

## CHAPTER 3

# LIFERAFT SPECIAL TOOLS AND SUPPORT EQUIPMENT

### Section 3-1. Description

#### 3-1. GENERAL.

3-2. This chapter lists special support equipment required for the testing and inspection of liferafts. An

assembly and parts breakdown is included with each item of support equipment. See [Section 3-3](#).

### Section 3-2. Liferaft Support Equipment

#### 3-3. LEAK TEST FIXTURE.

3-4. A leak test fixture may be fabricated to meet the requirements of the schematic shown in [figure 3-1](#). A suggested leak test fixture, consisting of three-way valve, pressure gage, and adapters for connection to a source of low-pressure air and to the liferaft, is shown in [figure 3-3](#).

#### NOTE

If a suitable air source is not available, water-pumped nitrogen (BB-N-411) may be substituted.



If three-way valve is not used, measuring device valve must be closed when air feed valve is open.

Damage may occur to oral inflation valve if air supply pressure entering the liferaft exceeds ten (10) psi during leak tests.

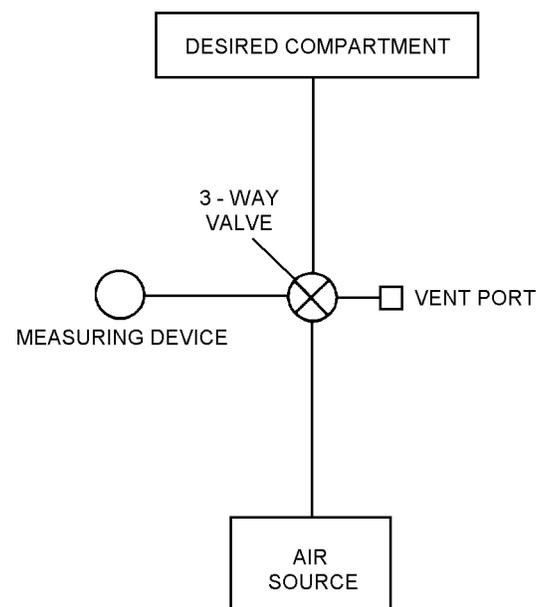


Figure 3-1. Leak Test Fixture Schematic

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### 3-4A. TEMPERATURE AND BAROMETRIC PRESSURE GAGES.

3-4B. The temperature and barometric pressure must be recorded when performing leakage tests on life-rafts. Should existing gages need to be replaced the equipment listed below is authorized for use. Calibration of this equipment is not required.

1. Certified thermo-hygrometer (P/N 5033) provides temperature and relative humidity, wall mounted.

2. Marine barometer (P/N M111) provides barometric pressure, wall mounted.

3. Outdoor weather computer, hand held, digital display provides temperature and barometric pressure. Pressure provided in bar graph trends for 12 hours and pressure history for 24 hours in 2 hour increments. Calendar/clock functions are included.

4. Above items must be ordered open purchase from:

American Weather Enterprises  
 P.O. Box 14381  
 San Francisco, CA 94114  
 Phone (800)293-2555.

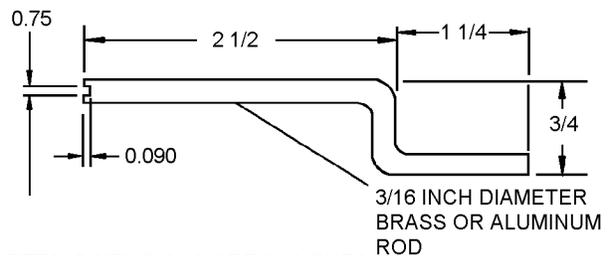
### 3-5. PNEUMATIC INFLATOR VALVE (CHECK VALVE) CORE TOOL.

3-6. A pneumatic inflator valve (check valve) core tool, part number 8769A or equivalent (CAGE 27783), can also be fabricated as described here. See [figure 3-2](#).

1. Use 3/16 inch solid brass or aluminum rod, approximately 5 inches long.

2. Fabricate as shown in [figure 3-2](#).

3. There is no IPB or Numerical Index for this tool.



NOTES: DIMENSIONS ARE IN INCHES

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**Figure 3-2. Core Tool**

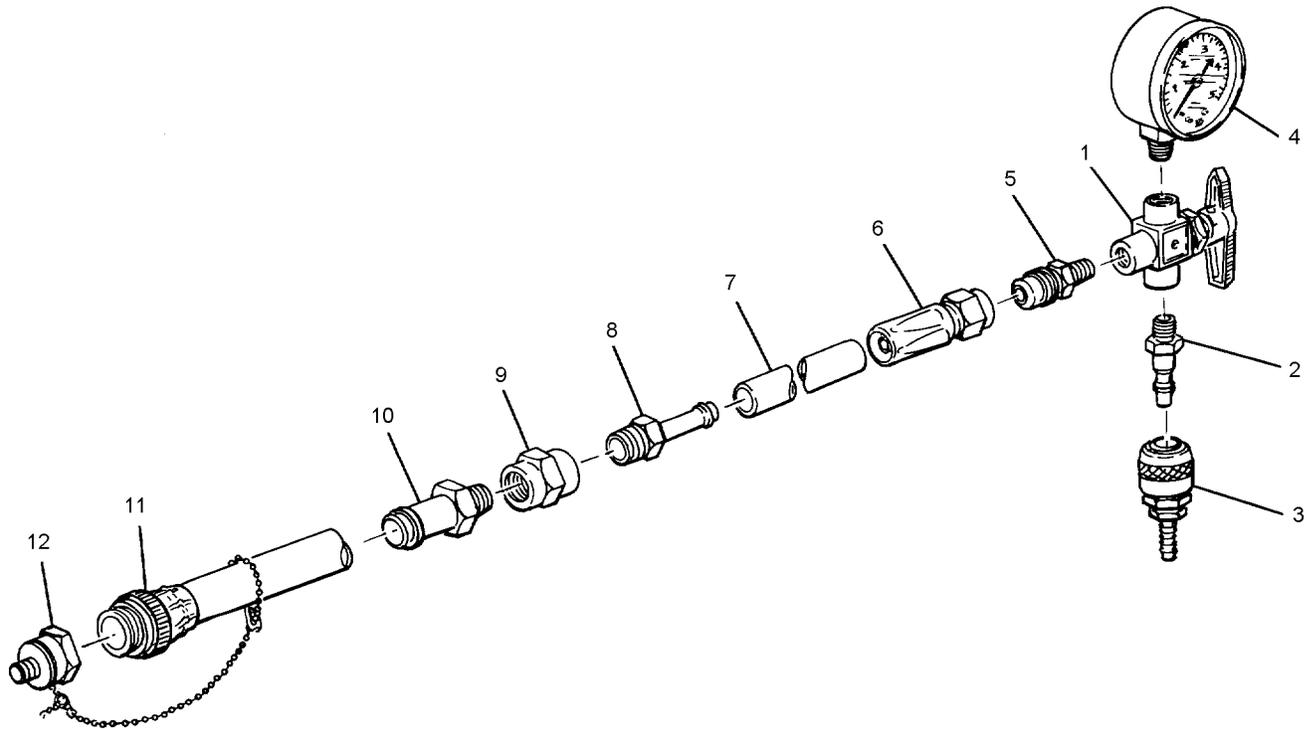
## Section 3-3. Illustrated Parts Breakdown (IPB)

### 3-7. GENERAL.

3-8. This section lists and illustrates the assemblies and detail parts of the Special Tools and Support Equipment for Liferrafts.

3-9. The Illustrated Parts Breakdown should be used during maintenance when requisitioning and identifying parts.

3-10. [Figure 3-3](#) illustrates the leak test fixture as used on all liferafts except LRU-18/U. Items with Usable on Code A are not required on text fixture when used for LRU-18/U.



10030003

Figure 3-3. Leak Test Fixture for Liferafts

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code
3-3		LEAK TEST FIXTURE, LIFERAFT .....	REF	
-1	B-43XF4	. VALVE, 3-way with vent (12623) .....	1	
		(NOTE 1)		
-2	MIL-C-4109	. COUPLING, air hose (male) .....	1	
		(NOTE 2)		
-3	MIL-C-4109	. COUPLING, air hose (female) .....	1	
		(NOTE 2)		
-4	P-734	. GAGE, Pressure, 0 to 5 psig .....	1	
		(NOTE 3)		
	40R31-2	. GAGE, Pressure, 0 to 15 psig .....	1	
		(NOTE 4)		
	CC-TM-12	. MANOMETER, Mercury, calibrated .....	1	
		0 to 6 psig (75331)		
-5	AN816-4-8D	. REDUCER, 3/4-inch tubing .....	1	
		to 1/2-inch pipe		
-6	MS27404-8D	. FITTING, Hose .....	1	
-7	No Number	. HOSE, Rubber, 1/2-inch .....	A/R	
		ID, 3/4-inch OD		

**NAVAIR 13-1-6.1-1**

Figure and Index Number	Part Number	Description							Units Per Assembly	Usable On Code	
		1	2	3	4	5	6	7			
3-3-8	AN840-8	.	ADAPTER, Hose to pipe thread	.....					1	A	
-9	AN910-3D	.	COUPLING, Pipe thread	.....					1	A	
-10	AN840-10	.	ADAPTER, Hose to pipe thread	.....					1	A	
			(NOTE 5)								
-11	MIL-P-8258	.	HOSE, Liferaft hand pump	.....					1	A	
			(NOTE 5)								
-12	MS21962	.	ADAPTER, Hose to liferaft	.....					1	A	
			(NOTE 6)								
NOTE:		1.	NSN: 6685-00-953-9090								
		2.	Select quick-disconnect coupling compatible with local low pressure air installation.								
		3.	NSN: 6685-00-953-9090								
		4.	NSN: 9G-6685-00-942-8127								
		5.	Cut hose from salvaged liferaft hand pump.								
		6.	Adapter can be obtained from salvaged liferaft hand pump.								

# NUMERICAL INDEX

Part Number	Figure and Index Number	SM&R Code
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AN816-4-8D	3-3-5
AN840-8	3-3-8
AN840-10	3-3-10
AN910-3D	3-3-9
B-43XF4	3-3-1
CC-TM-12	3-3-4

Part Number	Figure and Index Number	SM&R Code
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MIL-C-4109	3-3-2
MIL-C-4109	3-3-3
MIL-P-8258	3-3-11
MS21962	3-3-12
MS27404-8D	3-3-6

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