

EO 10A-1-9B

ROYAL CANADIAN AIR FORCE



**METAL CONTAINERS
FOR
PISTON TYPE ENGINES**

**REVISION
NOTICE**

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Insert revised pages into basic publication.
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PART 1

GENERAL

1 This Engineering Order contains general instructions for the inspection, repair, overhaul, storage and preparation for shipment of aircraft engine metal containers. This Engineering Order refers specifically to the following list of EO -9A sections:-

EO	Engine	Aircraft	Engine Type	Metal Container Weight	Container Size in Inches L/W/H	Engine Weight	Container Sec/Ref
10A-5A/9A	Gypsy Major	Chipmunk	Inverted 4 cyl.	625 lbs.	58/40/41	320 lbs.	35/10002
10A-10AA-9A	P&W Wasp R985 AN-14B	Expeditor	Radial 9 cyl.	920 lbs.	53/58/62	682 lbs.	35/10030
10A-10AB-9A	P&W Wasp R985 AN-5	Sikorsky H-51	Radial 9 cyl.	920 lbs.	53/58/62	684 lbs.	35/10030
10A-10BA-9A	P&W R1340 S3H1	Harvard	Radial 9 cyl.	920 lbs.	53/58/62	877 lbs.	35/10030
10A-10BA-9A	P&W R1340 S1H2	Sikorsky H-19	Radial 9 cyl.	920 lbs.	53/58/62	879 lbs.	35/10030
10A-10BA-9A	P&W R1340 S1H1-G	Otter	Radial 9 cyl.	920 lbs.	59/58/62	967 lbs.	35/10178
10A-10CA-9A	P&W R1830-92	Dakota	Radial 14 cyl.	1630 lbs.	75/62/72	1467 lbs.	35/10091
10A-10CB-9A	P&W R1830-90C R1830-90D	Canso	Radial 14 cyl.	1630 lbs.	75/62/72	1467 lbs.	35/10091
10A-10DB-9A	P&W R2800-CA15	C-5	Radial 18 cyl.	2210 lbs.	125/66/73	2317 lbs.	35/10181
10A-15A-9A	Merlin 622	North Star	V-12	1300 lbs.	96/54/58	1740 lbs.	35/10054
D E L E T E D							
10A-20B-9A	Merlin 224/5	Lancaster V-12	V-12	1300 lbs.	96/54/58	1512 lbs.	35/10054

EO	Engine	Aircraft	Engine Type	Metal Container Weight	Container Size in Inches L/W/H/	Engine Weight	Container Sec/Ref
10A-45C-9A	Continental O-470-L	Cessna 182D 182F	Opposed 6 cyl.	590 lbs.	62"/43"/ 46"	404 lbs.	8115-21- 802-4750
10A-25B-9A	Wright R1820-103	Vertol H-21A H-21B	Radial 9 cyl.	1500 lbs	62" H x 62" dia.	1350 lbs.	35/10141
10A-25C-9A	Wright R3350-85	Packet C-119	Radial Turbo Comp. 18 cyl.	2210 lb	125/71/78	3500 lb	35/10029
10A-25D-9A	Wright R3350-32W	Neptune	Radial Turbo Comp. 18 cyl.	2210 lb	125/71/78	3500 lb	35/10029
10A-25E-9A	Wright R1820-84	Sikorsky H34A	Radial 9 cyl.	1500 lb	62" H x 62" dia.	1460 lb	35/10083
10A-25F-9A	Wright R3350-EA1	Argus	Radial Turbo Comp. 18 cyl.	2210 lb	125/71/78	3500 lb	35/10029
10A-50A-9A	Lycoming VD-540-B1D	Hiller CH112	Opposed 6 cyl.	590 lbs	62"/43"/ 46"	435 lbs	8115-21- 803-4671
10A-35A-9A	Hercules 734	Bristol Freighter	Radial Sleeve Valve 14 cyl.	Wooden Container		2105 lbs.	
10A-45B-9A	Continental O-470-11	Cessna	Opposed 6 cyl.	590 lbs.	62"/43"/ 46"	395 lbs.	35/10087

DESCRIPTION AND PURPOSE

2 The containers are made of metal, skid mounted and require pressurization when in use. Used for shipping and storing aircraft engines, to protect the engine against damage during transit and corrosion caused by moisture.

APPLICABILITY OF INSTRUCTIONS

3 The following instructions will apply:-

(a) The instructions in this Engineering Order are applicable to Air Force Units to the extent of minor repairs.

(b) These instructions also apply to contractors performing maintenance or overhaul of Air Force engine containers, as well as airframe and engine contractors handling engine containers to the extent

of major repairs.

(c) Any modification additional to that prescribed in this Engineering Order shall not be performed without authorization.

PART 2

INSPECTION AND CLASSIFICATION

INSPECTION

1 All containers shall be inspected prior to shipment or storage to determine whether they are serviceable, repairable or beyond economical repair.

2 Inspection shall be performed by authorized Air Force personnel and/or contractor personnel as follows:-

(a) Inspect all bolts, nuts and container surfaces for cracks, burrs, elongation, misalignment, defective threads or other defects that affect serviceability.

NOTE

Inspect flange closure bolts and engine suspension system bolts particularly for cracks or other defects.

(b) Inspect braces, lifting rings, eyes or lugs, roll over rings, relief valve, desiccant holder, gaskets, engine record receptacle and assembly guides for cracks, ruptures, deterioration, misalignment and other defects.

(c) Inspect the closure flange gasket for permanent deformation or set, cuts, abrasion or other surface defects which would affect sealing of the container. Gasket material should conform to Specification AMS 3227B or equivalent. All joints should be cut diagonally and vulcanized to form a continuous gasket.

(d) Inspect the container top and bottom for dents, cracks, gouges, holes and ruptures in the surface that affect serviceability.

(e) Inspect closure flange for cracks, dents, misalignment, or other defects.

(f) Inspect wooden skids for broken ends, deterioration, splits and other defects that affect serviceability. Lengthwise splits exceeding two feet long and one-half inch wide are acceptable. Inspect metal skids for wear.

(g) Inspect engine shock mounts for cracks, tears, bond separation, deterioration, splits, improper installation and other defects that affect serviceability. Check cure date on shock type mounts.

NOTE

Inspect compression type mounts for incorrect installation. The upper or load side of compression mounts may be marked as shown in Figure 2-1. If no marking or indication of the load side is visible, the load side may be determined as shown in Figure 2-2.

(h) Inspect containers for compliance with EO 00-35-1.

(j) Inspect for leakage by pressurizing the container until the relief valve releases. Check the container after 48 hours with

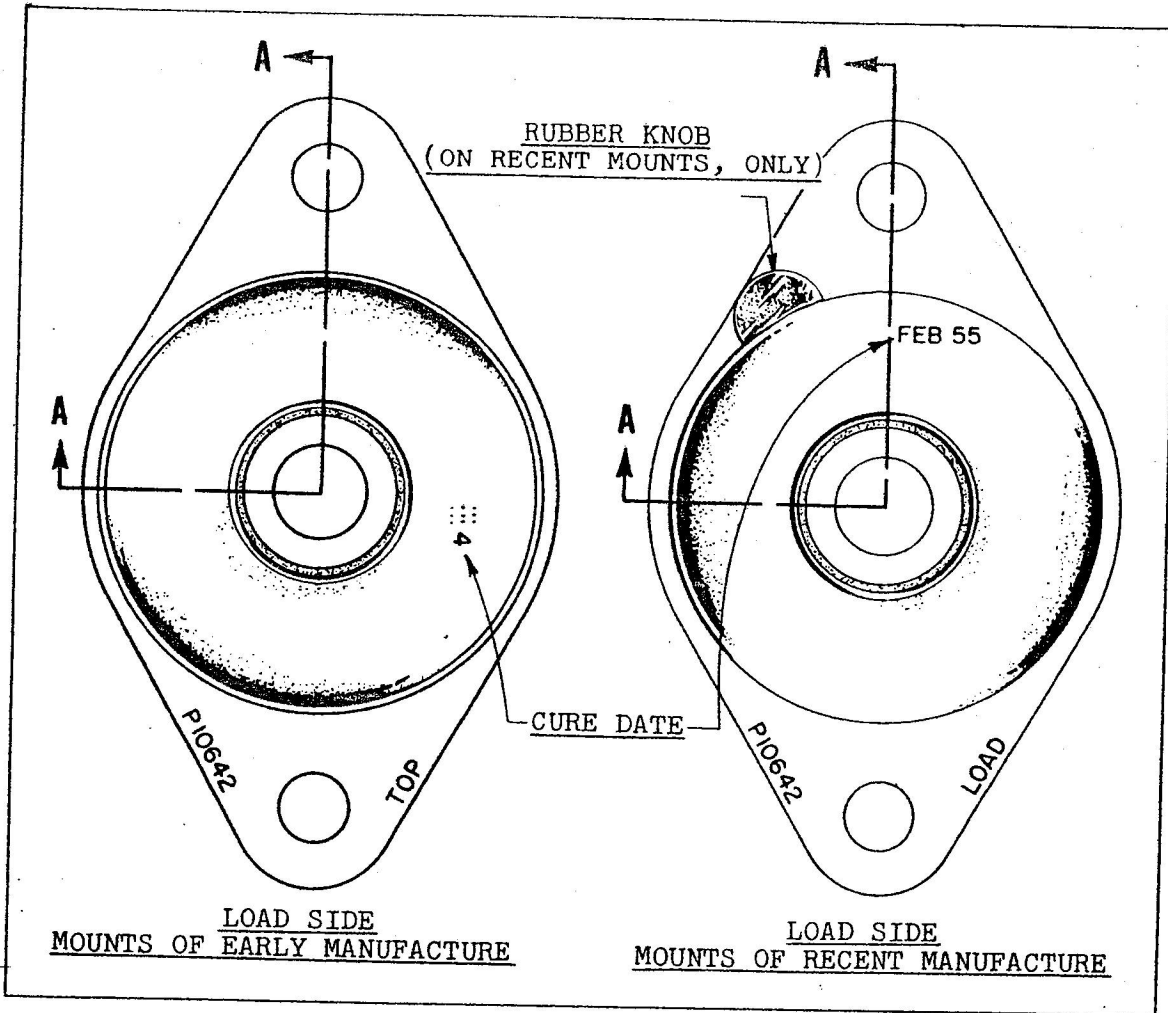


Figure 2-1 Shock Mount, Load Side

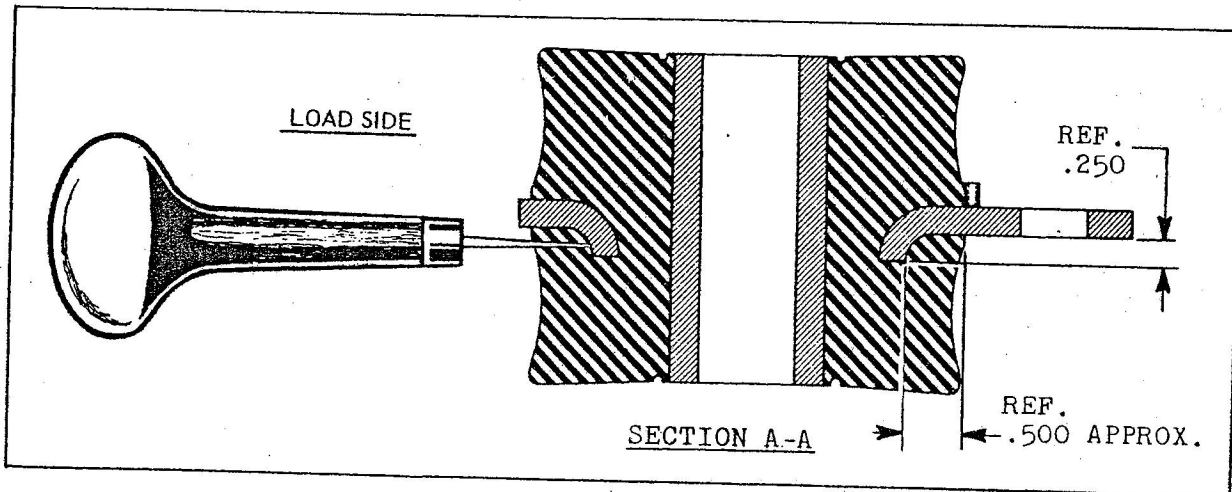


Figure 2-2 Shock Mount, Test

Temperature	Pressure	Temperature	Pressur
	(PSI)		(PSI)
60°C (140°F)	7.6	4.44°C (40°F)	3.9
54°C (130°F)	7.3	1.11°C (30°F)	3.5
49°C (120°F)	6.9	-6.67°C (20°F)	3.2
43°C (110°F)	6.5	-12.2°C (10°F)	2.8
38°C (100°F)	6.1	-17.8°C (0°F)	2.4
32.2°C (90°F)	5.8	-23.3°C (-10°F)	2.0
26.7°C (80°F)	5.4	-28.9°C (-20°F)	1.7
21.1°C (70°F)	5.0	-34.4°C (-30°F)	1.3
15.6°C (60°F)	4.6	-40.0°C (-40°F)	0.9
10.0°C (50°F)	4.3		

This chart shows maximum and minimum air pressure versus values applicable to engine shipping containers when pressurized for shipment and storage. Pressure and temperature range values are based on 5 psi air pressure at 21.1°C (70°F). Tolerances on above requirements $\pm 1/2$ psi.

Figure 2-3 Air Pressure Versus Temperature Values

accurate pressure gauge, after making any necessary correction for ambient temperature changes, see Figure 2-3.

WARNING

The relief valve should release when metal containers are pressurized from seven to ten pounds. For the safety of personnel performing the pressure check, all flange closure bolts on the containers should be installed and tightened to prevent an explosion during pressurization.

3 The purpose of inspection at airframe plants and engine plants is specifically to determine whether containers are serviceable or repairable, unless it is readily apparent that the container is beyond economical repair and should be condemned.

CLASSIFICATION

4 Upon completion of the inspection, the container shall be classified as serviceable,

repairable or condemned and tagged accordingly and signed by authorized person. Classification shall be determined as follows:

SERVICEABLE CONTAINERS

(a) Containers stored in a serviceable status not more than 24 months shall be visually inspected prior to use or shipment. Containers that do not leak and have no defective or missing parts are considered serviceable. Colour fading and small scratches on the surface of the containers, gouges which are not more than 1/16" deep (up to ten in each section, top, bottom and end) which are not more than 1/2" deep do not affect serviceability of the container.

(b) Empty containers stored in a serviceable status for 24 months or longer shall be opened prior to use or shipment and visually inspected:-

(1) Check main flange gasket, rubber mounts, interior condition of container, place desiccant (if necessary).

Paragraphs 4(b)(2) to 4(d)

(2) Reseal, repressurize to 5 lbs. with dry air and check pressure. Containers which contain engines or power plants must be open and checked indoors, in an area free of moisture and dust. Allow a maximum of four hours for opening, inspection and resealing.

NOTE

Engines which have been stored for extended periods are extremely subject to corrosion upon removal from dehumidified storage due to the deterioration of the basic protective coating of oil film. This is equally true during the replacement of expended dehydrating agent required during storage.

NOTE

Make an entry in L14-7 the number of hours the can was open for repressurization or replacement of dehydrating agent if such operation was carried out.

REPAIRABLE CONTAINERS

(c) Containers that have defective or missing parts, leaks, a badly weathered finish with large areas scraped down to the bare metal, or surface defects beyond the

limits described in paragraph 4(a) and 4(b) are considered repairable if the total cost of repair and replacement of parts does not exceed 70% of the unit cost of the container. Parts to be replaced shall be itemized on repair tag. Repairable containers shall be segregated into two classes: minor repair and overhaul. Classification shall be determined as follows:-

MINOR REPAIR

(1) Containers in use not more than 24 months since new or last overhaul, free from dents or gouges about the closure flange or any other part of the container which could cause leakage. No bond separation or stock splits in the rubber mounts.

OVERHAUL

(2) Containers which have been in use for 24 months since last minor repair or 60 months since last overhaul; defective rubber mounts, shear type mounts 60 months or older.

CONDEMNED CONTAINERS

(d) Containers that cannot be repaired for less than 70% of the unit cost shall be reported to AMCHQ.

PART 3

REPAIR PROCEDURES

INTRODUCTION

1 This Part is composed of general instructions for container repair. Specifically, paragraphs 2(a) through 2(m) provide instructions for minor repair on repairable containers (reference Part 2 paragraph 4(c)(1)) and paragraphs 2(a) through 2(r) provide instructions for overhauling repairable containers (reference Part 2 paragraph 4(c)(2)).

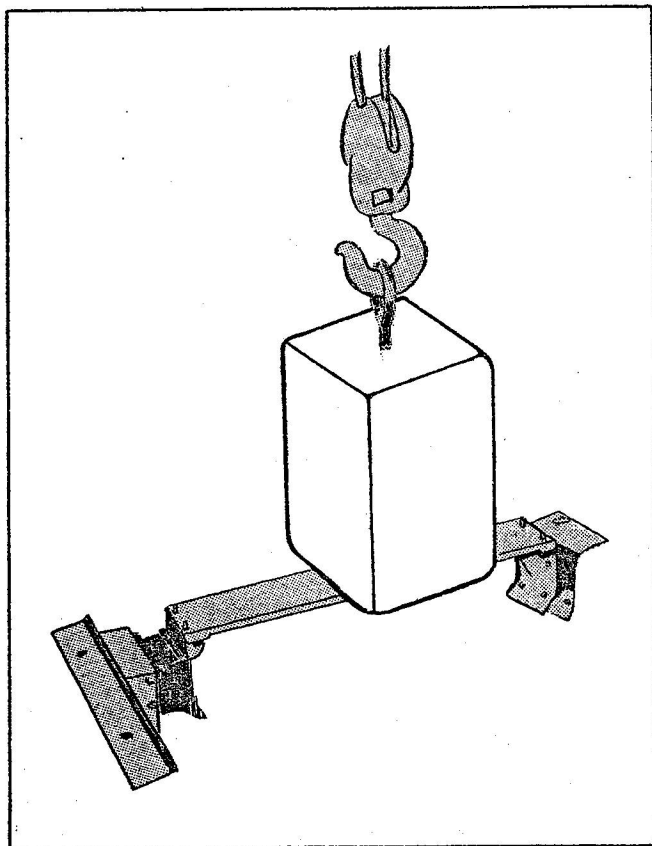


Figure 3-1 Weight Test of
Rear Shock Mount

REPAIR OF REPAIRABLE CONTAINERS

2 Repair repairable containers as follows: -

(a) Repair or replace damaged or missing parts. Replace fastenings on the engine suspension system with self-locking nuts, cotter keyed castellated nuts or safety wired cap screws.

(b) Secure all unattached parts required for complete engine installation in their proper places in the container. Remove foreign material and rust on the inside of both halves of the container and prime and paint metal containers, as required. Small areas, one square foot or less, may be touched up in lieu of complete refinishing. Clean and repaint the gasket cavity of the closure flange 100% with enamel, Grey 1-10 Spec. 1-GP-12A. Painted flanges must be thoroughly dry prior to final assembly to avoid adherence of the gasket to the flange. A negligible amount of oil will be tolerated in the container, not to exceed 1/4" in depth, if repainting of the interior is not required.

NOTE

Ferrous metal surface treatment to Spec. MIL-C-490A to be carried out prior to priming.

Finish: Exterior

Primer - 1 coat - 1-GP-81PA
Enamel - 1 coat - 1-GP-88P
Colour - 1-GP-12A - Grey 1-10

Interior

Primer - 1 coat - 1-GP-81PA
Enamel - 1 coat - 1-GP-88P
Colour - 1-GP-12A - Yellow 5-2

Paragraphs 2(c) to 2(h)(1)

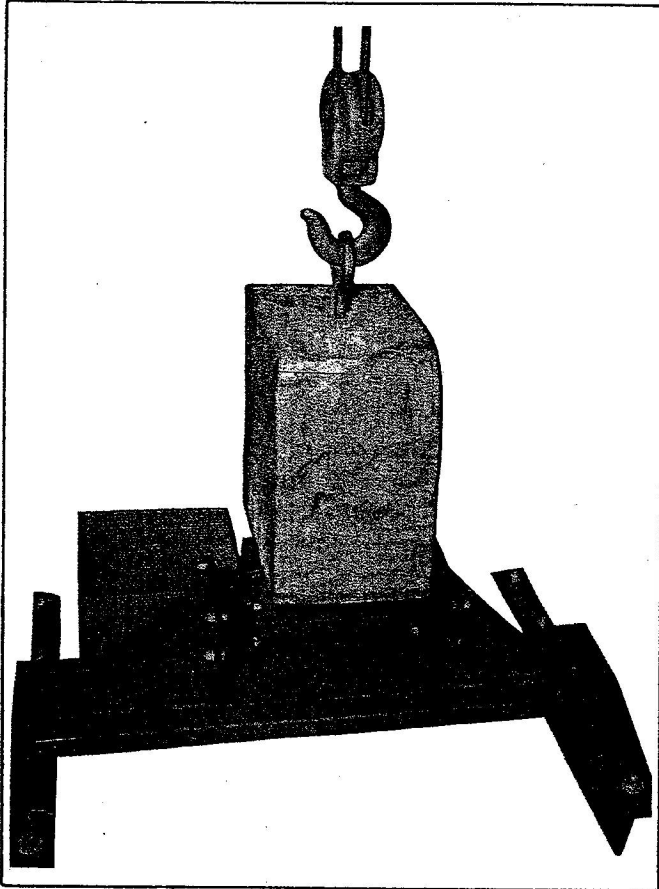


Figure 3-2 Weight Test of
Front Shock Mount

(c) Pressure test shockmounts as follows:-

(1) Shear type mounts should be stressed in shear by a weight which will result in weight distribution similar to that of an engine. A weight and support bracket similar to that shown in Figure 3-1 may be used to accomplish this test. The support bracket is not required to test the front shock mounts, see Figure 3-2. Upon application of the weight, rock the weight back and forth, not to exceed 20% of the thickness of the mount. Inspect for cracks and bond separation.

(d) Replace engine shock mounts with cracks, tears, or bond separation. In addition, if the lapsed time from the indicated cure date on shear type mounts is 60 months or more, replace the mount. Compression type mounts shall be replaced only if they

show signs of failure, or have been incorrectly installed. Shock mounts replacing those removed, having no cure date thereon, must be in a new condition, and upon receipt of the shear type mounts at the repair facility, mark as follows:-

(1) Burn the date, by month and year, into the top surface of the rubber portion of the mount. It is not necessary to date compression type mounts.

(2) To accomplish the above marking, use an electric tire branding device, with slotted head, having one-half inch interchangeable numbers. This stencil can be purchased locally from tire and rubber supply companies.

(e) Provide new gaskets and seals if needed.

NOTE

Source of supply for sealing gasket bulk rubber to Specification AMS3226B is:-

Dunlop Rubber Company,
870 Queen Street,
Toronto, Ontario.

Source of supply for fabricated gaskets sealing to Specification AMS3226B is:-

Cobra Industries Limited,
45 Dorchester Street,
Quebec, Quebec.

for containers Ref. 35/10030 (292) and 35/10091 (293).

(f) Remove the relief valve and plug the boss, prior to testing.

(g) Change filler valves if leakage is indicated.

(h) Perform pressure test of the required container as follows:-

(1) Pressurize container to 10 psi. Use

the original bolts in the closure flange if serviceable after inspection, as prescribed in Part 2 paragraph 2(a) NOTE.

(2) Locate leakage, if indicated, by one of the following methods:-

a. Preferred Method.

Slowly immerse container in water until the closure flange is approximately four inches above the waterline.

Examine for leakage.

Lower the container until the closure flange is approximately four inches below the waterline.

Examine for leakage. During the examination, the water will be quiet and free of air bubbles.

Following immersion, test any closure or welds which were not under water for leaks by the application of a soap solution.

b. Variant in Preferred Method.

As an alternate to the above test, the container may be tested for leaks by the application of a soap solution.

(j) Remove foreign material and rust from the outside of both halves of the container and prime and paint metal containers as required with enamel, see Part 3 paragraph 2(b) NOTE. Small areas, one square foot or less, may be touched up in lieu of complete refinishing. Data plate and manufacturer's nameplate shall be cleaned after painting the container or blanked off prior to painting. Re-stencil all basic markings if illegible. Marking shall be of waterproof ink, or decalcomania. The following markings shall be applied to all containers:-

NOTE

Ink to CGSB Spec. 1-GP-107P, decalcomania to Spec. MIL-D-8635, colour 1-GP-12A White.

(1) Adjacent to the lifting rings, eyes, or lugs, in two inch letters:-

"LIFT HERE"

Arrows five inches long shall point to the rings, eyes or lugs.

(2) On opposite sides of the upper section of the container, corresponding to lift-truck openings in the skids, in four inch letters:-

"DO NOT DROP"

(3) Adjacent to the air filling valve in one inch letters:-

"AIR VALVE"

"FILL TO 5 POUNDS PRESSURE"

"CAUTION"

"RELEASE PRESSURE BEFORE
OPENING CONTAINER"

(4) Adjacent to the engine record receptacle in one inch letters:-

"ENGINE RECORDS"

(5) Adjacent to the inspection port in one inch letters:-

"INSPECTION PORT"

(6) Adjacent to the relief valve in one inch letters:-

"RELIEF VALVE"

"DO NOT DISTURB"

(7) At the loaded center of balance on both sides of style I containers stored or handled with the axis parallel to the ground and style II containers, a vertical line six inches long and one inch wide with the marking adjacent in one inch letters:-

"CENTER OF BALANCE"

(8) Where the container is designed for the shipment of more than one engine model, the following marking shall be applied in one inch letters adjacent to the engine record receptacle:-

"CONTAINS ATTACHMENTS FOR
MOUNTING MODEL"

(Model number or numbers, if not classified).

(9) In four places on the shell adjacent to and above the closure flange in one inch letters:-

"CAUTION"

"RELEASE PRESSURE BEFORE
OPENING CONTAINER"

(10) Style II containers on the inside of the container adjacent to and below the closure flange at each end and style I containers on the top, and opposite sides of the engine mounting ring adjacent to the outer edge of the ring in one inch letters:-

"DO NOT LIFT ENGINE CONTAINER
TOGETHER WITH ENGINE USING ENGINE
SLING OR ENGINE HOIST FITTINGS"

(11) Adjacent to the closure flange and approximately in the center of the two halves of the container in one inch letters:-

"RE-USABLE CONTAINER
DO NOT DESTROY"

(k) Replace wooden skids with broken ends or damaged beyond serviceability. Lengthwise splits not exceeding two feet long and one-half inch wide are acceptable. All skids replaced on the containers must be hardwood. Wooden skids shall be in accordance with Spec. MIL-C-5584. Skids shall be of white ash, beech, birch, hickory, hard maple or oak. The wood shall be sound and free from all defects including knots having a diameter greater than one fourth of the width of the face and from cross grain diverging more than 1 inch in

10 inches along the grain. The wood may be rough. Metal skids are to be rebuilt.

(m) Stamp the type of rework, name of the contractor or repair activity, and date of rework (in that order) on the data plate provided. Use the symbols listed below to indicate the type of rework performed:-

Minor Repair MR

Overhaul OV

(1) If all the space on the data plate has been used, replace the old plate with a new plate. Stamp the latest rework dates, and all modification engineering order compliances on the new plate.

(2) The container nameplate, permanently attached to each major section of the container, shall include all information required to be inserted in the blanks indicated. The following information should appear on the data plate: container vendor's name, container model number, engine manufacturer's part number, model number (including dash numbers) of the engine the container will accommodate, and overall dimensions (length, width and height) of the container. In the event there is not room on the data plate to stamp new stock numbers and/or engine information, new plates of manufacturer's design will be obtained.

(n) Relief valves shall be replaced with bench tested valves. Valves should open and close from 7 to 10 psi for engine containers.

(p) Repair dents beyond limits specified in Part 2 paragraph 4(a).

(q) Repair scratches and gouges beyond the limits specified in Part 2 paragraph 4(a) by fill welding.

(r) Repair holes and ruptures by hot forming the flange portion of the torn metal to flush position and welding on a suitable patch. Make patches from 10 to 11 gauge

HRS (Hot Rolled Steel) and extend the edges of the patch at least 1/2" in all directions beyond the rupture.

(s) Straighten dented or deformed closure flanges by means of hot forming and hammering and check by suitable gauges.

(t) Rework container to the latest configuration as directed by applicable time compliance engineering orders. Engineering order compliances shall be stamped on the data plate in a manner similar to that of the rework data, see Part 3 paragraph 2(m).

PART 4

PREPARATION OF EMPTY CONTAINERS FOR SHIPMENT

1 Prepare empty containers for shipment as follows:-

(a) Install all loose components in their proper places in the container.

(b) Insert desiccant in basket provided in accordance with applicable -9A EO.

(c) Tighten all bolts, nuts and fittings to prevent damage to threads and loosening of components during shipment.

(d) Pressurize the container to 5 psi.

Compressed airlines used in pressurizing containers shall be provided with moisture traps to minimize the amount of moisture entering the container.

NOTE

For torque values of all bolts used on the containers, i. e., main flange bolts, desiccant port bolts, shockmount bolts, engine support bolts, etc., reference should be made to the torque chart of the applicable engine EO -9A.

PART 5
PART LIST
SECTION 1
INTRODUCTION

1 The illustrated Part List lists and describes all removable and replaceable parts of the shipping containers specified.

2 The parts listed are arranged to show by indention the relationship of each detach-

able item to the next higher assembly. Index numbers are assigned to illustrate parts and referenced to the exploded drawings for ease in locating parts. The complete description as well as the listed part number should be given when ordering parts.

SEC/REF.	DESCRIPTION	DRAWINGS
35/10002	Container Aero Engine Gypsy Major CIG, 7G, 10MK1	RCAF 42950
35/10029 (266)	Container Aero Engine Wright R3350-85, R3350-EA1, R3350-32W	USAF RCAF - BAEL
35/10030 (292)	Container Aero Engine Wasp R985 and R1340	RCAF 3B5006
35/10054 (280)	Container Aero Engine Merlin 224 and 622 (Universal)	RCAF BR1729
35/10083	Container, Aero Engine Wright R1820-84	USAF
35/10086 (287)	Container, Aero Engine Power Plant Merlin 224	RCAF 1B4018
35/10087 (288)	Container, Aero Engine Continental 0-470-11	USAF SK1118
35/10091 (293)	Container, Aero Engine Wasp R1830 and Wright R2600	RCAF 3B5010
35/10140 (286)	Container, Aero Engine (Universal) Power Plant Merlin 224 and 622	BAEL BR1811
35/10141	Container, Aero Engine R1820-103	USAF
35/10178	Container, Aero Engine R1340-S1H1 Geared	RCAF

SEC/REF.	DESCRIPTION	DRAWINGS
35/10179	Container, Aero Engine Franklin 6V4-200-C32	USAF
35/10181	Container, Aero Engine, R2800-CA15	RCAF
35/10182	Container, Aero Engine Power Plant R3350-EA1	USAF
35/10217	Container, Aero Engine Power Plant Wright R2600 and Wasp R1830	
35/10218	Container, Aero Engine Power Plant Merlin 622	
35/10219	Container, Aero Engine Power Plant Wasp R1340	
35/10220	Container, Aero Engine Power Plant Wasp R985	
35/10221	Container, Aero Engine Power Plant Wright R3350-85	
35/10222	Container, Aero Engine Power Plant Wright R3350-32W	
35/10223	Container, Aero Engine Power Plant Wasp R1340-SIH1 Geared	

SECTION 2

GROUP ASSEMBLY PART LIST

1 Container, (35/10002) metal, aero engine manufactured by Aircraft Welding and Sheet Metals for packaging and shipping Gypsy Major Engines, Models C1G, 7G, 10MK1.

FIG & INDEX NO.	PART NO.	SEC & REF	DESCRIPTION	UNITS PER ASSY
5-1-			Container - Re-usable Steel	1
-1	42953	35/	Cover (Complete)	1
			Cover Assy. (Cover - Welded)	1
ATTACHING PARTS				
-2	AN10-13A	28/2869	Bolt - Main Joint Flange - Hex. Hd.	28
-3	AN315-10R	28/5069	Nut - Main Joint Flange - Hex.	28
-4	AN935-1016	28/1867	Washer - Lock, 5/8"	28
-5	32195	35/10190	Gasket - Main Closure Flange, Rubber, Spec. AMS 3227B or AMS 3226C, .550 dia. "O" Ring by 160.75" long	1
	42951	35/	Bottom (Complete)	1
-6			Bottom Assy. (Bottom Welded)	1
-7	14926	35/10197	Plug - Engine Record Receptacle 3" Std. Cord	1
-8	AN909-16	28/14700	Plug - Drain 3/4"	1
-9	AN6227B-15	28/18791	Gasket - Drain 3/4" ID "O" Ring	1
-10	22364	35/10189)	Gasket - Desiccant Port, Rubber	
	AN6227B-56	28/27156)	Spec. AMS 3227B or AMS 3226C 1/4" dia. "O" Ring by 4.975" ID	1
-11	22365	35/10191	Cover - Desiccant Port	1
-12	AN5-5A	28/2637	Bolt - Hex. Hd.	4
-13	AN315-5R	28/5052	Nut - Hex.	4
-14	AN935-516	28/424	Washer - Lock	4
-15	645A6	27VA/1895	Valve - Air Filling, Schraeder	1
-16	AN813-1	27VA/AN813-1	Cap - Dust, valve, air filling (Code 5)	
-17			Valve - Air Relief, 7 - 12 lb. cap	1
	604BRY686-3	35/10104	Breco 1/4" NPT	
	C-13B	35/10104	Andrews Alderfer	
-18	14926	35/10197	Plug - Std., 3" IPS	1
-19	AN4062-1A	40D/689	Indicator - Humidity, Plug Type Spec. MIL-P-6131, Type 1, 18 mm	1
-20	AN6227B-13	28/18270	Gasket - Indicator, Humidity, Spec. AMS 3227B, "O" Ring	1

FIG & INDEX NO.	PART NO.	SEC & REF	DESCRIPTION	UNITS PER ASSY
5-1 (Cont'd)				
5-1-21	14925	35/10185	Plug - Std., 2" IPS	1
-22	22363	35/10195	Mount - Rubber, Starter, Ford Motor Part AB6038A Modified	2
ATTACHING PARTS				
-23	325-6	29/1848	Nut - Hex. Hd. 3/8 - 24	2
-24	AN935-616	28/425	Washer - Lock 3/8	2
-25	32197	35/10194	Plate - Mounting, Starter	1
ATTACHING PARTS				
-26	AN7-7A	28/2730	Bolt - Hex. Hd.	2
-27	AN315-7R	28/5054	Nut - Hex. Hd.	2
-28	AN935-716	28/426	Washer - Lock	2
-29	32198	35/10193	Mount - Rubber - Engine GMC Part 5832471 Modified	4
ATTACHING PARTS				
-30	AN5-6A	28/2638	Bolt - Hex Hd.	16
-31	AN365-524	28/22977	Nut - Hex. Hd.	16
-32	AN960-516	28/398	Washer - Flat	16
-33	22366	35/10196	Support - Engine - Mounting	4
ATTACHING PARTS				
-34	14927	35/10186	Bolt - Hex. Hd. (AN76-11 Mod.)	8
-35	AN935-616	28/425	Washer - Lock	8
-36	32196	35/10192	Mounting - Engine	4
ATTACHING PARTS				
-37	AN7-11A	28/2732	Bolt - Hex. Hd.	4
-38	AN935-716	28/426	Washer - Lock	4

Container, (35/10029) metal, aero engine manufactured by Bausenback for packaging and shipping Wright Engines, Models R3350-32W, R3350-85 and R3350-EA1.

FIG & INDEX NO.	PART NO.	SEC & REF	DESCRIPTION	UNITS PER ASSY
5-2-			Container - Re-usable Steel	1
-1	50001	35/	Cover (Complete)	1
			Cover Assy. (Cover - Welded)	1
			Attaching Parts	
-2	AN10-11A	28/2867	Bolt - Main joint flange - Hex. Hd. 5/8 - 18 by 1-17/64"	42
-3	AN365-1018A	28/20301	Nut - Main joint flange - Hex. 5/8 - 18	42
-4			Nameplate - Brass	1
			Attaching Parts	
-5	AN535-6-6	28/9641	Screw - Drive, 1/8" nominal by 3/8" long	4
-6	27035	35/	Gasket - Closure flange, rubber Spec. AMS 3227B or AMS 3226C, 9/16 + 1/32". dia. "O" ring 27' 9" + 0" - 3" long	1
	50000	35/	Bottom (Complete)	1
-7			Bottom Assy. (Bottom - Welded)	1
-8		Local		
		Manufacture	Skid - Front - Wood	2
-9		Local		
		Manufacture	Skid - Rear - Wood	2
-10	AN10-42A	28/20426	Bolt - Hex. Hd. 5/8 - 11 by 25/64" long	8
-11	AN365-1018A	28/20301	Nut - Hex. 5/8 - 11	8
-12	AN935-1016	28/1867	Washer - Lock, 5/8"	8
-13	AN970-10	28/3780	Washer - Flat, 5/8"	8
-14	AN10-57A		Bolt - Hex. Hd. 5/8 - 11 by 6" long	8
-15	AN365-1018A	28/20301	Nut - Hex. 5/8 - 11	8
-16	AN935-1016	28/1867	Washer - Lock 5/8"	8
-17	AN970-10	28/3780	Washer - Flat, 5/8"	8
			Nameplate - Brass	1
			Attaching Parts	
-18	AN535-6-6 14926	28/9641 35/10197	Screw - Drive, 1/8" nominal by 3/8" long Plug - Engine Record Receptacle 3" Std. Cord	4 1
-19	AN909-16	28/14700	Plug - Drain Sq. Hd. 3/4"	1
-20	AN6227B-15	28/18791	Gasket - Drain 3/4" ID "O" ring	1

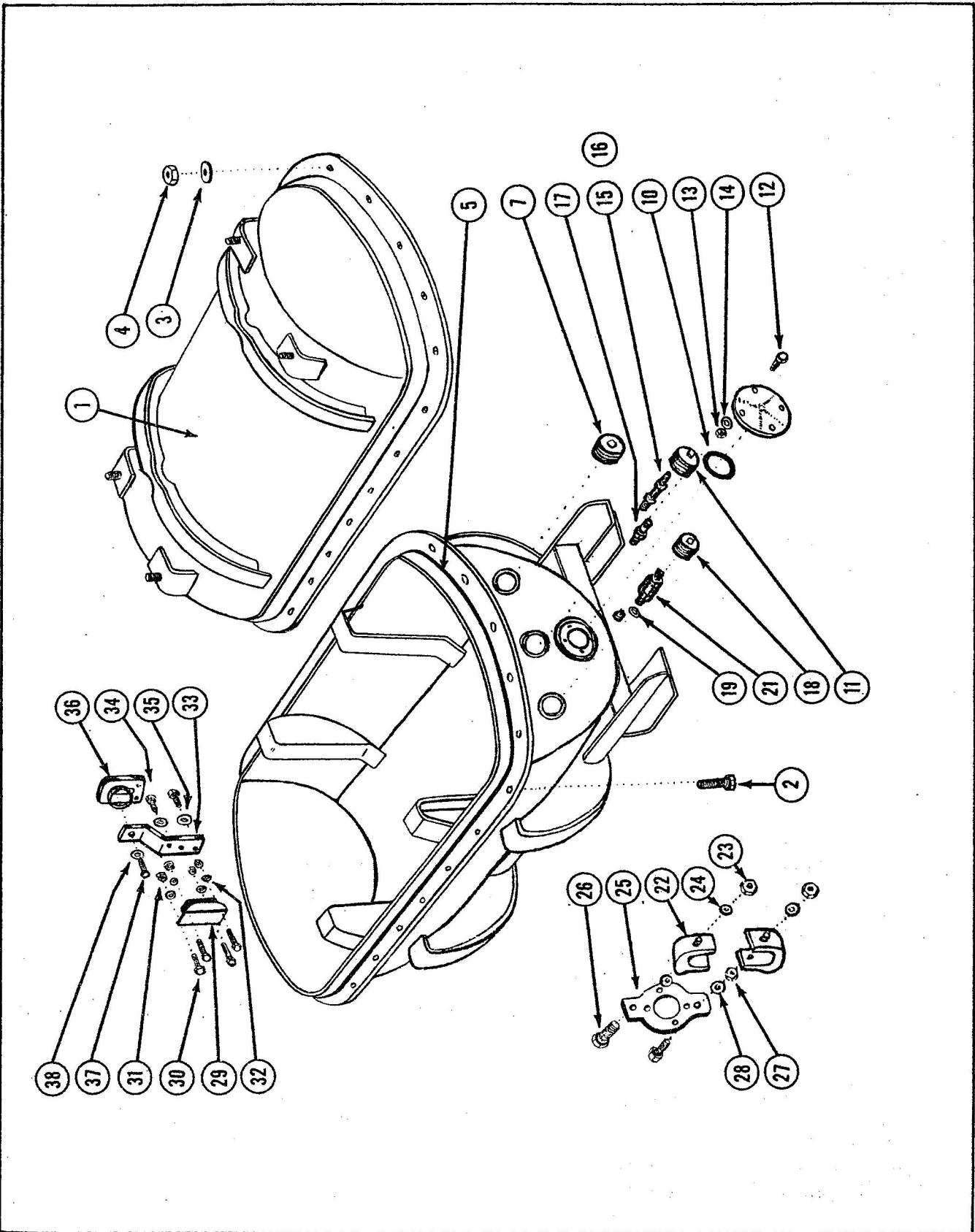


Figure 5-1 Container Re-usable Steel (35/10002)

FIG & INDEX NO.	PART NO.	SEC & REF	DESCRIPTION	UNITS PER ASSY
5-2 (Cont'd)				
5-2-21	1B1142/1	35/10102	Gasket - Desiccant port, rubber, Spec. AMS 3227B or AMS 3226C 1/4 + .015 "O" ring by 5-1/4 + .030 - .015" in ID	1
-22	27030	35/	Housing Assy. - Inspection port	1
Attaching Parts				
-23	AN6-6A	28/2682	Bolt - Hex. Hd. 3/8 - 24 by 1" long	6
-24	AN6-14A	28/2688	Bolt - Screwed 1" long	2
-25	AN315-6R	28/5053	Nut - Hex. 3/8 - 24	8
-26	AN4062-1A	40D/689	Indicator - Humidity, plug type, Spec. MIL-P-6131, Type 1	1
-27	645A-6	27VA/1895	Valve - Air Filling, Schraeder	1
-28	AN813-1	27VA/AN813-1 Code 5	Cap - Valve, Air Filling	1
-29			Valve - Air relief, 7 -12 lb. capacity	1
	604BRY686-3	35/10104	Breco 1/4" NPT	
	C-13B	35/10104	Andrews Alderfer	
-30	1B4018	35/10208	Cover - Housing Assy	1
Attaching Parts				
-31	AN350-6	28/10977	Nut - Wing 3/8 - 24	2
-32	AN935-616	28/425	Washer - Lock, 3/8"	2
-33	47018	35/	Bracket Support - Spares, basket	1
Attaching Parts				
-34	AN365-820A	28/11685	Nut - Hex. 1/2 - 20	4
-35	AN935-816	28/427	Washer - Lock, 1/2"	4
-36	AN970-8	28/3778	Washer - Flat, 1/2"	4
-37	47017	35/	Basket Assy. - Spares	1
Attaching Parts				
-38	AN4-5A	28/2593	Bolt	6
-39	AN365-428	28/11681	Nut	6
-40	AN960-416	28/397	Washer	6
-41	37012	35/	Basket Assy. - Spark Plugs	1
Attaching Parts				
-42	AN4-5A	28/2593	Bolt	4
-43	AN365-428	28/11681	Nut	4
-44	AN960-416	28/397	Washer	4

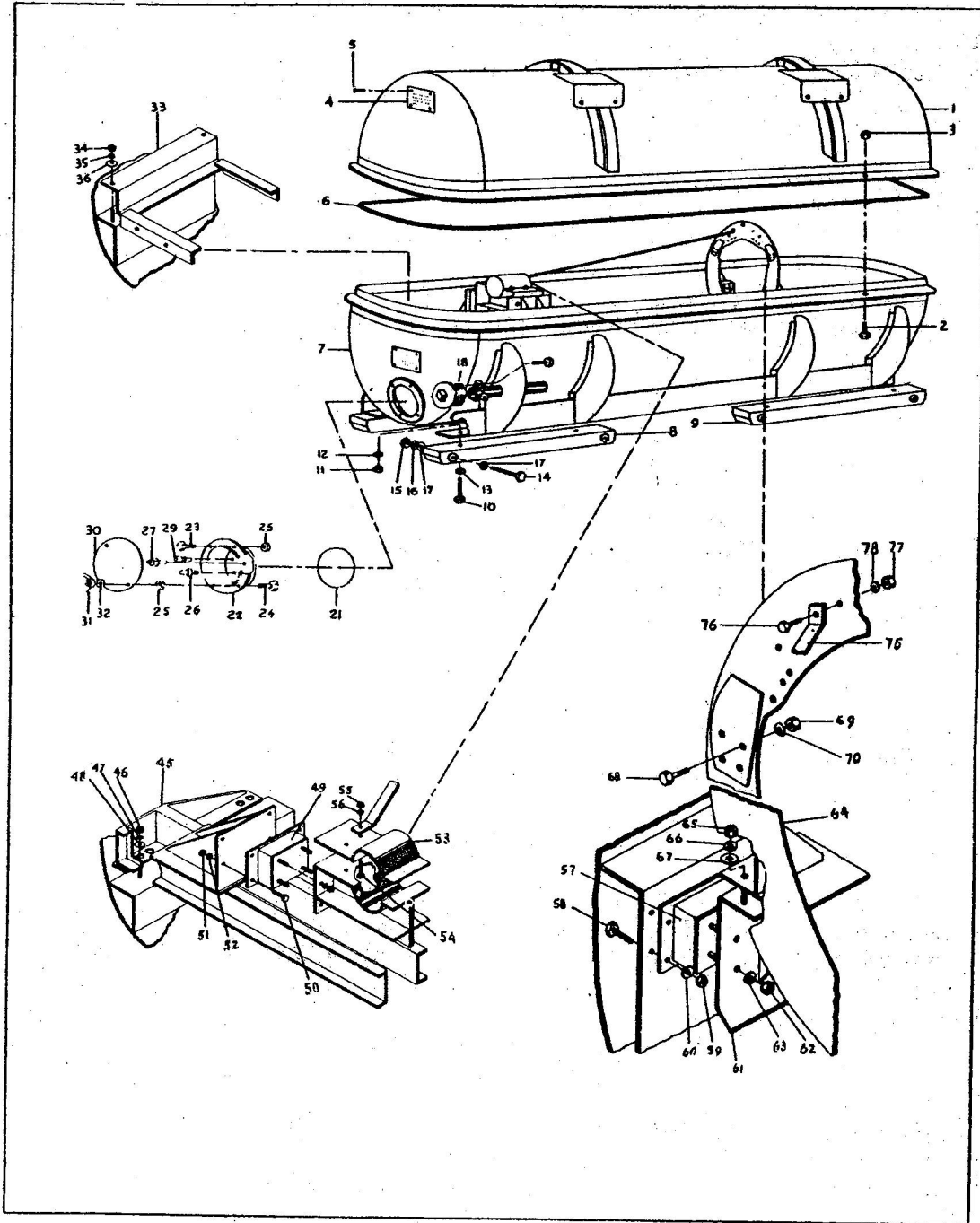


Figure 5-2 Container Re-Usable Steel (35/10029)

FIG & INDEX NO	PART NO.	SEC & REF	DESCRIPTION	UNITS PER ASSY
5-2 (Cont'd) 5-2-45	47021	35/	Bracket Beam - Front Suspension	1
Attaching Parts				
-46	AN365-1018A	28/20301	Nut - Hex. 5/8 - 18 self-locking	4
-47	AN960-1016	28/403	Washer - Flat, 5/8"	4
-48	27037	35/	Washer - Special	4
-49	J-6332-1	27LM/	Mount - Shear, front	2
Attaching Parts				
-50	AN8-12A	28/2780	Bolt - Hex. Hd. 1/2 - 20 by 1-1/4" long	8
-51	AN365-820A	28/11685	Nut - Hex. 1/2 - 20 self-locking	8
-52	AN960-816	28/401	Washer - Flat, 1/2"	8
-53	47022	35/	Clamp - Propeller Shaft	1
Attaching Parts				
-54	AN10-14A	28/2870	Bolt - Hex. Hd. 5/8 - 18 by 1-1/2" long	4
-55	AN365-1018A	28/20301	Nut - Hex. 5/8 - 18	4
-56	AN960-1016	28/403	Washer - Flat, 5/8"	4
-57	J-6332-2	27LM/	Mount - Shear, rear	2
Attaching Parts				
-58	AN8-12A	28/2780	Bolt - Hex. Hd. 1/2 - 20 by 1-1/4" long	8
-59	AN365-820A	28/11685	Nut - Hex. 1/2 - 20 self-locking	8
-60	AN960-816	28/401	Washer - Flat, 1/2"	8
-61	27034	35/	Support - Mounting ring, rear	2
Attaching Parts				
-62	AN365-820A	28/11685	Nut - Hex. 1/2 - 20 self-locking	8
-63	AN960-816	28/401	Washer - Flat, 1/2"	8
Attaching Parts				
-64	47019	35/	Ring Assy. - Mounting Ring Engine - rear	1
Attaching Parts				
-65	AN365-1018A	28/20301	Nut - Hex. 5/8 - 18 self-locking	4
-66	AN960-1016	28/403	Washer - Flat, 5/8"	4
-67	27037	35/	Washer - Special	4
-68	AN8-15A	28/2783	Bolt - Hex. Hd. 1/2 - 20 by 1-23/32" lg	8

FIG & INDEX NO.	PART NO.	SEC & REF	DESCRIPTION	UNITS PER ASSY
5-2 (Cont'd)				
5-2-69	AN365-820A	28/11685	Nut - Hex. 1/2 -20 self-locking	8
-70	AN960-816	28/401	Washer - Flat, 1/2"	8
-71	27020	35/	Bracket - Engine Mounting	4
Attaching Parts				
-72	AN10-20A	28/2874	Bolt - Hex. Hd. 5/8 - 18	12
-73	AN365-1018A	28/20301	Nut - Hex. 5/8 - 18 self-locking	12
-74	AN960-1016	28/403	Washer - Flat, 5/8"	12
-75	37013	35/	Strap - Packing	1
*Attaching Parts				
-76	AN10-12A	28/2868	Bolt - Hex. Hd. 5/8 - 18 by 1-3/4" long	2*
-77	AN365-1018A	28/20301	Nut - Hex. 5/8 - 18	2*
-78	AN960-1016	28/403	Washer - Flat 5/8"	2*

* This hardware is used for fastening the shipping strap to the side of the container when the engine is enclosed. When the container is shipped empty, one set of these are used to fasten the shipping strap to the mounting ring in the rear; the front end is fastened to the saddle clamp with the attaching parts for the saddle clamp.

Container, (35/10030) metal, aero engine manufactured by Cobra Industries for packaging and shipping Wasp Engine, Models R985-AN14B, R985-AN5 and R1340-S3H1, R1340-S1H2.

FIG & INDEX NO.	PART NO.	SEC & REF	DESCRIPTION	UNITS PER ASSY
5-3-			Container - Re-usable Steel	1
	3B5006	35/	Cover (Complete)	1
-1			Cover Assy. (Cover - Welded)	1
Attaching Parts				
-2	AN10-11A	28/2867	Bolt - Main Joint Flange - Hex. Hd. 5/8 - 18 by 1-17/64" long	26
-3	AN365-1018A	28/20301	Nut - Main Joint Flange - Hex. 5/8 - 18	26
-4	AN935-1016	28/1867	Washer - Lock, 5/8" dia. cadmium plated	26
-5	3B5006/59	35/10198	Gasket - Closure Flange, rubber, Spec. AMS 3227B or AMS 3226C, 9/16" dia. "O" ring 15' long	1
	3B5006	35/	Bottom (Complete)	1
-6			Bottom Assy. (Bottom - Welded)	1
-7	14925	35/10185	Plug - Engine Record Receptacle, 2" Std. Cored	1
-8	SKO406		Plug - Drain	1
-9	AN6227B-19	28/19321	Gasket - Drain, Rubber "O" ring 1-1/4" OD by 1" ID by 1/8"	1
-10	AN4062-1A	40D/689	Indicator - Humidity, Plug Type, Spec. MIL-P-6131, Type 1, 18 mm	1
-11	AN6227B-13	28/18270	Gasket - Humidity, Rubber, "O" ring 7/8" OD by 11/16" ID by 3/32"	1
-12	14925	35/10185	Plug - Humidity, 2" Std. Cored	1
-13	AN6287-1	27VA/1769	Valve - Air Filling Schraeder 3/4" Hex. 1/2 x 20 TPI (Core AN809-1)	1
-14	880	27VA/880 Code 5	Cap - Valve Air Filling - Schraeder #4361	1
-15			Valve - Air Relief, 7 - 12 lbs. capacity Breco 1/4" NPT Andrews Alderfer	1
-16	604BRY686-3 C-13B 14926	35/10104 35/10104 35/10197	Plug - Air Filling and Air Relief 3" Std. Cored	1
-17	3B/4017/28	35/	Gasket - Rubber - Desiccant port, Spec. AMS 3227B or AMS 3226C, 1/8" thick by 6.000-8.000" long	1
-18	3B4017	35/10199	Cover - Desiccant port	1
Attaching Parts				
-19	AN80A14	28/4209	Bolt - Hex. 5/8 NC by 1-1/2" long	2

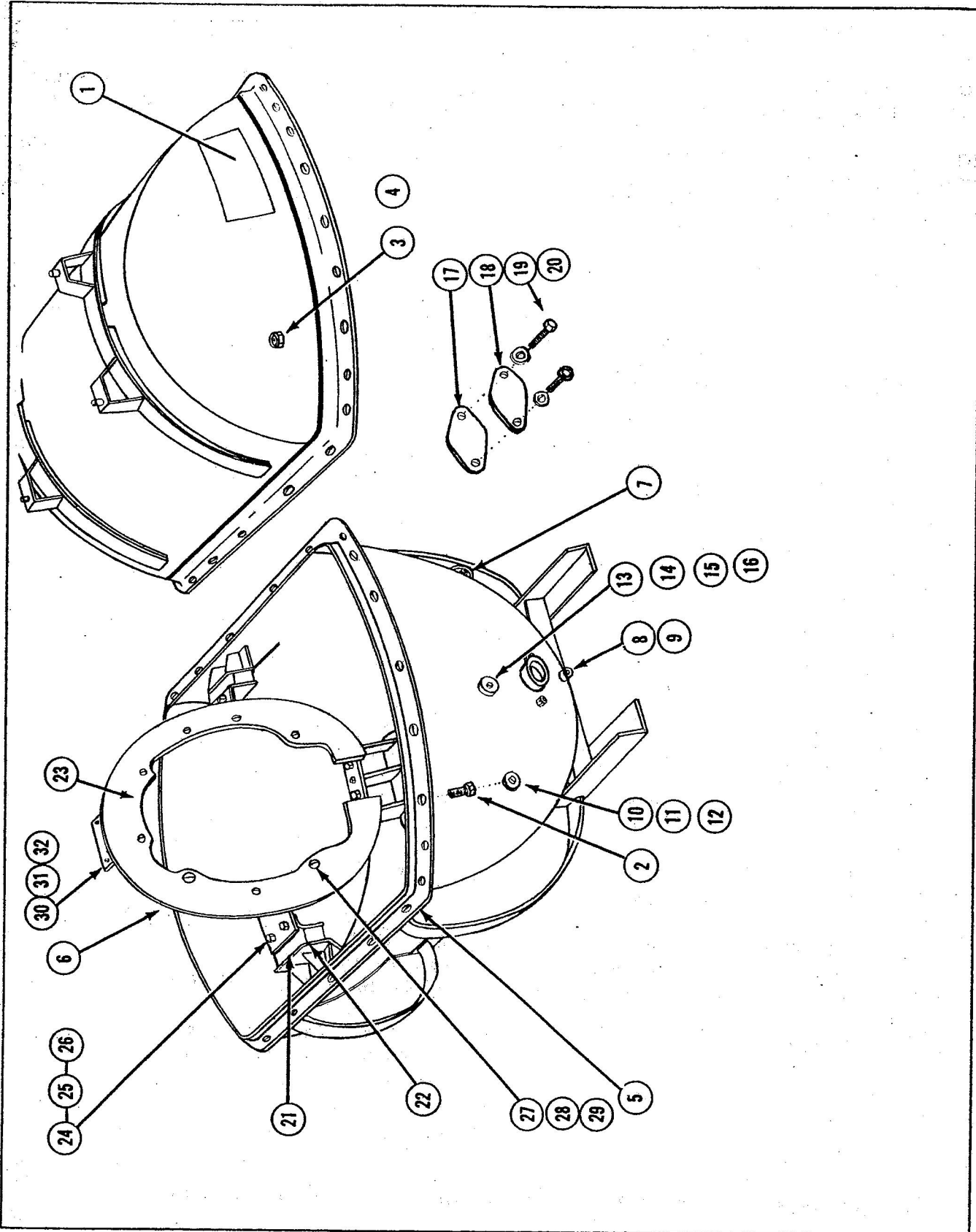


Figure 5-3 Container Re-usable Steel (35/10030)

FIG & INDEX NO.	PART NO.	SEC & REF	DESCRIPTION	UNITS PER ASSY
5-3-20	AN935-1016	28/1867	Washer - Lock, 5/8" Cadmium Plated.	2
-21	J-5130-1	27LM/10036	Mount - Rubber, Shear Type	6
Attaching Parts				
-22	AN8H-5A	28/	Bolts - Shear Type	48
-23	3B5003	35/	Ring Assy. - Mounting Ring Engine	1
Attaching Parts				
-24	AN80A20	28/	Bolts - Hex. Hd. 5/8 NC by 2" long	6
-25	AN935-1016	28/1867	Washer - Lock 5/8" Cadmium Plated	6
-26	945-10	28/3822	Washer - Flat 11/16" ID x 1-3/4" OD	6
-27	AN7-36A	28/2752	Bolts - Engine to Mounting Ring	8
-28	AN363-720	28/23820	Nuts - self-locking	8
-29	AN960-716	28/400	Washer - Flat	16
-30			Bolts - Carburettor to Mounting Ring	4
-31		35/	Gasket - R985 Carburettor	1
-32		35/	Gasket - R1340 Carburettor	1

