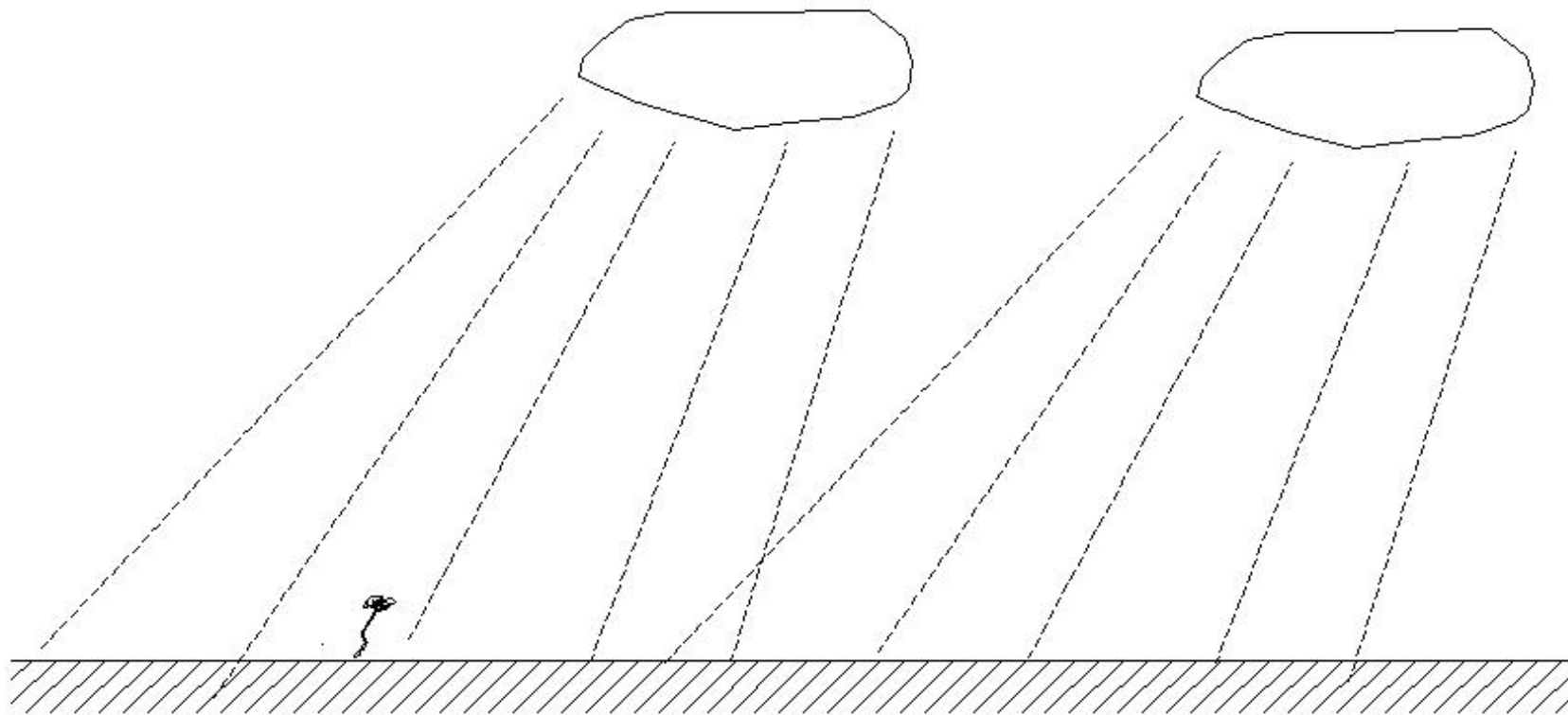
S1702

(S1802) Weather definition

(S1802) Weather definition

Weather definition

Heavy rain (rainfall of 50 mm or more in one instance)



S1541

(S1803) Weather definition

(S1803) Weather definition

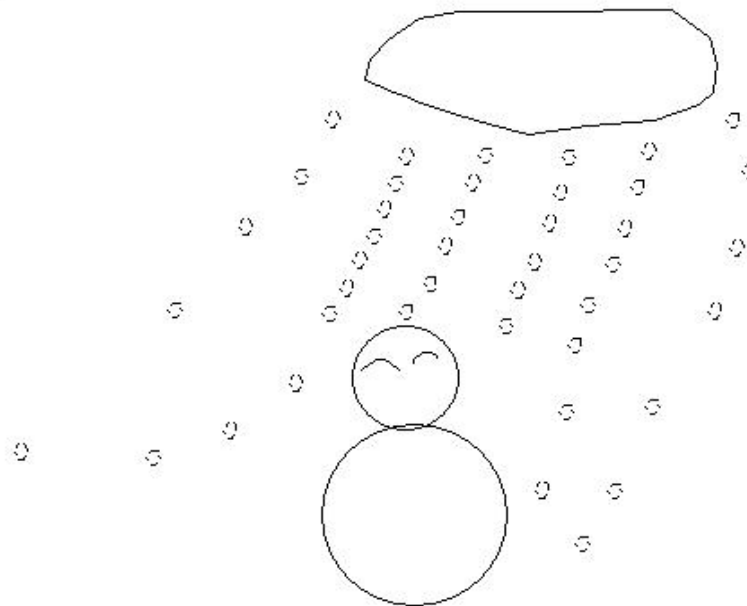
Weather definition

heavy snow

① 20 to 25 cm of snowfall in 3 hours

② 30 to 40 cm of snowfall in 6 hours

Traffic obstruction, etc.



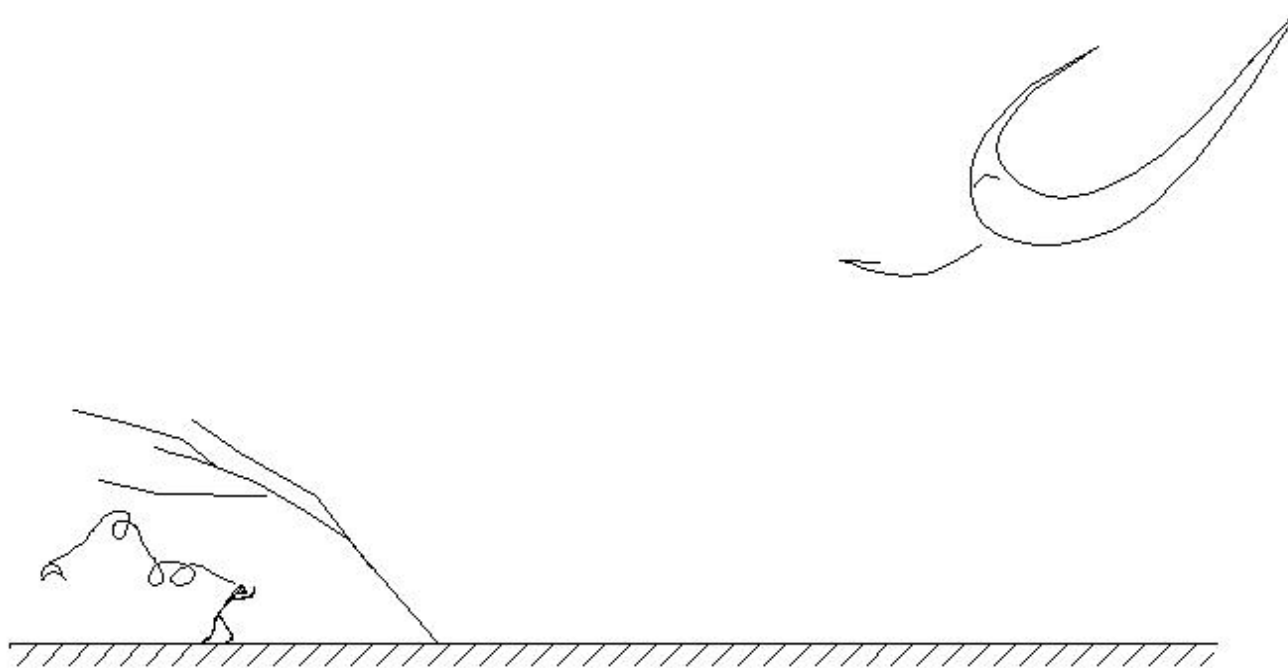
(S1804) Weather definition

(S1804) Weather definition

Weather definition

Strong wind

Strong wind refers to winds with a wind speed of 10 meters per second or more
(average wind speed over 10 minutes)



S1541

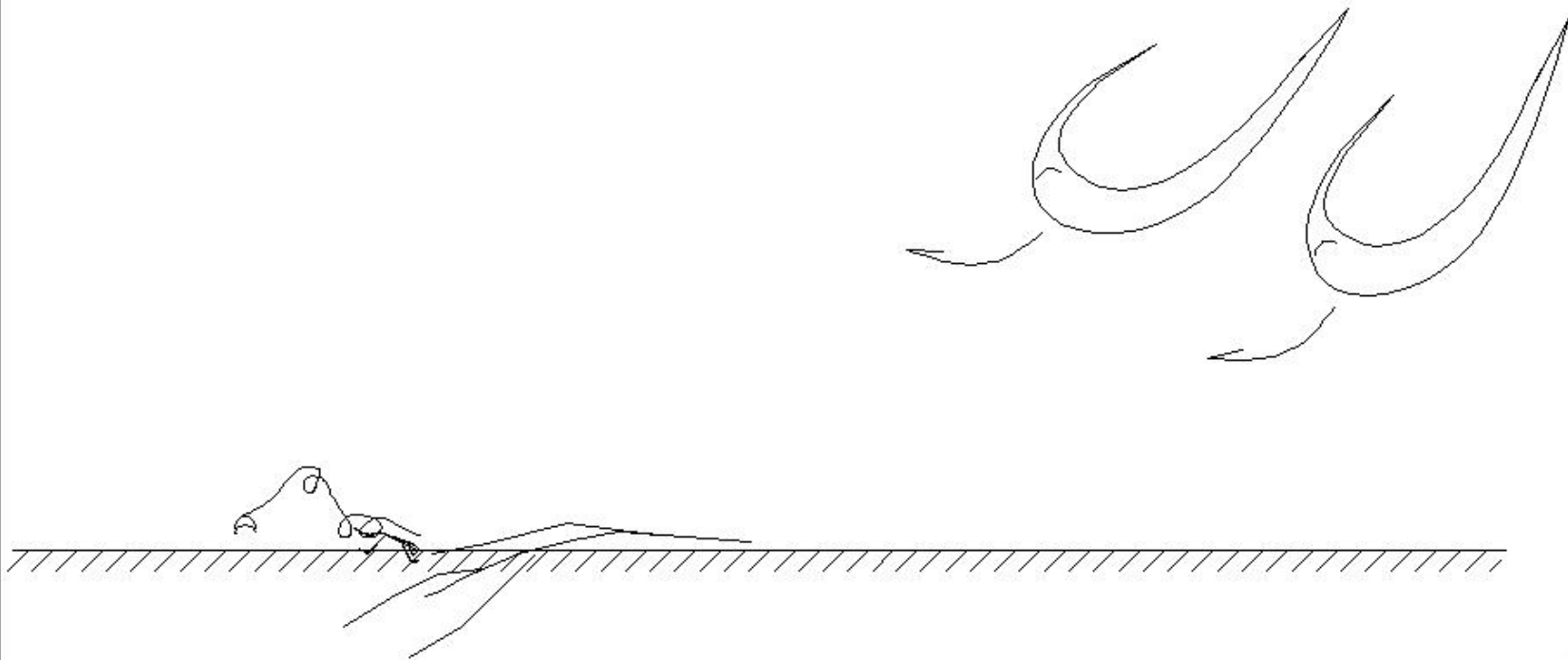
(S1805) Weather definition

(S1805) Weather definition

Weather definition

Storm

Storm area refers to an area around a typhoon or a developed low pressure system where strong winds with an average wind speed of 25 m/s or more are blowing



S1541

(S1806) Weather definition

(S1806) Weather definition

Weather definition

Earthquakes of moderate or greater intensity

Earthquakes of moderate or greater intensity refers to earthquakes of intensity 4 or greater

Intensity 4 shaking: shaking strong enough to cause objects to fall

tsunami

Uplift of the seabed due to an earthquake Depression

