The Mack MP8 is a 500 hp, 780 cubic inch (12.8 Lt) in-line 6 cylinder engine with an overhead camshaft, 4 valves per cylinder and unit injectors. The engine meets ADR80/02 (using Eu4 compliance) exhaust emission regulations.

The Mack MP8 is a turbo-charged, intercooled engine fitted with a single cylinder head, overhead camshaft and MACK V-MAC IV electronically controlled fuel injection. The PowerLeash engine brake as standard.

The MP8 is designed to ensure exceptional driving characteristics, high reliability and excellent fuel economy. With a cylinder block and cylinder head made of cast iron, a strong base is created for a dependable engine.

The timing gears are located at the rear of the engine to reduce vibration and allows the installation of a rear-mounted Power Take Off.

Oil change intervals can stretch up to 56,000 km, depending on the application.

The MP8 is totally suited to both linehaul applications as well as urban short haul and construction operations.

The following features discern the MP8:
• Variable Geometry Turbocharger (VGT)
• MACK PowerLeash Engine Brake
• Rear Mounted PTO (as an option)
• V-MAC IV Vehicle Electronics System
• Controlled injection sequence
• Low exhaust emissions: ADR80/02(Eu4)
• Open crankcase ventilation

Specifications
Designation ......................MP8 500
Max. output at 1500-1800 rpm .... 500 hp (368 kW)
Max. engine speed ...............2100 rpm
Max. torque - 1050-1450rpm. ....1770 lb-ft
No. of cylinders .................6
Bore & Stroke .....................131 x 158 mm
Displacement ....................780 Cu in (12.8 Lt)
Compression ratio .............. 16:1
Engine brake retardation ........428 hp (315 kW) at 2100 rpm.
Economy engine speeds ...... 1450-1600 rpm
Oil change volume, including filter 33 Lt
No. of oil filters ...............2 full-flow, 1 bypass
Cooling system, total volume .......38 Lt
Weight, Dry (Approx.) ..........1160 kg
Impressive performance and precise engine management through MACK V-MAC® IV

Using Mack’s long proven history of engine development, the MP8 500 MaxiCruise was especially selected for Australian conditions. It provides superior performance for both on-road and vocational applications. This unique versatile performer provides a wider operating range and a “Humped” power curve for ease of operation, utilising the VGT technology for an excellent mid range response and a generous fuel sweet spot between 1450 ~ 1600 rpm.

The MP8 500 features MACK V-MAC® IV Engine Management System which is a totally electronically controlled system that provides precise and efficient engine control. The V-MAC® IV ECM controls the fuel injection entirely via electromagnetic valves in each injector. The Engine Control Module (ECM) is completely protected from vibration and heat, as it is rubber mounted and housed in an aluminium casing where the electronic components are cooled by fuel flowing in the fuel cooling circuit. The ECM receives data from several sensors on the engine and the vehicle, and compares the current readings with stored parameters and adjusts the injection timing and fuel quantity accordingly.

The MACK ECM is integrated in the truck’s V-MAC® IV electronics’ system and provides advanced communication to the driver via the information display.

Control and Ultra High Fuel Injection Pressure

The MP8’s gear driven camshaft ensures precise control over the Unit Injectors and valve timing. The Ultra High Fuel Injection Pressure can be as high as 35000psi, resulting in a very fast injection sequence. The dual solenoid Unit Injectors are positioned centrally and vertically which provides an extremely fast well controlled injection and a balanced delivery of the fuel in the combustion chamber. The filters and water separator guarantees reliability.

Low Exhaust and Noise Emission

The MP8 500 more than meets the demand for high performance in conjunction with ADR80/02 (Eu4) low exhaust and AD83 noise emissions. The MP8 500 satisfies noise requirements without needing complex encapsulation. The crankshaft and camshaft have viscous vibration dampers which minimise noise and vibration. The low noise is particularly evident at idle.

PowerLeash – High power engine braking

The MP8 500 is fitted with an engine brake system called Mack PowerLeash. The design maximises use of the engine’s compression stroke to produce high braking power. PowerLeash, combined with the VGT, provides maximum braking power and reduces wear on the wheel brakes.