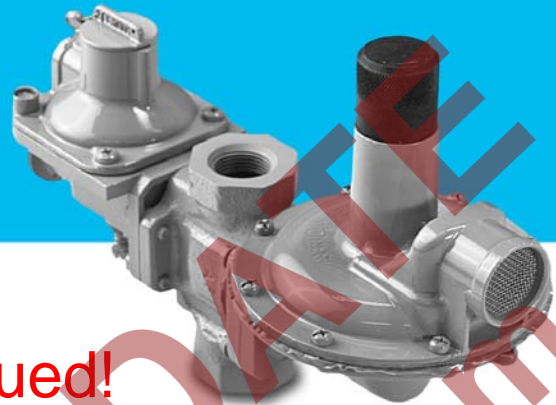


J1253

LPG Second Stage Regulator
Inlet Pressure up to 4 bar



This product is discontinued!

Commissioning Instructions

General Arrangements

Parts Lists

Maintenance Instructions

For: J1253 Regulator

$\frac{3}{4}$ " size

J1253: Commissioning Instructions

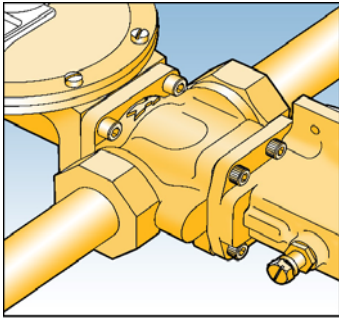


Fig. 1

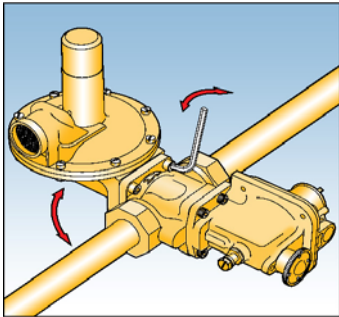


Fig. 2

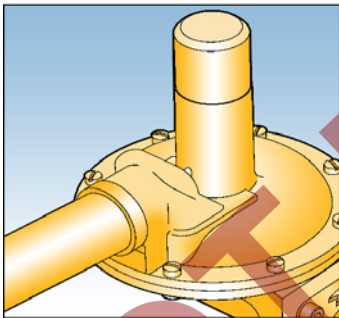


Fig. 3

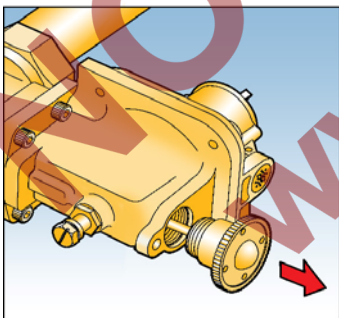


Fig. 4

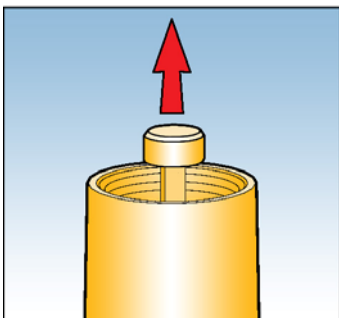


Fig. 5

FITTING REGULATOR INTO PIPEWORK

1. The unit should not be installed in a corrosive environment.
2. The ambient temperature (surface temperature) should be within the limits stated on the regulator catalogue.
3. Check the maximum allowable pressure on the regulator nameplate against the installation specification.
4. Remove the protection plugs from inlet and outlet ports.
5. Ensure that installation pipework is thoroughly clean.
6. The direction of gas flow must be the same as the arrows on the regulator body. See Fig. 1.
7. Install the regulator into pipework using jointing compound approved to national standards.
8. In order to fit the regulator into confined spaces it may be necessary to rotate the diaphragm case. This is achieved by unscrewing the four cap screws rotating the diaphragm case, in 90° increments to the required rotation and then re-tightening the cap screws evenly. See Fig. 2.

INSTALLATION OF VENT LINE. (If Required)

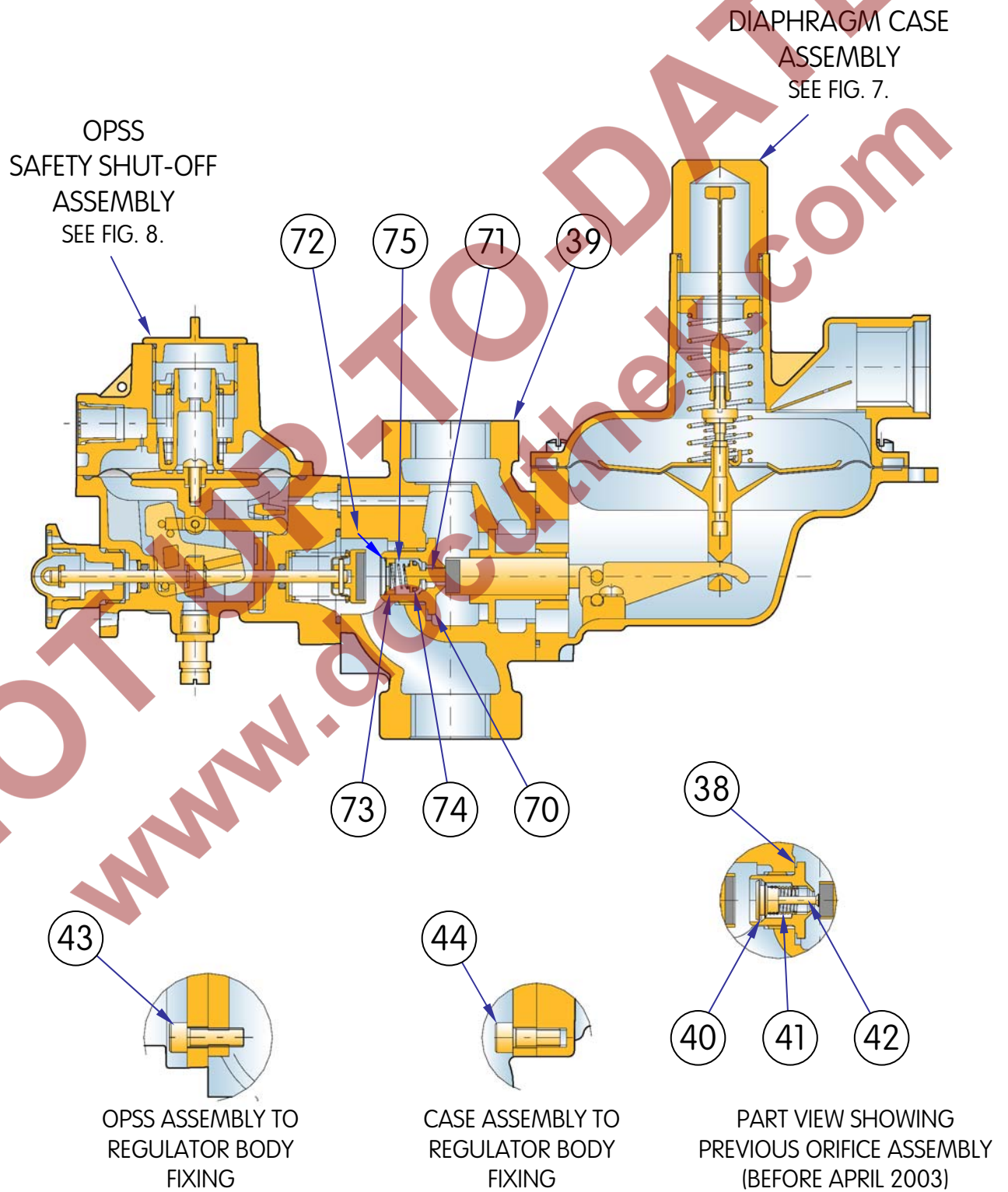
1. Remove clip and vent screen from regulator top cover.
2. Connect the vent line (1"), using a jointing compound approved to national standards, and lead to atmosphere in accordance with national standards. Ensure that no water can penetrate vent pipeline. See Fig. 3.

COMMISSIONING REGULATOR.

1. Remove regulator top cap.
2. Turn off downstream valves.
3. Slowly turn on inlet supply.
4. Unscrew OPSS reset spindle end cap and firmly pull, then release reset spindle end cap gently. See Fig. 4.
5. Re-screw reset spindle end cap into body, ensuring not to jam reset spindle.
6. Pull UPSCO reset spindle (See Fig. 5.) Hold in this position until the outlet pipework is fully pressurised, then release.
7. Commission downstream appliances.
8. Replace regulator top cap. (Do not seal).
9. Seal OPSS reset cap with lead sealing wire.

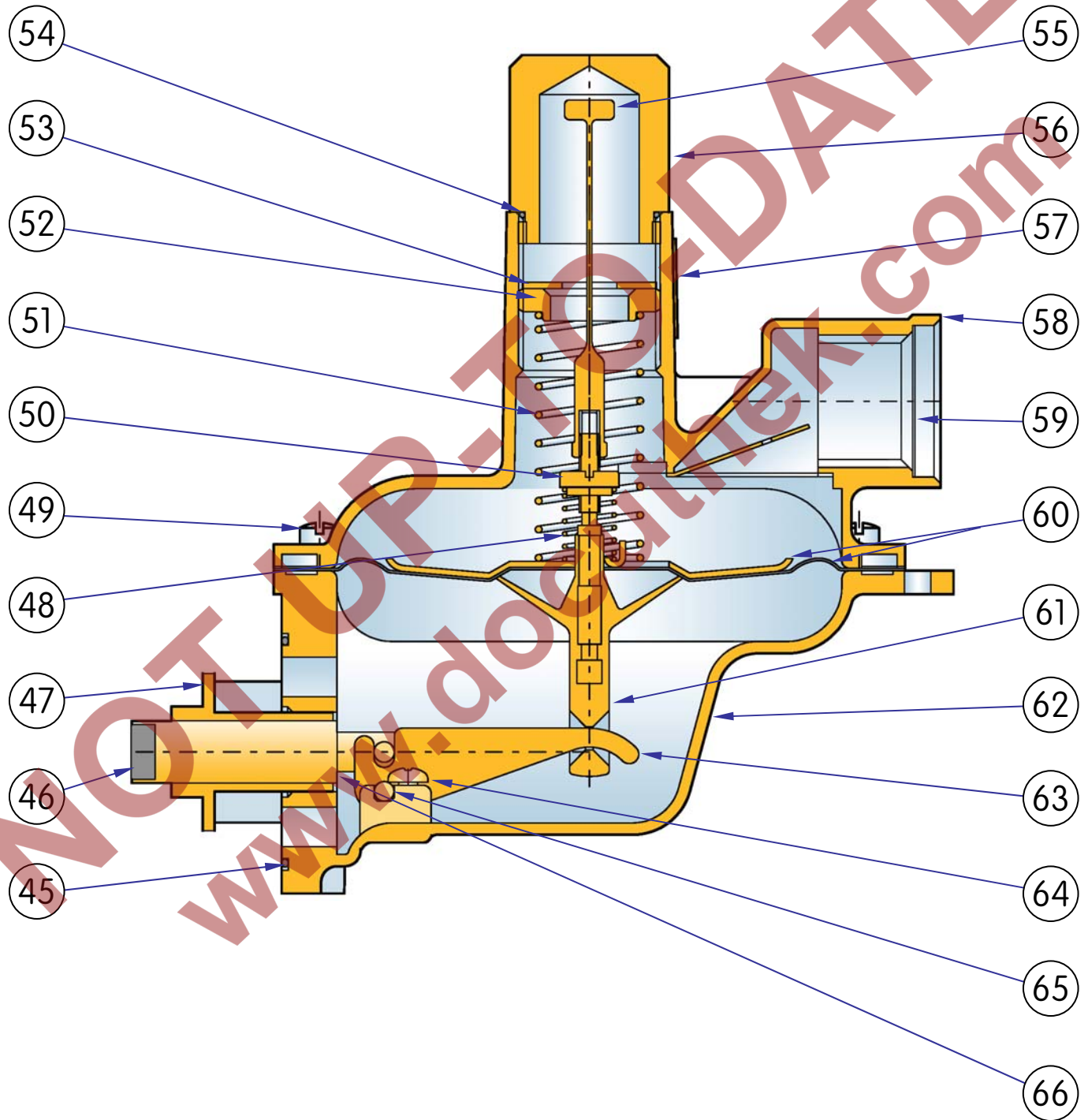
WARNING: DO NOT UNDER ANY CIRCUMSTANCES WEDGE OPEN OPSS SAFETY SHUT-OFF RESET END CAP AS THIS WILL NOT ALLOW THE SAFETY DEVICE TO FUNCTION IN ADVERSE PRESSURE CONDITIONS.

J1253: General Arrangement Regulator Assembly – Fig 6



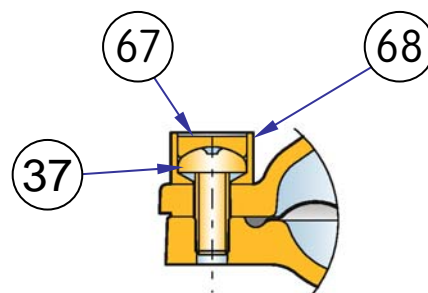
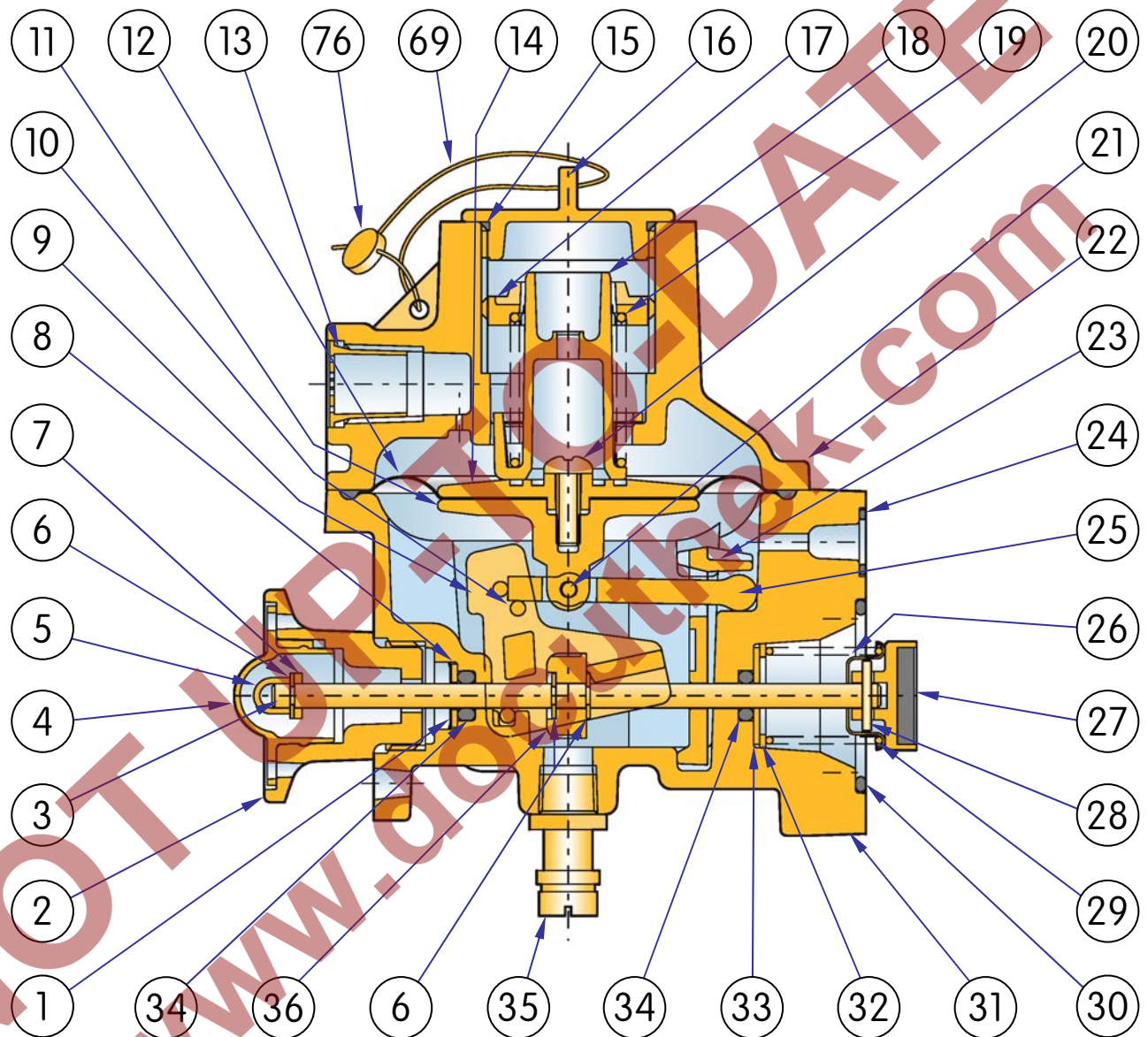
J1253: General Arrangement

Diaphragm Case Assembly – Fig 7



J1253: General Arrangement

OPSS Safety Shut Off Assembly – Fig 8



TOP COVER TO BODY
FIXING

J1253: Parts List

ITEM	DESCRIPTION	PART NUMBER	No. Off
1	STARLOCK WASHER	JCIR1305-043B	* 1
2	RESET SPINDLE END CAP	J12506-254	1
3	SAFETY SHUT-OFF VALVE SPINDLE	J12506-259	1
4	COVER FOR RESET SPINDLE END CAP	J12506-255	1
5	SAFETY SHUT-OFF INDICATOR CAP	JCLOSEMC4	1
6	CIRCLIP FOR SHUT-OFF VALVE SPINDLE	JCIR1500-015B	* 1
7	WASHER Rear Circlip Protection	J12506-292	1
8	REAR "O" RING RETAINING WASHER	J12506-253	1
9	TRIP-OFF LATCH	J12506-241	1
10	NEEDLE ROLLER	JNR02S	1
11	LOWER DIAPHRAGM PLATE	J12506-247	1
12	SAFETY SHUT-OFF DIAPHRAGM	J12506-246	* 1
13	SCREEN VENT	J12506-277	1
14	TOP DIAPHRAGM PLATE	J12506-245	1
15	SAFETY SHUT-OFF TOP CAP "O" RING	JORM0251-16D	* 1
16	SAFETY SHUT-OFF TOP CAP	J12506-142	1
17	SAFETY SHUT-OFF SPRING HOLDER	J12506-248	1
18	BOTTOM SPRING HOLDER	J12506-250	1
19	OPSS SPRING 50 - 80 mb Colour: Orange	J12506-282	1
20	SCREW FOR SHUT-OFF DIAPHRAGM	JSA412XPTZ	1
21	NEEDLE ROLLER	JNR02S	1
22	SAFETY SHUT-OFF TOP COVER	J12506-240+	1
23	TRIP-OFF LEVER RETAINING PLATE	J12506-243	1
24	"O" RING SEAL Impulse Passage	JOBS011D	* 1
25	TRIP-OFF LEVER	J12506-242	1
26	VALVE SPRING CUP	J12506-251	1
27	VALVE	J12506-271M	* 1
28	NEEDLE ROLLER	JNR01	1
29	VALVE SPRING	J12506-049	1
30	"O" RING SEAL Shut-off to Reg Body	JORM0276-24D	* 1
31	SAFETY SHUT-OFF BODY	J12506-239+	1
32	CIRCLIP for Front "O" Ring Washer	JCIR2000K-17B	* 1
33	FRONT "O" RING RETAINING WASHER	J12506-252	1
34	"O" RING SEAL for Shut-off Spindle (to end of 2005)	JOBS105D	* 2
	"O" RING SEAL for Shut-off Spindle (from start of 2006)	JO4-25	* 2
35	PRESSURE TEST NIPPLE	JPTN01-0.71	1
36	TRIP-OFF BUSH	J12506-244	1
37	SCREW for Safety Shut-off Lever	JSA512XPTS	4
38	ORIFICE SEAT	IG121021	* 1
39	VALVE HEAD Rc3/4 (Body)	I73146P032	1
40	ORIFICE "O" RING SEAL	IG049807	* 1
41	ORIFICE SPRING	IG121003	* 1
42	ORIFICE SHAFT	IG121002	* 1
43	SCREW OPSS to Reg Body (1/4" UNC x 3/4)	I3421040801	4
44	SCREW Valve Head to Body (1/4" UNC x 5/8)	I78008P014	4

J1253: Parts List

Continued

ITEM	DESCRIPTION	PART NUMBER	No. Off
45	"O" RING SEAL	I78152P001	* 1
46	VALVE SEAT	I70009P001	* 1
47	PLUNGER GUIDE	I73322P001	1
48	RELIEF VALVE SPRING	I71403P014	* 1
49	SCREW Taptite	I78008P006	8
50	NUT	I70711P001	* 1
51	REGULATOR SPRING 32 - 42mb Colour: Black	I70017P081	1
52	SCREW ADJUSTMENT	I74033P001	1
53	PLASTIC INSERT	J12506-309	1
54	"O" RING SEAL for Top Cap	JORM0251-16	* 1
55	RESET SPINDLE	J12506-302	* 1
56	TOP CAP (Black Full Knurl)	J12506-209B	1
57	NAMEPLATE	J8112-124	1
58	TOP COVER ASSEMBLY	I73956G001	1
59	VENT SCREEN	I70400P008	* 1
60	DIAPHRAGM ASSEMBLY	I73585W007	* 1
61	RELIEF VALVE STEM ASSEMBLY	I73525P001	* 1
62	BODY (Diaphragm Case)	I70003P001	1
63	LEVER ASSEMBLY	I73526P001	1
64	SCREW Self Tapping	I78008P005	2
65	LEVER PIN	I70016P002	1
66	VALVE PLUNGER	I70025G001	1
67	LEAD DISC	JLEADDISC	1
68	SEALING CUP	J12506-291	1
69	SEALING WIRE	JLSWR1	1
70	ORIFICE SEAT (from April 2003)	J12506-314	* 1
71	ORIFICE SHAFT (from April 2003)	J12506-315	* 1
72	CIRCLIP FOR ORIFICE ASSEMBLY (from April 2003)	JCIR5005-050B	* 1
73	SPRING RET. CLIP FOR ORIFICE ASSY. (from April 2003)	J12506-206	* 1
74	"O" RING SEAL FOR ORIFICE ASSY. (from April 2003)	JORM0071-16	* 1
75	ORIFICE SPRING (from April 2003)	J12506-215	* 1
76	LEAD SEAL	JLSN24	1

Note: Part numbers marked + require connection standard to be specified with order.

Spares Kits

REGULATOR TYPE	SPARES KIT PART NUMBER
J1253	SK1253-02

Spares kit contents are marked * on parts list above.

Each Spares Kit comprises all diaphragms, valve seats and "O" ring seals all packed in one plastic bag.

Precise details of contents will be on the outside of each bag.

J1253: Maintenance Instructions

Regulator Body

Drawing Reference: Fig. 6

NOTE: Numbers in brackets identify items on drawings

Regulator Dismantling Procedure.

1. Disconnect diaphragm case assembly from regulator body (39) by removing the four cap screws (44), gently pull out the case from the body.
2. Disconnect the safety shut-off unit assembly, from the regulator body (39) by removing the four cap screws (43).
3. Remove valve seat assembly (70) from the regulator body.
4. Wipe clean the valve seat (70), check for any damage, and if necessary replace.

Regulator Rebuilding Procedure.

NOTE: Inspect all sealing "O" rings, and replace where necessary

(A soft spares kit is available for this purpose, see page 7.)

The use of Molykote 111 "O" ring lubricant is recommended during the rebuild.

1. Refit valve seat assembly (70) into body (39) by screwing it in until metal contact is made.
2. Fit new "O" ring (45) onto diaphragm case assembly and apply "O" ring lubricant.
3. Insert diaphragm case assembly into regulator body (39) being careful not to damage "O" ring, secure in place with four cap screws (44).
4. Replace "O" rings (24) and (30) into safety shut-off body (31), making sure the contact surfaces are clean and the "O" rings are lubricated.
5. Locate and secure the safety shut-off assembly, in place using four cap screws (43).
6. Test unit for gas tightness.
7. Commission unit as described on page 2.

J1253: Maintenance Instructions

Diaphragm Case

Drawing Reference: Fig. 7

NOTE: Numbers in brackets identify items on drawings

Diaphragm Case Dismantling Procedure.

1. Unscrew top cap (56) and remove "O" ring (54).
2. Lift out plastic insert (53).
3. Unscrew and remove spring holder (52) and spring (51).
4. Remove top cover (58) by unscrewing the eight screws (49).
5. Remove reset spindle (55) together with diaphragm assembly (60) (50) (48), and relief valve assembly (61), from the diaphragm case (62).
6. Unscrew and remove lever assembly clamping screws (64).
7. Remove lever assembly (63) and lever pin (64).
8. Slide valve plunger assembly (66) and from diaphragm case (62).
9. Remove valve plunger guide from diaphragm case (62).
10. Vent screen (59) can be removed from top cover (58).

Diaphragm Case Rebuilding Procedure.

NOTE: Inspect all sealing "O" rings and diaphragms and replace where necessary

(A soft spares kit is available for this purpose, see page 7.)

The use of Molykote 111 "O" ring lubricant is recommended during the rebuild.

1. Insert lever pin (65) through hole in lever assembly (63).
2. Locate lever pin (65) into slot in diaphragm case (62) and secure using two screws (64).
3. Check valve seat (46) for damage and excessive wear and replace if necessary.
4. Glue valve seat (46) into hole in the end of the valve plunger (66).
5. Push small end of the valve plunger (66) through the hole in the side of the diaphragm case (62). And locate pin in the end of the valve plunger (66) over u shaped slot in the lever assembly (63).
6. Slide plunger guide (47) over valve plunger (66) .
7. Relocate the reset spindle (55) together with the diaphragm assembly (60) (50) (48) and relief valve assembly (61) into position making sure the following are observed :-
 - i) Lever assembly (63) is correctly fitted into slot in relief valve (61).
 - ii) Outer sealing bead of diaphragm (60) is located correctly into groove of case (62).
8. Ensure that vent screen (59) is fitted into vent in top cover (58).
9. Replace top cover (58) over reset spindle (55), positioned inside top cover chimney. Take care not to pinch diaphragm bead (60).
10. Secure with top cover (58) to diaphragm case (62) with eight screws (49).
11. Place loading spring (51) into chimney of top cover (58).
12. Replace top spring holder (52) into chimney of top cover (58), ensuring that castellated spigot locates in loading spring (51) and reset spindle (55) passes through central hole.
13. Replace plastic insert (53) over reset spindle (55) so it fits against top spring holder (52).
14. Replace "O" ring (54) onto top cap (56).
15. Replace top cap (56) onto chimney of top cover (58).

J1253: Maintenance Instructions

Safety Shut Off

Drawing Reference: Fig. 8

NOTE: Numbers in brackets identify items on drawings

Safety Shut-off Dismantling Procedures.

1. Cut and remove sealing wire (69).
2. Unscrew top cap (16) and remove "O" ring (15).
3. Unscrew and remove top spring holder (17) together with OPSS spring (19).
4. Remove bottom spring holder (18).
5. Prise out lead seal (67) from sealing cup (68) to expose screw head.
6. Remove top cover (22) by unscrewing the four screws (37).
7. Lift diaphragm assembly from body (31).
8. Unscrew diaphragm clamping screw (20) and remove top diaphragm plate (14) and main diaphragm (12).
9. Remove needle roller (21) to release lever arm (25) from lower diaphragm plate (11).
10. Push valve spring cup (26) towards body (31) to release needle roller (28). Remove valve (27), valve spring cup (26) and valve spring (29).
11. Unscrew reset spindle end cap (2) and pull out until it comes to a stop.
12. Within body prise visible circlip (6) from valve spindle (3) to release trip-off bush (36).
13. Slide trip-off bush (36) forward and prise second circlip (6) from valve spindle (3).
14. Withdraw valve spindle (3) and end cap assembly (2),(4),(6),(5) & (7) from body (31). Remove trip-off lever retaining plate (23), trip-off bush (36) and trip-off latch (9).
15. Remove circlip (32), front "O" ring retaining washer (33) and front "O" ring (34).
NOTE: It is not recommended to interfere with the rear "O" ring (34) unless absolutely necessary. A new "O" ring and starlock washer should be refitted if dismantled.
16. Remove starlock washer (1), rear "O" ring retaining washer (8) and rear "O" ring (34) from body (31).
17. It is not necessary to remove test point (35).

Safety Shut-off Rebuilding Procedures.

NOTE: Inspect all sealing "O" rings and diaphragms and replace where necessary
(A soft spares kit is available for this purpose see page 7).
The use of Molykote 111 "O" ring lubricant is recommended during the rebuild.

1. Fit new "O" ring (34) into rear "O" ring groove in body (31) and apply "O" ring lubricant. Replace rear "O" ring retaining washer (8) and secure with new starlock washer (1), making sure starlock washer is central in bore.
2. Locate lever retaining plate (23) into recesses in body (36).
3. Position trip-off bush (36) with slots over rails of trip-off latch (9) and arrow facing away from steel needle rollers. Relocate assembly into body (31) making sure needle roller is correctly positioned in raised recess in body (31).

J1253: Maintenance Instructions

Safety Shut Off - continued

4. Push valve spindle (3) and cap assembly (6),(2),(4),(5) & (7) through rear of body (31), trip-off bush (36), lever retaining plate (23) and front of body (31).
5. Slide trip-off bush (36) up against lever retaining plate (23) and fit a new circlip (6) into groove on valve spindle (3) furthest away from trip-off bush (36).
6. Slide trip-off bush (36) back against 1st circlip (6) and fit a 2nd new circlip (6) to groove on valve spindle (3) which clamps trip-off bush (36) to valve spindle (3).
7. Fit new "O" ring (34) into front "O" ring groove in body (31) and apply "O" ring lubricant, replace front "O" ring retaining washer (33) and secure firmly with new circlip (32).
8. Replace valve spring (29) into front face of body (31).
9. Locate valve spring cup (26) over spindle (3) and into valve spring (29).
10. Push valve spring cup (26) to compress valve spring (29) until valve (27) can be assembled to valve spindle (3). Align hole in valve (27) with hole in valve spindle (3) and replace needle roller (28). Release pressure on valve spring (29) allowing valve spring cup (26) to fit over needle roller (28).
11. Align hole in diaphragm (12) with convolution upper most, with hole in lower diaphragm plate (11). Locate spigot of top diaphragm plate (14) through diaphragm (12) and into recess in lower diaphragm plate (11). Secure with diaphragm clamping screw (20).
12. Position slot in lever arm (25) over spigot on lower diaphragm plate (11) and align holes, replace needle roller (21) through holes.
13. Unscrew reset end cap (2) and withdraw it, until it comes to a stop.
14. Locate diaphragm assembly and lever arm (25) into recess between lever retaining plate (23) and body (31), ensuring bead of diaphragm (12) locates into groove in body (31).
15. Replace bottom spring holder (18) into chimney of top cover (22) by aligning ribs of bottom spring holder (18) with slots in top cover (22).
16. Replace OPSS spring (19), into bottom spring holder (18).
17. Screw top spring holder (17) into chimney of top cover (22) ensuring that castellated spigot is uppermost.
18. Replace top cover assembly (22). Take care not to pinch diaphragm bead (12).
19. Secure with four screws (37) with sealing cup (68) beneath one of the screws.
20. Fit new "O" ring (15) to top cap (16) and chimney of top cover (22).
21. If screw into removed, replace test point (35).
22. If required press new lead disc (67) into sealing cup (68).
23. For reassembly to body see page 8.

Elster Jeavons is committed to a programme of continuous quality enhancement. All equipment designed by Elster Jeavons and manufactured within the Elster-Instromet Group benefits from the groups quality assurance standards, which are approved to EN ISO9001:2008.

Elster Jeavons has a programme of continuous product development and improvement and in consequence the information in this leaflet may be subject to change or modification without notice.

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