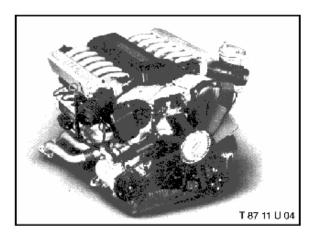
Full & Roll & Inttp://manualplace1& 01 & W (2080) bmw-m70-en Montrale, NJ Engine Technical Dept.

SUBJECT: 5.0 Liter V-12 Engine (M70)

MODEL: 750iL

BMW has developed a completely new, light alloy engine which becomes the premier engine of the new 7-Series. Designated the M70, this development demonstrates many advances in modern engine engineering.



A broad power band and smooth operation are assured as the new V-12 produces 295 horsepower and the torque output is rated at 450 Nm.

The compact, high performance engine radiates a balanced functional design. In addition to the impressive visual appearance, the new V-12 maintains a power-to-weight ratio of 1.77 lbs/hp.

From the beginning of development, fuel economy and emission control were assigned high priorities, resulting in a combination of V-12 performance with economical operation and low emissions.

Additional technological refinements include individual cylinder bank management, precise electronic throttle operation and hot wire air flow sensing. Maintenance has been reduced with the employment of self-adjusting valves and drive belts.

The M70 is equipped with a powerful 2.2kW gear reduction starter motor which provides easy starting at all temperatures.

Smooth running is enhanced with the use of small, lightweight pistons which limit the oscillating mass. Further, the strong drop-forged crankshaft with twelve counterweights and the unitized engine/transmission assembly reduce vibration and resonance.

The M70 exemplifies quiet operation resulting from the use of self-adjusting valves, more precise internal clearances, optimized timing chain tensioning and a silent oil pump. These noise reduction features combine with unique laminated metal/fiber/metal cylinder head covers and oil pan which act as sound barriers.