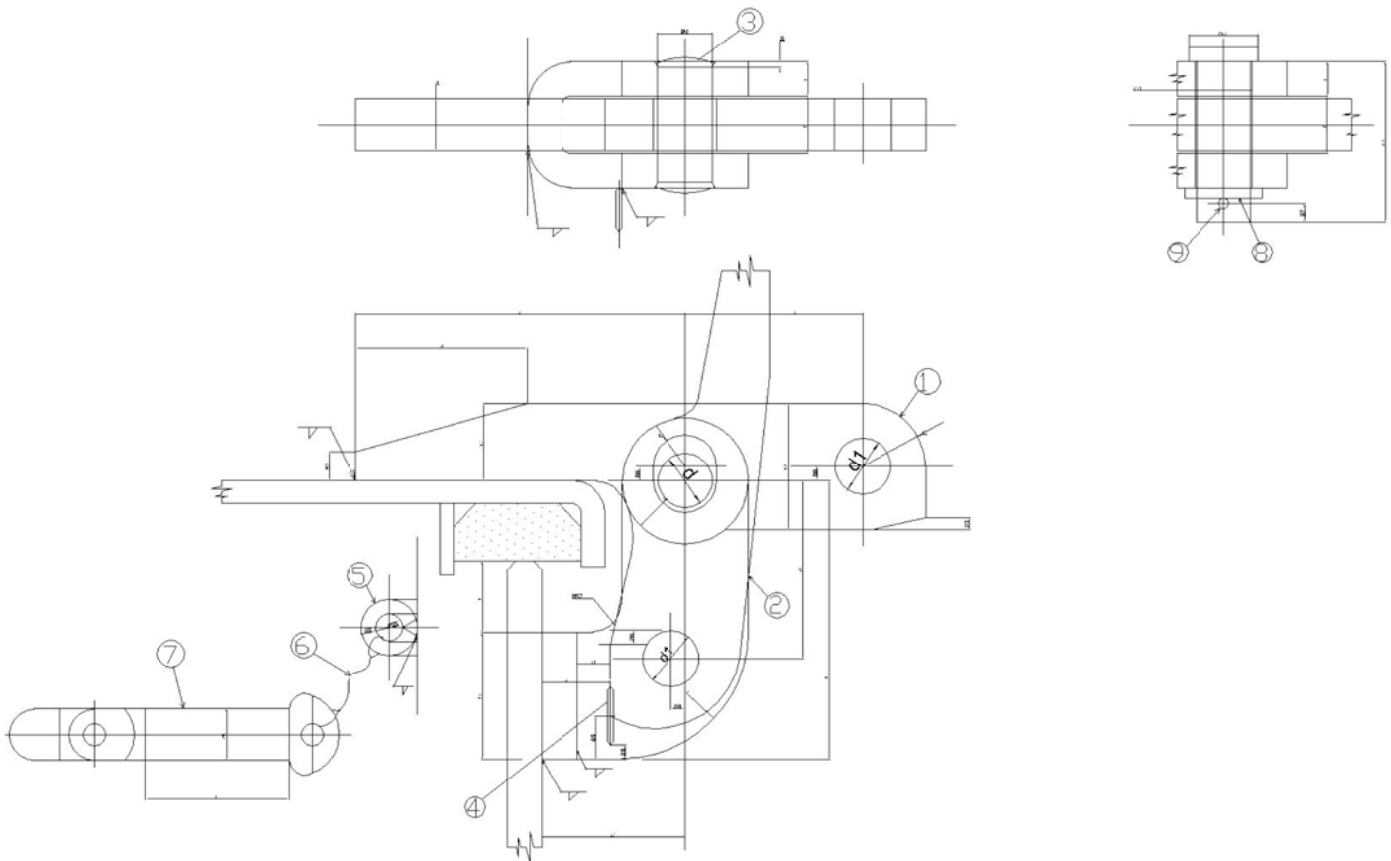


FITTINGS OF SHIPS' STEEL SMALL HATCH COVERS 002-2-Model

TYPE A-1

TYPE A-2

Unit:mm



| Nominal No | Nominal No of applicable hatch cover | B | d | d ₁ | d ₂ | h | h ₁ | h ₂ | h ₃ | Reference h4 | l | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | r | r ₁ | r ₂ | r ₃ | r ₄ | T | t | t ₁ | Toggle pin DxL | Unit:mm |
|------------|--------------------------------------|----|----|----------------|----------------|-----|----------------|----------------|----------------|--------------|-----|----------------|----------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----|----|----------------|----------------|--------------------------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | Reference Calculated mass (kg) |
| 16 | 63x63 | 18 | 16 | 18 | 20 | 92 | 40 | 40 | 25 | 24 | 110 | 57 | 45 | 48 | 23 | 50 | 40 | 20 | 20 | 9 | 20 | 16 | 10 | 13 | 16x45 | 1.30 |
| 19 | 63x83 83x83 | 20 | 19 | 20 | 24 | 97 | 44 | 44 | 27 | 25 | 115 | 62 | 60 | 50 | 24 | 56 | 44 | 22 | 22 | 11 | 22 | 18 | 12 | 12 | 18x50 | 1.78 |
| 22 | 103x103 | 22 | 22 | 22 | 27 | 102 | 50 | 50 | 30 | 24 | 115 | 67 | 75 | 53 | 23 | 62 | 50 | 25 | 25 | 12 | 25 | 20 | 14 | 9 | 20x55 | 2.49 |
| 25 | 133x133 | 24 | 25 | 24 | 30 | 113 | 56 | 56 | 33 | 29 | 120 | 72 | 90 | 57 | 24 | 69 | 56 | 28 | 28 | 14 | 28 | 22 | 16 | 8 | 22x65 | 3.17 |

Remarks:

1. Toggle pins shall conform to JIS F 3905
2. Chainlet and S-ring shall conform to JIS F3906, B3 or S3
3. Eyes for chainlet shall conform to JIS F3908, Type B or C.
4. The shape and dimensions of washer shall conform to JIS B 1256.
5. The shape and dimensions of split pin shall conform to JIS B 1351.

| No | Component | Material |
|----|------------------------|--|
| 1 | Hinge | JIS G 3101-SS 41 |
| 2 | Hinge | |
| 3 | Pin | JIS H 3250-C 4622 or C4641 BE |
| 4 | Stopper | Steel plate |
| 5 | Eye plate for chainlet | Steel plate or steel wire |
| 6 | Chainlet and S ring | Brass round wire or galvanized iron wire |
| 7 | Toggle pin | Steel bar and brass rod |
| 8 | Washer | Brass plate |
| 9 | Split pin | Brass wire |

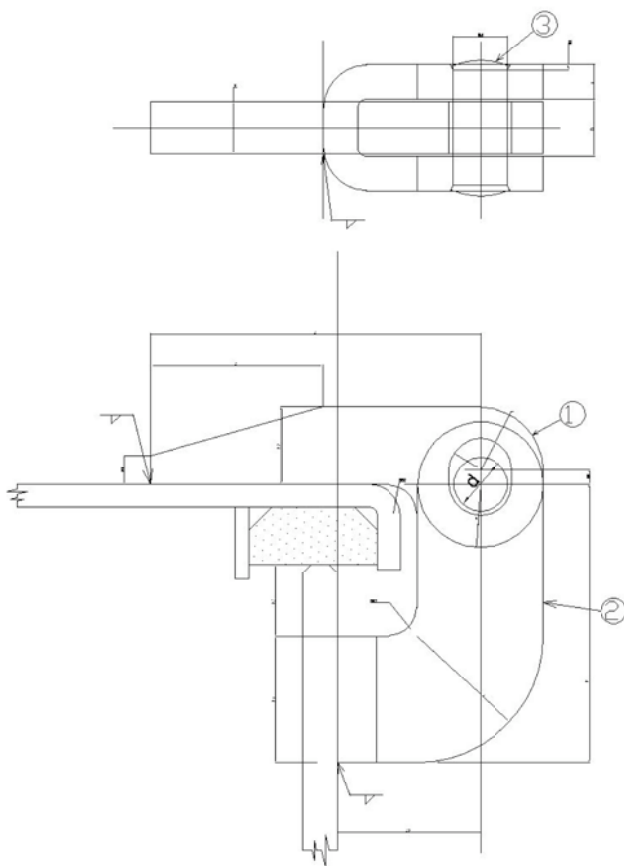
Figure 1 Hinge, Type A

FITTINGS OF SHIPS' STEEL SMALL HATCH COVERS 002-3-Model

Unit:mm

TYPE B-1

TYPE B-2



| Nominal No | Nominal No of applicable hatch cover | B | d | d ₁ | h | h ₁ | h ₂ | Reference h3 | Unit:mm | | | | | | | | | | | Reference Calculated mass (kg) |
|------------|--------------------------------------|----|----|----------------|-----|----------------|----------------|--------------|---------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----|----|--------------------------------|
| | | | | | | | | | l | l ₁ | l ₂ | l ₃ | r | r ₁ | r ₂ | r ₃ | r ₄ | T | t | |
| 16 | 63x63 | 18 | 16 | 20 | 92 | 40 | 25 | 24 | 110 | 45 | 48 | 50 | 40 | 20 | 20 | 9 | 20 | 16 | 10 | 0.91 |
| 19 | 63x83 83x83 | 20 | 19 | 24 | 97 | 44 | 27 | 25 | 115 | 60 | 50 | 56 | 44 | 22 | 22 | 10.5 | 22 | 18 | 12 | 1.19 |
| 22 | 103x103 | 22 | 22 | 27 | 102 | 50 | 30 | 24 | 115 | 75 | 53 | 62 | 50 | 25 | 25 | 12 | 25 | 20 | 14 | 1.72 |
| 25 | 133x133 | 24 | 25 | 30 | 113 | 56 | 33 | 29 | 120 | 90 | 57 | 69 | 56 | 28 | 28 | 13.5 | 28 | 22 | 16 | 1.99 |

Remarks:

1. The shape and dimensions of washer shall conform to JIS B 1256.
2. The shape and dimensions of split pin shall conform to JIS B 1351.

| No | Component | Material |
|----|-----------|-------------------------------|
| 1 | Hinge | JIS G 3101-SS 41 |
| 2 | Hinge | |
| 3 | Pin | JIS H 3250-C 4622 or C4641 BE |
| 4 | Washer | Brass plate |
| 5 | Split pin | Brass wire |

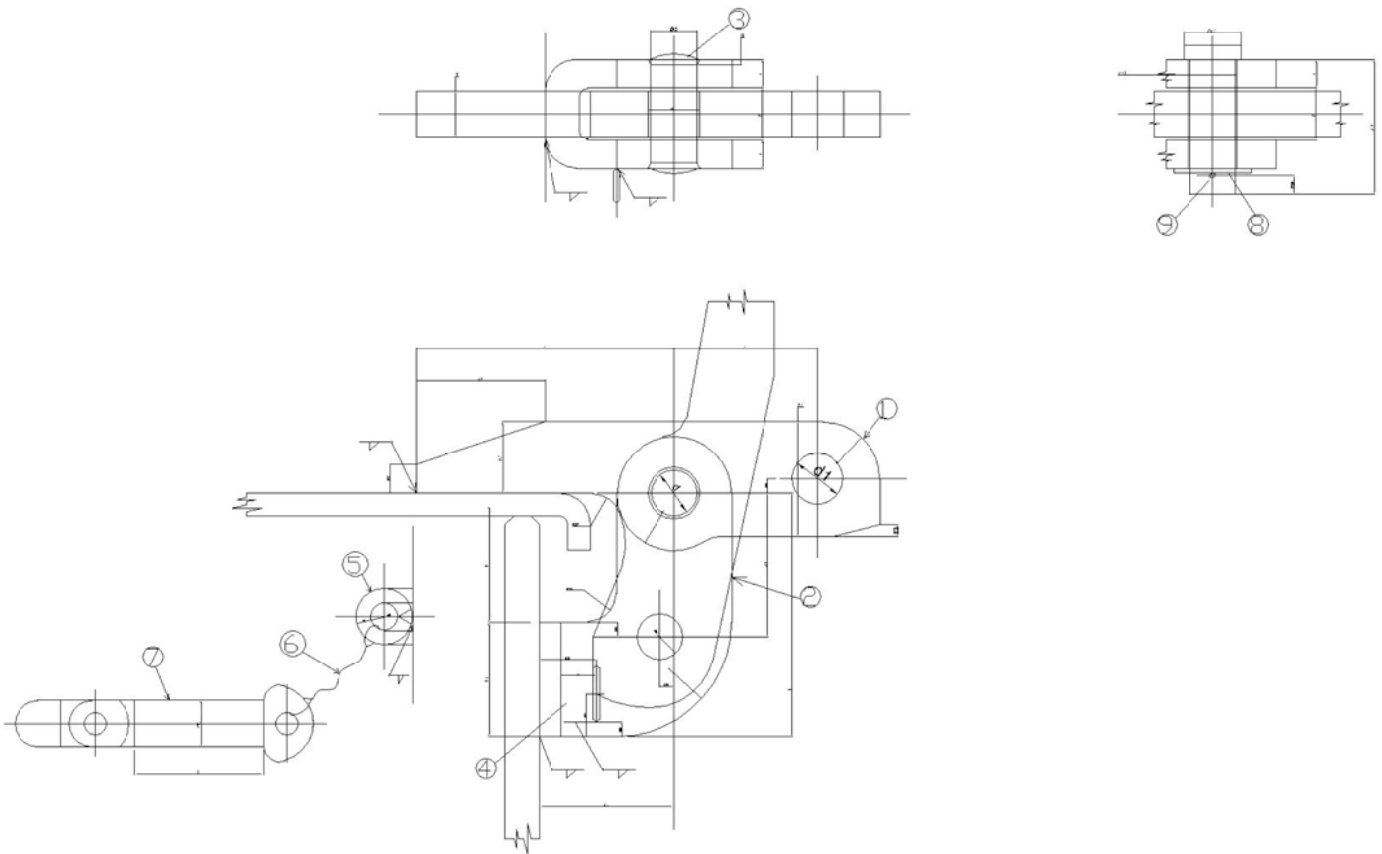
Figure 2 Hinge, Type B

FITTINGS OF SHIPS' STEEL SMALL HATCH COVERS 002-4-Model

TYPE C-1

TYPE C-2

Unit:mm



| Nominal No | Nominal No of applicable hatch cover | B | d | d ₁ | d ₂ | d ₃ | h | h ₁ | h ₂ | h ₃ | Reference h4 | l | l ₁ | l ₂ | l ₃ | r | r ₁ | r ₂ | r ₃ | T | t | t ₁ | Unit:mm | |
|------------|--------------------------------------|----|----|----------------|----------------|----------------|----|----------------|----------------|----------------|--------------|----|----------------|----------------|----------------|----|----------------|----------------|----------------|----|----|----------------|----------------|--------------------------------|
| | | | | | | | | | | | | | | | | | | | | | | | Toggle pin DxL | Reference Calculated mass (kg) |
| 16 | 63x63 | 18 | 16 | 18 | 18 | 20 | 85 | 40 | 40 | 25 | 40.5 | 90 | 50 | 45 | 47 | 40 | 20 | 20 | 20 | 16 | 10 | 12 | 16x45 | 1.15 |

Remarks:

1. Toggle pins shall conform to JIS F 3905
2. Chainlet and S ring shall conform to JIS F 3906 and JIS F 3907, B3 or S3.
3. Eye plate for chainlet shall conform to JIS F 3908, Type B or C.
4. The shape and dimensions of washer shall conform to JIS B 1256.
5. The shape and dimensions of split pin shall conform to JIS B 1351.

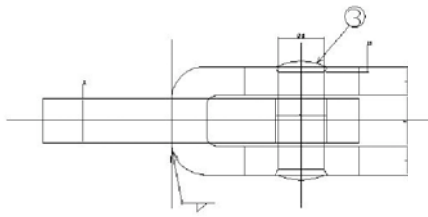
| No | Component | Material |
|----|------------------------|--|
| 1 | Hinge | JIS G 3101-SS 41 |
| 2 | Hinge | |
| 3 | Pin | JIS H 3250-C 4622 or C4641 BE |
| 4 | Stopper | Steel plate |
| 5 | Eye plate for chainlet | Steel plate or steel wire |
| 6 | Chainlet and S ring | Brass round wire or galvanized iron wire |
| 7 | Toggle pin | Steel bar and brass rod |
| 8 | Washer | Brass plate |
| 9 | Split pin | Brass wire |

Figure 3 Hinge, Type C

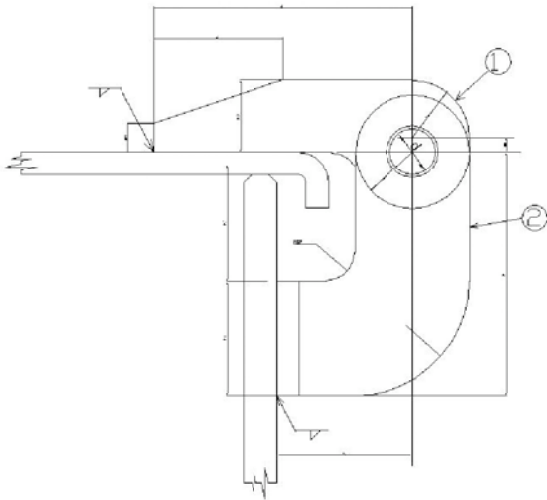
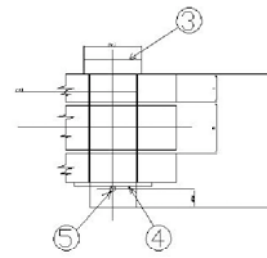
FITTINGS OF SHIPS' STEEL SMALL HATCH COVERS 002-5-Model

Unit:mm

TYPE D-1



TYPE D-2



| Nominal No | Nominal No of applicable hatch cover | B | d | d ₁ | d ₂ | h | h ₁ | h ₂ | Reference h ₃ | l | l ₁ | l ₂ | r | r ₁ | r ₂ | r ₃ | T | t | Unit:mm | Reference Calculated mass (kg) |
|------------|--------------------------------------|----|----|----------------|----------------|----|----------------|----------------|--------------------------|----|----------------|----------------|----|----------------|----------------|----------------|----|----|---------|--------------------------------|
| | | | | | | | | | | | | | | | | | | | | |
| 16 | 63x63 | 18 | 16 | 18 | 20 | 85 | 40 | 25 | 40.5 | 90 | 45 | 47 | 40 | 20 | 20 | 20 | 16 | 10 | | 0.80 |

Remarks:

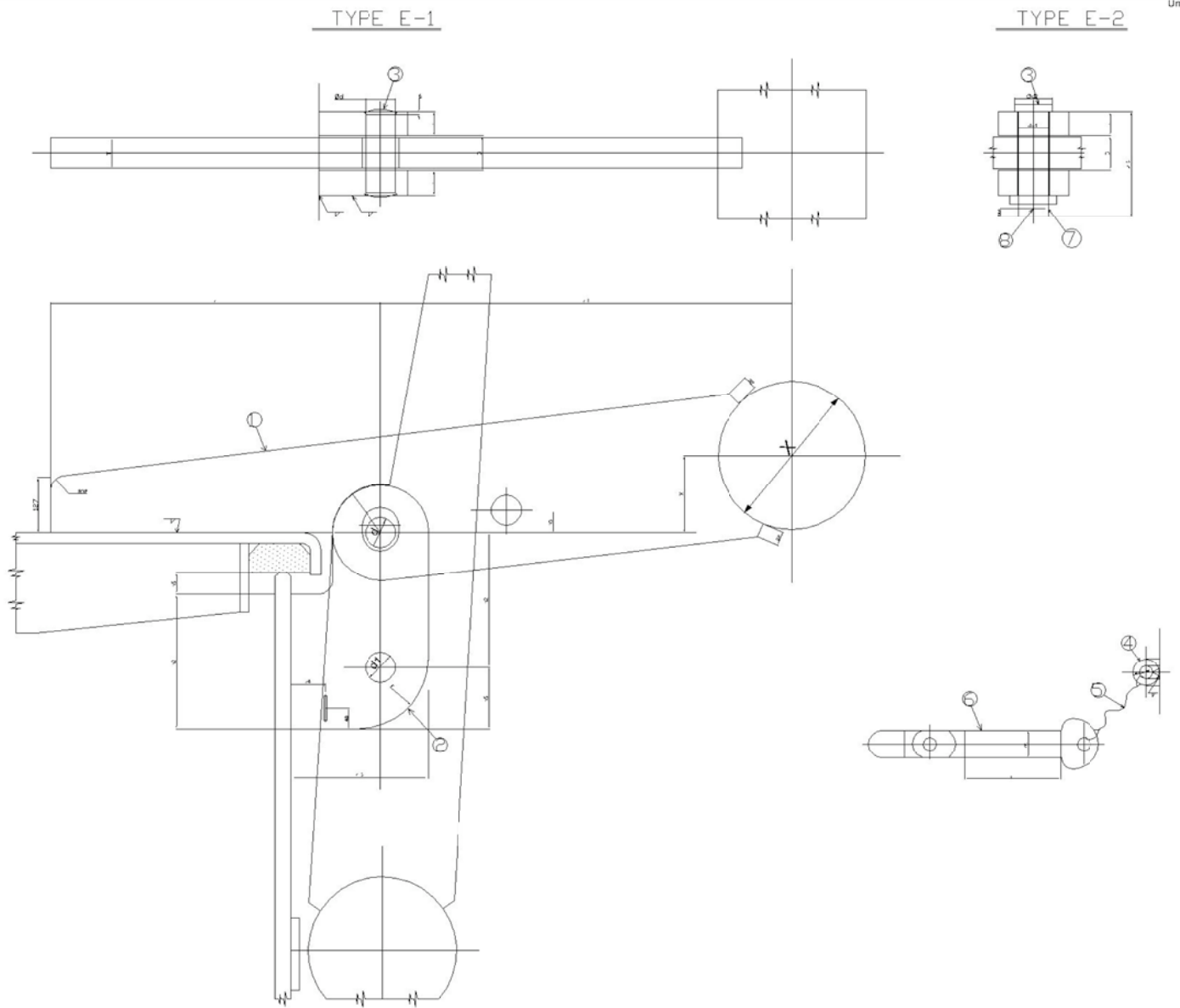
1. The shape and dimensions of washer shall conform to JIS B 1256.
2. The shape and dimensions of split pin shall conform to JIS B 1351.

| No | Component | Material |
|----|-----------|-------------------------------|
| 1 | Hinge | JIS G 3101-SS 41 |
| 2 | Hinge | |
| 3 | Pin | JIS H 3250-C 4622 or C4641 BE |
| 4 | Washer | Brass plate |
| 5 | Split pin | Brass wire |

Figure 4 Hinge, Type D

FITTINGS OF SHIPS' STEEL SMALL HATCH COVERS 002-6-Model

Unit:mm



| Nominal No | Nominal No of applicable hatch cover | B | d | d ₁ | d ₂ | h ₁ | h ₂ | h ₃ | Reference h ₄ | h ₅ | l | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | r | r ₁ | r ₂ | r ₃ | T | t | Toggle pin DxL | Reference Calculated mass (kg) |
|------------|--------------------------------------|----|----|----------------|----------------|----------------|----------------|----------------|--------------------------|----------------|-----|----------------|----------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----|----|----------------|--------------------------------|
| 22 | 103x103 | 25 | 22 | 22 | 27 | 45 | 98 | 50 | 20 | 16 | 240 | 300 | 92 | 100 | 25 | 77 | 50 | 35 | 35 | 12 | 22 | 18 | 20x70 | 12.38 |
| 25 | 133x133 | 25 | 25 | 24 | 30 | 45 | 103 | 100 | 20 | 23 | 240 | 300 | 100 | 100 | 25 | 77 | 56 | 35 | 35 | 13 | 22 | 20 | 22x70 | 14.19 |

Remarks:

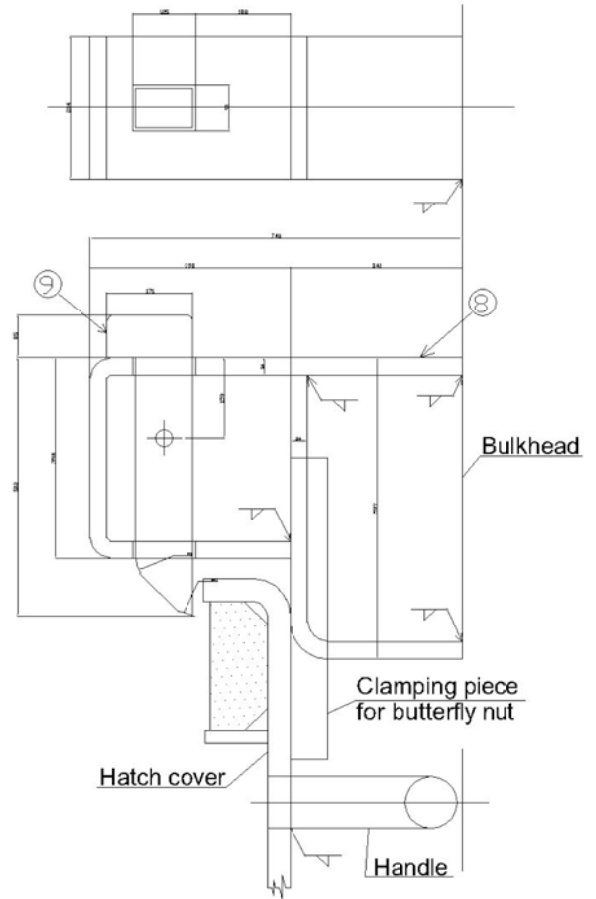
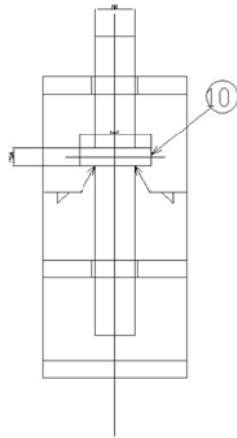
1. Toggle pins shall conform to JIS F 3905
2. Chainlet and S ring shall conform to JIS F3906 and JIS F 3907, B3 or S3
3. Eye plate for chainlet shall conform to JIS F 3903, Type B or C.
4. The shape and dimensions of washer shall conform to JIS B 1256.
5. The shape and dimensions of split pin shall conform to JIS B 1351.
6. Dimensions asterisked shall conform to JIS F 2321.

| No | Component | Material |
|----|------------------------|--|
| 1 | Hinge | JIS G 3101-SS 41 |
| 2 | Hinge | |
| 3 | Pin | JIS H 3250-C 4622 or C4641 BE |
| 4 | Eye plate for chainlet | Steel plate or steel wire |
| 5 | Chainlet and S ring | Brass round wire or galvanized iron wire |
| 6 | Toggle pin | Steel bar and brass rod |
| 7 | Washer | Brass plate |
| 8 | Split pin | Brass wire |

Figure 5 Hinge, Type E

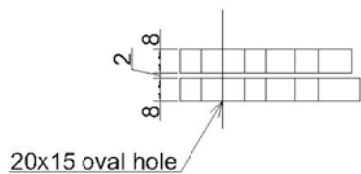
FITTINGS OF SHIPS' STEEL SMALL HATCH COVERS 002-7-Model

Unit:mm



Remarks: Dimensions asterisked shall be determined re-cording to the fitting position.
Reference: Calculated mass, 1.23 kg.

| No. | Component | Material |
|-----|--------------|-------------|
| 8 | Latch holder | Steel plate |
| 9 | Latch | |
| 10 | Nock pin | Steel bar |



Remarks: The figure shows the hasp for watertight hatch cover. For non-watertight hatch cover, dimensions asterisked shall be determined according to the thickness of a the coaming plate.
Reference: Calculated mass, 0.19 kg.

| No. | Component | Material |
|-----|-----------------|-------------|
| 11 | Hasp on cover | Steel plate |
| 12 | Hasp on coaming | |

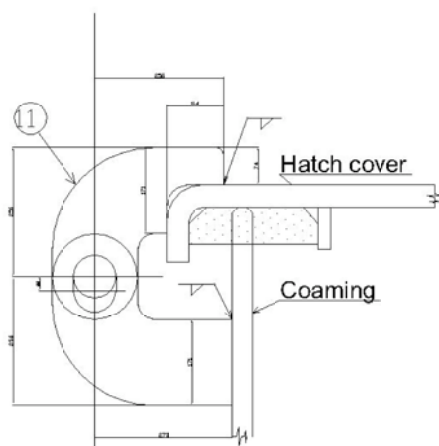


Figure 6 Latches and Hasps