OLYMPUS 202/301 SERIES

SECTION 13

AIRBORNE AUXILIARY POWER PLANT

SERVICING

1. Inspecting L.P. Fuel Filler

   a. Cut and remove locking wire.

   b. Release drain plug taking care with fibre washer.

   c. Drain contents into container noting type of fluid.

   d. Replace plug, secure and lock.

   e. Fluid drained should be entirely fuel that is absolutely clean.

2. Renewing Filter Element

   a. Unscrew the four bolts in filter head.

   b. Lower filter case with retaining collar and element.

   c. Extract filter element from case. Destroy this element.

   d. Inspect 'O' type sealing ring and replace if deteriorated.

   e. Insert new filter element in case.

   f. Offer casing to filter head and secure.

3. Replenishing Oil Sump Level

   a. Remove cap from quick release coupling.

   b. Secure oil delivery hose to coupling.

   c. Supply oil from rig at pressure not exceeding 10 psi

   d. When oil flows from overflow pipe the level is correct.

   e. Close supply line and disconnect delivery hose when flow ceases.

   f. Replace protective cap.

4. Replenishing Blower Oil Level

   a. Remove filler plug on side of blower.

   b. Insert syringe filled with correct oil into blower.

   c. Inject oil into blower until the level reaches the bottom of the filler orifice.

d. Replace plug, secure and wire lock.

5. Loading Cartridge Starter

a. Depress large control plunger and unscrew cap.

b. Remove cover from cartridge mouth.

c. Insert a cartridge into the cap so that the two extractor claws clip over the cartridge base.

d. Ensure 'O' seal is in position on rim of cartridge.

e. Insert the assembly into the breech barrel.

f. Screw cap home finger tight only.

g. DO NOT OVERTIGHTEN.

6. Unloading Cartridge Starter

a. Depress large controlpplunger and unscrew cap.

b. Depress the two spring loaded extractor claws.

c. Withdraw empty case from cap.

d. Check there are no loose particles in breech barrel.

e. Retain empty case for returning to stores.

NOTE: Never leave cartridge breech cap empty, always fit dummy cartridge or empty case complete with 'O' seal.

OLYMPUS 208/301
SECTION 13

COMPRESSOR WASHING INSTRUCTIONS

To improve the efficiency of the compressor washing operation an injector nozzle has been fitted in the AAPU compressor housing and piped to the forward bulkhead.

The compressor washing technique to be employed is as follows and most only be carried out when engine is cold ie not less than 1 hour after running.

1. Any intake filter must be removed.

2. Remove breach caps and dummy cartridges.

3. Disconnect burner air assistance pipe.

4. Fit blanking plug to compressor casing.

5. Remove drain valve.

6. Fit suitable length of pipe to act as drain.

7. Remove blank from forward bulkhead union.

8. Charge fluid container stores Ref 4G/5358 with 3 pints of water ½ pint Tubex (SG 25), 3 pints of aviation herosine in that order.

9. Mix by shaking the container thoroughly.

10. Pump pressure in fluid container to 30 PSI

11. Connect fluid container pipe to bulkhead union.

12. Carry out dry motoring cycle.

13. With NCO motoring engine for the period of 30 seconds, operate spraying until the engine has stopped turning. The cooling blower shaft will indicate this.

14. Empty the fluid container and refil with 6 pints distilled water pump up to 30 PSI

15. At not less than 15 mins after operation 13 repreat operation 13 using distilled water.

16. Empty fluid container and refill with 6 pints of distilled water, pump to 30 PSI

17. Repreat operation 13 with distilled water and allow sufficient time for water that has accumulated to drain away (5 mins). Carry out further dry motoring cycle as a drying operation.

18. Disconnect the fluid container pipe from the bulkhead unions.

19. Remove drain pipe

OLYMPUS 202/301
SECTION 13

20. Replace drain valve and lock with wire.

21. Remove main casing blanking plug.

22. Reconnect burner assistance pipe and lock with wire.

23. Replace blank on the forward bulkhead union.

24. Wipe away all surplus fluid.

25. Replace cartridge dummies and breach caps.

26. Within a period of 3 hours, carry out a ground running check.

Washing Times

1. After each cartridge start.

2. 25 AAPP running hours.

Reasons for Washing

Deterioration in performance and power output due to fouling up of compressor and diffusers by deposits during normal ground running, or deposits left on turbine after a cartridge start. If allowed to accumulate, these deposits harden and become baked in position requiring stripping of the unit to remove them.

Caution

After three consecutive starts, dry or wet cycles, a period of not less than 30 mins must elapse before attempting to re-energise the starter, otherwise the starter may be overheated and rendered unserviceable.