B22 AeroPower

B25 AeroPower

Bollettino di servizio
Service Bulletin
S-001 MANDATORY
Whirlwind propeller

Simbol description

WARNING: Not following this instruction can cause severe personal injury or even death

CAUTION: Ignoring this instruction could cause severe damage to the engine and the sudden loss of power.

NOTE: Refer to supplementary information necessary to execute or better understand an instruction

1) Planning information

1.1) Engine affected

All engines B22R and B25R

1.2) Concurrence of L/S or X

None

1.3) Reason

A B22R engine installed in South Africa coupled to a Whirlwind propeller experienced a loss of lubricant from reduction box gear cover when cap screw became loose. This propeller have never been tested nor approved by MW Fly for use on MW Fly engines, and there is no information about the static and dynamic balance of the propeller. A full investigation on the probable cause is in progress. Additional Service Bulletin (s) will follow.

1.4) Subject

Check the tightness of gear cover cap screws, toque setting M8 20/22 Nm

1.5) Compliance

- Engines equipped with a Whirlwind propeller. Effective immediately, prior next flight and not later than 28.02.2015, all aircraft fitted with a Whirlwind propeller (including aircraft which have only been ground tested) must inspect engine gearbox for loose bolts as per this service bulletin and report findings to the engine manufacturer. In addition, the engine is to be returned to an Authorized Service Centre for technical inspection.
- Engines equipped with other makes of propeller. Prior next flight, all engines using propeller brands other than whirlwind must comply with this service bulletin.

WARNING: Ignoring this instruction may cause severe personal injury or even death.

1.6) Manpower

Estimated man-hours:
Engine installed in the aircraft-manpower time will depend on installation and therefore no estimate is available for the engine manufacturer.

1.7) Mass data
Change of weight --none
Moment of inertia---unaffected

1.8) Electrical load data
No change

1.9) Software accomplishment summary
No change

1.10) Reference
In addition to this technical information refer to current issue of:
-Manual A (Installation Manual) Cap A.15.5.2, A.15.5.3, and A.15.5.4

1.11) Other publication affected
None

1.12) Interchangeability of the parts
None affected

2) Material information

2.1) Material - cost availability
Price and availability will be supplied on request by MWFLY Authorized Service Center

2.2) Company support information
None

2.3) Material request for engine
Replacement part list will be compiled following components inspection by Authorized Service Center

2.4) Material requirement spare parts
None

2.5) Reworks of parts
Additional work resulting from the inspection by the Authorize Service Center will be evaluated and approved by MW FLY

2.6) Special tooling/lubricant adhesive/sealing compound
None

3) Accomplishment/instruction

All the measure must be taken and confirmed by the following person or facilities:
MW Fly - Authorized Service Centre
- Person approved by the respective Aviation Authority

INFORMATION: before check review the entire documentation to make sure you have a complete understanding of the procedure and requirements to prevent mistakes from an incomplete review of all documents.

Accomplishment

WARNING: switch off the master relay and secure engine against unintentional operation. Secure aircraft against unauthorized operation. Disconnect negative terminal of aircraft battery.

WARNING: risk of scald or burns! Allow engine to cool sufficiently before operating.

INFORMATION: all work should be performed in accordance with Manual C (Maintenance Manual).

3.1) Check of oil leak on the gear box

INFORMATION: the following steps are important read carefully.

a. perform inspection of oil leak in the area where the two part of the gear box are jointed and on the propeller blade.

b. if you have found any oil leaks, try to locate the point(s) of origin of the oil leak, proceed with all the following steps up to the point 3.5 included

c. if you haven't find any oil leak proceed to the following step 3.2

3.2) Gear box oil level control

a. be sure that the engine is horizontal position

b. unscrew the gear oil filler cap (A) as shown in figure1

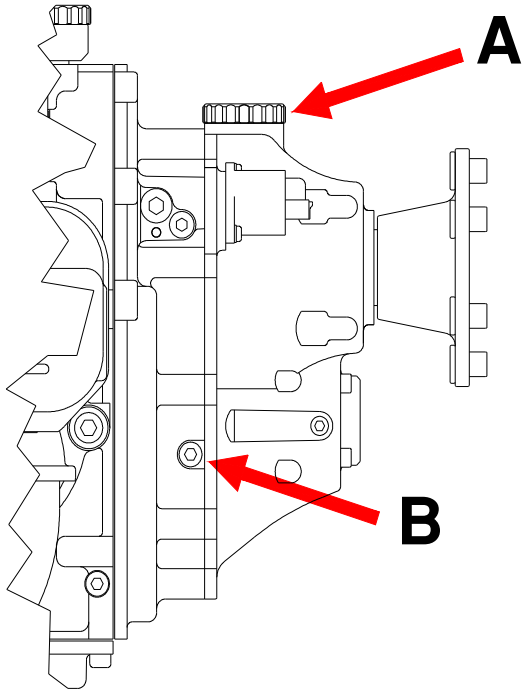

Figure 1

c. visually check the oil level in the gear box

d. loosen the oil level bolt (B) on check the oil as show in figure 1

e. unscrew the bolt (B) until you see a leak of oil that should increase if you keep unscrew the cup (B)

f. if the is no leak of even when the bolt (B) is completely unscrew , replace the cup in the hole and refill the gearbox as explain in the Manual A (installation manual) chapter A.15.4. writing down the quantity of oil necessary to fill the gear box to the correct level. Proceed with the all following steps up to 3.5 included.

g. if you have notice a leak of oil tight the cap (A) and (B) and proceed to the following step 3.3

3.3) Check of tightening of the bolt

INFORMATION: for the following instructions it is absolutely necessary to have a torque wrench

INFORMATION: respect the sequence of the following instruction

WARNING: do NOT for any reason unscrew the bolt after checking the final torque.

WARNING: do not use any washer under the bolt

a. set the torque wrench at 22Nm

b. try to tighten each M8 bolt, show in figure 2, and verify that the torque wrench indicates the proper torque value without the bolt rotating.

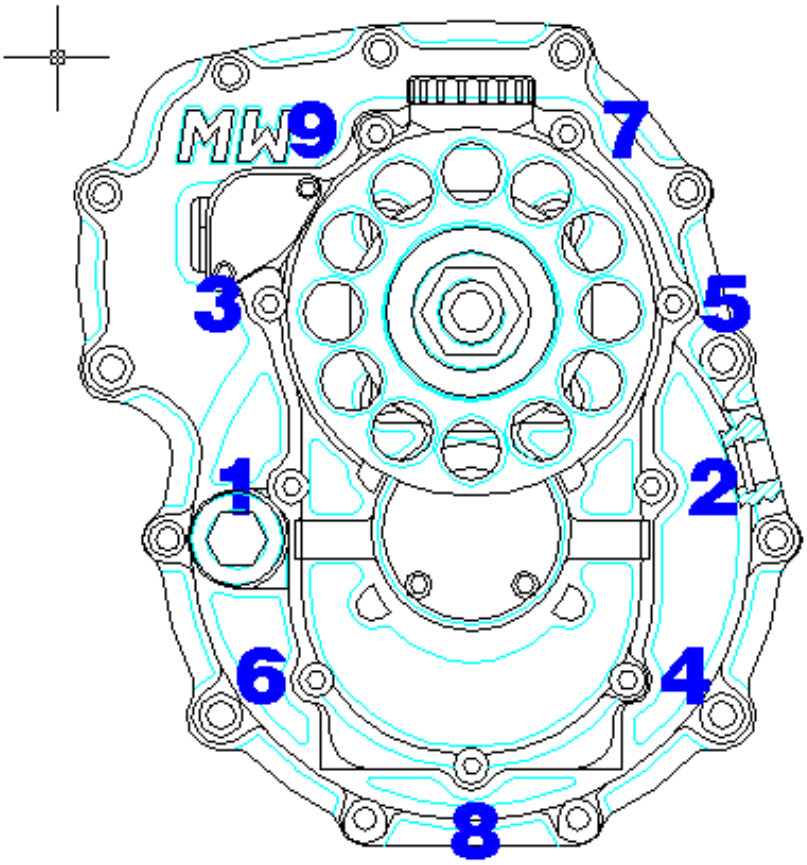

Figure 2

c. if the torque wrench does not release immediately indicating that the torque value is correct, but instead the bolt rotates substantially before reaching the correct torque value, write down of the rotation done for each bolt and proceed with the following steps up to 3.5 included

d. if all the bolt are correctly tight proceed to the following step 3.4

3.4) Check of the condition of the gasket

a. visually check the condition of the gasket between the two part of the gear box, and check that is no point in which the gasket is extrude (f.i like in figure 3)

Figure 3

b. if you have any doubt proceed to the following step 3.5

c. if the engine has passed all the previous check, proceed as indicated in step 1.6 and comply with the ongoing inspections as required in this service bulleting.

3.5) Contact an authorized service centre

⚠ **WARNING: Do not Fly the aircraft prior to complying with this service bulleting!!, Do not perform any maintenance on the engine other than what is indicated in this document without the express written permission of an authorized MW Fly service centre.**

a. Immediately after complying with this service bulletin, report your findings to the manufacturer or the nearest MW Fly service centre.