

U.S. Department
of Transportation

United States
Coast Guard



Commanding Officer
United States Coast Guard
Marine Safety Office/Group
Los Angeles - Long Beach

165 N. Pico Avenue
Long Beach, CA. 90802-1096
Staff Symbol: Inspection
Phone: (562)980-4482
FAX: (562)980-4480

16711/15-99

OCT 20 1999

Truth Aquatics Inc.
Attn: Mr. Glen Fritzler
Sea Landing
301 West Cabrillo Blvd
Santa Barbara, CA 93101-3886

Dear Mr. Fritzler:

In response to your letter of October 8, 1999, I am unwilling to extend the outstanding requirements for installation of the fixed gas fire extinguishing systems on your vessels to December 15, 1999. However, after reviewing your vessels' schedules, I will extend the requirement to November 18, 1999 to accommodate your vessels' downtime so that the systems' installations and their inspections may be completed. I understand that the systems on board your three vessels TRUTH, CONCEPTION and VISION will be completed by this date. As discussed with Lieutenant [REDACTED] of this office, please coordinate the installation and testing with Marine Safety Detachment Santa Barbara. Their phone number is (805) 962-7430.

Sincerely,

[REDACTED]
Commander, U. S. Coast Guard
Chief, Inspection Department
By direction of the Officer In Charge,
Marine Inspection, Los Angeles - Long Beach

U.S. Department
of Transportation

United States
Coast Guard



Marine Safety Office/Group Los
Angeles-Long Beach
Supervisor
Marine Safety Detachment
Santa Barbara

111 Harbor Way
Santa Barbara, CA.
Staff Symbol: Inspections
Phone: (805)962-7430
FAX: (805)962-7968

16711
October 8, 1999

H & F Leasing

M/V CONCEPTION

301 W. Cabrillo Blvd.
Santa Barbara, California 93101

Subj: FIXED FIRE EXTINGUISHING SYSTEM INSTALLATION

Ref: (a) 46 Code of Federal Regulations, Part 181

Gentlemen:

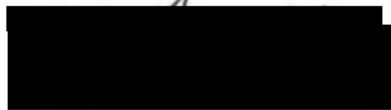
It has come to my attention that your vessel is not in compliance with Federal Regulations concerning the installation of fixed fire extinguishing systems outlined in reference (a). A Coast Guard letter dated June 2, 1999, approved the installation of a fixed fire extinguishing system on your vessel. At the present time, the Coast Guard has not received any further information from you regarding the installation of your fixed fire extinguishing system. As a result of this apparent non-compliance, you have until November 15, 1999, to complete the following:

- 1) **the fixed fire extinguishing system must be installed,**
- 2) **the installation of the fixed fire extinguishing system must be inspected by an attending Coast Guard Marine Inspector.**

After November 15, 1999, you shall not carry passengers until the above requirements have been completed. Enclosure (1) will serve as the official record of these requirements.

Our common goal is passenger and vessel safety and the above steps are being taken pursuant to that goal. If you have any questions or concerns, please do not hesitate to call my office at the above number.

Sincerely,



✓ Lieutenant, U. S. Coast Guard
By direction of the Captain of the Port
Los Angeles-Long Beach

Encl: (1) CG-835 requirement

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of Transportation

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16711
October 8, 1999

H & F Leasing
M/V CONCEPTION
301 W. Cabrillo Blvd.
Santa Barbara, California 93101

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Gentlemen:

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Sincerely,



✓ Lieutenant, U. S. Coast Guard
By direction of the Captain of the Port
Los Angeles-Long Beach

Encl: (1) CG-835 requirement

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of Transportation

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Coast Guard



Commanding Officer
U.S. Coast Guard
Marine Safety Office/Group
Los Angeles-Long Beach

165 N. Pico Avenue
Long Beach, CA 90802
Staff Symbol:
Phone: (562)980-4482
FAX: (562)980-4480

16710/CONCEPTION, D638133

JUN 12 1999

Glen Fritzler
Truth Aquatics, INC.
301 West Cabrillo Blvd.
Santa Barbara, CA. 93101-3886

Dear Mr. Fritzler:

Enclosure (1) is "**Approved**" subject to the following comments:

1. The installation is to be in accordance with 46 CFR 181.410;
2. The distribution piping must be pneumatically tested as per 46 CFR 181.410 by a qualified third party or in the presence of a marine inspector;
3. The electrical installation is to be as per 46 CFR 183.

The installation, workmanship and final testing shall be to the satisfaction of the attending marine inspector.

Please call Chief Warrant Officer [REDACTED] of the Marine Safety Detachment in Santa Barbara at [REDACTED] to arrange a final inspection upon completion of the installation. If you have any questions, please do not hesitate to call Chief Warrant Officer [REDACTED] or myself at the number above.

Sincerely,

[REDACTED]

Chief Warrant Officer, U.S. Coast Guard
By direction of the Officer in Charge,
Marine Inspection, Los Angeles-Long Beach

Encl: (1) Plans for installation of a custom engineered fixed CO2 fire system on M/V
CONCEPTION.



SEA LANDING
301 WEST CABRILLO BLVD.
SANTA BARBARA, CALIFORNIA 93101-3886 (805) 962-1127

TRUTH AQUATICS INC.

*Owned and Operated by
Glen Fritzler and Roy Hauser*

CORPORATE OFFICE FAX # (805) 966-6010

HARBOR FAX # (805) 564-6754

SUBMITTAL

To
U.S.C.G-M.S.O.-LA/LB
165 N. Pico Ave.
Long Beach, CA 90802

Submitted by:
Truth Aquatics Inc.
301 W. Cabrillo Blvd.
Santa Barbara, CA 93101-3886
Phone 805-962-1127

M/V CONCEPTION
O.N. 638 133

Install
MARINE ENGINEERED
FIXED GAS PROTECTION SYSTEM



PIPE AND NOZZLE SIZE CALCULATION FOR : MV - CONCEPTION

- 1) 2173 CU. FT. % 18 CU. FT. PER LBS. = 120.72 LBS. CO2
- 2) NOM. CYLINDER AREA QTY. OF CO2 0.0022
 150 LBS. CO2 X 0.0022 = 0.33 SQ. INCH
- 3) DETERMINE CORRECT PIPE SIZE : TABLE 2-5 MORE THAN 1.0 LBS. LESS THAN 100 LBS.
- 4) REFER TO TABLE 2-6 TO OBTAIN INTERNAL AREA : 1/2" = 0.533
- 5) NOZZLE ORIFACE AREA : 0.33 SQ. IN. X .45 = 0.1485
 SUPPLY PIPE AREA : 0.5330 X .45 = 0.23985
 0.1485 % 2 QTY. NOZZLES = 0.07425
- 6) TABLE 2-7 CHOOSE CLOSEST NOZZLE AREA AND NOZZLE ORIFICE CODE NO.
 EQUIV. ORIFICE AREA : 0.0767
 NOZZLE CODE NO. : 10
- 7) 0.0767 ORIFICE AREA X 2 QTY. NOZZLES = 0.1534
 NOMINAL CYL. OUTLET AREA IS SMALLER
 NOMINAL CYL. OUTLET AREA = 0.33 SQ INCH
 85% OF 0.33 = 0.2805
 35% OF 0.33 = 0.1155
 0.1534 IS LESS THAN 85% (0.2805) AND GREATER THAN 35% (0.1155)
 NOZZLE PART NO. PER TABLE 2-7 IS : P/N 803380

<p>U.S. COAST GUARD 11TH COAST GUARD DISTRICT EXAMINED</p>	
<p>SUBJECT TO COMMENTS IN LETTER OF</p>	
<p>DATE</p>	<p><u>June 02, 1999</u></p>
<p>FILE</p>	<p><u>Conception, DG 38133</u></p>
<p>BY DIRECTION OF THE OFFICER IN CHARGE, MARINE INSPECTION LOS ANGELES - LONG BEACH, CA</p>	



U.S. Department of Transportation
United States Coast Guard

Certificate of Approval

COAST GUARD APPROVAL NO: 162.038/1/0

CARBON DIOXIDE TYPE FIRE EXTINGUISHING SYSTEM

KIDDE-FENWAL INC.
400 MAIN STREET
ASHLAND, MA 01721

High Pressure Marine Carbon Dioxide Fire Extinguishing Systems.

Identifying Data: Marine Manual F-42171, P/N 220610, UL File Ex923, dated 30 April 1993.

Previously: Walter Kidde, Div. of Kidde, Inc.


Supersedes and extends approval 162.038/1/0 dtd 12 July 88 to show change in corporate name and address, and revised instruction manual.

*** END ***

THIS IS TO CERTIFY THAT the above named manufacturer has submitted to the undersigned satisfactory evidence that the item specified herein complies with the applicable laws and regulations as outlined on the reverse side of this Certificate, and approval is hereby given. This approval shall be in effect until the expiration date hereon unless sooner canceled or suspended by proper authority.

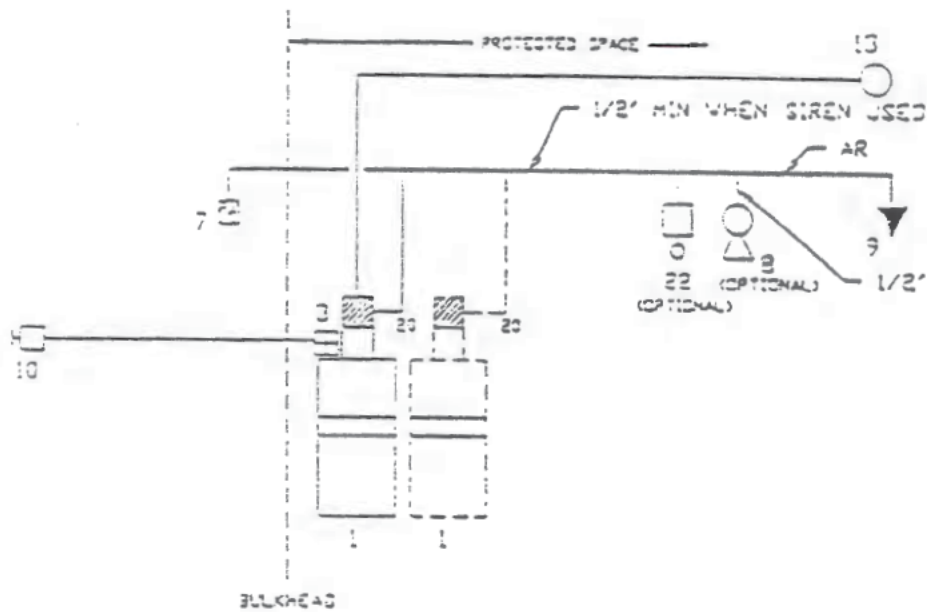


GIVEN UNDER MY HAND THIS 12TH DAY OF
JULY 1993 AT WASHINGTON D.C.


R. L. MARKLE
CHIEF, SURVIVAL SYSTEMS BRANCH
BY DIRECTION OF THE COMMANDANT, U.S.C.G.

3.3 ARRANGEMENT NO. 2

This arrangement is similar to Arrangement No. 1, with a few exceptions. In this case system actuation can be accomplished automatically by the pneumatic heat detector. The cylinders are located within the space and the pressure switch is located outside. Refer to the previous arrangement for operating description.



Arrangement No. 2

SECTION 4

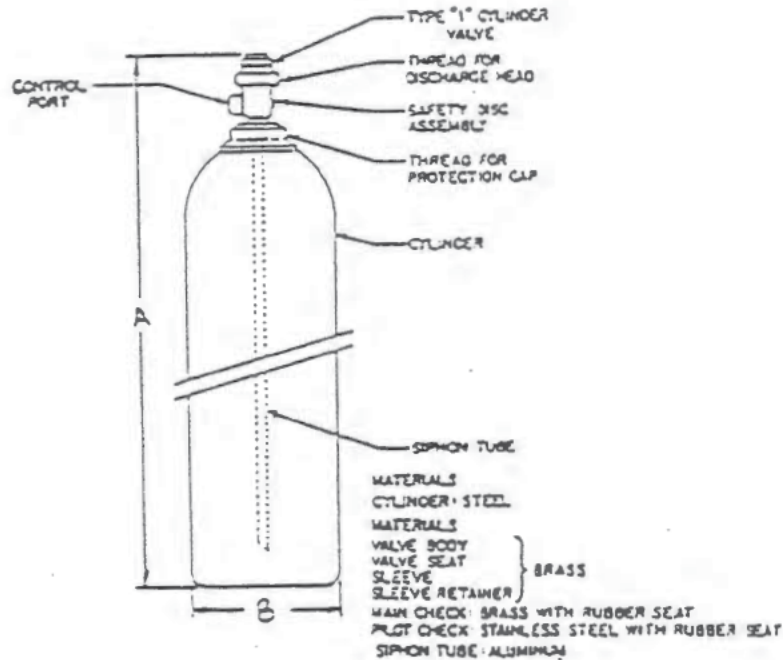
DETAILS OF EQUIPMENT

4.1 GENERAL

The following paragraphs provide a brief description of the major components of Kidde-Fenwal, Inc. CO₂ equipment approved for USCG inspected vessels.

4.2 CO₂ CYLINDER/VALVE ASSEMBLIES

CO₂ is stored in steel cylinders as a liquid under its own vapor pressure. The cylinders are manufactured in accordance with Department of Transportation requirements. The cylinder valve assembly is manufactured from forged brass and is equipped with a safety burst disc as protection against over pressurization. See Table 2-1 for Kidde-Fenwal, Inc. part numbers and DOT reference numbers. Cylinder part number, empty weight and full weight are indicated on the valve body.



Part Number	Cylinder CO ₂ Capacity		Valve Size	Safety Disc	Siphon Tube	Dim A (Height)		Dim B (Diameter)		Cylinder Volume		Nominal Charged Weight	
	lbs	kgs				in	mm	in	mm	in ³	m ³	lbs	kgs
370259	100	45	5/8"	RED	STRAIGHT	42	1570	10.5	256	4070	2667	238	130.6
370287	75	34	3/8"	RED	STRAIGHT	60	1520	3.25	204	2063	2501	205	92.9

Figure 4-1. 75-100 lb. Carbon Dioxide Cylinders,
Straight Siphon Tube

NOTE: Vertical Installation Only

4-3 PNEUMATIC HEAT DETECTOR AND CONTROL HEAD

A pneumatic heat detector is connected to a pneumatic control head mounted on the CO₂ pilot cylinder(s). Air in the detector expands with increasing heat and the resultant pressure operates the control head. The control head is equipped with a cable device for remote cable detectors. Control heads can only be used when the protected space requires 300 lbs. of CO₂ or less.

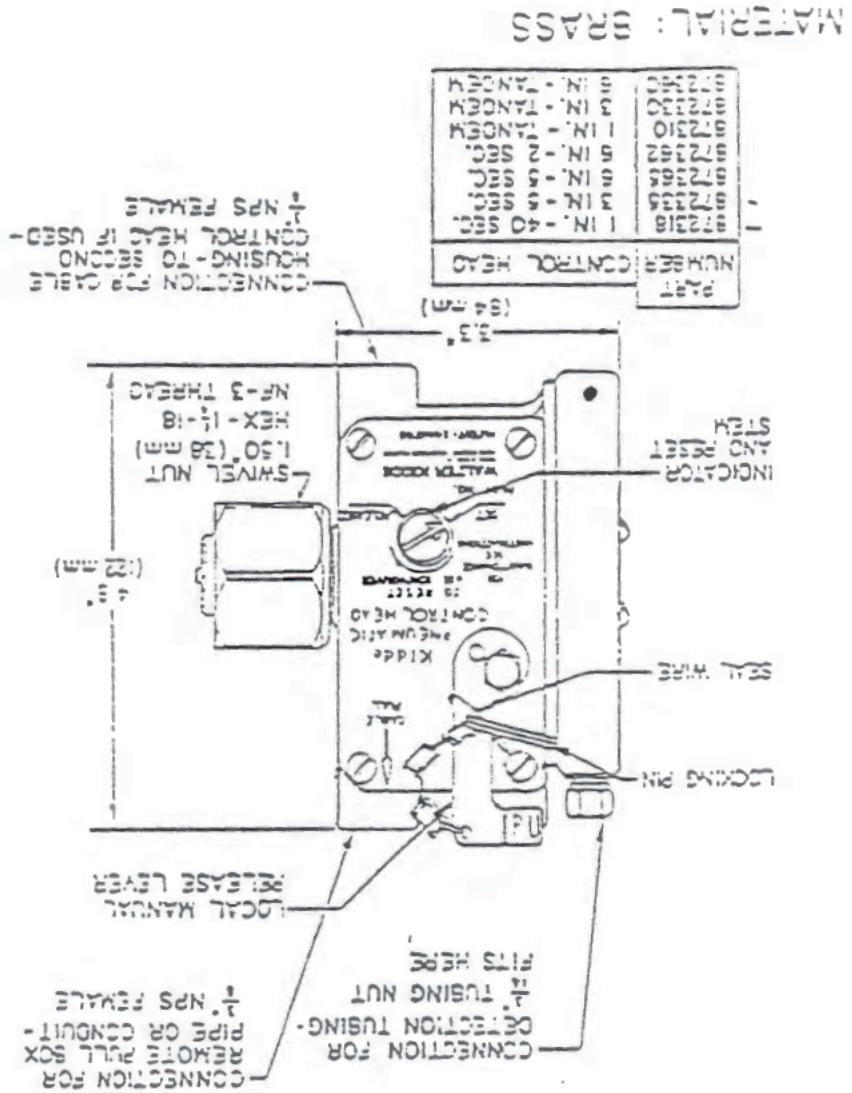


Figure 4-11. Pneumatic Control Heads

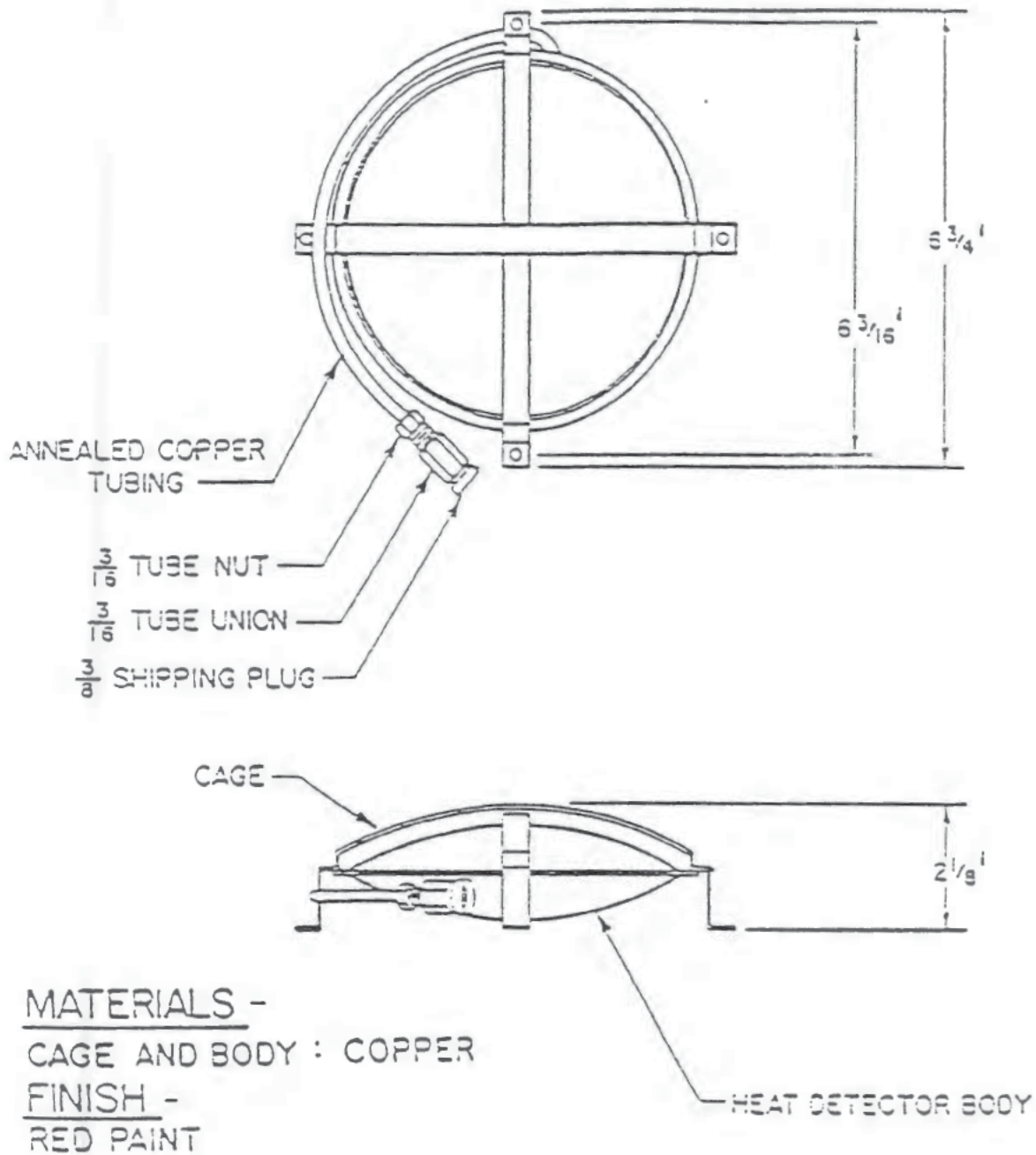


Figure 4-12. Pneumatic Detector, P/N 841241

PART NUMBER	LENGTH
802366	17' (432 mm)
802367	46' (1108 mm)
802486	12' (3.6 m)

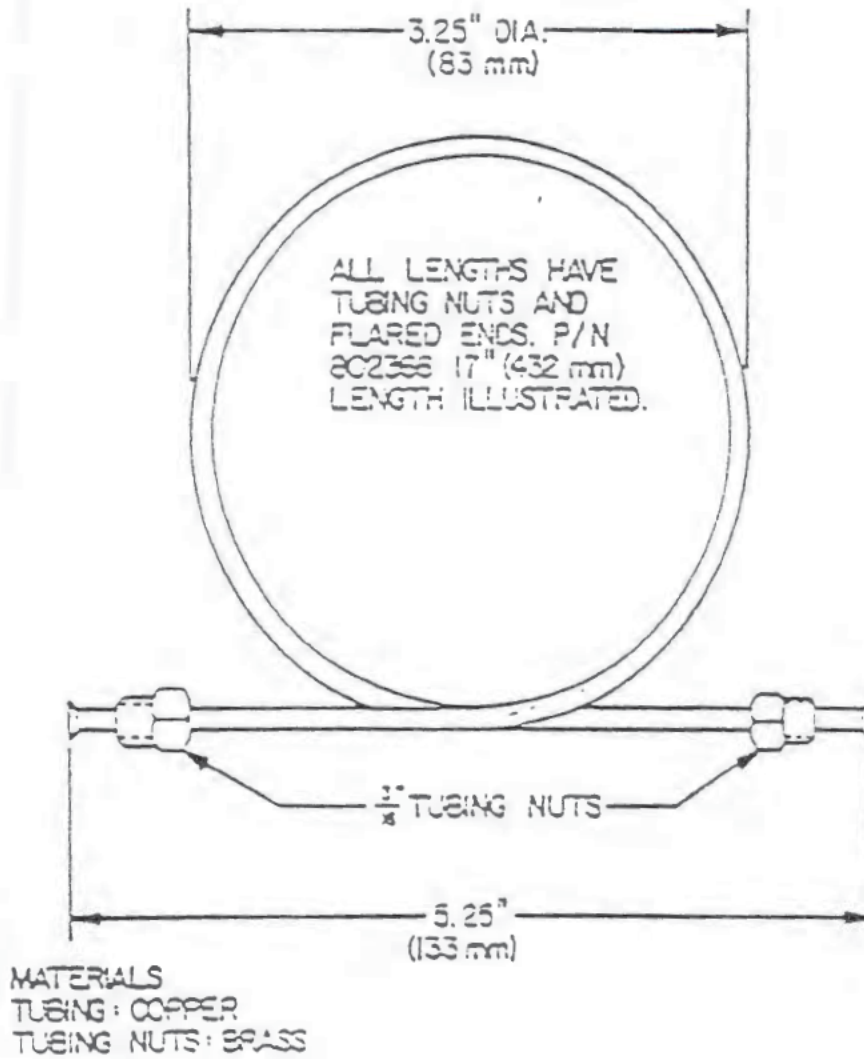


Figure 4-13. Pneumatic Detection System Tubing, 3/16 Inch

The remote control station is a cable operated, pull handle type used for actuating the CO₂ cylinders and corresponding stop valves. Both the standard (871403) and watertight (870087) pull boxes are provided with a hammer attached to the pull box body. To operate pull box, personnel are instructed to break the glass using attached hammer and pull handle. The yacht type pull box (840098) is provided with a removable plastic shield covering the pull handle, to prevent accidental system discharge. The yacht type pull box is typically employed in pairs in order to accomplish the positive, double action required for discharging a system.

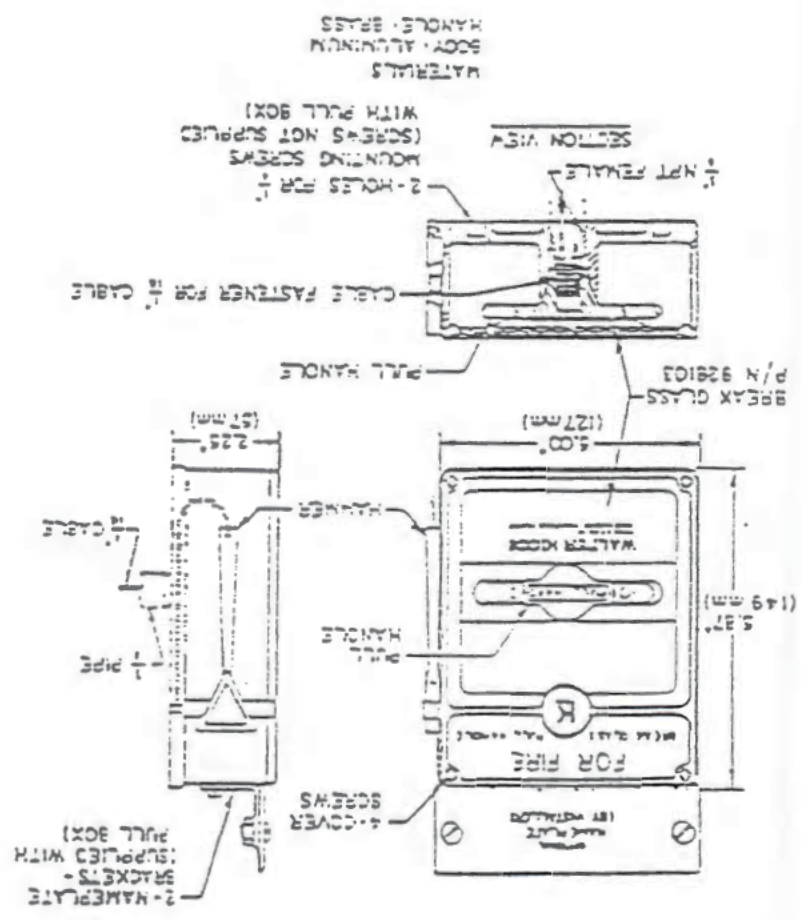
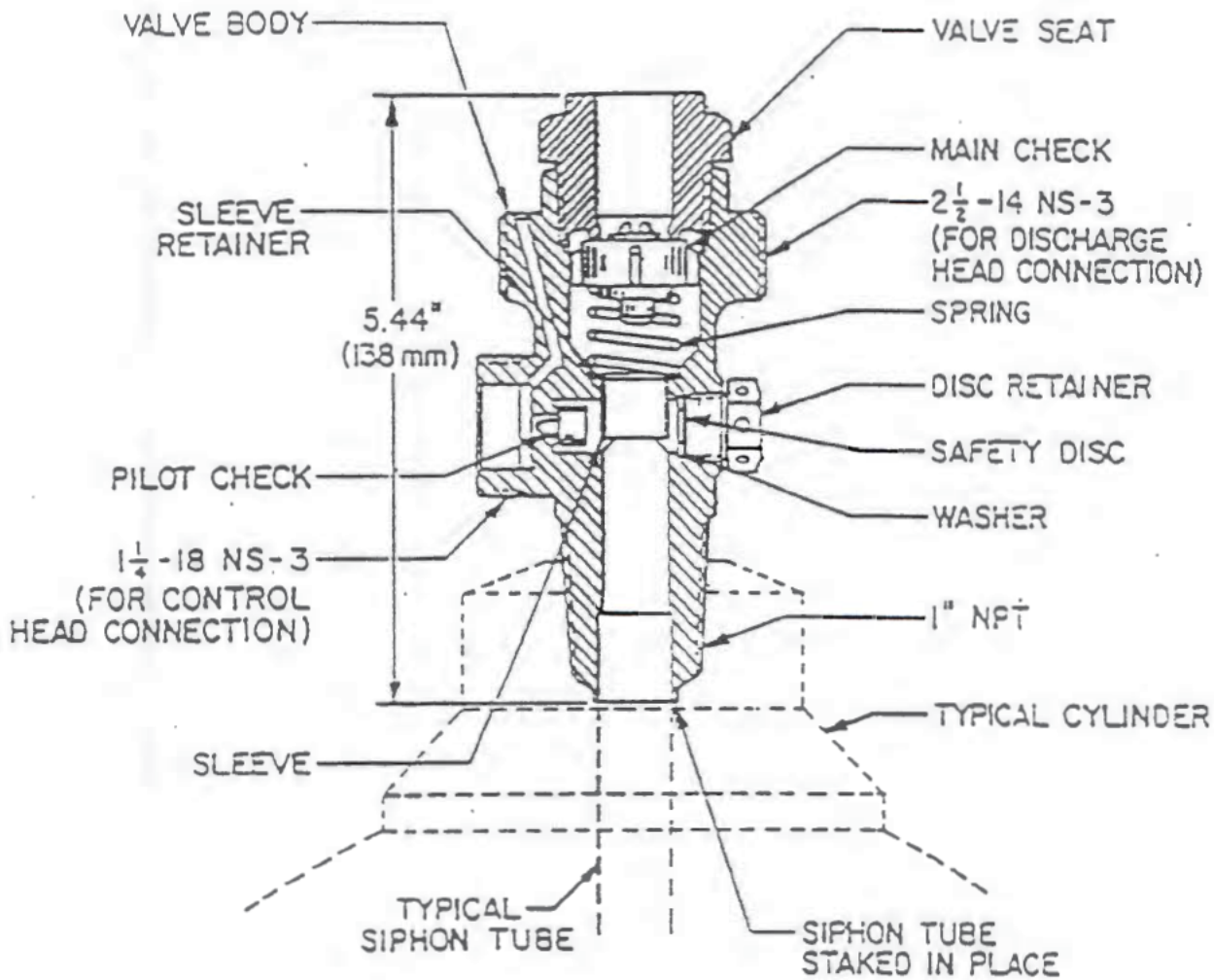


Figure 4-3. Remote Control Pull Box, P/N 871403



MATERIALS

VALVE BODY
 VALVE SEAT
 SLEEVE
 SLEEVE RETAINER

} BRASS

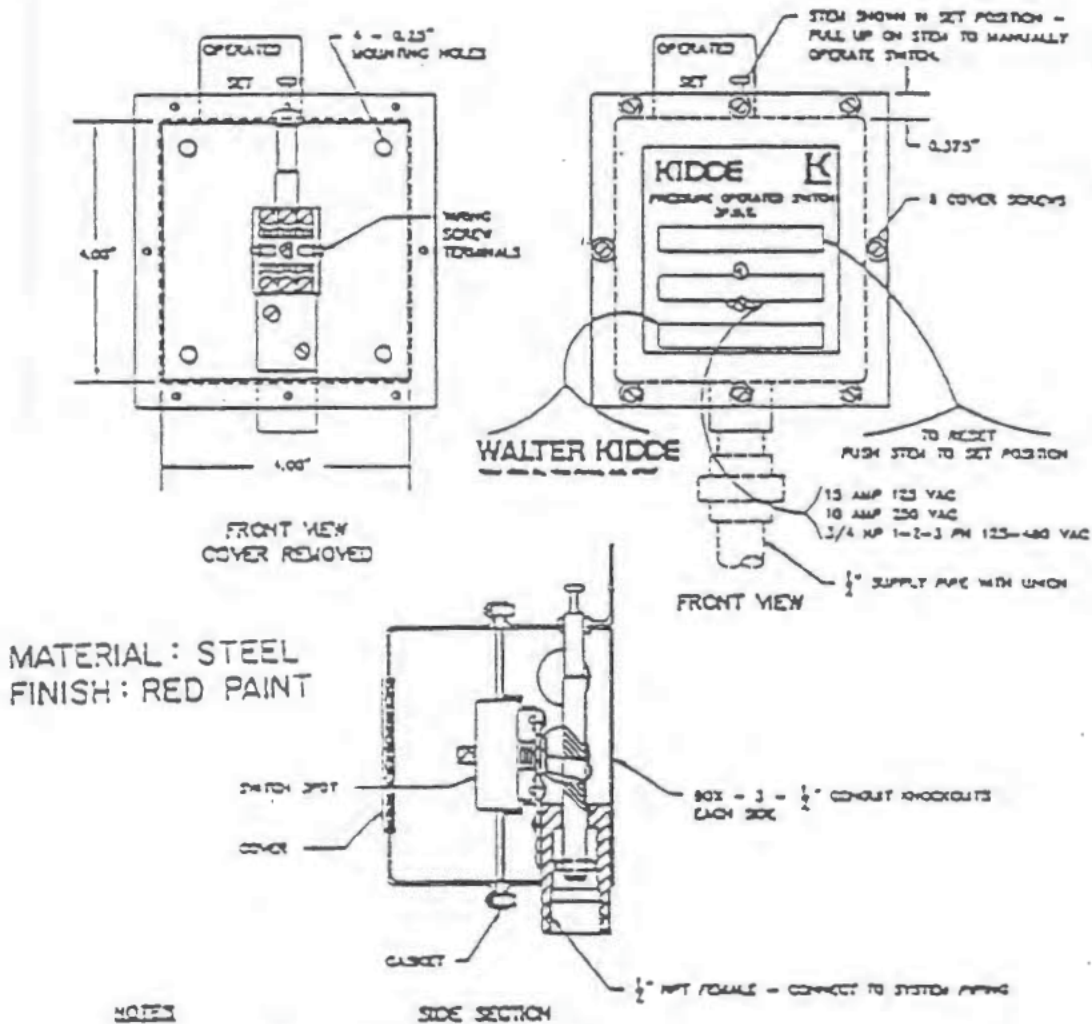
MAIN CHECK: BRASS WITH RUBBER SEAT
 PILOT CHECK: STAINLESS STEEL WITH RUBBER SEAT

P/N 840253

Figure 4-4. 5/8 Inch "T" valve with Typical Cylinder

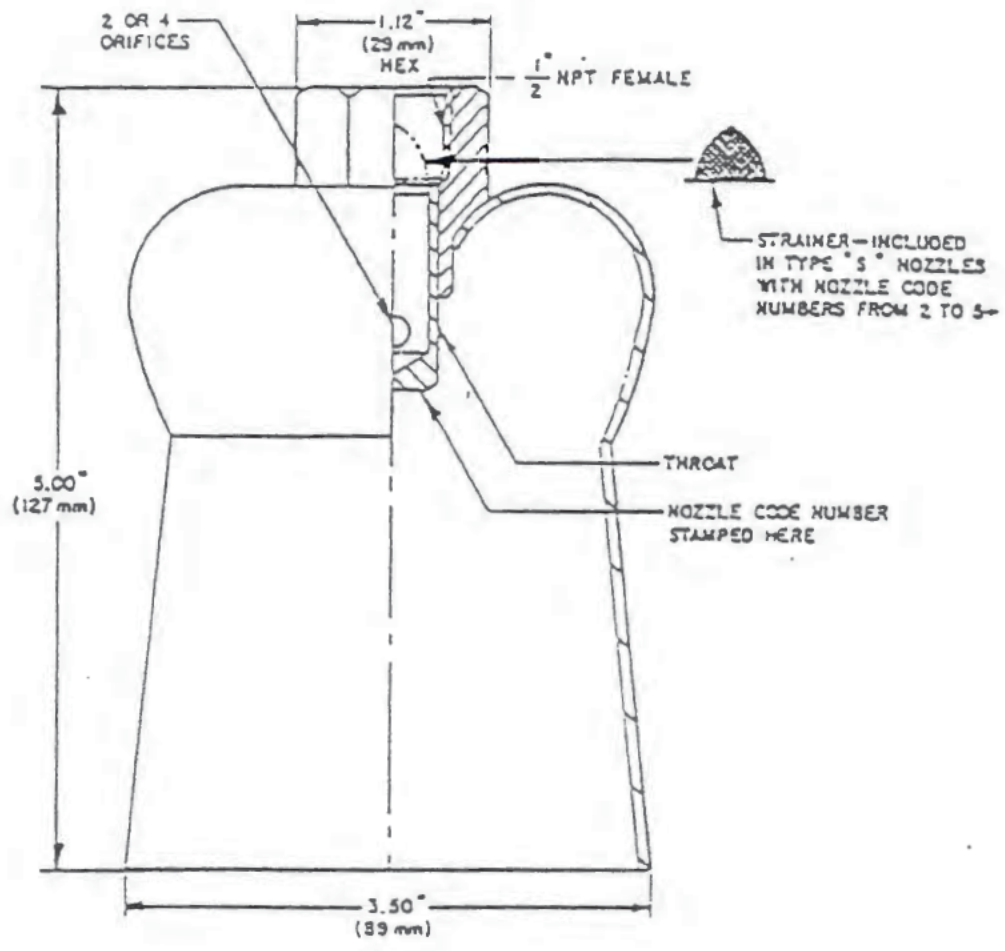
4.7 PRESSURE OPERATED SWITCHES

Pressure operated switches use CO₂ pressure to annunciate alarms and shutdown ventilation and/or equipment. Both the standard (486536) and explosion-proof (981332) models connect to the system piping with a 1/2 inch NPT connection. A manual operation/reset switch is also provided.



1. SWITCH MAY BE MOUNTED IN ANY POSITION BUT PREFERRED INSTALLATION IS UPRIGHT AS SHOWN.
2. ANY LOAD CONNECTED TO THE SWITCH MUST NOT EXCEED SWITCH RATING AND SHALL UTILIZE A SUITABLE PROTECTION DEVICE (i.e. CIRCUIT BREAKER, FUSE)

Figure 4-15. Pressure Operated Switch, P/N 486536



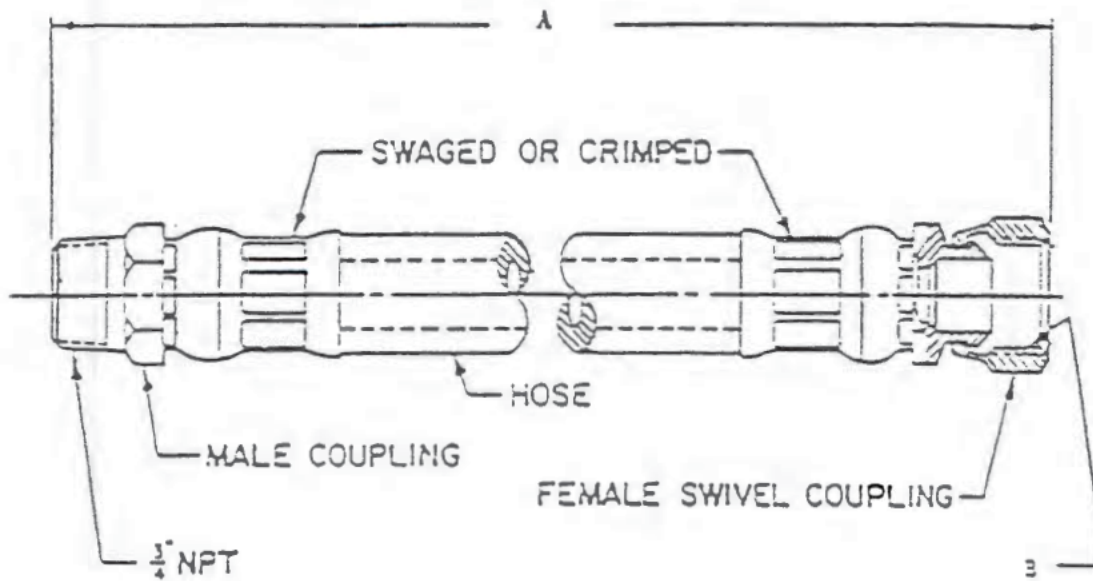
MATERIALS
 NOZZLE: COLD ROLLED STEEL
 THROAT: BRASS
 STRAINER: MONEL

AVAILABLE FINISHES (NOZZLE ONLY)
 1. RED PAINT
 2. CAONIUM PLATED

Figure 4-20. Type "S" Nozzle

4.10 FLEXIBLE DISCHARGE HOSES

1/2 or 3/4 inch flexible hoses are used to connect rigid piping to carbon dioxide cylinder assemblies, stop valves, nitrogen cylinders, etc. The hoses are made of a wire reinforced rubber manufacture.



MATERIALS

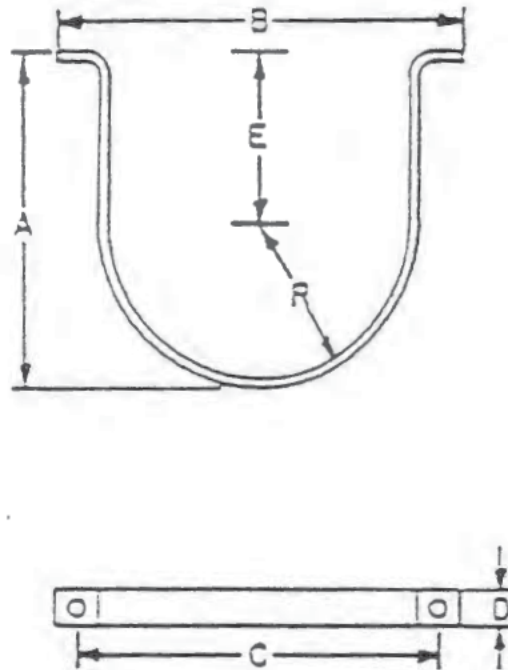
HOSE: RUBBER WITH INTERNAL WIRE BRAID
 COUPLINGS: CADMIUM PLATED STEEL

P/Y	A, In.	B
251921	16.4	3/4 In. NPS
252194	14.5	1/2 In. NPS

Figure 4-26. Flexible Discharge Hose

4.15 CYLINDER STRAPS

Cylinder straps, firmly bolted to existing structure, secure the CO₂ cylinders in a vertical position. Kidde-Fenwal, Inc. also offers steel framing and oak racking for multiple cylinder arrangements of 50, 75, and 100 lb. size cylinders. Refer to Figures 5-2 and 5-2A for typical installation illustrations.

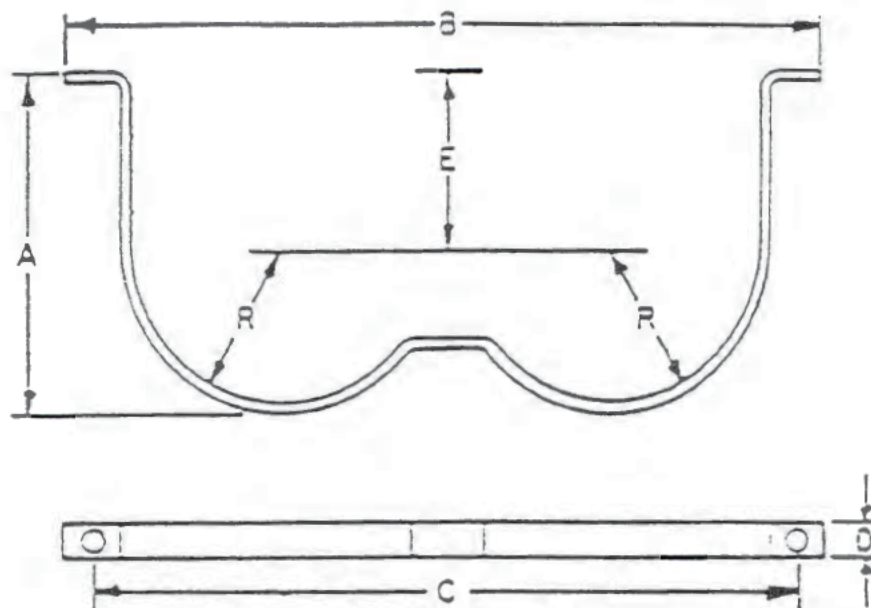


PART NUMBER	CYLINDER SIZE	A		B		C		D		E		R	
		IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
270014	25, 35, & 50	7.94	202	11.5	292	10.4	264	1.00	25.4	3.50	88.9	4.25	108
52989	75	5.63	143	12.3	312	11.1	282	1.25	31.8	3.75	96.2	4.63	118
270157	100	10.0	254	14.0	356	12.4	318	1.75	44.4	4.50	114	5.31	135

MATERIAL: STEEL

FINISH: PAINTED

Figure 4-33. Carbon Dioxide Cylinder Strap, Single Cylinder



PART NUMBER	CYLINDER SIZE	A		B		C		D		E		R	
		IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
241219	50 & 75	7.75	197	22.8	579	21.5	546	1.75	44.4	2.98	75	4.83	118
241254	100	10.3	262	23.6	600	24.3	617	1.75	44.4	4.72	120	5.28	134

MATERIAL: STEEL

FINISH: PAINTED

Figure 4-34 Carbon Dioxide Cylinder Strap, Two Cylinder

4.19 DISCHARGE HEADS

The plain nut discharge head is assembled to the top of the CO₂ cylinder valve. The discharge head discharges the contents of the cylinder upon control head activation or pressure entering the valve outlet. The groove nut discharge head can only be actuated by a control head. Pressure entering the valve outlet will not actuate the system. Grooved nut heads are used when only one cylinder at a time is to be discharged or to isolate single cylinder main and reserve systems.

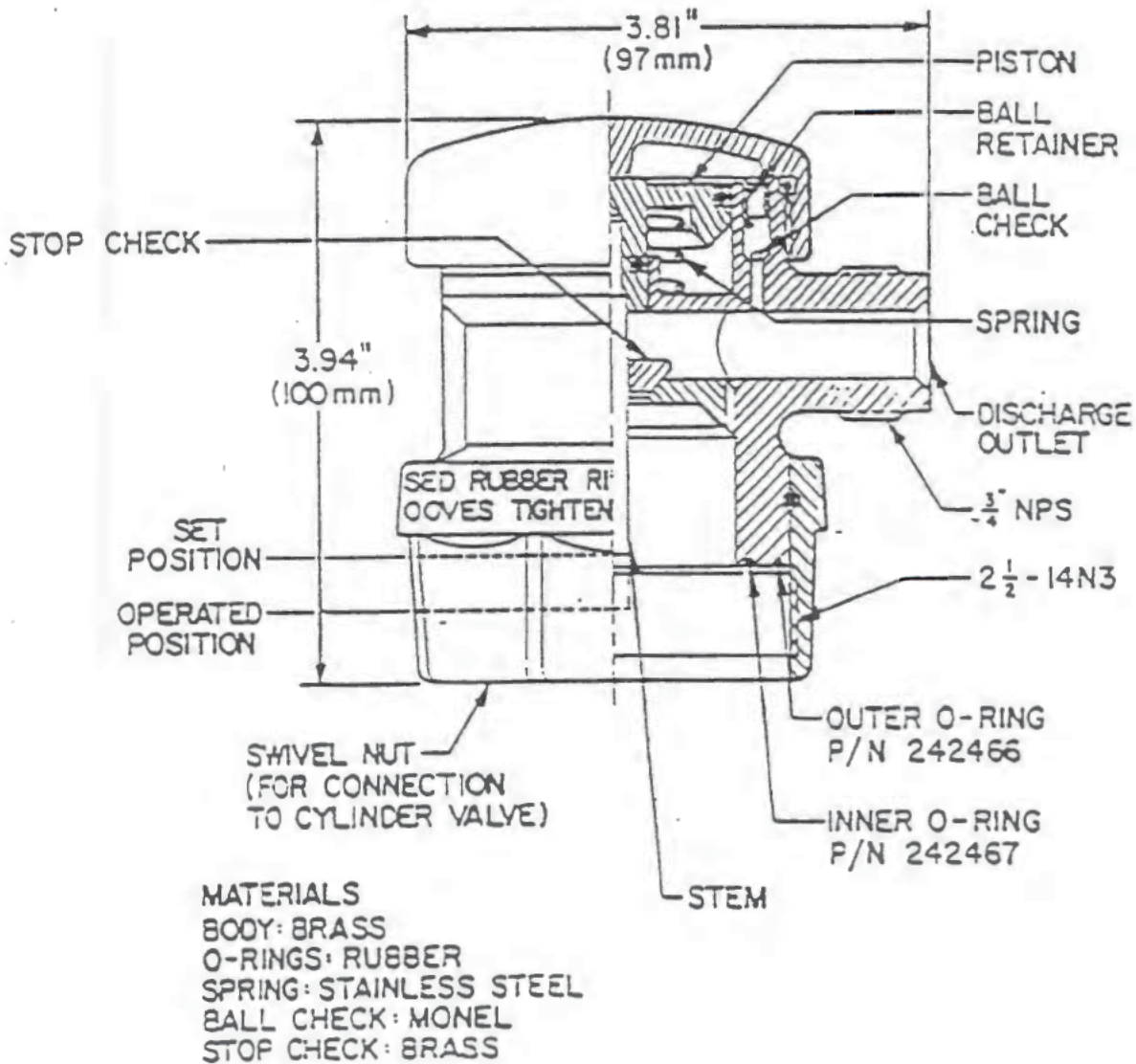


Figure 4-40. Discharge Head, Plain Nut, P/N 872450

4:24 CORNER PULLEY

Corner pulleys are used to change direction of pull cable lines, without binding the cable to ensure smooth operation.

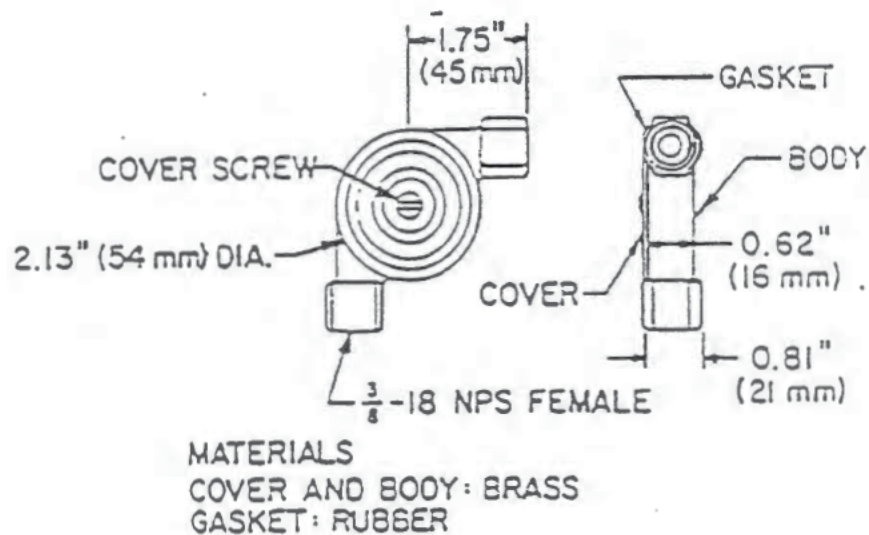
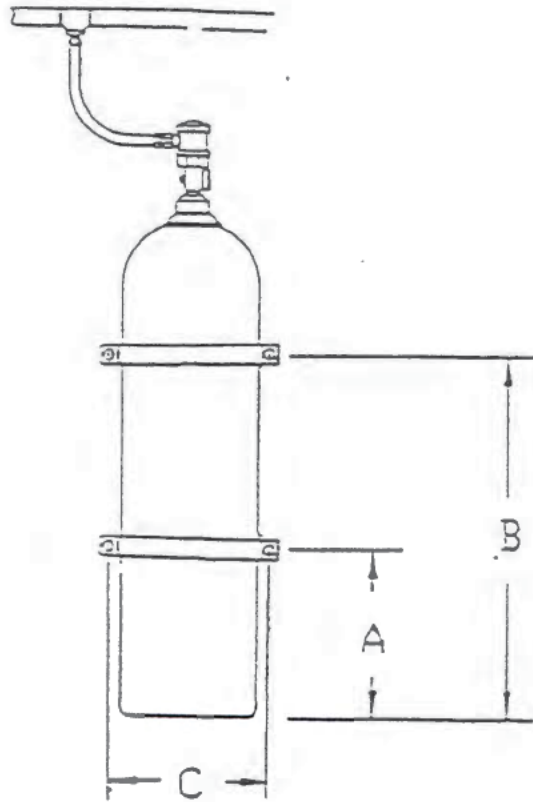


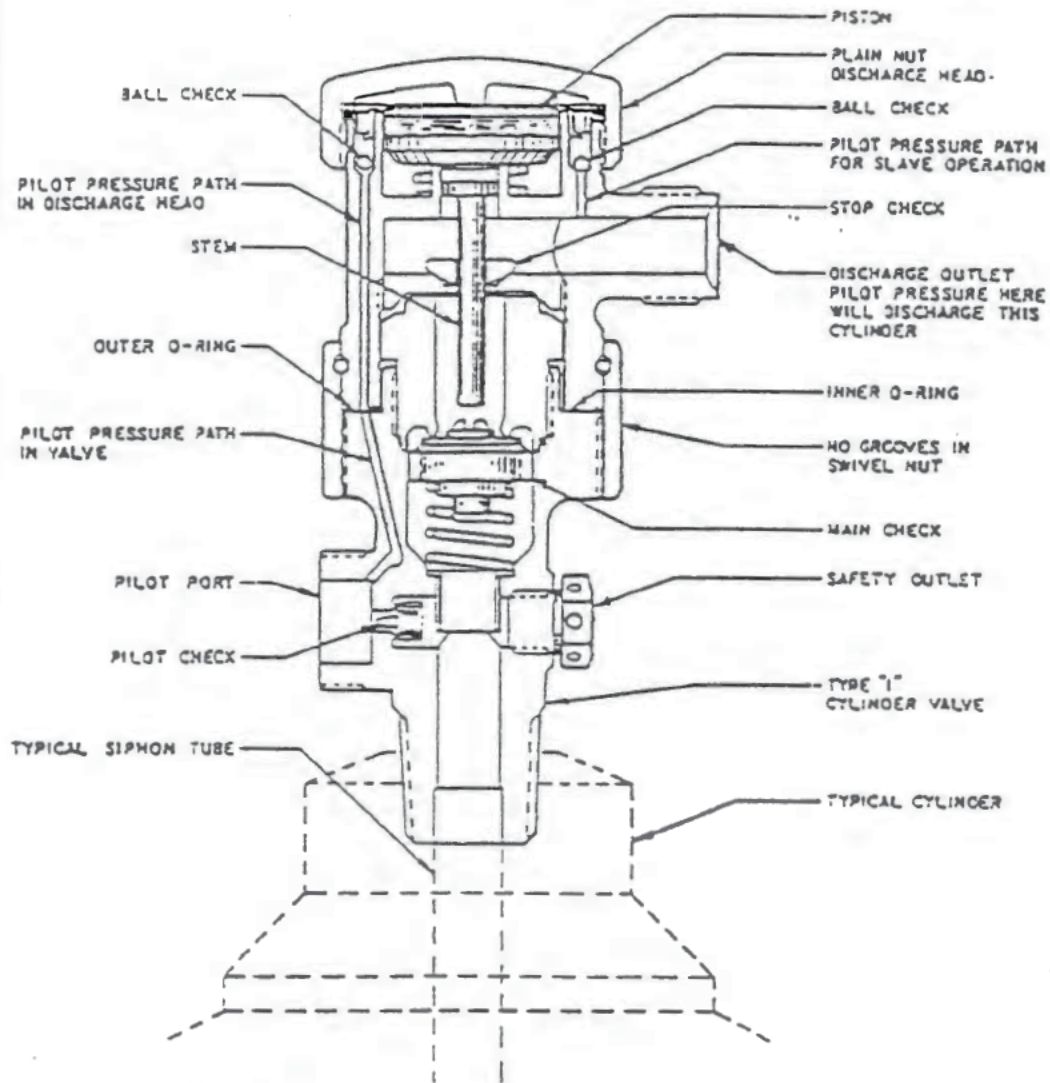
Figure 4-46. Corner Pulley, P/N 803808



CYL. SIZE	A*	B*	C
25 Lb.	3	18	10.37
35 Lb.	10	27	10.37
50 Lb.	12-14	42-44	10.37
75 Lb.	12-14	44-46	10.37
100 Lb.	12-14	46-48	12.40

NOTE: ALL DIMENSIONS ARE IN INCHES
 * $\pm 1/2'$

Figure 5-1. Cylinder Strap Installation, Typical



CAUTION

NEVER CONNECT DISCHARGE HEAD TO CYLINDER VALVE WITHOUT FLEX LOOP ATTACHED TO DISCHARGE OUTLET AND CONNECTED TO SYSTEM PIPING. ARRANGEMENT AS SHOWN IS FOR ILLUSTRATION PURPOSES ONLY.

Figure 5-3. Installation of Plain Nut Discharge Head to Cylinder Valve



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Officer in Charge
Marine Inspection (LA/LB)
165 North Pico Avenue
Long Beach, CA 90802
(213) 590-2376

16711/15891
10 July 1981

Truth Aquatics Inc.
Sea Landing Breakwater
Santa Barbara, CA 93109

Attn: Mr. Roy Hauser

Subj: M/V CONCEPTION, O/N 638 133; Stability Letter

Gentlemen:

A stability test witnessed by the U.S. Coast Guard was performed on the M/V CHAMP, O/N 608 674, a sister ship to the subject vessel at Terminal Island, California on 28 June 1979. Stability calculations based on the test and applicable to the subject vessel as presently outfitted, equipped and manned indicate that the subject vessel has satisfactory stability for passenger service under all reasonable operating conditions in ocean service as premitted by the Certificate of Inspection provided the following restrictions are adhered to:

1. The loadline draft (from baseline) shall not exceed 3.45 feet.
2. The number of passengers shall not exceed 120 or the number permitted by the Certificate of Inspection whichever is less.
3. Trim by the stern shall be minimized.
4. Bilges must be kept dry at all times.
5. Cross connections between port and starboard tank pairs shall be kept closed at all times.

The master is responsible for maintaining the vessel in a satisfactory stability condition at all times.

This stability letter must be posted under suitable transparent material in the pilothouse of subject vessel.

Sincerely,

J. H. GUEST
Captain, U.S. Coast Guard
Officer in Charge
Marine Inspection