SECTION 24

AIRCRAFT SERVICING

1. Fitting the air intake and the jet pipe blanks is a job often accomplished by the mechanic. The air intake blanks are large and cumbersome, they are heavy and difficult to manhandle. When fitting these blanks always use a safety Raiser and note the limits of its surface. Always fit the blank by inserting the narrow end into the tunnel, sliding the blank on its face until it is in line with the sealing position and then lift the blank so that it will seal the opening. To fit the jet pipe blanks correctly a small ladder or step is required. The lower half of the circular blank has to be inserted first and then the top half can be pushed home. It is essential that all identification streamers are attached to these blanks and that they are suitably displayed.

2. During servicing all openings, whether large or small, should be covered by a blank. Where a special blank is supplied e.g. engine air intakes, this should be used. Where a component is removed a wood or strong cardboard blank must be fitted. Do not forget to enter in the Form 700H that a blank has been fitted. State fully where!

3. Additional jury struts are fitted after landing to the main undercarriage gear and the undercarriage bay access. Ensure that these jury struts are fitted securely, the adjustments are correct and that precise knowledge of the period for removal are known.

4. Draining Collector Tanks

(a) Position a graduated container below collector tank drain.

(b) Insert a screw-driver into slot on port drain tank valve.

(c) Push and turn until valve engages in open position.

(d) Collect drainage-check for excessive oil contents, empty and clean container.

(e) Repeat operations a, b, c, and d, on starboard drain tank valve.

(f) If quantity of drainage is clear and does not exceed the amount allowed.

(g) Close both drain tank valves.

5. Removing Hydraulic Pump

(a) Disconnect three self-sealing couplings at the side of the engine bay.

(b) Disconnect all pipes from hydraulic pump. Blank off all unions.

(c) Push pipe support diaphragm forward as far as possible, this will provide withdrawal clearance.

(d) Remove pump. Fit and secure blank.

(e) Extract circlip and withdraw coupling from bore of driving level. Segregate coupling from unserviceable pump.

/6. Fitting Hydraulic Pump

6. Fitting Hydraulic Pump

(a) Prepare for fitting.

(b) Lubricate external serrations on driving coupling and insert into bore of driving level.

(c) Fit circlip ensuring it is fully expanded into the groove.

(d) Fit new 'O' seal to pump body.

(e) Lubricate shaft serrations, fit pump and secure.

(f) Draw pipe support diaphragm rearward until the two rigid pipes engage their respective connections. Tighten and wire lock unions.

(g) Connect flexible pipe, tighten and lock.

(h) Prime all three pipes, then reconnect at self sealing couplings.

(j) Carry out necessary ground checks.

7. Landing

To prevent any possibility of static electricity sparking across pipes correct bonding has to be ensured.

8. Towing. The towing bar used for both forward and rearward towing is illustrated in the diagram attached. The tractor end of the bar consists of the towing eye, a pair of road wheels and a raising mechanism to lift the towing eye up to the level of the towing vehicle. The nose wheel end of the bar carries two attachment points. The first is a U shaped shackle fastens to a lug on the nose wheel undercarriage leg. The second attachment consists of two arms which wrap around the nose wheel tyre and are secured by a mandrel passing through the nose wheel axle. The method of attaching the bar is as follows:-

(a) Position the bar directly in front of the nose wheel.

(i) Attaching bar to nose wheel.

(b) Raise top attachment point to level of lug on nose wheel leg by the adjusting handwheel. Secure to leg.

(c) Wrap arms of lower attachment around nose wheel tyre, and lock in this position. Raise the arms so that the eye is in line with the bore of the nose wheel axle by again adjusting on the handwheel. Pass the mandrel through the arms and the nose wheel axle and lock with the locking sleeve and peg.

(ii) Attaching bar to towing vehicle.

(d) Raise towing eye to level of towing hook on vehicle by raising the front leg.

(e) Allow vehicle to reverse up to towing eye and secure in towing hook with the locking peg.

/(f)

(f) Retract front leg so that towing bar is clear of ground

9. Precautions Whilst Towing

(a) All engine doors must be fully closed and secure.

(b) The airman occupying the Pilot's seat must be fully competent and should only apply the brakes when told to do so by the driver of the towing vehicle.

(c) The hydraulic brake pressure must not fall below 3000 p.s.i.

(d) The intercom between the driver of the vehicle and the person in the pilot's seat must be used during towing.

(e) The crew chief will be in charge during towing. All instructions will be relayed to the cockpit by the driver.

(f) The maximum angle that the towing arm can be turned through is 40°. Later towing arms have a modification incorporated which prevents exceeding this angle.

(g) Lock-outs at each wing tip are essential as both the pilot and the crew chief have limited vision of the wing span.

(h) Brakes are not to be applied suddenly, or before the aircraft has ceased to move or before the order has come from the driver of the tugmaster.