

VALVE OPERATING MECHANISM - CONTINUEDCAMSHAFT - CONTINUED

TIMING CHAIN - PART NO 1451634: This purchased part must be checked very carefully to print maintaining the specified minimum and maximum lengths at the loads specified on the drawings. The tooth contour and finish of the links is also important. Pins should be periodically inspected visually for proper riveting on the rods. Chains are assembled by the vendor with a light film of oil, therefore care should be exercised to prevent dust accumulation on the parts before assembly in the engine.

CAMSHAFT SPROCKET - PART NO. 1435718 - CRANKSHAFT SPROCKET - PART NO. 1451635: Both parts must be carefully fabricated in regard to tooth form, squareness with mounting faces, concentricity of pilot diameters, and proper tooth hardness. Periodic metallurgical check of the tooth wearing surface to insure proper depth of hardness should also be made.

VALVE LIFTER ASSEMBLY - NO. 5230430 *

A new barrel type hydraulic lash adjuster and lifter assembly is used with this year's engine. Principal elements are similar or identical to the 5230315 assembly used in 1948 model production. All assembly specification given on this print such as extended and bottomed lengths, ball travel, spring load, leaddown, etc. must be periodically checked by inspection. It is very important that no dirt be included in the assembly as received from the Vendor. The parts are also to be free of magnetism as such attraction will prevent the removal of burrs, chips, etc. by the Vendor prior to assembling the complete lifter. The lifter is received and installed in engines in the pre-filled condition to minimize corrosion and to shorten quieting time during Block test. It is therefore important to maintain the lifters in a vertical position at all times so that oil will not leak out. Plungers must be free fit in the body when checked by hand.

LEAKDOWN: The most important characteristic of a hydraulic valve lifter is proper maintenance of the specified leakdown time even though other variables such as body I.D., plunger O.D., etc. are to proper limits. A special leakdown fixture is used to check this leakage rate which determines the compensation time of the lash adjuster elements. The body and plunger are filled with non-corrosive kerosene and oil, as used by the Vendor, which must check 32-34 seconds viscosity (Saybolt) at 100° F. The plunger is loaded with a 50 lb. load and the time in seconds for a plunger travel of .125 is then measured, with the plunger completing its movement approximately .030 from the bottom of its stroke. The leakdown rate for this procedure must range between 12 and 40 seconds. In using the fixture, the hydraulic elements, body and plunger, must be in perfect alignment with the ram of the fixture. The plunger should be rotated in respect to the body while the check is being made or inconsistent results will be obtained. Care must be exercised to exclude all air from the hydraulic chamber before the leakdown is made.