



To: ZONES, ZONES AND DEALERS

Dealer 47T-2
January 6, 1947

Subject: TAXICAB (2130) OIL CONSUMPTION

The high oil consumption at relatively low mileage being reported in some taxicabs is due to the oil rings becoming plugged with sludge and carbon. This condition is the result of low speed operation with low water jacket and under-bonnet temperatures.

The most effective means of retarding this ring plugging is to maintain water jacket and under-bonnet temperatures as high as possible. This can best be accomplished by:

1. Use of radiator and grille covers (PA 383920)
2. Use of high reading (160°F cylinder head) thermostat. (PA 304632)
3. Readjustment of the manifold heat control valve thermostat spring to keep the manifold as hot as possible, consistent with satisfactory engine performance.

All operators of taxicabs should be immediately advised of the necessity for maintaining high engine water jacket and under-bonnet temperatures and the injurious effects of failure to do so.

When oil consumption becomes excessive the piston rings should be replaced with the regular service replacement ring set Part Number 354716 std., 354717-.020 O.S., 382886-.030 O.S., or 382887-.040 O.S. The valves should be cleaned and reconditioned at the same time.

This condition of piston ring plugging which may be experienced in any engine which is operated at moderate speeds and with low water jacket and under-bonnet temperatures is the result of some action in the gasoline which causes a hard black sludge to be deposited on the underside of the intake valves and in the piston ring grooves. Extensive tests by gasoline and oil refiners indicate that the engine oil is in no way responsible and the use of Heavy Duty (H.D.) or detergent oils is not effective in preventing the sludge formation.

The sludge should not be confused with the soft black sludge formed by condensation in the crankcase. This sludge, which is formed by water mixing with the oil, is effectively controlled by the taxicab crankcase ventilating system.

Since the piston ring sludge is formed when engines are operated with medium to low water jacket and under-bonnet temperatures, this condition of piston ring plugging is greatest in winter and least in summer.

Very truly yours,

Theo. P. Thomas
Theo. P. Thomas
Technical Service Manager