

Supercharger

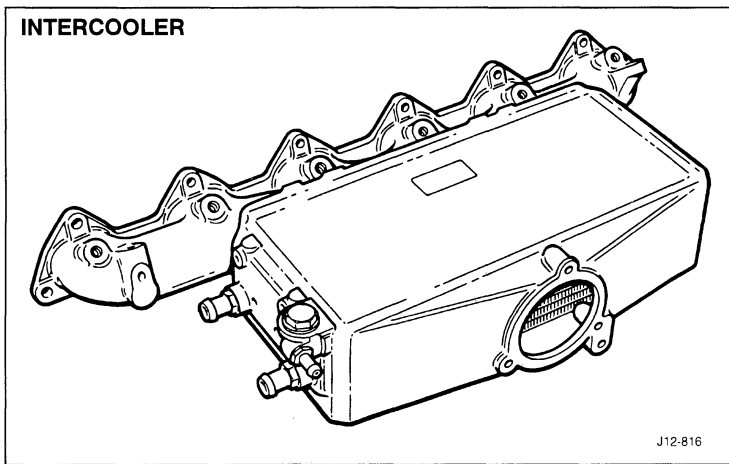
The supercharger is a second generation version of the Eaton M90, installed on the front left side of the engine, above the coolant pump. A cast bracket attaches the supercharger to four bosses on the cylinder block.

The belt driven supercharger has a gearbox driving two meshed helix rotors, producing a maximum pressure increase of approximately 0.7 bar (10.2 lbf.in²) at 2750 engine rpm. A seven ribbed belt, driven by the crankshaft, turns the supercharger pulley at 2.5 times engine speed. The supercharger is a sealed unit, with an internal lubrication system.

Intercooler

The intercooler is a fin and tube, air to liquid, heat exchanger integrated into the intake manifold. It cools the air leaving the supercharger to increase the mass of air entering the engine.

For details of the liquid cooling circuit, see AJ16 Engine - Engine Cooling System.



Intake Ducting

A corrugated flexible hose connects the mass air flow sensor to a cast duct attached to the intercooler. The cast duct guides the air rearwards and below the intercooler. A reinforced, corrugated hose connects the downstream end of the cast air duct to the throttle body. A short length of high temperature hose connects an elbow on the supercharger outlet to an elbow on the intercooler intake. O-rings seal the joints between the cast aluminium elbows and their respective components.

