



ENGINE COMPANY, INC. SYRACUSE 8, NEW YORK

SERVICE BULLETIN

No. 103

DATE: November 1, 1961

SUBJECT: Inspection of Oil Pump Gears, 19373 and 19377

MODELS AFFECTED: 6V4-178, 6V4-200, 6V-335 and 6VS-335 Series.

COMPLIANCE: Immediate

1. To preclude failure due to excessive gear teeth wear, remove and inspect P/N 19373 Gear-Oil Pump Driven and P/N 19377 Gear-Oil Pump Drive from all engines known to have had 19373 or 19377 Gear replaced at last assembly or that have developed indications of malfunction described in paragraph 3.
2. The material of 19373 and 19377 Gears has been changed from carbo-nitrided 1112 steel to LSF steel. All 19373 and 19377 Gears shipped from the factory since March 1960 are machined from LSF steel.
3. Use of an LSF steel gear in combination with a carbo-nitrided gear will result in high wear of the LSF gear teeth which may be evidenced by an unusual amount of fine metal deposits in the oil and oil filter, fluctuating or low oil pressure, or noisy oil pump operation.
4. The gear material may be identified as follows:
 - (a) Visual: The carbo-nitrided gear has a dull smoky gray appearance; the LSF steel gear has the normal bright appearance of machined steel.
 - (b) File Check: Slide a flat mill file, smooth or second cut, across the outside diameter of the gear teeth. The file will slide across the carbo-nitrided gear without cutting, whereas it will tend to dig into and remove material from the LSF gear.
 - (c) Hardness Check: If there is any doubt about the identification of the gear material after (a) or (b) above, the gears may be checked on a Rockwell Hardness Tester. Use the "C" setting. The carbo-nitrided gear will check 15 or under. The LSF gear will check 25 or over.
5. Reassemble the oil pump using only drive and driven gears of the same material. The carbo-nitrided gears are no longer available from the factory, only LSF steel gears will be furnished. However, because gears of either type may be stocked in the field under the same part number, examine each gear to be certain that the proper replacement is installed.
6. Each LSF steel gear shipped from the factory after November 1, 1961 is identified by the letter "A" stamped on each end of the gear, and new part numbers have been assigned as follows:

19886 - Gear - Oil Pump Driven

19887 - Gear - Oil Pump Drive