KIDDE-FENWAL, INC.
HALON 1301 SYSTEM CONTAINERS

FLOOR OR WALL MOUNTED SINGLE EXIT SPHERICAL AGENT STORAGE CONTAINERS

Part Number 31-192007-250

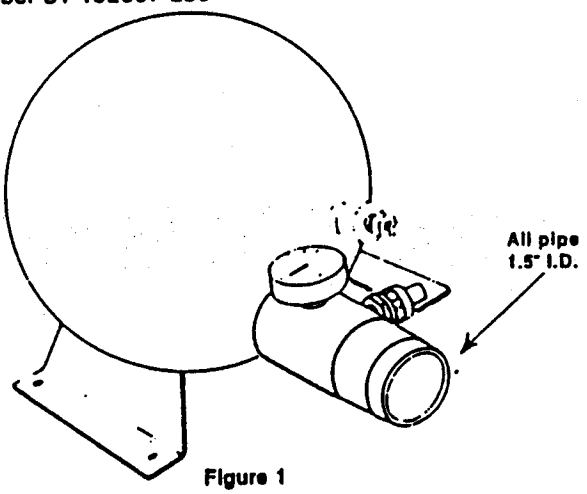


Figure 1

Table 1

Container Diameter	9.38 in.	238mm
Overall Height	9.63 in.	245mm
Total Length	13.50 in.	343mm
Empty Weight	20.50 lbs.	9.3Kg
Fill Range	10-15 lbs.	4.5-6.8Kg
Volume	.221 ft^3	6.26 ℓ

SINGLE EXIT SPHERICAL AGENT STORAGE CONTAINERS

Part Number 31-192007-20X

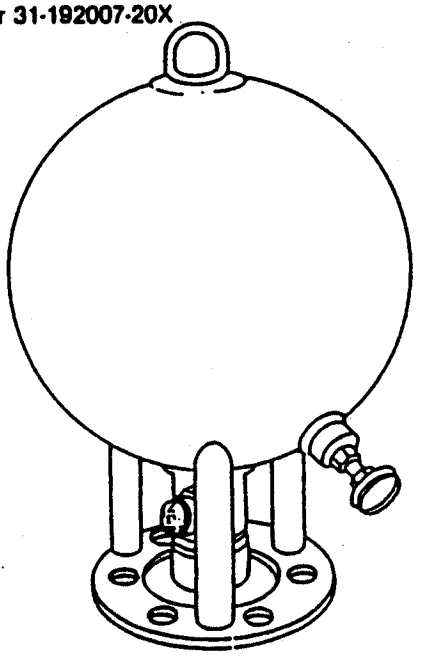


Figure 2

Table 2

Part No.	Sphere									
	Diam.		Height*		Empty Wt.**		Fill Range		Capacity	
	In.	mm	In.	mm	Lbs.	Kg.	Lbs.	Kg.	Ft^3	m^3
31-192007-201	13.2	334	20.7	525	26.5	12.9	27- 44	12.2-20.0	.656	.019
-202	14.8	377	22.4	569	36.7	16.6	44- 63	20.0-28.6	.932	.026
-203	17.3	439	24.9	634	52.0	23.6	64-101	29.0-45.8	1.488	.042
-204	21.5	547	29.3	745	99.1	45.0	102-196	46.2-88.9	2.833	.080

*Height is from top of lifting ring to bottom surface of flange. Flange mounting holes 5/8 in (15.9mm) diameter located on bolt circle 6-5/8 in (182.3mm) dia. Flange is 1/4 in. (6.4mm) thick for all models except for -204 which is 3/8 in (9.5mm)

**Average weight for shipping and mounting planning, actual weight stamped on unit.

AGENT STORAGE CONTAINERS

MULTI-EXIT SPHERICAL AGENT STORAGE CONTAINERS

Part Number 31-19202X-00X

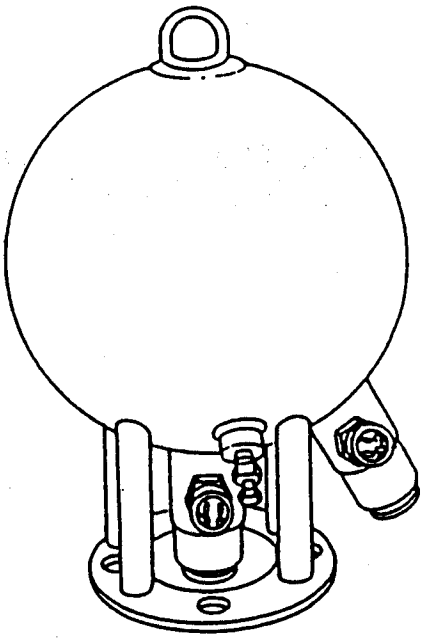
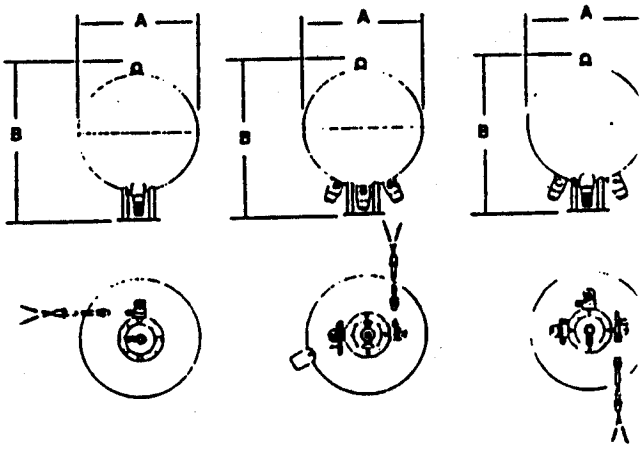


Figure 3



2-EXIT
PART NUMBER
31-192022-00X

3-EXIT
PART NUMBER
31-192027-00X

4-EXIT
PART NUMBER
31-192028-00X

Figure 4

Table 3

PART NUMBER	DIMENSIONS				EMPTY WEIGHT		FILL RANGE	
	A (Diam.)		B (Height)					
	In.	mm	In.	mm	Lbs.	Kg.	Lbs.	
31-192022-002	14.8	377	22.4	569	41	18.6	44- 63	20
31-192022-003	17.3	439	24.9	634	57	25.9	64-101	29
31-192022-004	21.5	547	29.3	745	104	47.2	102-196	46
31-192027-002	14.8	377	22.4	569	44	20.0	44- 63	20
31-192027-003	17.3	439	24.9	634	61	27.7	64-101	29
31-192027-004	21.5	547	29.3	745	106	48.1	102-196	46
31-192028-002	14.8	377	22.4	569	45	20.4	44- 63	20
31-192028-003	17.3	439	24.9	634	65	29.5	64-101	29
31-192028-004	21.5	547	29.3	745	110	49.9	102-196	46

FLOOR, WALL OR CEILING MOUNTED SINGLE EXIT CYLINDRICAL AGENT STORAGE CONTAINERS

Part Number 31-192007-X5X

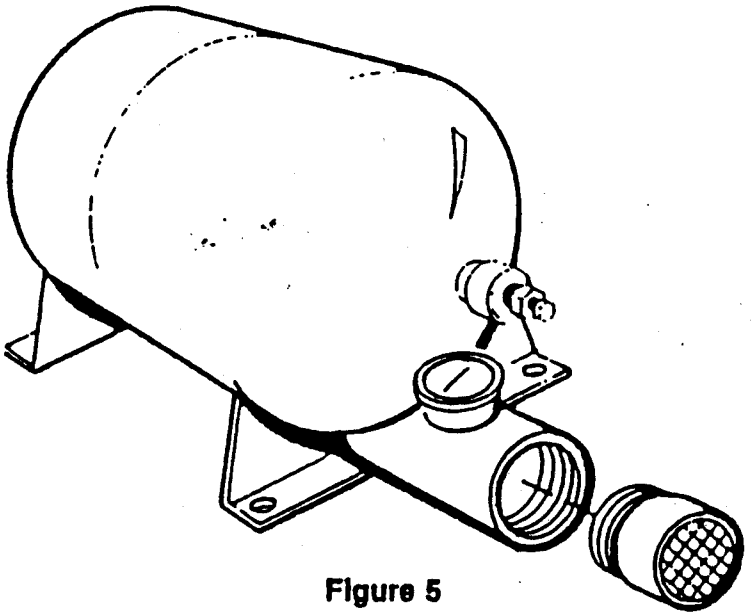


Figure 5

Figure 5 shows part number 31-192007-251, which has mounting brackets on the bottom of the container for floor mounting. The -351 has mounting brackets on the side for left hand exit while the -353 has brackets mounted on the opposite side for right hand exit. The -253 has mounting brackets on the top for ceiling mount.

Table 4

Container Diameter	9.38 in.	238mm
Overall Height	9.63 in.	245mm
Total Length	19.63 in.	499mm
Empty Weight	24.00 lbs.	10.9Kg
Fill Range	20-30 lbs.	9.1-13.6Kg
Volume	.442 ft^3	12.52L

FENWAL FILL (CHARGE) VALVE FOR HIGH RATE DISCHARGE (HRD) SPHERE-EXPLOSION SUPPRESSION

1. The protective cover plate and the fill (charge) cap should be in place before moving or handling the sphere or valve. The sphere and valve combination should be properly secured at the work station so that sphere will not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.

2. Remove the fill (charge) cap and securely attach the proper discharge fitting adapter with the reclaim hose assembly. Any hose assembly valve should be closed at this time.

3. With the sphere in the inverted position (as shown) the discharge will be vapor. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches of vacuum.

4. To open the fill (charge) valve turn the valve stem counter clockwise. To start the flow of Halon, the hose assembly valve should be opened.

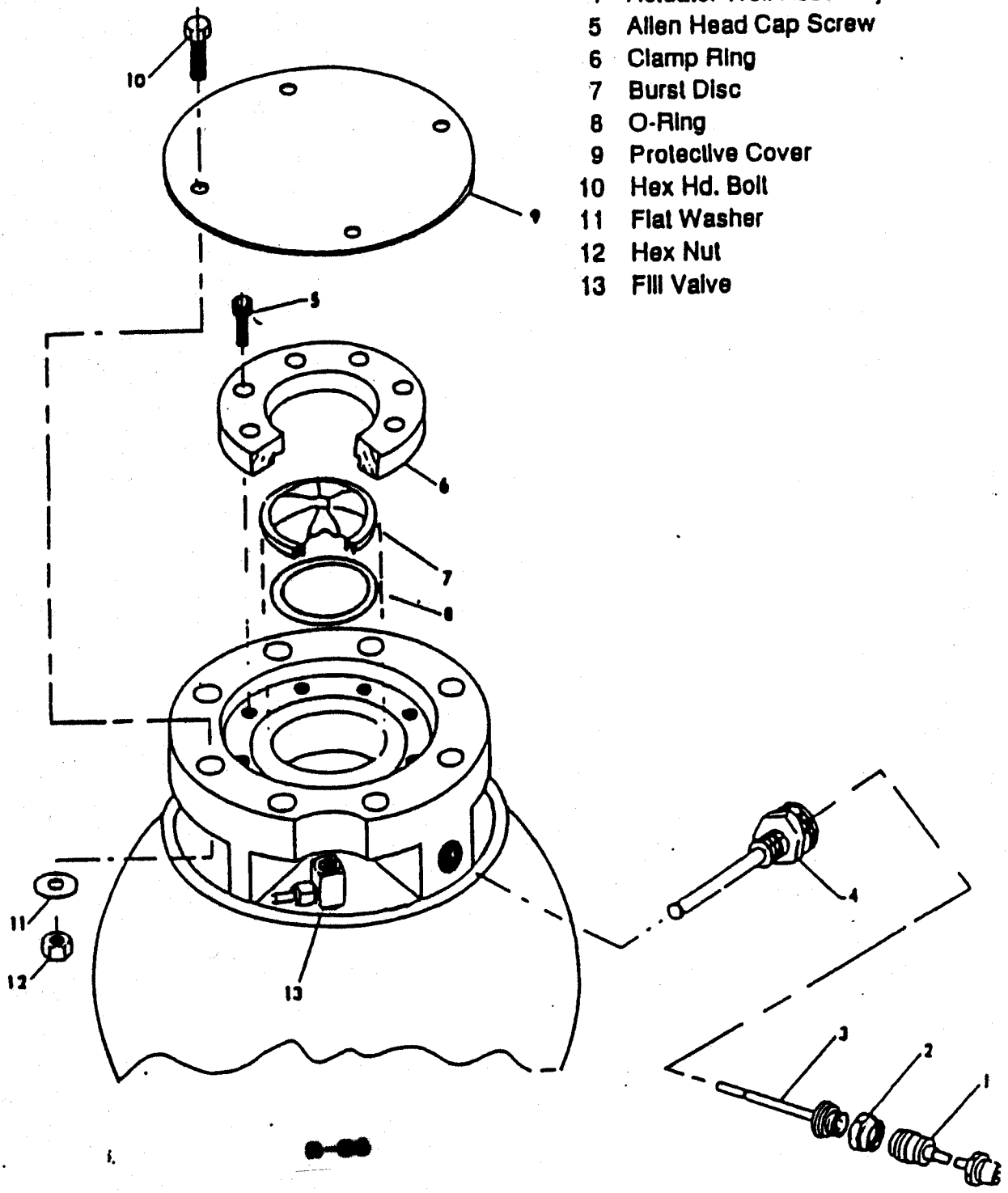
5. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.

6. To close the fill (charge) valve turn the valve stem clockwise.

7. Replace the fill (charge) valve cap.

HIGH RATE DISCHARGE (HRD) SPHERE

for EXPLOSION SUPPRESSION



FENWAL SPHERICAL MODULAR AGENT STORAGE CONTAINER (STANDARD APPLICATIONS)

1. The discharge port plug and the fill (charge) cap should be in place before moving or handling the sphere or valve. The sphere and valve combination should be properly secured at the work station so that sphere will not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.

2. Remove the fill (charge) cap and securely attach the proper discharge fitting adapter with the reclaim hose assembly. Any hose assembly valve should be closed at this time.

3. With the sphere in the inverted position (as shown) the discharge will be vapor. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches of vacuum.

4. To open the fill (charge) valve turn the valve stem counter clockwise. To start the flow of halon, the hose assembly valve should he opened.

5. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.

6. To close the fill (charge) valve turn the valve stem clockwise.

7. Replace the fill (charge) valve cap.

SPHERICAL MODULAR AGENT STORAGE CONTAINER

for STANDARD APPLICATIONS

1. CABLE ASSEMBLY
2. RETAINING NUT
3. INITIATOR
4. GASKET
5. WELL ASSEMBLY
6. FLANGE
7. "O" RING SEAL
8. BURST DISC
9. LOCKING RING
10. SCREEN ASSEMBLY
11. SAFETY CAP

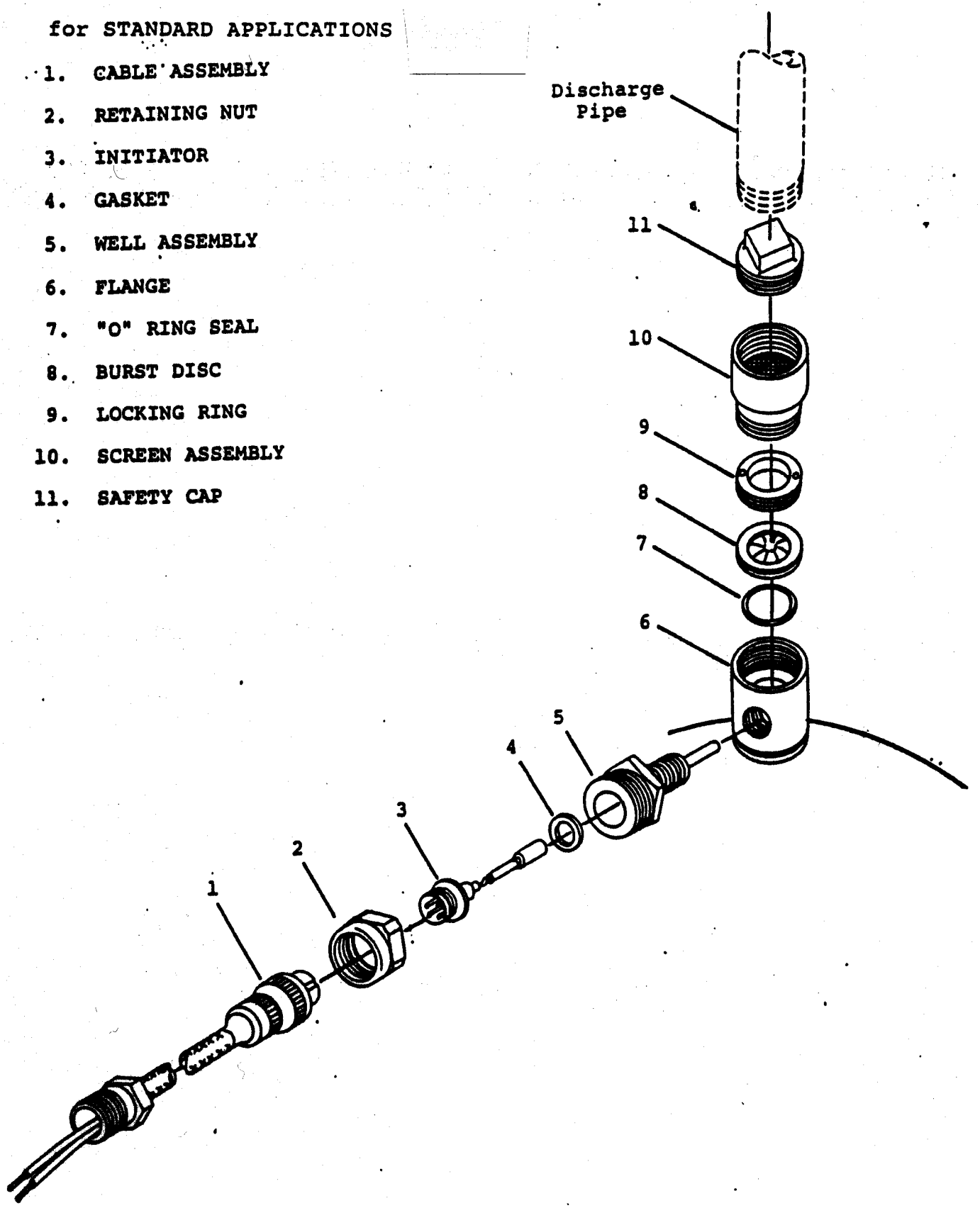


Figure 1. Valve Assembly, Exploded View

FENWAL CYLINDER VALVE (OLD STYLE) OPERATING PROCEDURES

1. Both the discharge port plug and the fill port cap should be in place before moving or handling the cylinder or valve. The cylinder and valve combination should be properly secured at the work station so that the cylinder will not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.

2. Remove the fill port cap, attach the fill tool to the fill port and securely attach the proper discharge fitting adapter with the reclaim hose assembly. Any hose assembly valve should be closed at this time.

3. With the cylinder in the upright position initial discharge will be liquid product (Halon 1301) until the liquid level falls below the bottom of the siphon tube. Additional reclaiming will be vapor and, depending upon the type of reclaiming equipment being used, may require a switch over to a vapor recovery unit. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches off vacuum.

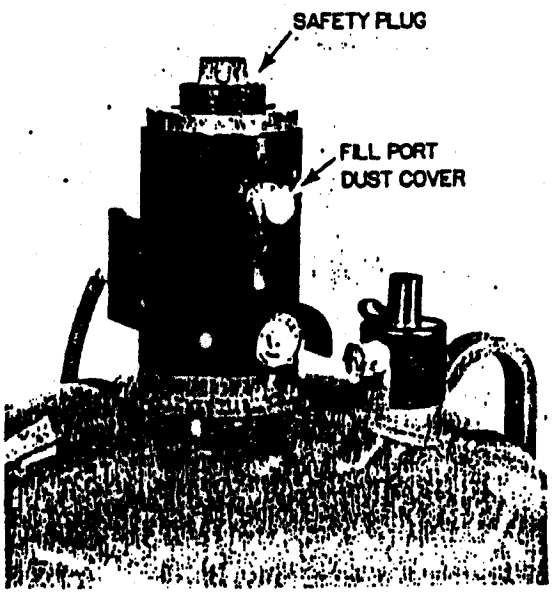
4. To open the valve, turn the fill tool handle counter clockwise all the way. To start the flow of Halon, the hose assembly valve should be opened.

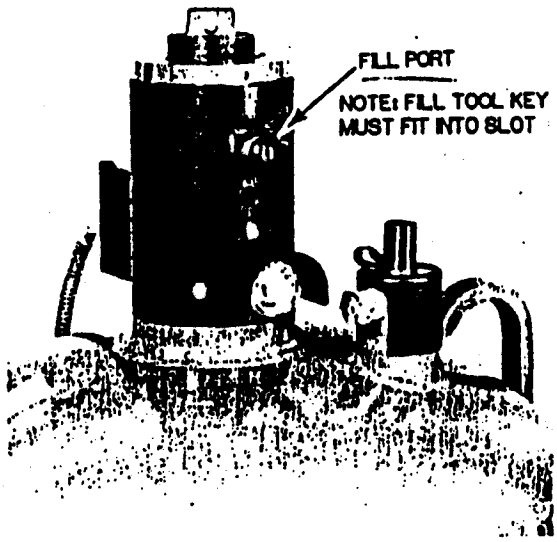
5. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.

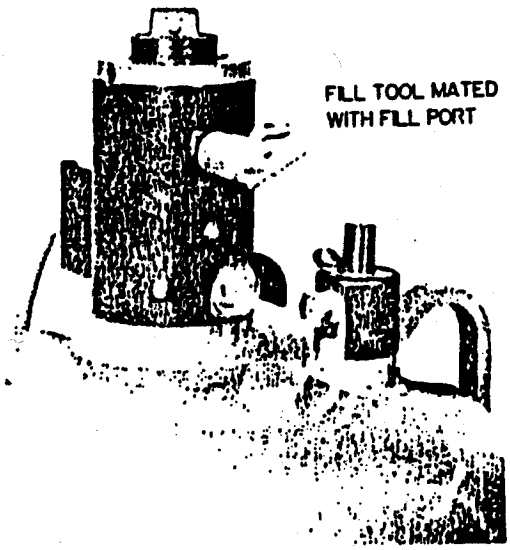
6. To close the valve, turn the fill tool handle clockwise. Remove the fill tool.

7. Replace the fill port cap.

LIST OF MATERIALS AND SPECIAL EQUIPMENT







FILL TOOL INSTALLATION

FIGURE NO. 6

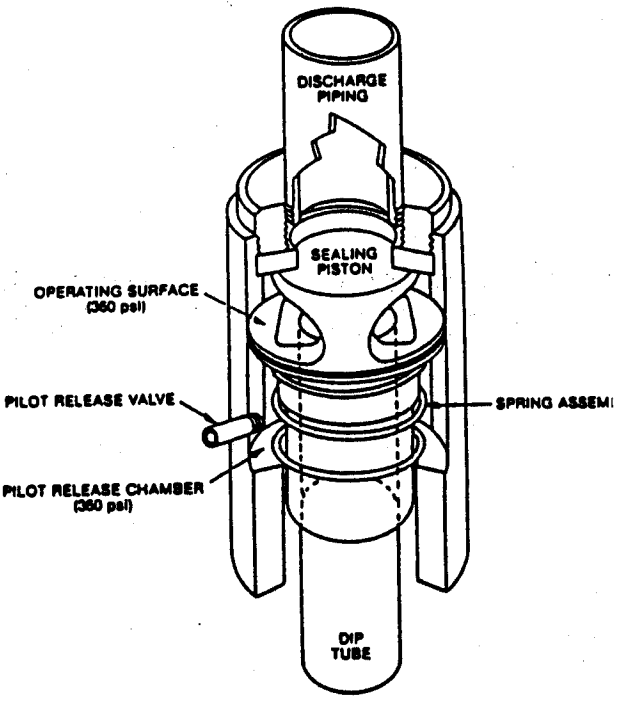


Figure 3

The Cylindrical ASC Valve shown in the closed position. Pressure in the Pilot Releasing Chamber equals the pressure against the operating surface and the force applied by the spring in the Pilot Releasing Chamber maintains the piston in the closed position.

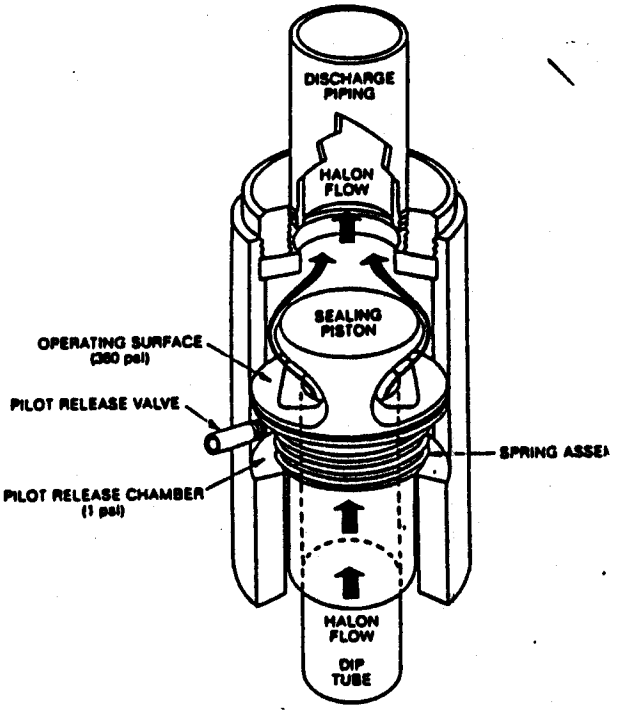


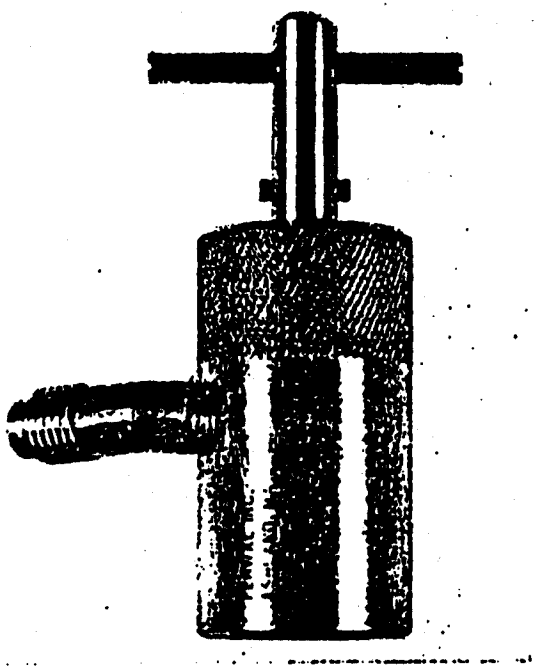
Figure 4

The ASC Valve is shown in the open position. In this mode, the Pilot Release Valve has activated to evacuate the Halon from the Pilot Releasing Chamber. Now, a pressure imbalance exists and the force applied to the operating surface of the piston overcomes the force of the spring alone. The piston is thus forced downward and the Halon is released into the discharge piping.

The Pilot Release Valve is actuated pneumatically, either from a Halon Release Assembly or by the optional Electrical Release Module which is part of the cylinder valve assembly.

LIST OF MATERIALS AND SPECIAL EQUIPMENT

1. Halon 1301 as required.
2. 0-1000 lb. (0-454 Kg) Platform Scale, certifiable for accuracy.
3. High pressure hose, 600 psi minimum (42.2 Kg/cm^2).
4. Halon detector portable type, Robinair model 14470 or equivalent.
5. Air operated liquid gas pump, S. C. Hydraulic Engineering Corporation, Model SC-40-500-.5 CSI or equivalent.
6. Safety plug P/N 06-232277-001 for discharge valve.
7. Fill tool P/N 29-127769-001.



FILL TOOL P/N 29-127769-001

FIGURE NO. 5

FENWAL®

PROTECTION SYSTEMS DIVISION

INSTALLATION INSTRUCTIONS

RECONDITIONING KIT

P/N 31-193018-001

00-MC4440-001

Effective: June, 1987

GENERAL

These instructions cover the replacement of the Locking Nut and Seal Assembly (P/N 06-128729-001) after discharge.

CAUTION: DO NOT ATTEMPT TO REMOVE ANY COMPONENTS FROM THE VALVE ASSEMBLY IF THE AGENT STORAGE CONTAINER IS PRESSURIZED. LOOSENED COMPONENTS CAN BECOME PROJECTILES AND CAUSE DAMAGE OR PERSONAL INJURY IF CONTAINER IS PRESSURIZED. ENSURE THAT THE PRESSURE GAUGE READS "0".

TOOLS AND MATERIALS

The following tools and materials will be required:

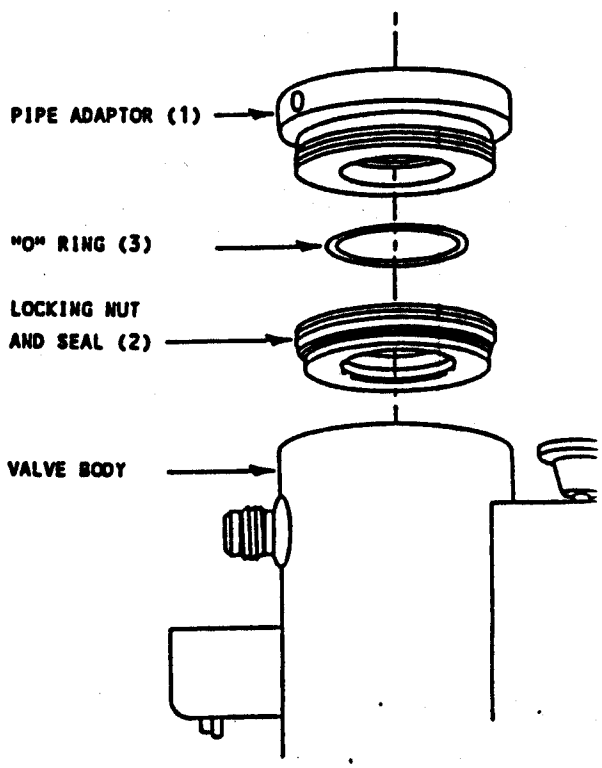
1. Williams #464 Spanner Wrench or other commercially available wrench for a 4.375" diameter.
2. Fenwal Spanner Wrench TZ 2941 or TZ 3558.
3. Viscasil 10M rubber lubricant.

REMOVAL

1. Disconnect AC and DC power to system control unit.
2. Disconnect electrical wiring, pneumatic tubing (at pilot release valve) and discharge piping from valve body.
3. Remove pipe adapter (1) with 4.375" diameter spanner wrench.
4. Remove Locking Nut and Seal Assembly (2) with TZ tool. Ensure that valve seal is removed with the locking nut.
5. Remove the "O" ring (3) from the top of the locking nut. Retain "O" ring for replacement with new locking nut assembly.
6. Discard used locking nut and seal assembly.

REASSEMBLY

1. Apply rubber lubricant (Viscasil 10M) to the "O" ring and position on the new locking ring assembly.
2. Using the TZ tool, screw down the locking ring and seal assembly into the valve body until it seals firmly. Do not overtighten.
3. Using the 4.375" diameter wrench, replace the pipe adapter.
4. Reconnect pneumatic tubing at the pilot release valve.
5. Install safety plug on valve discharge outlet. Tighten one turn beyond hand tight.
6. Follow refilling procedures as outlined in Fenwal Publication 242.

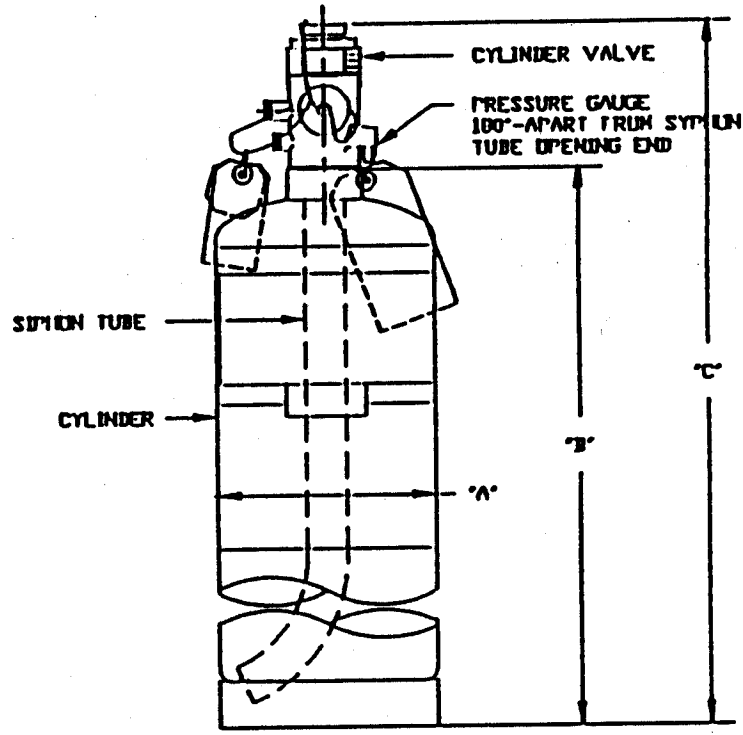


KIDDE INC.
HALON 1301 SYSTEM CONTAINERS

Component Description

Cylinder Size	Mount	Type	Part Number
10 Lb.	Horizontal/Vertical	Std.	487010
20 Lb.	Horizontal/Vertical	Std	487020
40 Lb.	Horizontal/Vertical	Std	487010
70 Lb.	Horizontal/Vertical	Std	487070
125 Lb.	Vertical	Std	487125
125 Lb.	Horizontal	Std	487127
200 Lb.	Vertical	Std	487200
200 Lb.	Horizontal	Std	487202
350 Lb.	Vertical	Std	487350
350 Lb.	Vertical	w/LLI	487351
600 Lb.	Vertical	Std	487600
600 Lb.	Vertical	w/LLI	487601

Std. = Standard Cylinder Assembly



MODEL	DIMENSIONS		
	"A"	"B"	"C"
10 LBS	7.07"	11.4"	17.38"
20 LBS	7.07"	18.01"	23.06"
40 LBS	9.00"	20.15"	26.40"
70 LBS	9.00"	32.51"	38.57"

Figure 2-1. Halon 1301 Cylinder/Valve Assemblies, 10-70 lb. Sizes

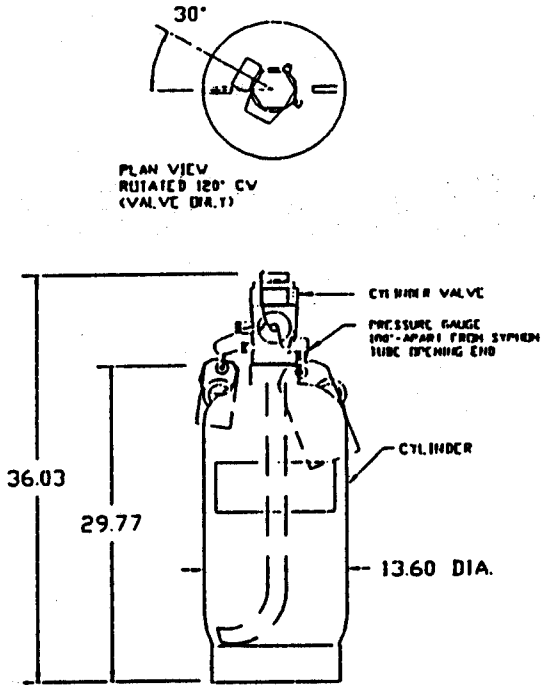


Figure 2-2. Halon Cylinder/Valve Assembly, 125 lb., Horizontal Mounting

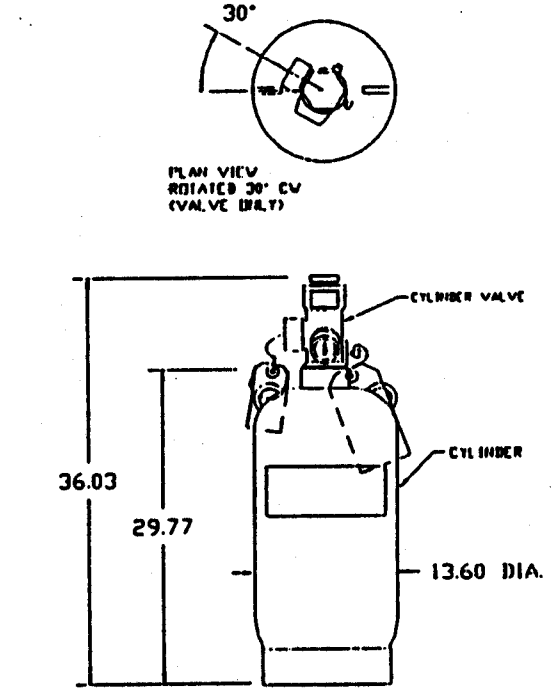


Figure 2-3. Halon 1301 Cylinder/Valve Assembly, 125 lb., Vertical Mount

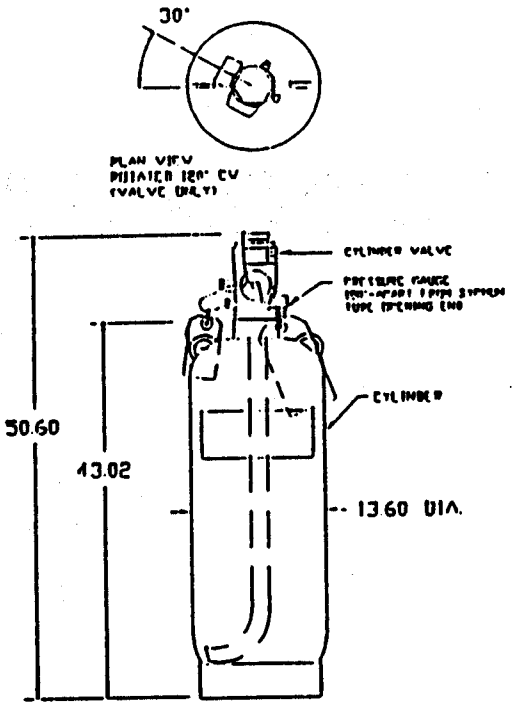


Figure 2-4. Halon 1301 Cylinder/Valve Assembly, 200 lb., Horizontal Mounting

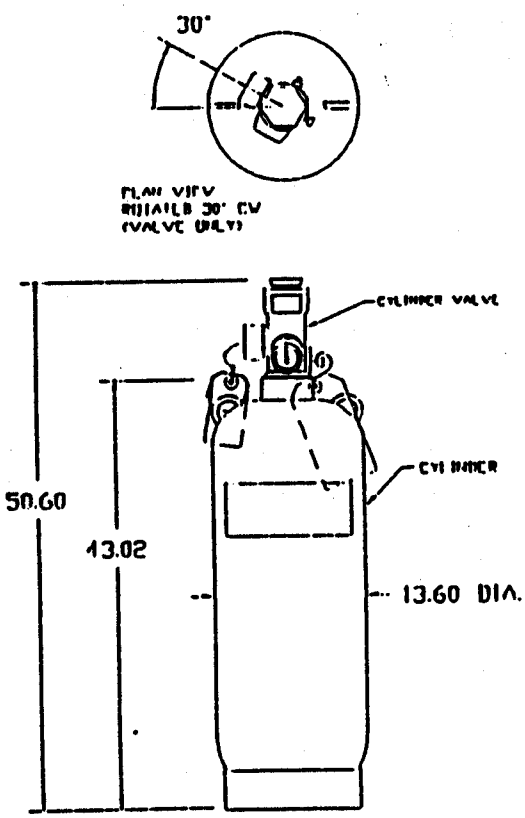


Figure 2-5. Halon 1301 Cylinder/Valve Assembly, 200 lb., Vertical Mount

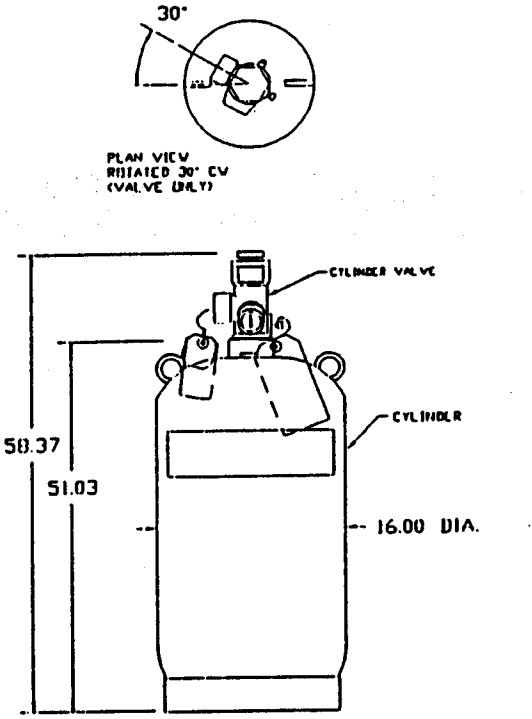


Figure 2-6. Halon 1301 Cylinder/Valve Assembly, 350 lb., without Liquid Level Indicator

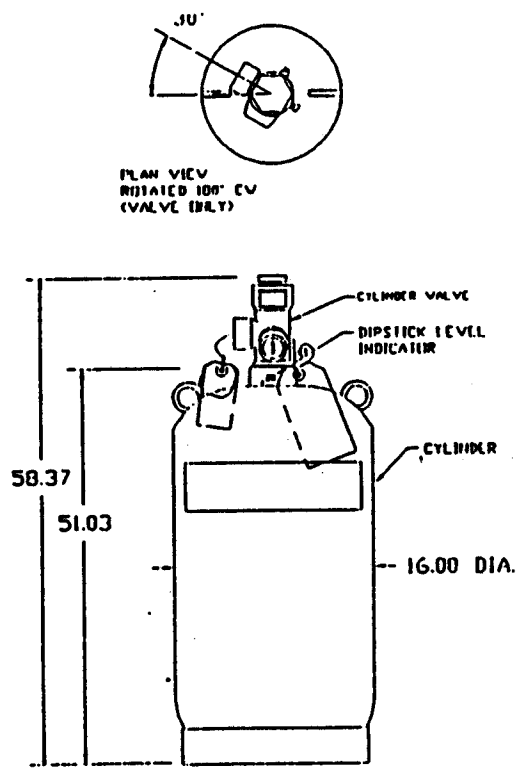


Figure 2-7. Halon 1301 Cylinder/Valve Assembly, 350 lb., with Liquid Level Indicator

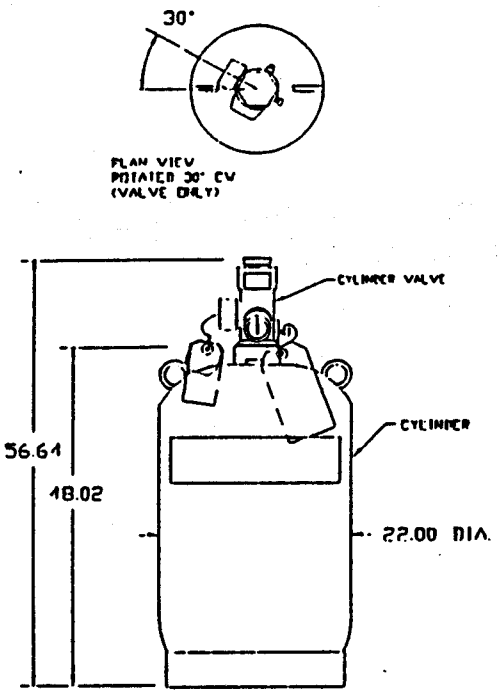


Figure 2-8. Halon 1301 Cylinder/Valve Assembly, 600 lb., without Liquid Level Indicator

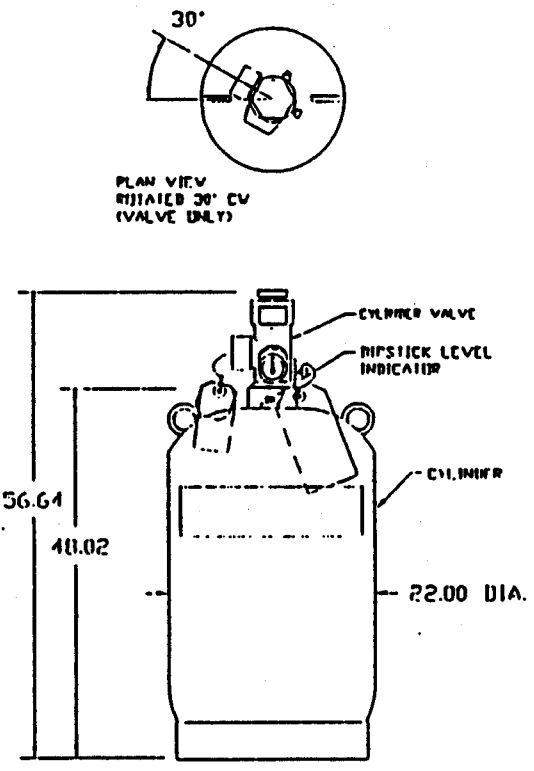
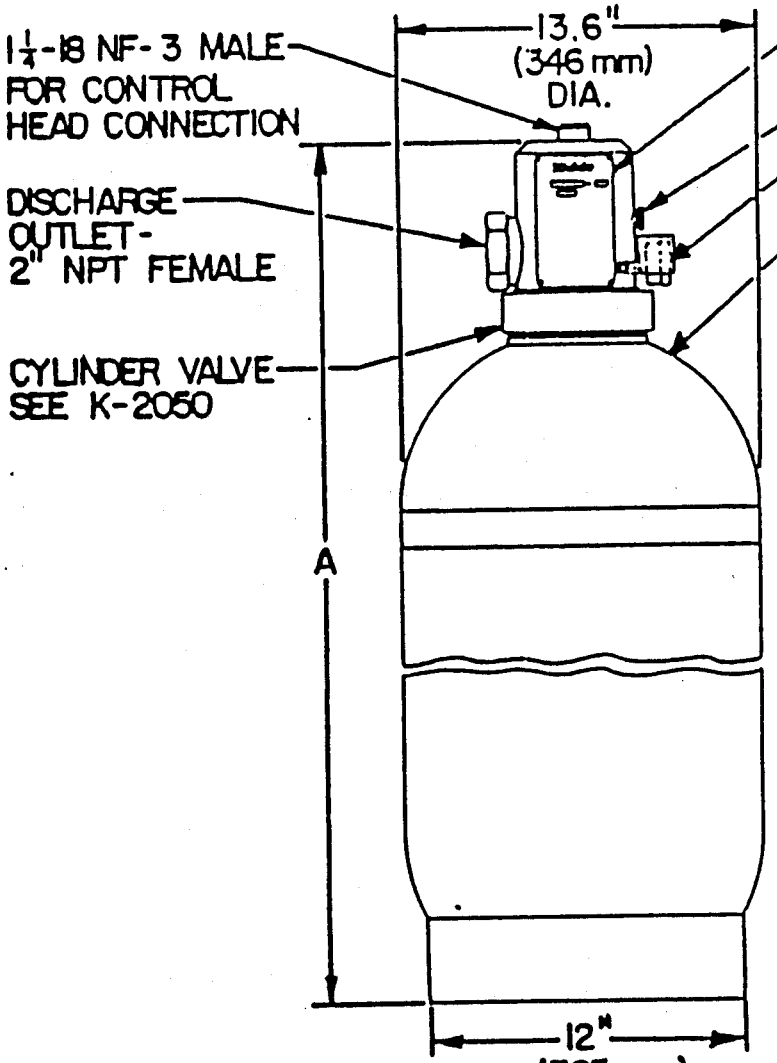


Figure 2-9. Halon 1301 Cylinder/Valve Assembly, 600 lb., with Liquid Level Indicator

125 LB. (57 KG) AND 200 LB. (91 KG) CAPACITY 360 PSI HALON 1301 CYLINDER AND VALVE ASSEMBLIES



NOTES

1. CYLINDER TO HAVE ANTI-RECOIL PLUG (INCLUDED WITH ASSEMBLY) ASSEMBLED TO DISCHARGE OUTLET WHEN CYLINDER IS NOT CONNECTED TO SYSTEM DISCHARGE PIPING.

2. SEE K-2040 FOR ADDITIONAL INFORMATION.

3. SEE K-2070 FOR DETAIL OF SOLENOID FOR 897021 AND 896776.

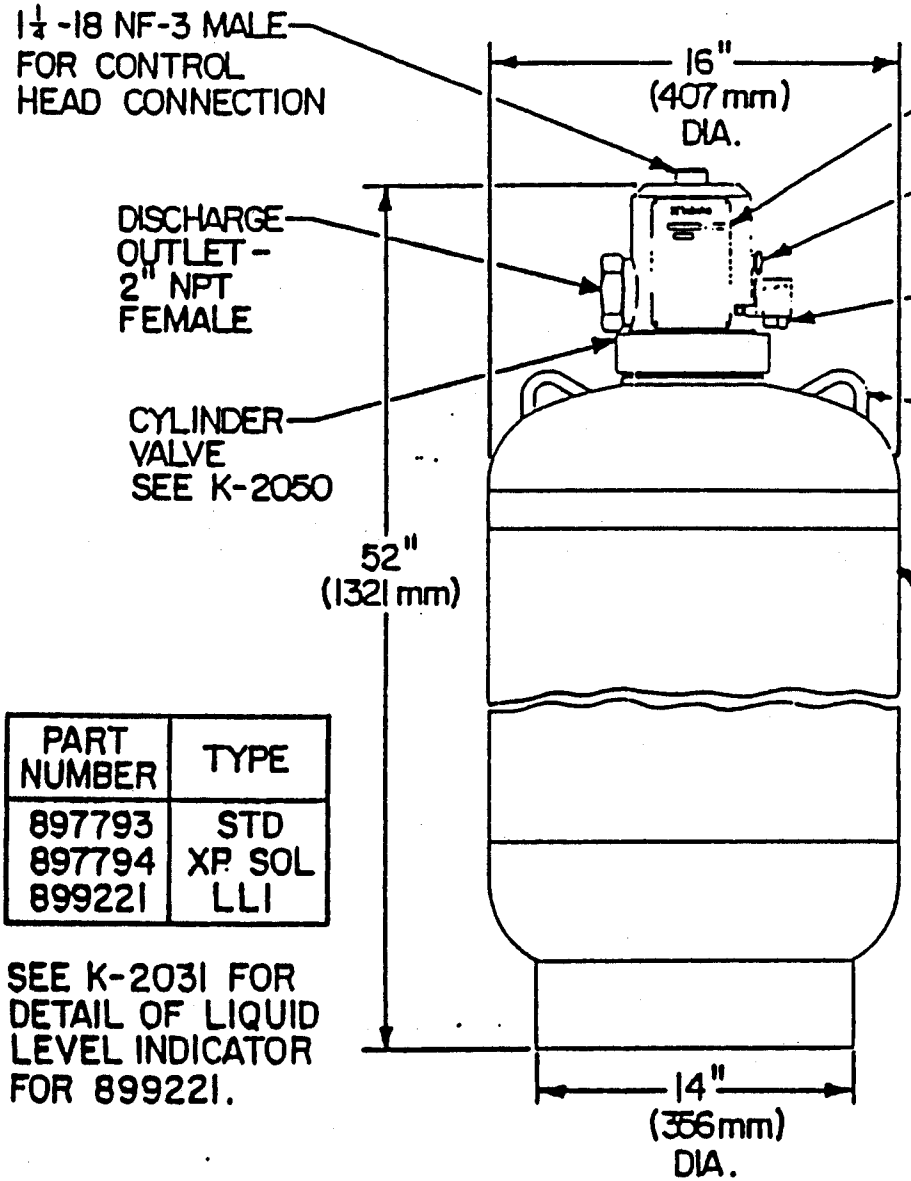
PART NUMBER	CYLINDER CAPACITY	TYPE	"A" DIMENSION	
			IN	MM
896150	125 LB	STD	36	915
897021	125 LB	XP SOL	36	915
896049	200 LB	STD	50	1270
896776	200 LB	XP SOL	50	1270

P/N-SEE TABLE

Kidde

MATERIALS
VALVE BODY: ALUMINUM
CYLINDER: STEEL, PAINTED RED, WITH WHITE STRIPE

312 LB. (141.5 KG) CAPACITY 360 PSI HALON 1301 CYLINDER AND VALVE ASSEMBLY



PART NUMBER	TYPE
897793	STD
897794	XP SOL
899221	LLI

SEE K-2031 FOR DETAIL OF LIQUID LEVEL INDICATOR FOR 899221.

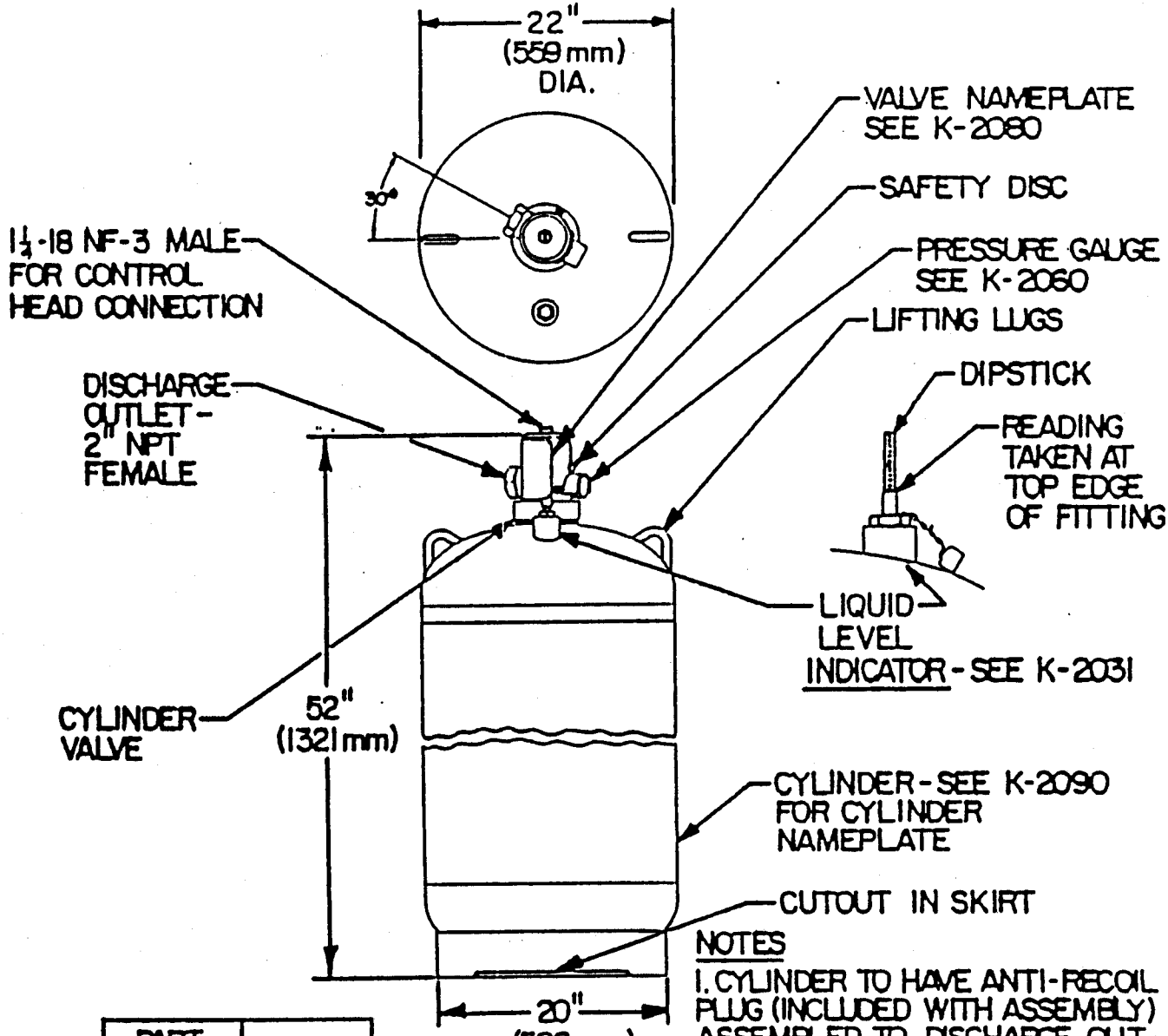
NOTES

1. CYLINDER TO HAVE ANTI-RECOIL PLUG (INCLUDED WITH ASSEMBLY) ASSEMBLED TO DISCHARGE OUTLET WHEN CYLINDER IS NOT CONNECTED TO SYSTEM DISCHARGE PIPING.
2. SEE K-2040 FOR ADDITIONAL INFORMATION.
3. SEE K-2070 FOR DETAIL OF SOLENOID FOR 897794.

MATERIALS
VALVE BODY: ALUMINUM
CYLINDER: STEEL, PAINTED RED, WITH WHITE STRIPE

P/N - SEE TABLE

550 LB. (250 KG) CAPACITY 360 PSI HALON 1301 CYLINDER AND VALVE ASSEMBLY



PART NUMBER	TYPE
899200 899201	STD W/LLI

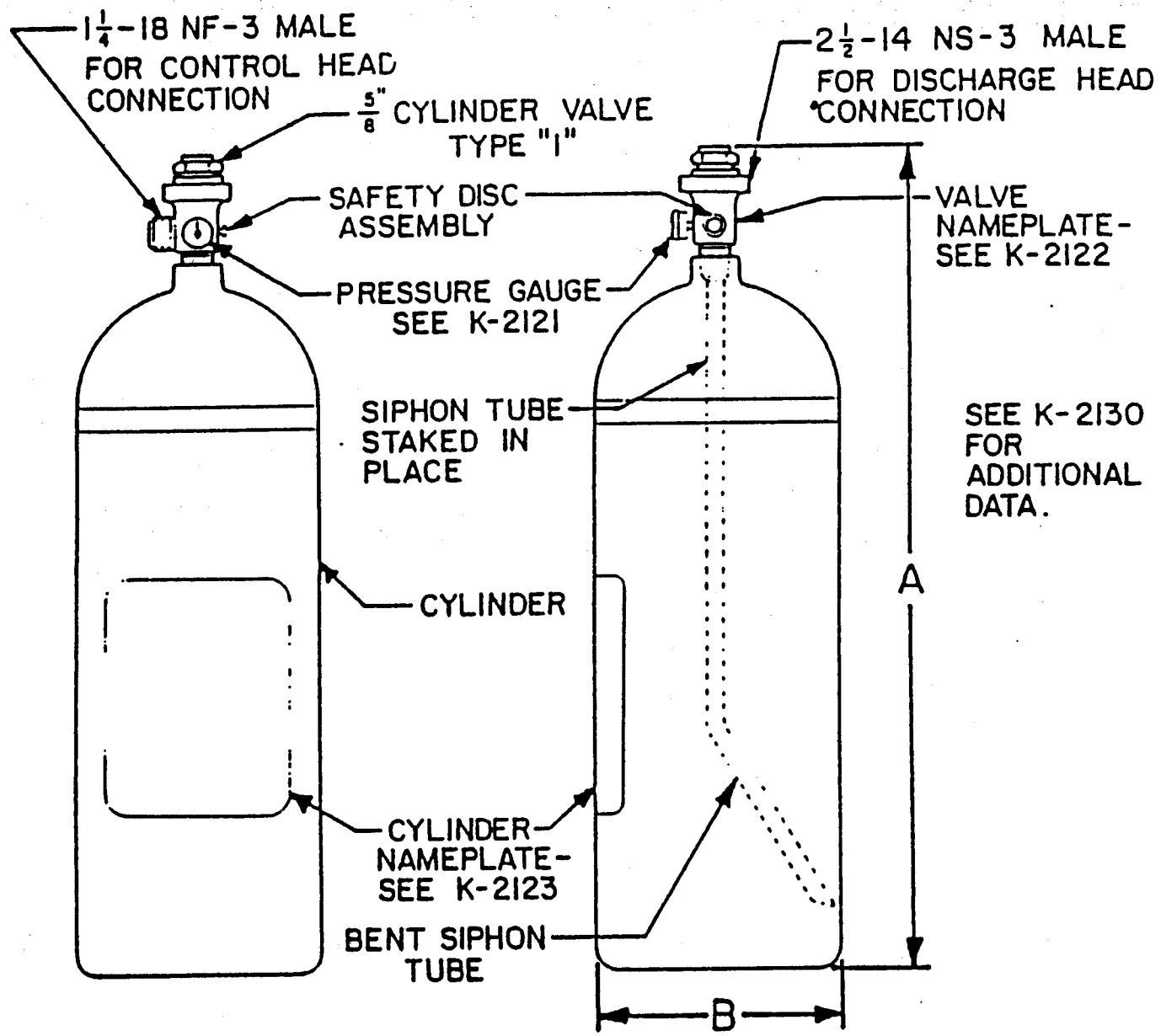
MATERIALS
VALVE BODY: ALUMINUM
CYLINDER: STEEL, PAINTED RED, WITH WHITE STRIPE

NOTES
1. CYLINDER TO HAVE ANTI-RECOIL PLUG (INCLUDED WITH ASSEMBLY) ASSEMBLED TO DISCHARGE OUTLET WHEN CYLINDER IS NOT CONNECTED TO SYSTEM DISCHARGE PIPING.
2. SEE K-2040 FOR ADDITIONAL INFORMATION.

P/N - SEE TABLE

Kidde

20 LB (9 KG), 40 LB (18 KG), & 60 LB (27 KG) 600 PSI HALON 1301 CYLINDER & VALVE ASSEMBLIES



PART NUMBER	CYLINDER CAPACITY	"A" DIMENSION		"B" DIMENSION	
		IN	mm	IN	mm
896984	4-20 LB	24	610	6.75	172
896985	21-40 LB	30	762	8.50	216
899363	41-60 LB	40	1012	8.50	216

P/N-SEE TABLE

MATERIALS

CYLINDER: STEEL, PAINTED RED, WITH WHITE STRIPE

VALVE: SEE K-1050

SIPHON TUBE: ALUMINUM

CYLINDER STEEL, PAINTED RED, WITH WHITE STRIPE
VALVE SEE K-1050
SIPHON TUBE: ALUMINUM

KIDDE 487 SERIES COMMERCIAL VALVE OPERATING PROCEDURES

1. Both the discharge port cap and the actuation port cap should be in place before moving or handling the cylinder or valve. The cylinder and valve combination should be properly secured at the work station so that the cylinder will not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.
2. Remove the discharge port cap and securely attach the proper discharge fitting adapter with the reclaim hose assembly. Any hose assembly valve should be closed at this time.
3. With the cylinder in the upright position initial discharge will be liquid product (Halon 1301) until the liquid level falls below the bottom of the siphon tube. Additional reclaiming will be vapor and, depending upon the type of reclaiming equipment being used, may require a switch over to a vapor recovery unit. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches of vacuum.
4. The valve is maintained in a closed position due to the force applied to the larger surface area on the top side of the spool as compared with the bottom side even though the initial pressure is equalized. If there is a small leak of top side pressure the check assembly inside of the spool will allow for minor adjustments by seepage, and still maintain equal pressure to keep the spool in a closed position.
5. To open the valve, top side pressure must be released by depressing the valve core located under the actuation port cap at the top of the cylinder. You will hear a small amount of gas being released followed by a rapid snap as the spool quickly rises to the open position. To start the flow of Halon, the hose assembly valve should be opened.
6. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.
7. Top side pressure can be applied with nitrogen to close the valve to prevent foreign matter from entering the valve and cylinder assembly. This should be done if the cylinder will be reused.
8. Replace the discharge port cap and the actuation port cap to prevent damage to the threads and lost caps.

KIDDE 487 SERIES COMMERCIAL VALVE Maintenance

Figure		Part Numbers		
Reference Number	Description	10-125lb. Cylinders	200-350 lb. Cylinders	600 lb. Cylinders
1	O-Ring, Cap	5661-0225	5661-0230	5661-0234
2	O-Ring, Piston	5661-0325	5661-0330	5661-0334
3	O-Ring, Seat	5661-0215	5661-0326	5661-0331
4	O-Ring, Neck	5661-0932	5661-0335	5661-0339

depending upon the type of reclaiming equipment being used, may require a switch over to a vapor recovery unit. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches of vacuum.

4. The valve is maintained is a closed position due to the force applied to the larger surface area on the top side of the spool as compared with the bottom side even though the internal pressure is equalized. If there is a small leak of top side pressure the check assembly inside of the spool will allow for minor adjustments by seepage, and still maintain equal pressure to keep the spool in a closed position.
5. To open the valve, top side pressure must be released by depressing the pilot check assembly located under the actuation port cap at the top of the cylinder. This is done by attaching a lever control head as shown. Pull the safety pin and flip the lever to the open position. You will hear a small amount of gas start to release followed by a rapid snap of the piston quickly rising to the open position. A small amount of gas will continue to be released until the cylinder is empty. To start the flow of Halon, the hose assembly valve should be opened.
6. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.
7. Close the lever control head, install the safety pin and remove the control head. The valve spring will close the valve automatically.
8. Replace the discharge port cap and the actuation port cap to prevent damage to the threads and lost caps.

360 PSI HALON 1301 CYLINDER VALVE - OBSOLETE

9	Schraeder Core	220278	220278	220278

Other Materials

Lubricant	Parker Seal Co. Super-O-Lube or equivalent
Loctite Sealant	Loctite Corp. Sealant, Grade CV or equivalent
Locquic Primer	Loctite Corp. Primer, Grade N or equivalent

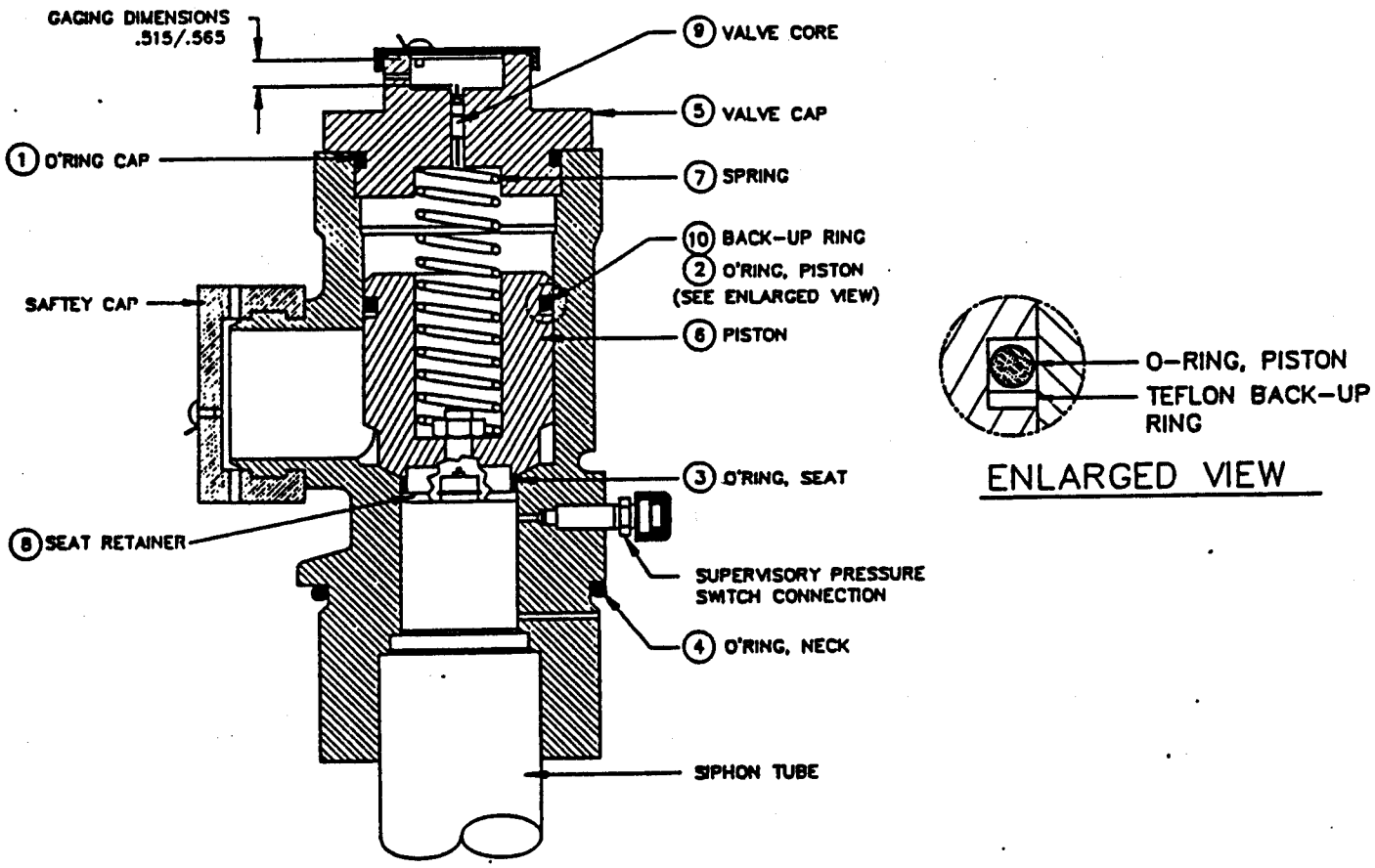
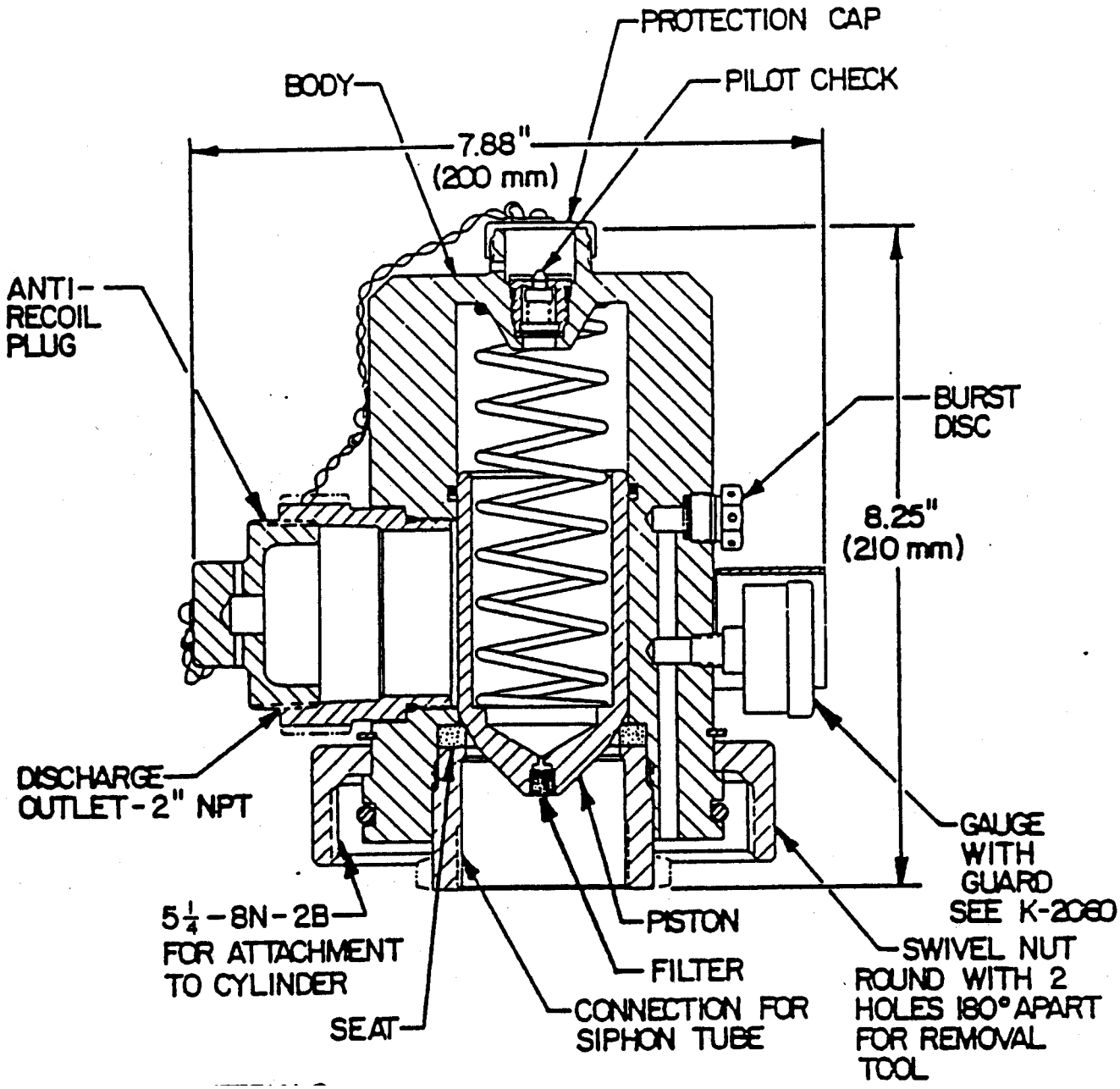


Figure 6-8. Halon Valve Inspection and Service

KIDDE COMMERCIAL VALVE (OBSOLETE) OPERATING PROCEDURES

1. Both the discharge port cap and the actuation port cap should be in place before moving or handling the cylinder or valve. The cylinder and valve combination should be properly secured at the work station so that the cylinder win not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.
2. Remove the discharge port cap and securely attach the proper discharge fitting adapter with the reclaim hose assembly. Any hose assembly valve should be closed at this time.
3. With the cylinder in the upright position initial discharge will be liquid product (Halon 1301) until the liquid level falls below the bottom of the siphon tube. Additional reclaiming will be vapor and,



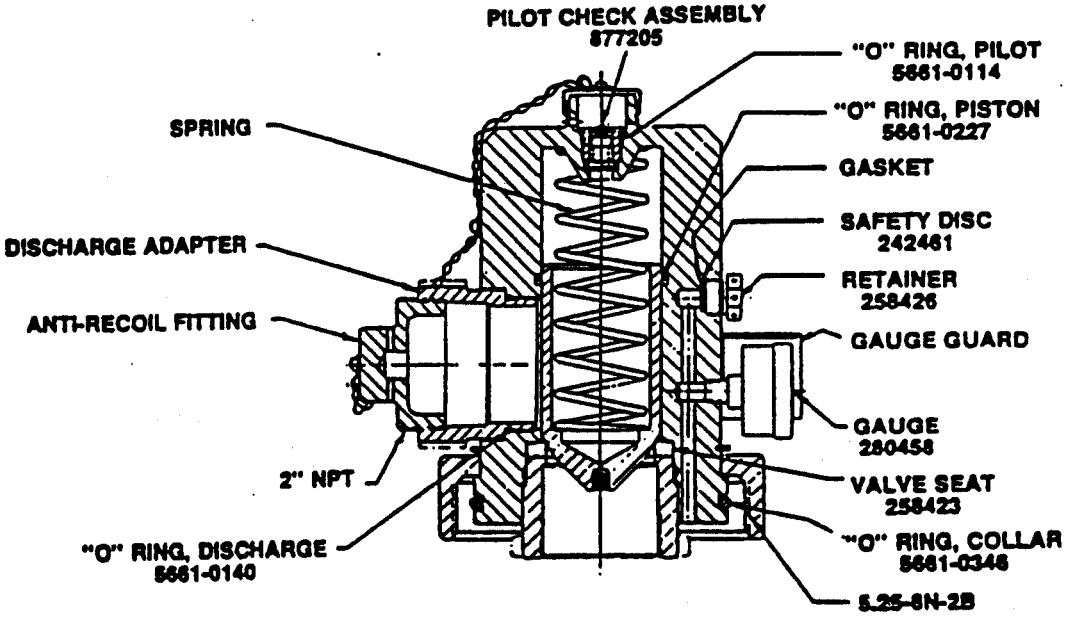
MATERIALS
VALVE BODY: ALUMINUM
SWIVEL NUT: STEEL
PISTON: ALUMINUM
SEAT: RUBBER

ENGINEERED SYSTEMS SUPPLEMENTAL MAINTENANCE
OBSOLETE HALON 1301 EOUIPMENT

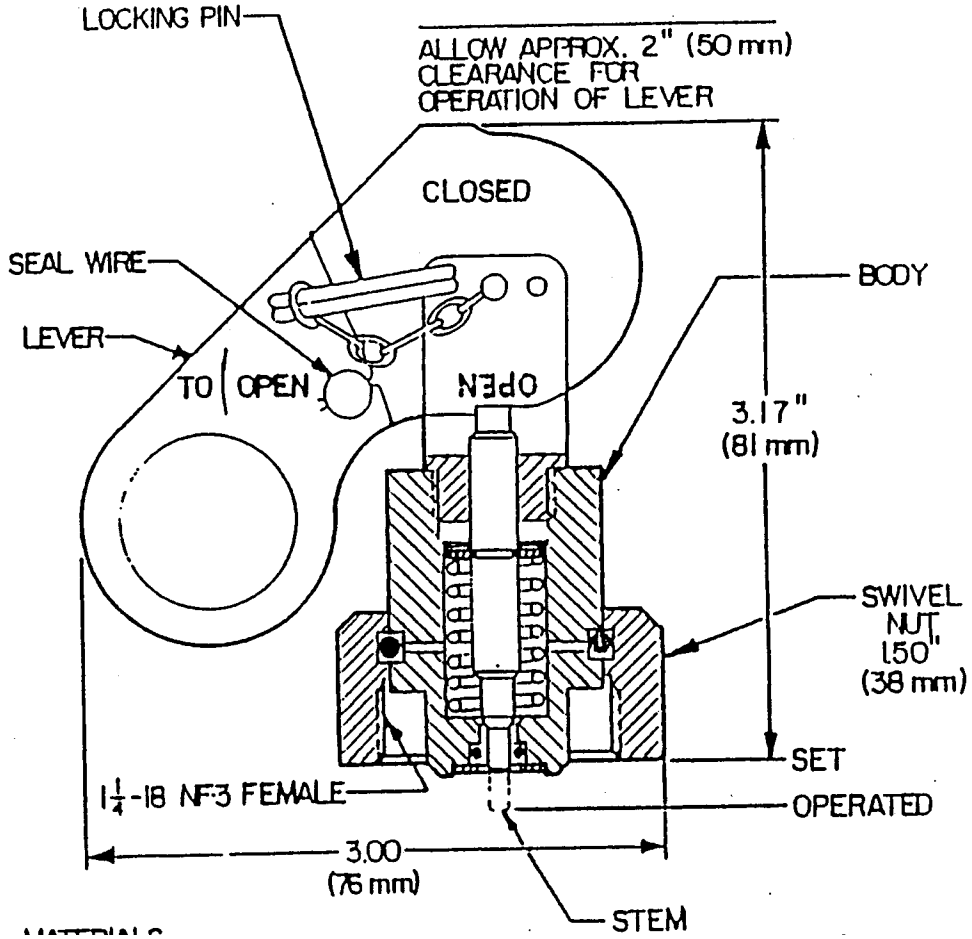
Max. Qty. From Stock	Part No.	Description
		SECTION C - 360 PSI HALON 1301 CYLINDER VALVE (continued)
10	258423	Valve Seat

•	56610346	O-Ring, Collar
•	56610227	O-Ring, Piston
10	56610114	O-Ring, Pilot
•	56610140	O-Ring, Discharge
•	877205	Pilot Check Assembly
5	280458	Gauge
•	258441	Gauge Guard (Aluminum Valve)
•	844881	Anti-Recoil Fitting (Brass Valve)
•	280456	Discharge Adapter(Aluminum Valve)
•	283865	Discharge Adapter (Brass Valve)
•	294341	Cylinder Label, non-U.L.
•	283873	Cylinder Label, Danger
•	283310	Cylinder Label, Care & Use
•	293425	Valve Nameplate, 360 Psi 360 PSI (Aluminum Valve)
•	296059	Valve Nameplate, 360 Psi 360 PSI (Brass Valve)
•	877378	Recharge Adapter, 360 PSI cylinder Assembly
•	897800	Weigh Scale, 360 PSI Cylinder Assembly
•	256492	Tag, Inspection Record

SECTION D - 360 PSI VALVE CROSS SECTION.

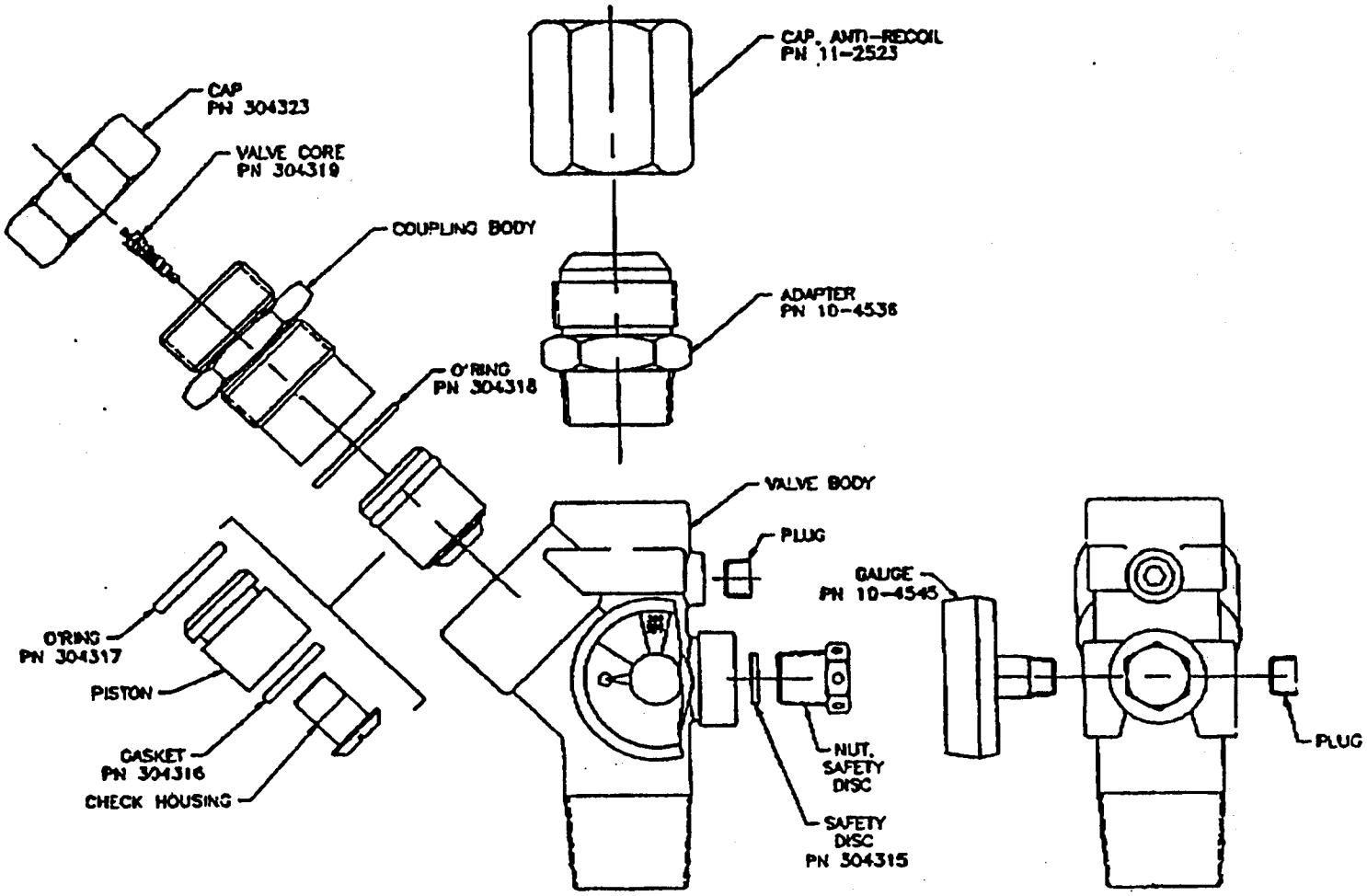


LEVER OPERATED CONTROL HEAD



KIDDE MILITARY APPLICATION VALVE OPERATING PROCEDURES

1. Both the discharge port cap and the actuation port cap should be in place before moving or handling the cylinder or valve. The cylinder and valve combination should be properly secured at the work station so that the cylinder will not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.
2. Remove the discharge port cap and securely attach the proper discharge fitting adapter with the reclaim hose assembly. Any hose assembly valve should be closed at this time.
3. With the cylinder in the upright position initial discharge will be liquid product (Halon 1301) until the liquid level falls below the bottom of the siphon tube. Additional reclaiming will be vapor and, depending upon the type of reclaiming equipment being used, may require a switch over to a vapor recovery unit. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches of vacuum.
4. The valve is maintained in a closed position due to the force applied to the larger surface area on the top side of the spool as compared with the bottom side even though the internal pressure is equalized. If there is a small leak of top side pressure the check assembly inside off the spool will allow for minor adjustments by seepage, and still maintain equal pressure to keep the spool in a closed position.
5. To open the valve, top side pressure must be released by depressing the pilot check assembly located under the actuation port cap located at a position forty-five degrees (45º) to the discharge port cap at the top of the cylinder. You will hear a small amount of gas being released followed by a rapid snap as the spool quickly rises to the open position. To start the flow of Halon, the hose assembly valve should be opened.
6. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.
7. Top side pressure can be applied with nitrogen to close the valve to prevent foreign matter from entering the valve and cylinder assembly. This should be done if the cylinder will reused.
8. Replace the discharge port cap and the actuation part cap to prevent damage to the threads and lost caps.



NOTES:

1. ITEMS NOT IDENTIFIED WITH PN ARE SHOWN FOR REFERENCE ONLY.

MILITARY APPLICATION VALVE

KIDDE US NAVY VALVE (OLD STYLE - WITHOUT SAFETY OUTLET ADAPTER CONNECTION) OPERATING PROCEDURES

1. Both the discharge port cap and the actuation port cap should be in place before moving or handling the cylinder or valve. The cylinder and valve combination should be properly secured at the work station so that the cylinder will not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.

2. Remove the discharge port cap and securely attach the proper discharge fitting adapter with the reclaim hose assembly. Any hose assembly valve should he closed at this time.

3. With the cylinder in the upright position initial discharge will be liquid product (Halon 1301) until the liquid level falls below the bottom of the siphon tube. Additional reclaiming will be vapor and, depending upon the type at reclaiming equipment being used, may require a switch over to a vapor recovery unit. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches of vacuum.

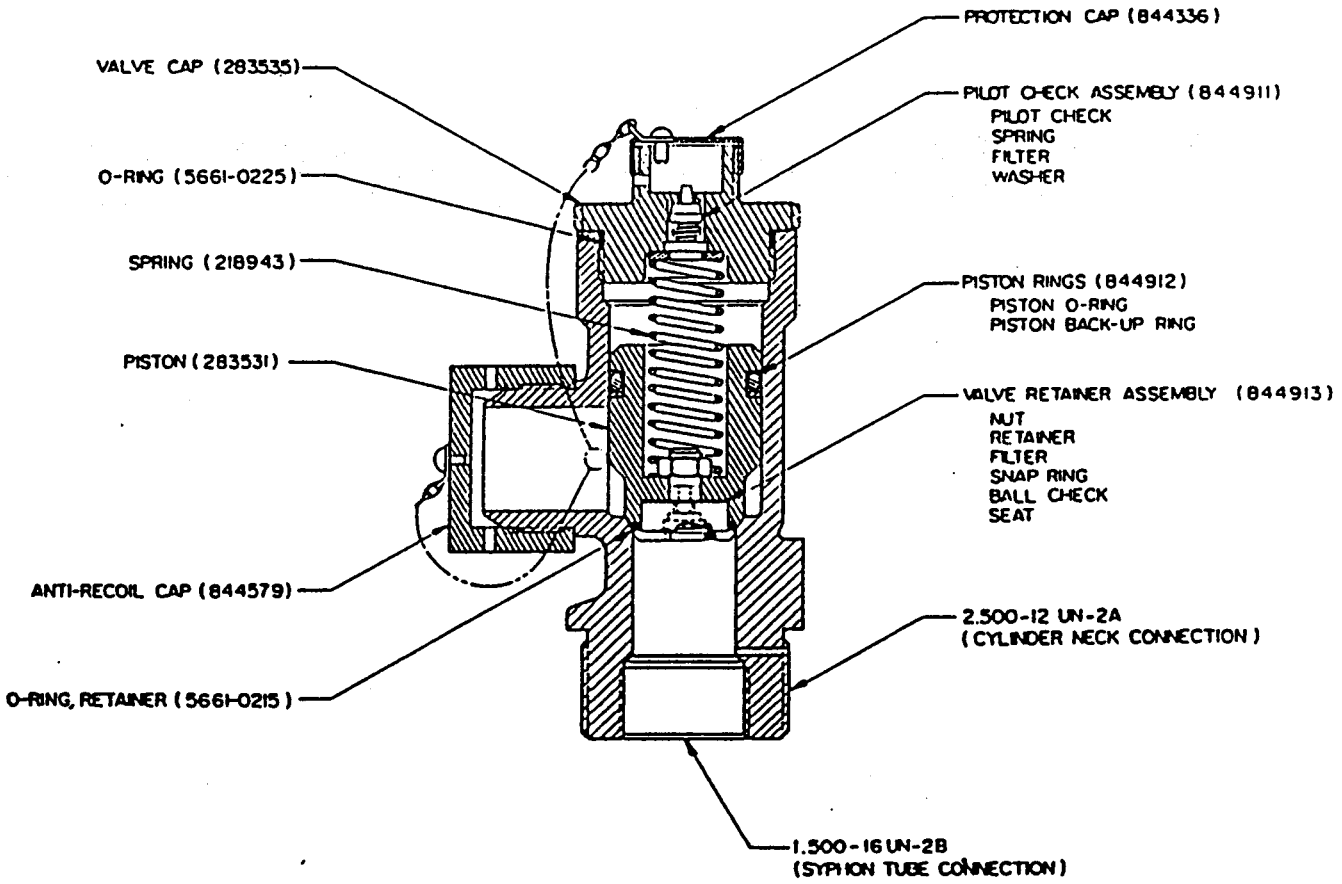
4. The valve is maintained is a closed position due to the force applied to the larger surface area on the top side of the spool as compared with the bottom side even though the internal pressure is equalized. If there is a small leak of top side pressure the check assembly inside of the spool will allow far minor adjustments by seepage, and still maintain equal pressure to keep the spool in a closed position.

5. To open the valve, top side pressure must be released by depressing the pilot check assembly located under the actuation port cap at the top of the cylinder. This is done by attaching a lever control head as shown. Pull the safety pin and flip the lever to the open position. You will hear a small amount of gas start to release followed by a rapid snap of the piston quickly rising to the open position. A small amount of gas will continue to be released until the cylinder is empty. To start the flow of Halon, the hose assembly valve should be opened.

6. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.

7. Close the lever control head, install the safety pin and remove the control head. The valve spring will close the valve automatically.

8. Replace the discharge port cap and the actuation port cap to prevent damage to the threads and lost caps. Replace shipping cap [NSN 5340-01-205-9936] before handling.

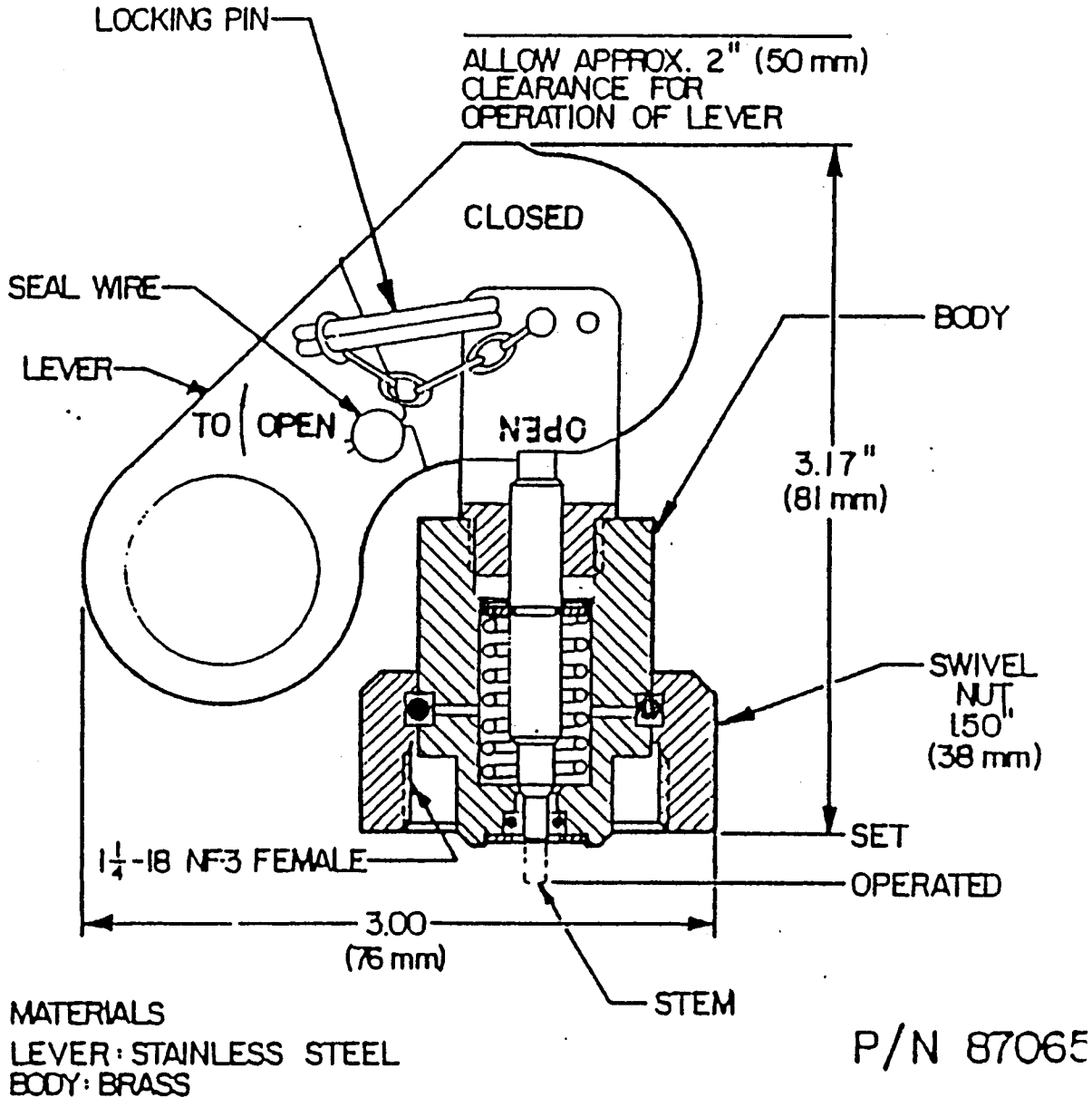


Max. Qty. From Stock	Part No	Description
		SECTION G - HALON VALVE MAINTENANCE, REPAIR AND SPARE PARTS
•	486143	Halon Valve Assembly without safety Outlet Adapter Connection
•	844336	Shipping Protection Cap NSN 5340-01-205-9936
•	283535	Valve Cap
•	844911	Pilot Check Assembly (includes pilot check, spring, filler washer
4	56610225	O-ring, Cap
•	218943	Spring
•	844912	Piston Rings(includes piston o-ring, piston back-up ring)
•	283531	Piston
•	844913	Valve retainer Assembly (includes nut, retainer, filter, snap ring, ball check, seal)

•	844579	Anti-Recoil Cap, Valve Outlet
4	56610215	O-Ring, Retainer
•	844914	Safety Disc Assembly(includes disc, washer, retainer)
•	263144	Pressure Gauge
5	56610932	O-Ring, Cylinder Neck

WALTER KIDDE **COMPONENT DESCRIPTION**

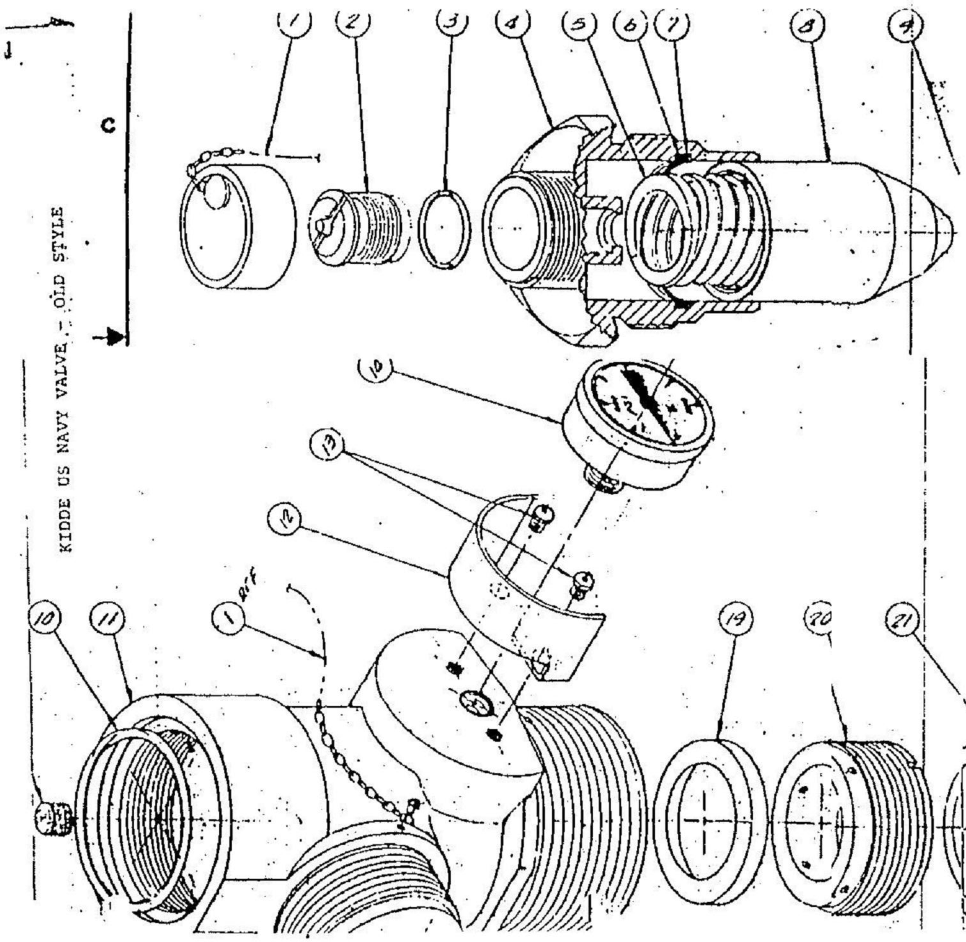
LEVEL OPERATED CONTROL HEAD

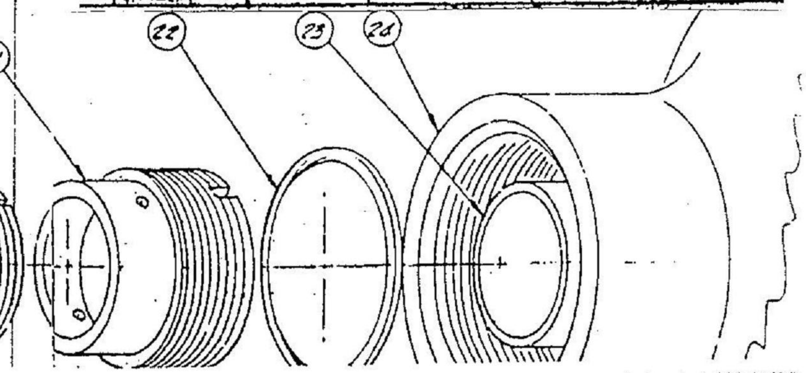


KIDDE US NAVY VALVE (OLD STYLE - WITH SAFETY OUTLET ADAPTER CONNECTION) OPERATING PROCEDURES

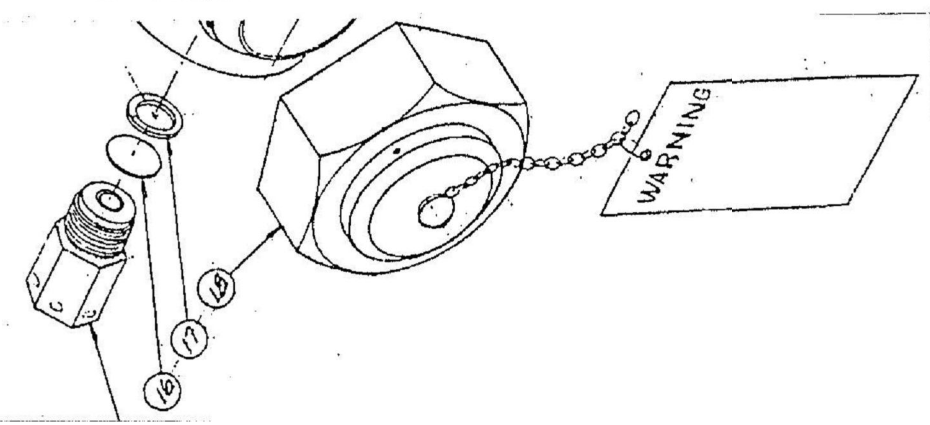
1. Both the discharge port cap and the actuation port cap should be in place before moving or handling the cylinder or valve. The cylinder and valve combination should be properly secured at the work station so that the cylinder will not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.
2. Remove the discharge port cap and securely attach the proper discharge fitting adapter with the reclaim hose assembly. Any hose assembly valve should be dosed at this time.
3. With the cylinder in the upright position initial discharge will be liquid product (Halon 1301) until the liquid level falls below the bottom of the siphon tube. Additional reclaiming will be vapor and, depending upon the type of reclaiming equipment being used, may require a switch over to a vapor recovery unit. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches of vacuum.
4. The valve is maintained is a closed position due to the force applied to the larger surface area on the top side of the spool as compared with the bottom side even though the internal pressure is equalized. If there is a small leak of top side pressure the check assembly inside of the spool will allow for minor adjustments by seepage, and still maintain equal pressure to keep the spool in a dosed position.
5. To open the valve, top side pressure must be released by depressing the pilot check assembly located under the actuation port cap at the top of the cylinder. This is done by attaching a lever control head as shown. Pull the safety pin and flip the lever to the open position. You will hear a small amount of gas start to release followed by a rapid snap of the piston quickly rising to the open position. A small amount of gas will continue to be released until the cylinder is empty. To start the flow of halon, the hose assembly valve should be opened.
6. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.
7. Close the lever control head, install the safety pin and remove the control head. The valve spring will close the valve automatically.
8. Replace the discharge port cap and the actuation port cap to prevent damage to the threads and lost caps.

KIDDE US NAVY VALVE - OLD STYLE

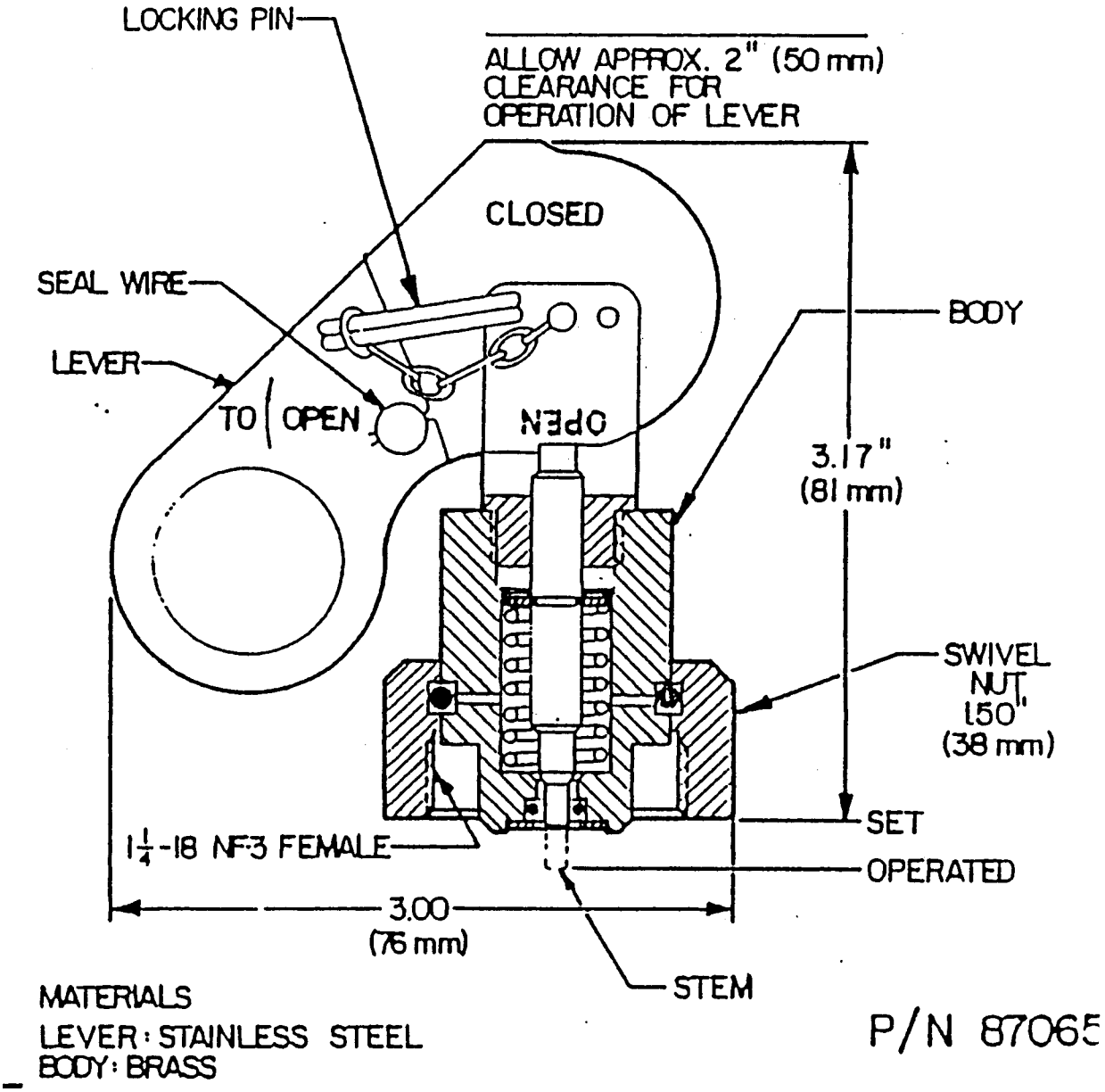




ITEM NO.	QTY REQD	[illegible]	PART OR IDENTIFYING NO.	DRAWING OR SPECIFICATION NO.	NOMENCLATURE OR DESCRIPTION
24	1		-24		CYLINDER
23	1		-23		SYPHON TUBE
22	1		5661-0932		O'RING (CYLINDER NECK)
21	1		261828		RETAINER, SYPHON TUBE
20	1		261827		RETAINER SEAT
19	1		260567		SEAT
18	1		843579		CAP, ANTI-RECOIL
17	1		29450		WASHER SAFETY DISC
16	1		215399		SAFETY DISC
15	1		261870		RETAINER SAFETY DISC
14	1		263188		GAUGE
13	2		6348-0006		SCREW, CAP BUT HO.
12	1		261867		GUARD, GAUGE
11	1		294057		BODY
10	1		5661-0226		O'RING (BODY NECK)
9	1		218360		STRAINER
8	1		281826		CHECK, VALVE
7	1		263670		RING, BACK UP
6	1		5665-0222		O'RING (RETAINER-PILOT)
5	1		218948		SPRING
4	1		282948	X 282948	RETAINER CHECK
3	1		5665-7118		O'RING (PILOT)
2	1		877205	X 877205	PILOT CHECK ASSY.
1	1		844554		PROTECTION CAP ASSY.



LEVER OPERATED CONTROL HEAD



US NAVY (OBSOLETE) VALVE OPERATING PROCEDURES

1. Both the discharge port cap and the actuation part cap should be in place before moving or handling the cylinder or valve. The cylinder and valve combination should be properly secured at the work station so that the cylinder will not move if there is an accidental discharge. This is extremely important to avoid the possibility of serious injury.
2. Remove the discharge port cap and securely attach the discharge head to the top of the valve. Securely attach the proper discharge fitting adapter with the reclaim hose to the discharge head. Any hose assembly valve should be closed at this time.
3. With the cylinder in the upright position initial discharge will be liquid product (Halon 1301) until the liquid level falls below the bottom of the siphon tube. Additional reclaiming will be vapor and, depending upon the type of reclaiming equipment being used, may require a switch over to a vapor recovery unit. Complete recovery is considered concluded when the reclaiming equipment vacuum gauge shows approximately twenty-five (25) inches of vacuum.
4. The valve is maintained is a closed position due to the force applied to the main check by the internal cylinder pressure.
5. Attach a lever control head to the control outlet (actuation port) located on the side of the valve. To open the valve, pull the safety pin and flip the lever to the open position. This will pressurize the discharge head and depress the main check. To start the flow of Halon, the hose assembly valve should be opened.
6. When the cylinder is empty close the hose assembly valve and remove the discharge fitting adapter with the reclaim hose assembly.
7. Close the lever control head, install the safety pin and remove the control head. The valve spring will close the valve automatically. Remove the discharge head.
8. Replace the discharge port cap and the actuation port cap to prevent damage to the threads and lost caps.

WALTER KIDE
Division of Kidde Inc
Belleville, New Jersey 07109 U.S.A

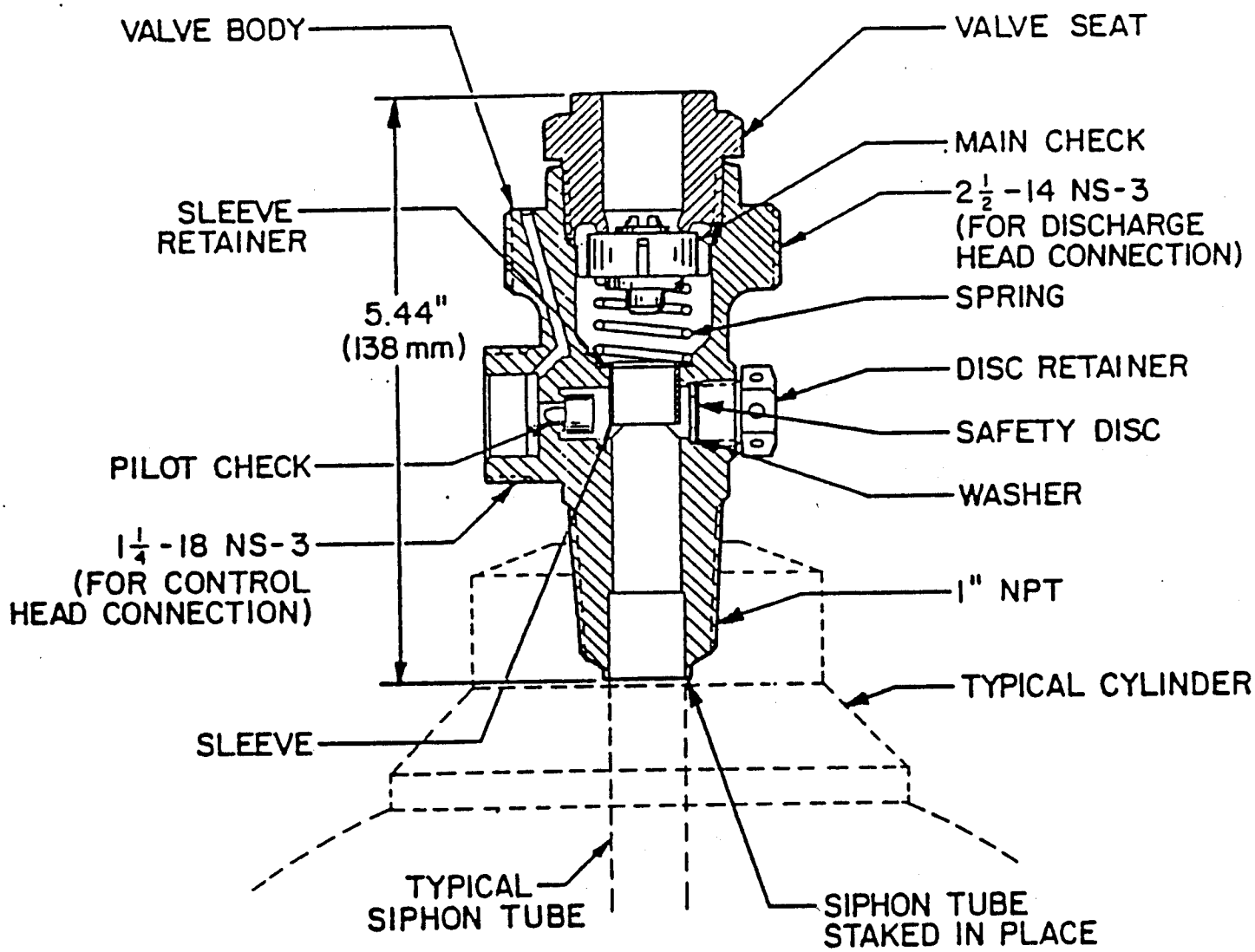
COMPONENT DESCRIPTION
US NAVY-OBSOLETE

WALTER KIDDE
Division of Kidde, Inc.
Belleville, New Jersey 07109.U.S.A.

COMPONENT DESCRIPTION

US NAVY - OBSOLETE

TYPE "I" CYLINDER VALVE, $\frac{5}{8}$"
WITH TYPICAL CYLINDER

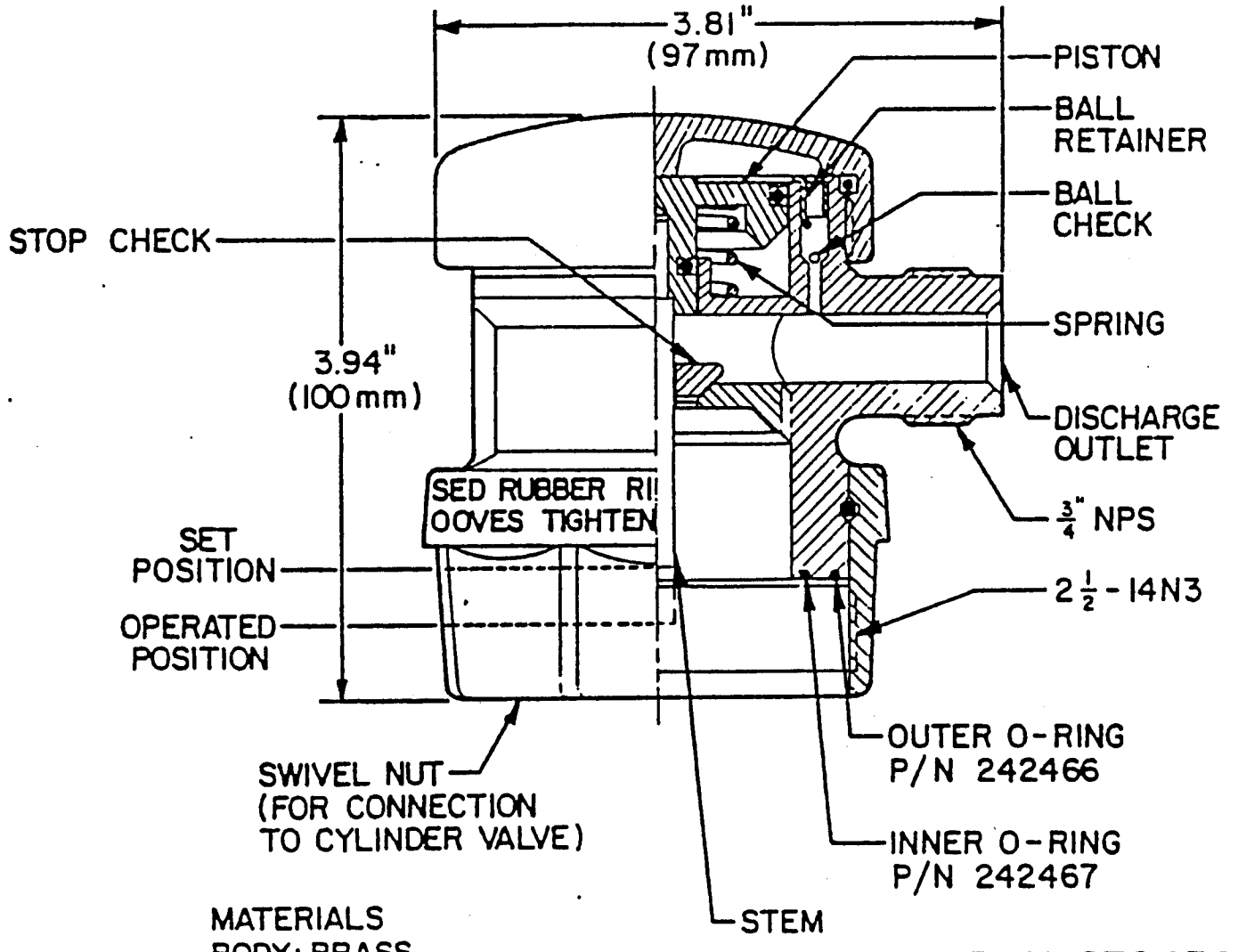


MATERIALS

VALVE BODY
VALVE SEAT
SLEEVE
SLEEVE RETAINER
} BRASS.

MAIN CHECK: BRASS WITH RUBBER SEAT
PILOT CHECK: STAINLESS STEEL WITH RUBBER SEAT

P/N 840253



MATERIALS
BODY: BRASS
O-RINGS: RUBBER
SPRING: STAINLESS STEEL
BALL CHECK: MONEL
STOP CHECK: BRASS

P N 872450

Kidde

LEVER OPERATED CONTROL HEAD