OMNIPOL
PRAHA – ČESKOSLOVENSKO

PZO **AVIA**
NÁRODNÍ PODNIK
PRAHA

SERVICE BULLETIN

IT IS NECESSARY TO CARRY OUT !

No. M 137 A/3

APPLICABILITY: Propeller flanges, drawing No. Sh-0401 (or drawing No. V 503-6100) fitted to M 137 A engines.

REASON: Cracks on the V 503 A propeller flange on the M 137 A engine have been found in some Z 526 F aeroplanes where operation limitations as stated in the "Flight Manual of Z 526" F Aircraft" had been exceeded.

MEASURES: Check the propeller fastening flange, especially its outer surface on the transition from the hub to the tapered flange section (see Fig. 10 - "Technical Description and Operating Instructions for the V 503 Propeller" - part identified as position 10) using a suitable non-destructive testing procedure.

If an electromagnetic testing gear (Magnoflux or similar) is available, remove the propeller and the propeller flange (see "Technical Description and Operating Instructions for the V 503 Propeller" - chapter "Propeller disengaging from engine") and check the propeller flange for possible cracks.

Magnoflux testing gear setting:

Use 900 to 1000 A test current with axial magnetization of the part under test. The tested part is attached to a non-magnetic rod. Demagnetize after the test is completed.
If using another non-destructive testing procedure (dye penetrant, eddy currents etc.) there is no need to disattach the flange as it is sufficient to disattach the upper part of the front engine cowling and to remove the propeller. Pay special care to flange sections in propeller blade center lines (the propeller is attached flush with the mark 0 on the flange perimeter).

Flanges on which cracks have been detected must be replaced. If the flange is found to be satisfactory the propeller is reattached (see "Technical Description and Operating Instructions for the V 503 Propeller" - chapter "Propeller

mounting to engine") and proceed as described in chapter "Propeller servicing and inspections" (flange tightening after 10 hours operation etc.) and repeat the test for cracks detection at two intervals of 50 flying hours.
If installing a flange sealed off with a Gufero gasket (the flange has no back thread but a cylindrical step instead) lubricate the cylindrical step with engine oil before attaching the flange.

CAUTION:

When flying "kicked" maneuvers observe the prescribed initial aircraft speed of 160 km/h and engine speed of 2000 rpm as specified in the "Flight Manual for the Z 526 F Aircraft". Violations can cause above damage to propeller flanges as well as other ones.

COMPLIANCE TIME:

Immediately.

TO BE CARRIED OUT:

By operators with available means upon receipt of this bulletin and thereafter as requested.

COST CARRIED BY:

Operator.

MATERIAL: Supplied by the manufacturer upon receipt of an order from the operator.

Prague, 22nd September, 1970.

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