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ATTENTION: Maintenance Personnel and Pilots

SUBJECT: **PRE-OILING ENGINES PRIOR TO INITIAL START**

MODELS AFFECTED: A) Pratt & Whitney R-985, R-1340 and R-1830
B) WSK PZL ASz-62IR-M18

TIME OF COMPLIANCE: Prior to initial start of a newly overhauled, or installed engine
depreserved from storage, oil cooler replacement or draining, oil
screen removal and oil changes

To avoid possible high speed bearing failure and master rod bearing failure resulting from lack of lubrication during initial starts and to eliminate any possibility of an air lock and oil starvation throughout all the internal moving parts of the engine, all aircraft engines should be pre-oiled prior to initial start.

Approved engine oils

Any mineral oil with or without the ashless dispersant additive may be used for break-in. Refer to P&W Service Bulletin No. 1183 rev. U or PZL Operation Instruction Document No. WT-62.02.01 Table 8-5 for a list of approved oils. Phillips 66 XC 20W50 and XC 25W60 Ashless Dispersant oils are mineral base and are satisfactory for ring seating, and may be used from the first hour of operation, till time expired. The XC oil will keep the engine clean.

Fill oil to the proper level and follow the instructions below.

Remove front spark plugs and main oil sump plug. Do not use a restricted oil pressure fitting. To accomplish this, connect an electrically driven oil pump to the pressure gage take-off at the rear section. The pump should be capable of building up an oil pressure of 35 to 70 pounds per square inch. Connect a gage for indicating the oil pressure in the line between the pump and the engine. Incorporate a screen (50 mesh) to keep the oil clean in the pre-oiling system. Build up the oil pressure within the engine to 45 to 60 pounds until the oil starts to run out of the sump drain.

Hold oil pressure, rotate engine with starter and pre-oil for **two minutes minimum to five minutes** and at least one gallon drains from the sump. Drain oil may be returned to pre-oiler tank, as long as adequate precautions are taken to keep oil clean and pre-oiler has screen or filter.

Best indications of complete pre-oil of engine is indication of some oil flow in any top rocker box rocker arm or pushrod outer end.

Accomplish the initial start on newly installed engines as soon as possible, but not later than 4 hours after pre-oiling has been accomplished. If any period of time in excess of 4 hours has elapsed since the engine was pre-oiled, accomplish a complete pre-oiling procedure before attempting the initial engine start.