



Cert. No. LRQ 0963008

ISO 9001

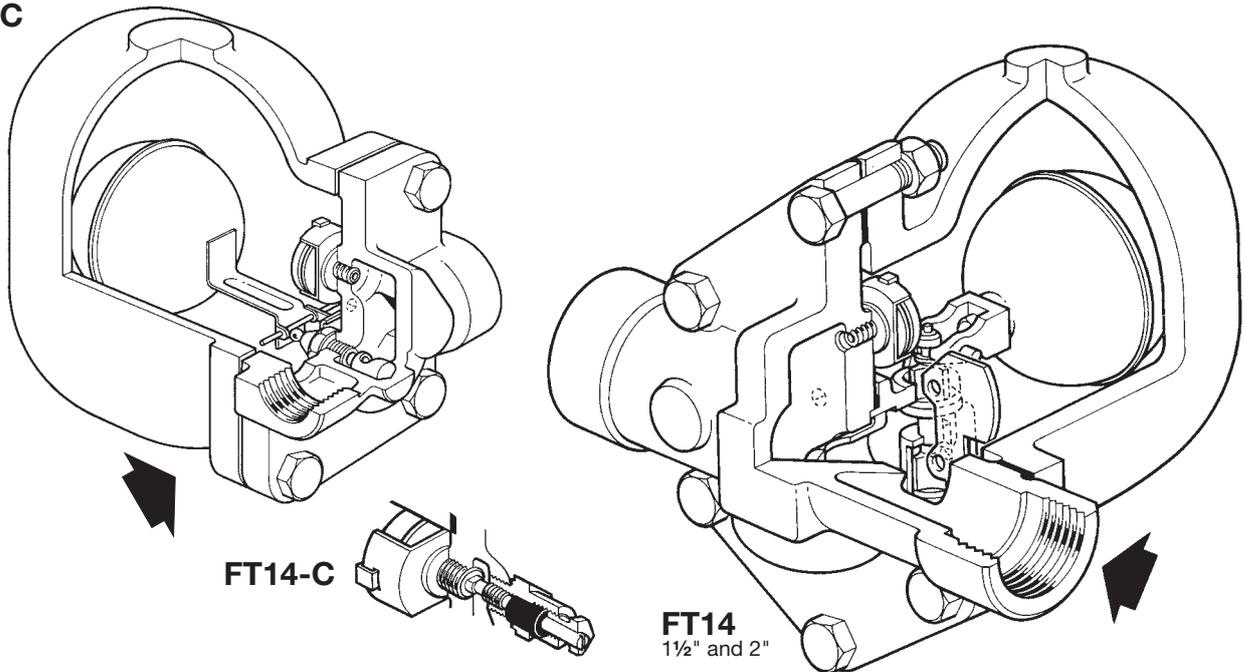
spirax sarco

FT14 and FT14HC SG Iron

Ball Float Steam Traps (1" HC, 1¼", 1½" and 2")

FT14HC
1"

FT14
1¼"



FT14-C

FT14
1½" and 2"

Description

The FT14 and FT14HC are iron bodied ball float steam traps having stainless steel working internals and integral automatic air venting facility. These traps are supplied with horizontal screwed connections only and can be maintained without disturbing the pipework. The flow direction is as indicated on the valve body.

Available types

FT14 Standard 1¼", 1½" and 2"

FT14HC High capacity (1" only) - As standard the FT14HC is available with flow direction in either left-to-right or right-to-left direction. Please state preference when placing an order.

Note: These ball float steam traps are available with either 4.5, 10 or 14 bar internals (ΔPMX).

Capsule

The BP99/32 capsule which is used in the FT14 and FT14HC ball float steam traps is suitable for use on 150°C superheat @ 0 bar g and 50°C superheat @ 32 bar g.

Optional extras will only be supplied if specified at the point of order

A **manually adjustable needle valve** (designated 'C' on the nomenclature i.e. **FT14-C**) can be fitted to the trap. This option provides a **steam lock release (SLR)** feature in addition to the standard air vent. For further information please consult Spirax Sarco.

The **top of the cover can be drilled and tapped up to 3/8" BSP or NPT** for the purpose of fitting a balance line.

The **bottom of the cover can be drilled and tapped 3/8" BSP or NPT** for the purpose of fitting a drain cock.

Standards

This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC.

Certification

This product is available with a manufacturers' Typical Test Report. **Note:** All certification/inspection requirements must be stated at the time of order placement.

Sizes and pipe connections 1" (FT14HC only), 1¼", 1½" and 2" screwed BSP and NPT.

Pressure / temperature limits See page 2 for the pressure/temperature limitations.

Materials See page 3 for the materials list.

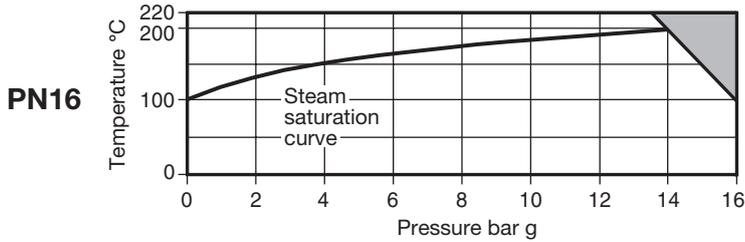
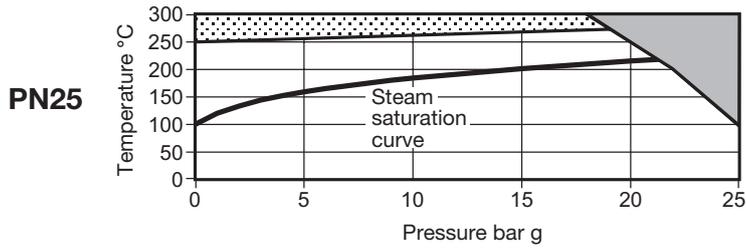
Capacities See page 4 for full capacity details.

Local regulations may restrict the use of this product to below the conditions quoted.

In the interests of development and improvement of the product, we reserve the right to change the specification without notice.

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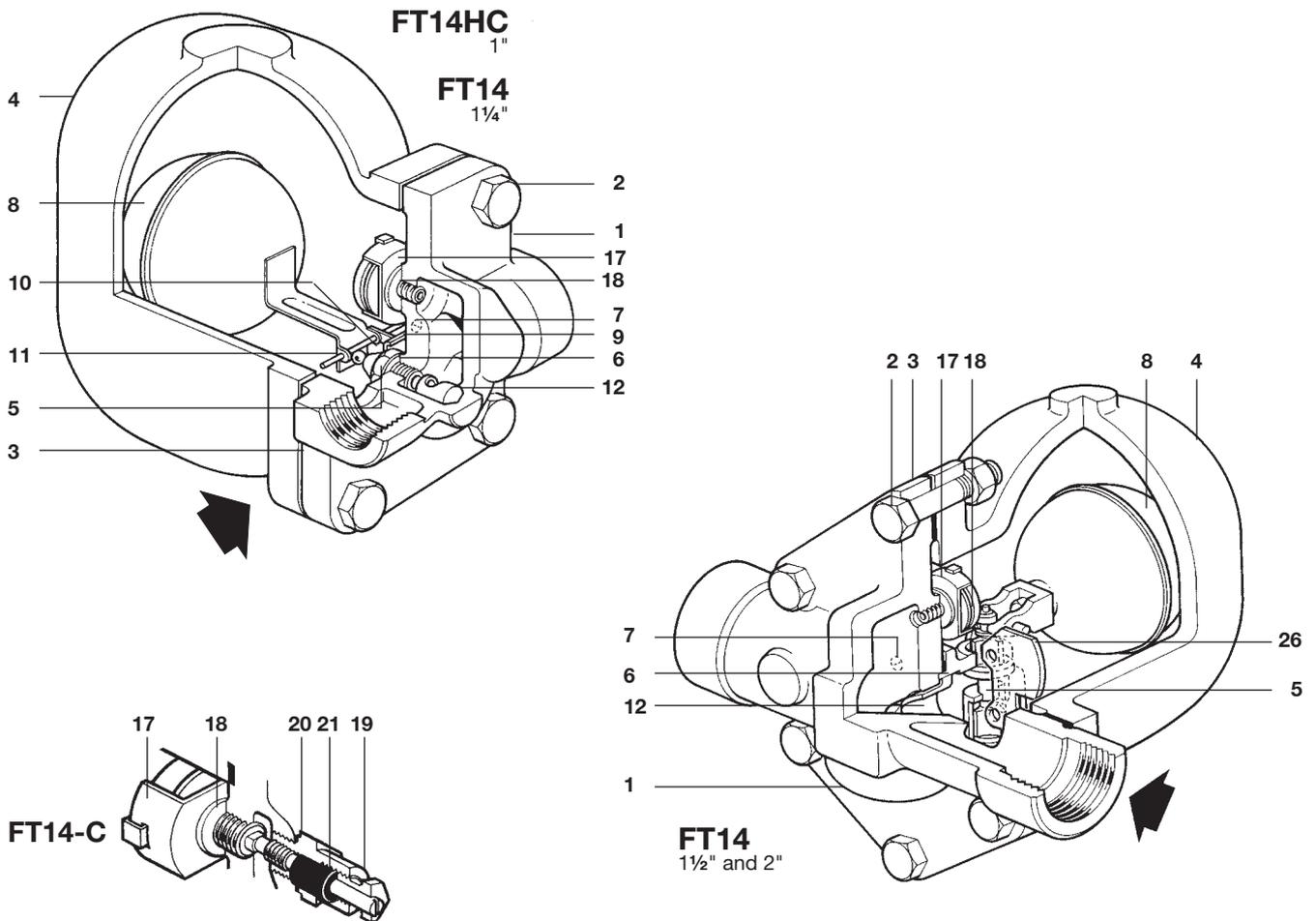
Pressure / temperature limits



 The product **must not** be used in this region.

 The product should not be used in this region as damage to the internals may occur.

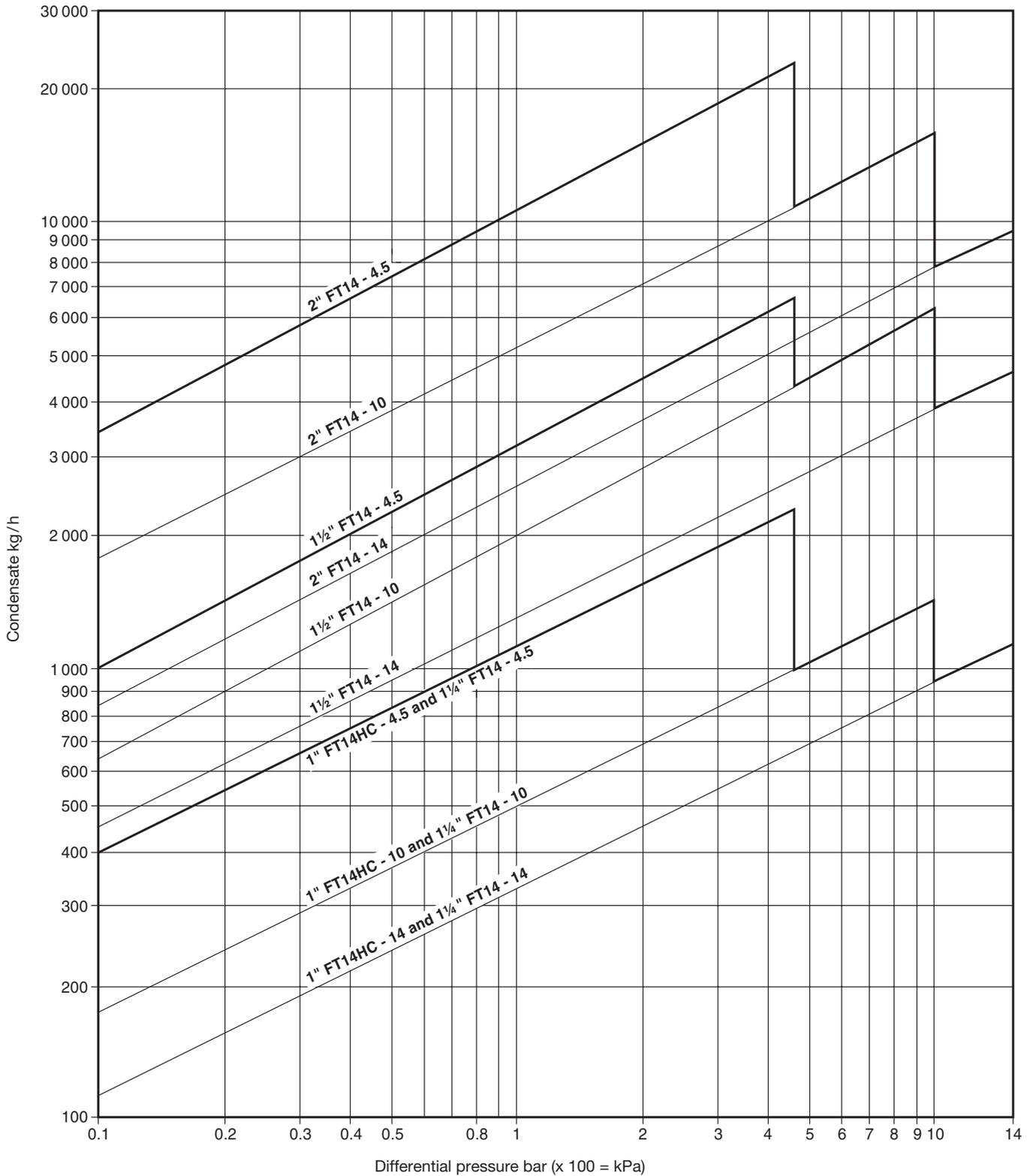
| Size | 1" HC and 1 1/4" | 1 1/2" and 2" |
|--|------------------|---|
| Body design conditions | PN25 | PN16 |
| PMA Maximum allowable pressure | 25 bar g @ 100°C | 16 bar g @ 100°C |
| TMA Maximum allowable temperature | 300°C @ 18 bar g | 220°C @ 13.5 bar g |
| Minimum allowable temperature | -10°C | -10°C |
| PMO Maximum operating pressure for saturated steam service | 21 bar g | 14 bar g |
| TMO Maximum operating temperature | 275°C @ 19 bar g | 220°C @ 13.5 bar g |
| Minimum operating temperature | 0°C | 0°C |
| Note: For lower temperatures consult Spirax Sarco | | |
| | Size | 1" HC 1 1/4" 1 1/2" and 2" |
| ΔPMX Maximum differential pressure | 4.5 bar | FT14HC-4.5 FT14-4.5 FT14-4.5 |
| | 10 bar | FT14HC-10 FT14-10 FT14-10 |
| | 14 bar | FT14HC-14 FT14-14 FT14-14 |
| Designed for a maximum cold hydraulic test pressure of: | 38 bar g | 24 bar g |



Materials

| No. | Part | | Material | |
|-----|--|--------------------|--------------------------------|----------------------|
| 1 | Body | 1" and 1 1/4" | SG iron | BS EN 1563 JS 1030 |
| | | 1 1/2" and 2" | Cast iron | DIN 1691 GG 25 |
| | Cover bolts | 1" | Steel | BS 3692 Gr. 8.8 |
| 2 | Cover bolts | 1 1/4" | Steel | ASTM A193 B7 |
| | | Cover bolts & nuts | 1 1/2" and 2" | Steel |
| 3 | Cover gasket | | Reinforced exfoliated graphite | |
| 4 | Cover | 1" and 1 1/4" | SG iron | BS EN 1563 JS 1030 |
| | | 1 1/2" and 2" | Cast iron | DIN 1961 GG 25 |
| | Valve seat | 1" and 1 1/4" | Stainless steel | BS 970 431 S29 |
| 5 | Main valve assembly with erosion deflector | 1 1/2" and 2" | Stainless steel | BS 3146 Part 2 ANC 2 |
| 6 | Main valve assembly gasket | 1" and 1 1/4" | Stainless steel | BS 1449 304 S11 |
| | | 1 1/2" and 2" | Reinforced exfoliated graphite | |
| | Pivot frame assembly set screws | 1" and 1 1/4" | Stainless steel | BS 4183 18/8 |
| 7 | Main valve assembly bolts | Bolts 1 1/2" | Stainless steel | ISO 3506-2: A2-70 |
| | | Studs and nuts 2" | Stainless steel | BS 6105 A4-80 |
| 8 | Ball float and lever | | Stainless steel | BS 1449 304 S16 |
| 9 | Support frame | 1" and 1 1/4" | Stainless steel | BS 1449 304 S16 |
| 10 | Pivot frame | 1" and 1 1/4" | Stainless steel | BS 1449 304 S16 |
| 11 | Pivot pin | 1" and 1 1/4" | Stainless steel | |
| 12 | Erosion deflector | | Stainless steel | BS 970 431 S29 |
| 17 | Air vent assembly | | Stainless steel | |
| 18 | Air vent seat gasket | | Stainless steel | BS 1449 304 S11 |
| 19 | SLR assembly | | Stainless steel | BS 970 303 S21 |
| 20 | SLR gasket | | Mild steel | BS 1449 CS4 |
| 21 | SLR seal | | Graphite | |
| 26 | Inlet plate | 1 1/2" and 2" only | Stainless steel | BS 1449 304 S16 |

Capacities



Additional cold water capacities from the thermostatic air vent under start-up conditions

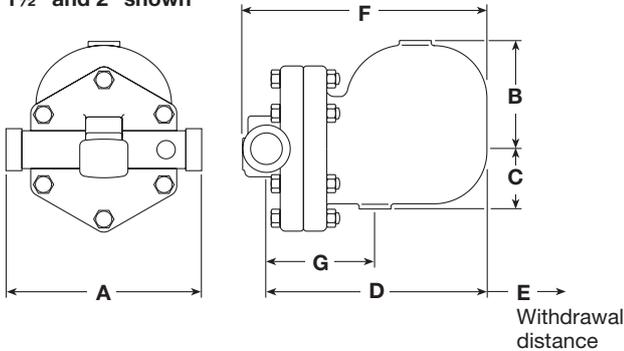
Capacities shown above are based on condensate at saturation temperature. Under start-up conditions when the condensate is cold the internal thermostatic air vent will be open and provides additional capacity to the main valve. The following table gives the minimum additional cold water capacities from the air vent.

| ΔP (bar) | 0.5 | 1 | 2 | 3 | 4.5 | 7 | 10 | 14 |
|----------------------|--|-----|-----|-----|-----|------|------|------|
| | Minimum additional cold water capacity (kg/h) | | | | | | | |
| 1" HC | 580 | 600 | 650 | 670 | 700 | 1000 | 1300 | 1600 |
| 1 1/4, 1 1/2" and 2" | 580 | 600 | 650 | 670 | 700 | 1000 | 1300 | 1600 |

Dimensions / weights (approximate) in mm and kg

| Size | A | B | C | D | E | F | G | Weight |
|-------|-----|-----|-----|-----|-----|-----|-----|--------|
| 1" HC | 120 | 110 | 80 | 195 | 160 | 220 | 115 | 6.8 |
| 1¼" | 120 | 110 | 80 | 195 | 160 | 220 | 115 | 6.9 |
| 1½" | 270 | 130 | 108 | 248 | 200 | 270 | 115 | 17.5 |
| 2" | 300 | 138 | 125 | 250 | 200 | 288 | 140 | 22.0 |

1½" and 2" shown



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-S02-30) supplied with the product.

Installation note:

The FT14 must be installed with the direction of flow as indicated on the body, and with the float arm in a horizontal plane so that it rises and falls vertically.

Disposal

This product is recyclable. No ecological hazard is anticipated with the disposal of this product providing due care is taken.

How to order

Example: 1 off Spirax Sarco 1" screwed BSP FT14HC-14 ball float steam trap having an SG iron body and cover, with thermostatic air vent - flow direction left-to-right. The cover is to be suitable for tapping ¾" for drain/balance pipe connection.

Spare parts

The spare parts available are shown in solid outlines. Parts drawn in broken lines are not supplied as spares.

Available spares

| | | |
|--|-------------------------------------|------------------------------|
| Main valve assembly | with float (1" and 1¼") | 5, 6, 7, 8, 9, 10, 11 |
| | with erosion deflector (1½" and 2") | 5, 6, 7, 26 |
| Ball float (1½" and 2") | | 8 |
| Air vent assembly | | 17, 18 |
| Manually adjustable needle valve (SLR) and air vent assembly | | 17, 18, 19, 20, 21 |
| Complete set of gaskets (packet of 3 sets) | | 3, 6, 18, 20 |

Note: The erosion deflector on the 1" and 1¼" is pressed into the body during manufacture and is not available as a spare.

How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of trap.

Example: 1 - Air vent assembly for a Spirax Sarco 2" FT14-4.5 ball float steam trap.

Recommended tightening torques

| Item | Size |  or  | mm | N m |
|------|------------|--|----------|-------|
| 2 | 1" | 17 | M10 x 30 | 29-33 |
| | 1¼" | 14* | M10 x 30 | 29-33 |
| | 1½" | 19 | M12 x 60 | 60-66 |
| | 2" | 24 | M16 x 70 | 80-88 |
| 5 | 1" and 1¼" | 17 | - | 40-45 |
| | 1" and 1¼" | - | M5 x 20 | 10-12 |
| 7 | 1½" | 10 | M6 x 20 | 10-12 |
| | 2" | 13 | M8 x 20 | 20-24 |
| 17 | - | 17 | - | 50-55 |
| 19 | - | 21 | - | 40-45 |

*Note: Reduced A/F bolt head required

Steam lock release assembly

