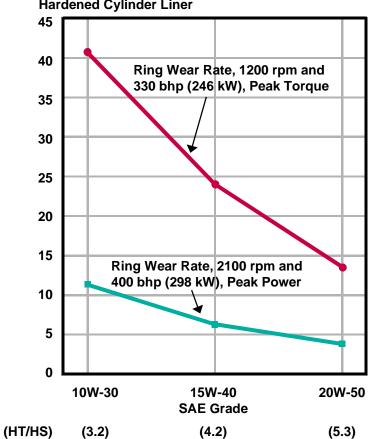
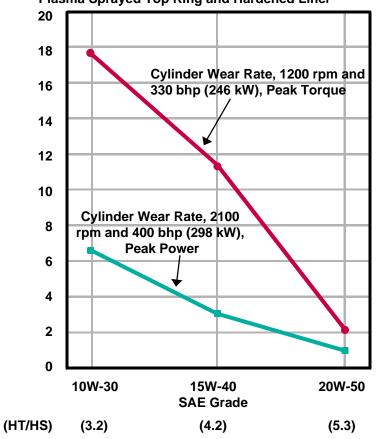
## ATTACHMENT 16, 1 OF

## SAE 932845, 1993 Increasing HT/HS Reduces Ring and Liner Wear

Chromium Piston Top Ring Wear Rate, nM/Hr, Hardened Cylinder Liner



Cylinder Liner Wear Rate, nM/Hr, at Top Ring Reversal – Plasma Sprayed Top Ring and Hardened Liner



## I ACHMENT 16, 2 OF

## Detroit Diesel Series 60 SLA Wear Technique for Ring and Liner Wear Summary Ref: SAE 932845

- Study Used the Same Base Oil, VI Improver and Additive Packages for All Three Viscosity Grades: SAE 10W-30/15W-40/20W-50
- SAE 10W-30 Produced Higher Wear Than SAE W-40 and 20W-50 It Was Significantly Different From 20W-50 for All Four Measurements and it Was Significantly Different From the SAE 15W-40 for All, But Liner Wear at 1200 RPM.