

ROYAL CANADIAN AIR FORCE



**ENGINE PRESERVATION  
INFORMATION**

**REUSABLE METAL CONTAINERS  
P AND W R-985 ENGINES**

**ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF**

**27 MAR 57**

# LIST OF RCAF REVISIONS

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## REUSABLE METAL CONTAINERS P AND W R-985 ENGINES

### GENERAL

1 It is the purpose of this EO to provide a guide for the execution of the following operations.

- (a) Preparation of container for installation of engines.
- (b) Preparation of engine for installation in container.
- (c) Installation of engine in container.
- (d) Removal of engine from container.
- (e) Preparation of container for shipment without engine.

### PREPARATION OF CONTAINER FOR INSTALLATION OF ENGINE

**CAUTION**

Release pressure before opening container.

**WARNING**

Use of materials and procedures other than those called for can result in severe damage to engine and container.

2 Prepare container in the following manner:

- (a) Release pressure from container by removing core from air valve, Figure 1 Ref. 5. Replace core when pressure is exhausted.
- (b) Remove the twenty-six flange bolts, Figure 1 Ref. 4.
- (c) Remove container top, using lifting eye.

### NOTE

Do not disturb sealing ring Figure, 1 Ref. 10.

- (d) Remove desiccant cover bolts, Figure 1 Ref. 3, and take off cover plate, Figure 1 Ref. 2 and rubber gasket, Figure 1 Ref. 1.
- (e) Remove desiccant and destroy.

### PREPARATION OF ENGINE FOR INSTALLATION IN CONTAINER

3 Prepare engine in the following manner:

- (a) Ensure that the engine is prepared for storage in accordance with EO 10A-10AA-9.
- (b) Remove engine ring Figure 1 Ref. 9 from container by removing two bolts Figure 1 Ref. 6 on each of the three brackets. Attach mounting ring to engine using eight AN7-36A bolts and self-locking nuts AN365-720 and plain washers AN960-716 Figure 1 Ref. 15. Refer to torque chart on Figure 1.

### INSTALLATION OF ENGINE IN CONTAINER

4 Install engine as follows:-

- (a) Using engine sling, install engine in container and secure in place using six 5/8" NC cap screws and washers and lockwashers and AN935-1016 lock wire cap screws. See Figure 1, Ref. 6, 6A, 6B and 13.
- (b) Mount carburettor on mounting brackets, Figure 1 Ref. 11, of engine mounting ring and fit the gasket between.
- (c) Re-install container cover and ensure locating dowell engages dowell hole, Figure 1 Ref. 7.
- (d) Re-install the twenty-six flange bolts, Figure 1 Ref. 4.

(e) Partially tighten three nuts in center of main flange on each side of container.

(f) Tighten nuts progressively, do not completely tighten one nut before proceeding to the next. (Refer torque chart Figure 1). In the event of a leak a maximum torque of 800 lbs. may be used.

(g) Insert 176 units of desiccant in basket provided.

(h) Replace rubber gasket, Figure 1 Ref. 1, cover plate, Figure 1 Ref. 2, and bolts Figure 1, Ref. 3. Refer to torque chart on Figure 1.

#### NOTE

These two bolts must be tightened evenly to ensure perfect seal of the rubber gasket

(j) Install new humidity indicator, Figure 1 Ref. 8.

(k) Record engine serial number on space provided on container end Figure 1 Ref. 12.

(m) Install engine record in record container, Figure 1 Ref. 14.

(n) Fill container to 5 psi, plus or minus 1 psi, gauge pressure (See Figure 2) through filler valve, Figure 1 Ref. 5, using clean dehydrated air or nitrogen. Replace dust cap.

(p) Check for leaks with soap and water around the flange.

(q) Check container for serviceability and markings.

(r) Do not deface the container. Stencil engine number and shipping instructions in the spaces provided.

#### NOTE

Use only the space provided for application of markings, i. e., engine serial number, date of inhibiting etc. They are to be applied by stencil.

## REMOVAL OF ENGINE FROM CONTAINER

5 Remove engine from container as follows:

(a) Release pressure from container, by removing core from air valve, Figure 1 Ref. 5, replace core when pressure is exhausted.

(b) Remove the twenty-six flange bolts, Figure 1 Ref. 4.

(c) Remove top container, using lifting eyes.

#### NOTE

Do not disturb sealing ring, Figure 1 Ref. 10.

(d) Remove the carburettor, Figure 1 Ref. 11.

(e) Fit engine lifting sling, and support engine with hoist.

(f) Remove the six 5/8" cap screws and washers from the three attachment brackets, Figure 1 Ref. 6.

(g) Lift engine from container.

(h) Remove the engine ring from the engine.

(j) Re-install the mounting ring in the container, with six 5/8" cap screws and washers, Figure 1 Ref. 6.

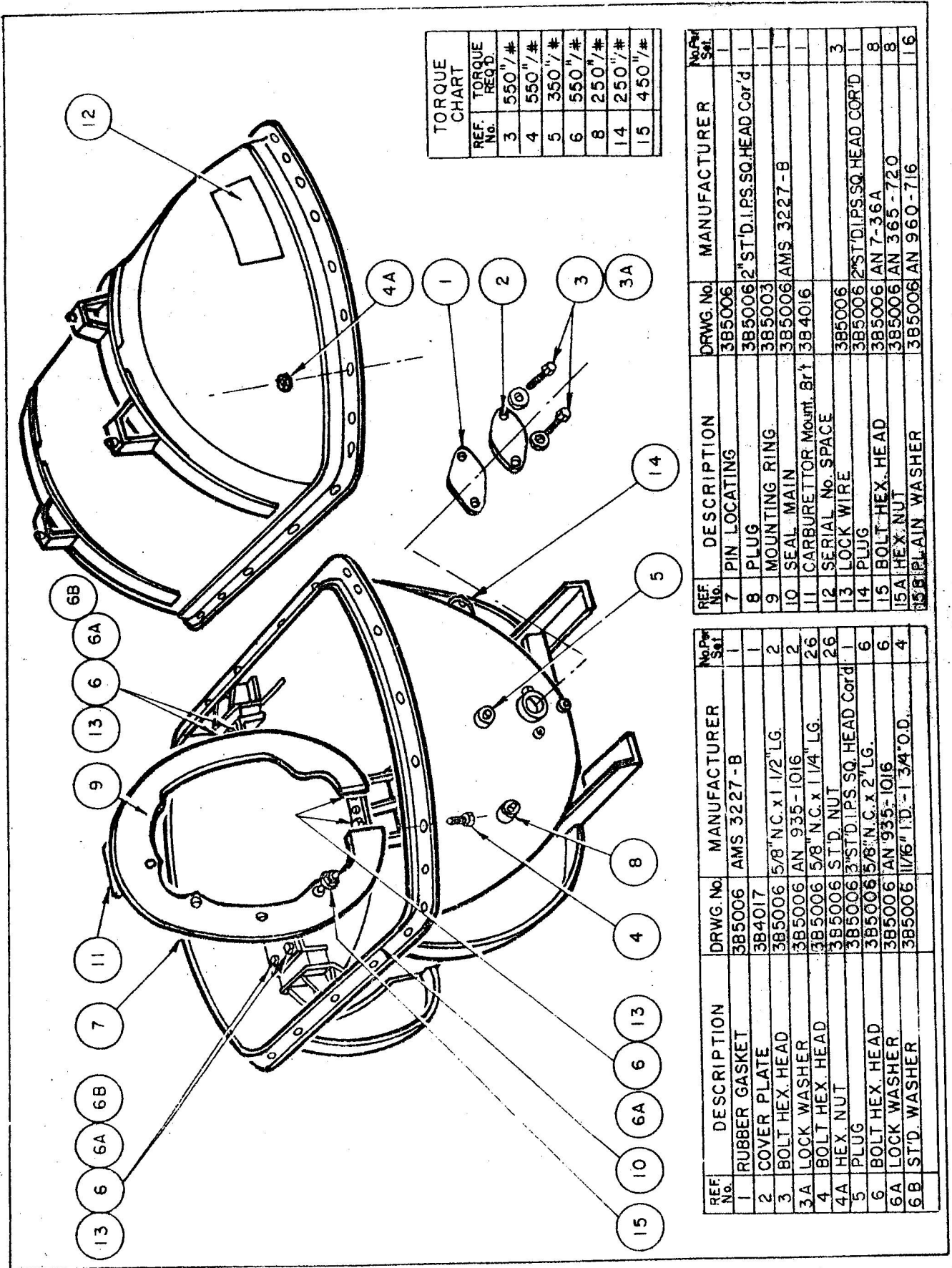
(k) Destroy desiccant.

## PREPARATION OF CONTAINER FOR SHIPMENT WITHOUT ENGINE

6 Prepare container for shipment as follows:-

(a) Ensure that the mounting ring, Figure 1 Ref. 9, bolts and washers, Figure 1 Ref. 6, and Ref. 15, are assembled in position in container.

(b) Ensure that the main sealing ring, Figure 1 Ref. 10, is properly located.



REF. No.	DESCRIPTION	DRWG. No.	MANUFACTURER	No. Per Set
7	PIN LOCATING	3B5006		1
8	PLUG	3B5006	2" ST'D. I.P.S. SQ. HEAD Cor'd	1
9	MOUNTING RING	3B5003		1
10	SEAL MAIN	3B5006	AMS 3227-B	1
11	CARBURETTOR Mount. Br't	3B4016		1
12	SERIAL No. SPACE	3B5006		3
13	LOCK WIRE	3B5006	2" ST'D. I.P.S. SQ. HEAD COR'D	1
14	PLUG	3B5006	AN 7-36A	8
15	BOLT-HEX. HEAD	3B5006	AN 365-720	8
15A	HEX. NUT	3B5006	AN 365-720	8
15B	PLAIN WASHER	3B5006	AN 960-716	16

REF. No.	DESCRIPTION	DRWG. No.	MANUFACTURER	No. Per Set
1	RUBBER GASKET	3B5006	AMS 3227-B	1
2	COVER PLATE	3B4017		1
3	BOLT HEX. HEAD	3B5006	5/8" N.C. x 1 1/2" LG.	2
3A	LOCK WASHER	3B5006	AN 935-1016	26
4	BOLT HEX. HEAD	3B5006	5/8" N.C. x 1 1/4" LG.	26
4A	HEX. NUT	3B5006	ST'D. NUT	26
5	PLUG	3B5006	3" ST'D. I.P.S. SQ. HEAD COR'd	1
6	BOLT HEX. HEAD	3B5006	5/8" N.C. x 2" LG.	6
6A	LOCK WASHER	3B5006	AN 935-1016	6
6B	ST'D. WASHER	3B5006	11/16" I.D. - 1 3/4" O.D.	4

Figure 1

- (c) Replace cover and ensure locating dowell, Figure 1 Ref. 7, engages dowell hole.
- (d) Partially tighten three nuts in center of main flange on each side of container.
- (e) Tighten nuts progressively, do not completely tighten one nut before proceeding to next. (Refer torque chart Figure 1). In the event of a leak a maximum torque of 800 lbs may be used.
- (f) Insert 176 units of desiccant in basket provided.
- (g) Replace rubber gasket, Figure 1 Ref. 1, cover plate Ref. 2 and bolts Ref. 3.

NOTE

These bolts are to be tightened evenly to ensure perfect seal of rubber gasket. Refer torque chart Figure 1.

- (h) Replace humidity indicator, Figure 1 Ref. 8.
- (j) Remove engine serial number on space provided on container end, Figure 1 Ref. 12.
- (k) Fill container to 5 psi, plus or minus 1 psi, gauge pressure (See Figure 2) through filler valve, Figure 1 Ref. 5, using clean dehydrated air or nitrogen. Replace dust cap.

Atmospheric Temperature of	.20	.10	0	20	40	Working 60	Std. 80	100
Required Gauge Pressure (PSI)	2.000	2.375	2.750	3.500	4.250	5.000	5.750	6.500

Figure 2 Air Temperature Chart