

Oteco Inc. Houston, Texas
2" Reset Relief Valve Maintenance
Issued: BH Date: 9/10/08

Manual: **OS-130365 Rev.A**
Revision Date: 9/10/08
Approved: WU Date: 9/10/08

OTECO INC.
2" RESET RELIEF VALVE
2" FIG.1502 FEMALE INLET &
OUTLET, SOUR GAS
INSTALLATION & MAINTENANCE
MANUAL
PART NO. 130365

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TABLE OF CONTENTS

1. PERIODIC MAINTENANCE
2. SPARE PARTS LIST
3. PROCEDURES FOR REPLACEMENT OF SEALS
4. PROCEDURES FOR MAINTENANCE AND REPAIR OF BONNET ASSEMBLY
5. PARTS LIST
6. EXPLODED DRAWING
7. INSTALLATION DRAWING

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1.0 PERIODIC MAINTENANCE

WEEKLY

1. Unseat valve by striking release button at rear of valve. Release pressure in system to 0 PSI and reset valve with reset lever.

6 MONTHS

1. Lubrication-Remove 1/8 plastic pipe plug located behind right load spring on bottom of bonnet. Pump grease through grease fitting until new grease comes out of 7/16 hole. Replace 1/8 plastic pipe plug.
2. Replace seals as required.

13 MONTHS

1. Lubrication-Clean bonnet assembly and repack with new grease.
2. Replace parts and seals as required.

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2.0 SPARE PARTS LIST

SEALS FOR 6 MONTHS NORMAL OPERATION

QUANTITY	DESCRIPTION	PART NO.
1	Cushion Ring	142132
1	Outer Seal	142029
1	Sub Gasket	142150
	(3 above parts, Oteco repair kit <u>143225</u>)	
2	Seal Union Ring	302062

REPAIR PARTS FOR 12 MONTHS NORMAL OPERATION

QUANTITY	DESCRIPTION	PART NO.
2	Cushion Ring	142132
2	Outer Seal	142029
2	Sub Gasket	142150
	(3 above parts, Oteco repair kit <u>143225</u> , Qty.2)	
1	Outer Retainer	143115
1	Top Crank Pin	142200
2	Link Pins	142403
2	Bearing f/Upper Link and Piston	142423
2	Bearing f/Bonnet	142424
2	Bearing f/Crank	142422
1	Bearing f/Bonnet Cover	142425
5	Spiral Pin 1/8 X 5/8	142432
1	Spiral Pin 1/4 X 1-1/2	142435
1	Spiral Pin 5/16 X 1-3/8	142434
4	Seal Union Ring	302062

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2.0 SPARE PARTS LIST (continued)

REPAIR PARTS FOR MAJOR REBUILD

QUANTITY	DESCRIPTION	PART NO.
1	Cushion Ring	142132
1	Outer Seal	142029
1	Piston/Bearing Assy.	142028
1	Stem Bushing	142140
1	Sub Gasket	142150
1	Outer Retainer	143115
	(6 above parts, Oteco major repair kit <u>143226</u>)	
1	Top Crank Pin	142200
2	Link Pins	142403
2	Bearing f/Bonnet	142424
2	Bearing f/Crank	142422
1	Bearing f/Bonnet Cover	142425
5	Spiral Pin 1/8 X 5/8	142432
1	Spiral Pin 1/4 X 1-1/2	142435
1	Spiral Pin 5/16 X 1-3/8	142434
2	Seal Union Ring	302062

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3.0 REPLACEMENT OF SEALS: Ref. Drawings 20122 and 20123

DISASSEMBLY

1. Remove pressure from relief valve.
2. Remove valve from piping system and grip in vise.
3. Remove (4) cap screws (item 7). Lift piston and bonnet assembly away from body (item 37).
4. Unscrew sub (item 46) from body (item 37). Remove outer retainer (item 43), gasket (item 44) and seal (item 45) from body. Remove union seals (item 47) from sub and body.
5. Thoroughly clean body, sub and parts. **CAUTION:** If grit blast is used, protect threads and seal surfaces from erosion.
6. Inspect all parts for wear or damage. Replace with new parts as needed.

3.0 REPLACEMENT OF SEALS: (continued)

ASSEMBLY

1. Apply a light coat of grease to items 43, 44, 45 and 47.
2. Install outer retainer (item 43), seal (item 45) and sub gasket (item 44) into body (item 37). Install union seals (item 47) into sub and body.
3. Install body sub (item 46) into body (item 37). Tighten body sub to 400 ft-lbs torque.
4. Apply a light coat of grease to small diameter of piston (item 42) extending from bonnet assembly. Install cushion ring (item 41) onto piston (item 42).
5. Install bonnet assembly onto body assembly. Use screw driver To start entry of cushion into body.
6. Install (4) socket head screws (item 7). Tighten to 50 ft-lbs torque.
7. Pressure test valve for correct operation before installing into system. Precautions should be taken to protect personnel while testing.

4.0 REPAIR OF BONNET ASSEMBLY: Ref. Drawings 20122 and 20123

DISASSEMBLY

1. Remove pressure from relief valve.
2. Remove valve from piping system and grip in vise.
3. Remove adjusting nut (item 1) and upper spring retainer (item 4).
4. Remove load springs (item 31).
5. Remove (4) socket head cap screws (item 7) from bonnet (item 34).
6. Remove bonnet cover assembly (item 9).
7. Remove (4) socket head cap screws (item 7) from body (item 37) and lift bonnet assembly from body.
8. Remove old grease from bonnet assembly and bonnet cover assembly. Clean with solvent.
9. Inspect and replace worn parts as needed.

4.0 REPAIR OF BONNET ASSEMBLY (Continued)

ASSEMBLY:

1. Apply a light coat of grease to small diameter of piston (item 42) extending from bonnet assembly. Install cushion ring (item 41) onto piston (item 42). It is not recommended to apply a coating of grease to the outside surface of cushion ring (item 41)
2. Install bonnet assembly onto body assembly. Use screwdriver to start entry of cushion ring into body.
3. Install (4) socket head screw (item 7). Tighten to 50 ft-lbs torque.
4. Repack upper part of bonnet assembly (item 34) with Lubriplate Lo – Temp grease, or equivalent. Approximately 16 oz. is required.
5. Install bonnet cover assembly (item 9) onto bonnet assembly (item 34) using (4) socket head cap screws. Tighten to 50 ft-lbs torque.
6. Install (2) load springs (item 31).
7. Install upper spring retainer (item 4).
8. Install adjusting nut (item 1). Tighten nut to obtain desired relief pressure as indicated by pressure relief scale.
9. Pressure test valve for correct operation before installing into system. Precautions should be taken to protect personnel while testing.

ITEM	QTY	PART NO.	DESCRIPTION
1	1	301786	ADJUSTING NUT
2	1	142414	STUD, ADJUSTING
3	1	142435	PIN, SPIRAL
4	1	142426	RETAINER, UPPER SPRING
5	1	142418	INDICATOR, RELIEF PRESSURE
6	12	301729	SELF TAP SCREW
7	8	143310	SOCKET HEAD CAP SCREW
8	1	142420	NAMEPLATE
9	1	142419	COVER, BEARING ASSEMBLY
9-A	1	142425	BEARING, BONNET COVER
10	1	143220	SCREW, LOAD
11	1	142430	RELIEF PRESSURE SCALE
12	1	142439	"O" RING, RESET LEVER
13	1	142409	HANDLE, RESET
14	1	142434	PIN, SPIRAL
15	1	142405	PIN, CRANK PIVOT
16	2	142406	SPRING, SPIRAL
17	2	142422	BEARING, CRANK
18	1	143210	CRANK/BEARING ASSEMBLY
19	1	142433	PIN, SPIRAL
20	1	142200	PIN, TOP CRANK
21	1	143320	BUTTON, RELEASE
22	1	142407	SPRING, RELEASE BUTTON
23	1	143330	SHAFT, RELEASE BUTTON
24	1	142408	BUSHING, RELEASE BUTTON
25	1	142440	ROLLER, RESET CRANK
26	5	142432	PIN, SPIRAL
27	1	142442	CRANK, RESET
28	1	142340	ROD, SPRING GUIDE
29	1	142412	KEEPER, SPRING
30	1	142413	SPRING, RESET CRANK
31	2	142417	LOAD SPRING

ITEM	QTY	PART NO.	DESCRIPTION
32	1	142427	RETAINER, LOWER SPRING
33	1	301616	FITTING, GREASE
34	1	142401	BONNET/BEARING ASSEMBLY
34-A	2	142424	BEARING, BONNET
34-B	1	142431	PLUG
35	1	142421	INSTRUCTION PLATE
36	1	142140	STEM BUSHING
37	1	140227	BODY, 2" FIG 1502 FEMALE UNION
38	1	142404	UPPER LINK/BEARING ASSEMBLY
38-A	2	142423	BEARING, F/UPPER LINK, PISTON
39	2	142402	LINK, LOWER
40	2	142403	PIN, LINK
41	1	142130	CUSHION RING
42	1	142028	PISTON/BEARING ASSEMBLY
43	1	143115	RETAINER, OUTER
44	1	142150	SUB GASKET
45	1	142029	SEAL, OUTER
46	1	142036	SUB, 2" FIG 1502 FEMALE UNION
47	2	302062	UNION SEAL RING

NOTE:
SEE DRAWING 20122
FOR EXPLODED VIEW
OF VALVE ASSEMBLY
AND ITEM NUMBERS.



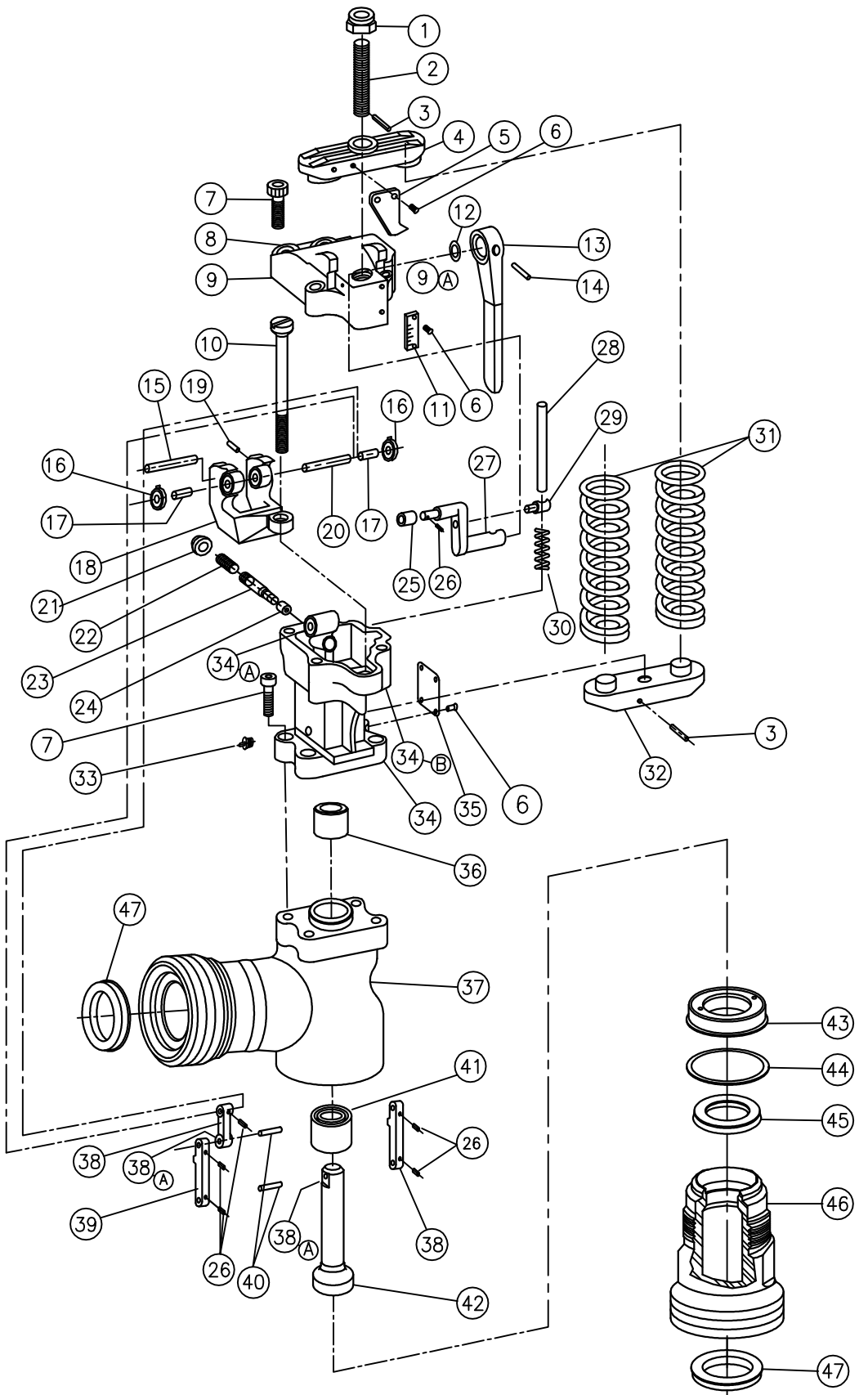
OTECO INC.
HOUSTON, TEXAS

2" - 5,000 PSI OTECO RESET
RELIEF VALVE PARTS LIST, 2" FIG 1502
FEMALE UNION INLET & OUTLET, SG

B	2068	7/25/11
REV	ECN NO.	DATE

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REPRODUCED FOR ANY PURPOSE
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DATE: 9/25/03	PART NO.
SCALE: NONE	130365
DRAWN: HK	DRAWING NO.
CHK'D: HK	A 20123
	REV.
	B



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OTECO INC.
 HOUSTON, TEXAS

OTECO 2" RESET RELIEF VALVE
 2" FIG 1502 INLET & OUTLET

DATE: 9/24/03

PART NO.

SCALE: NONE

130365

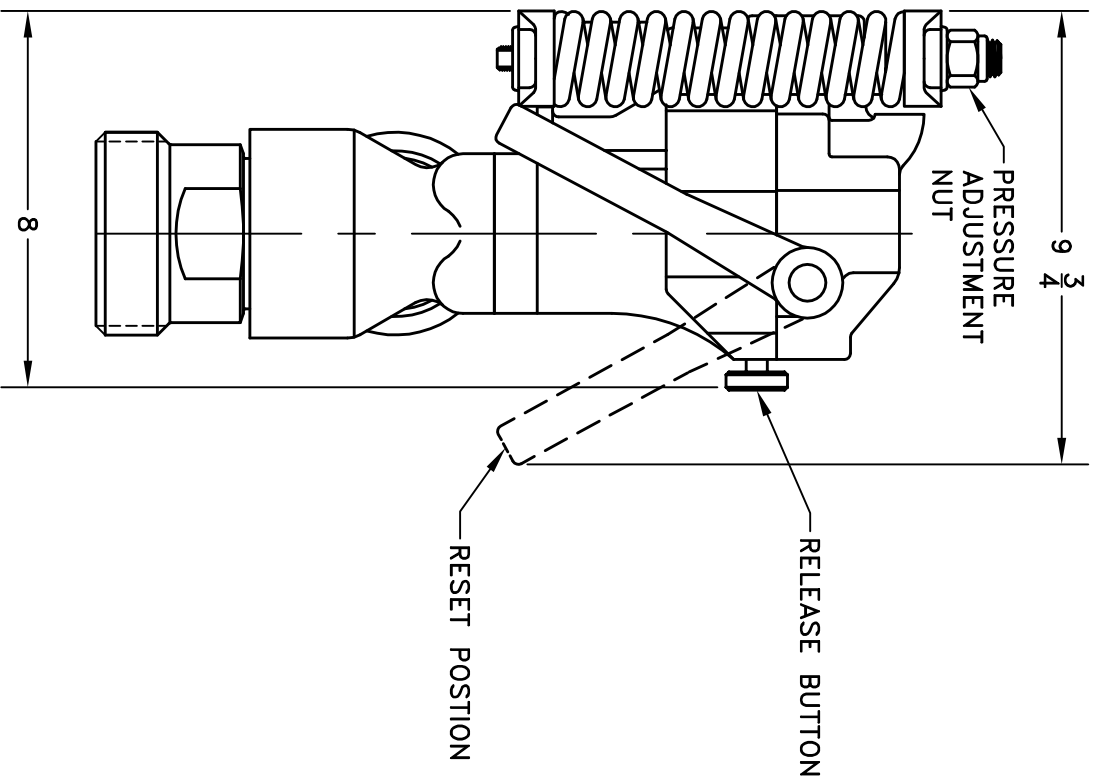
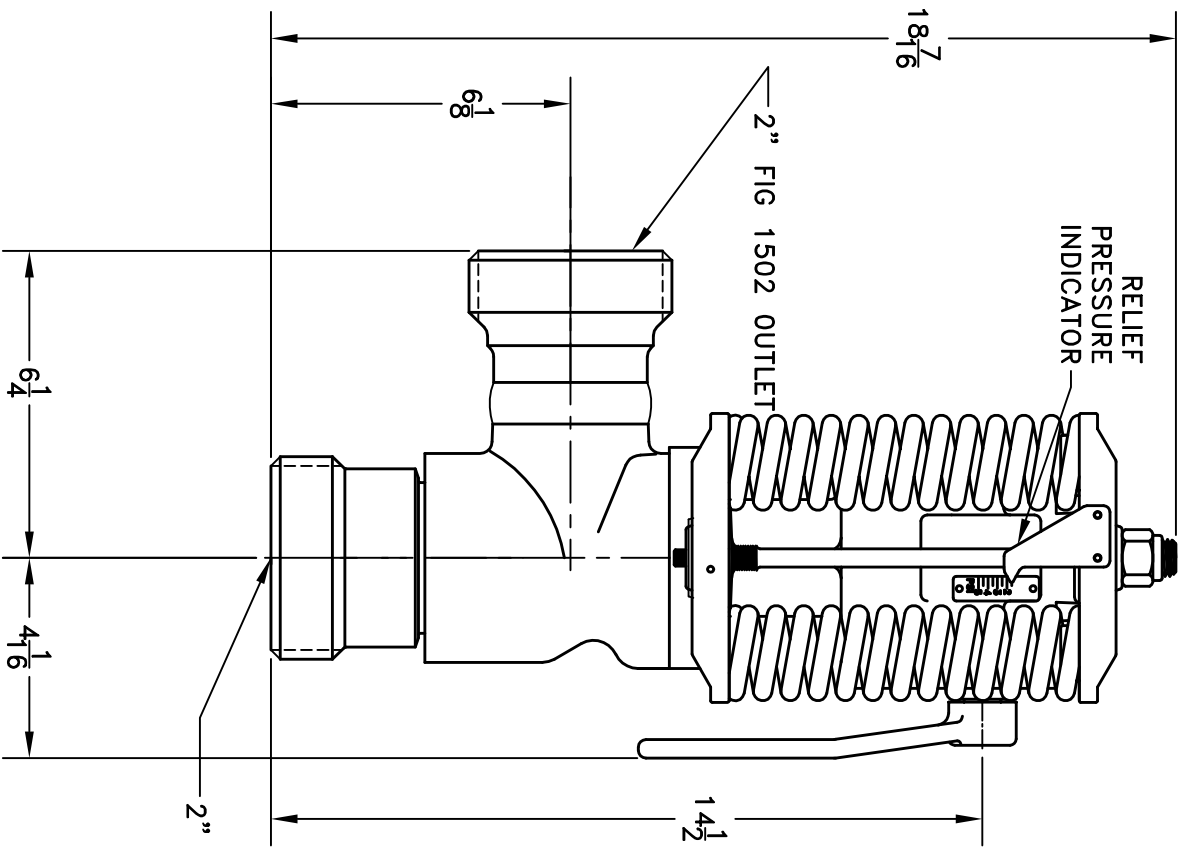
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DRAWING NO.

CHK'D: HK

A 20122

REV.
 A



2" FIG 1502 INLET


OTECO INC.
 HOUSTON, TEXAS

2"-5000 PSI RRV
 2" FIG 1502 FEMALE INLET
 X 2" FIG 1502 FEMALE OUTLET

DATE: 9/24/03	PART NO.	REV.
SCALE: NONE	130365	B
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CHK'D: HK	A 20121	

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