

New Turbo 900 Series Engine In New Tractor



The new turbocharged Isuzu 900 Series engine, the 902-DT model, fits at the rear position at 4 ft the 4000 Series of Massey Ferguson's line of new-generation agricultural tractors.

For more power, Isuzu/John Deere has introduced a turbocharged engine with maximum output of 43.7 kW (59.4-hp) and 4.0 liter, 5000 rpm. Designed 902-DT, the new power unit meets Stage 1 off-highway emission regulations and other strict limits of up to 1000 ppm, according to the company.

Importantly, the turbo model is expected to open up new options for the engine. One of its late applications is the MF4020, a tractor in Massey Ferguson's line-up of two-generation tractors in the accompanying article.

To achieve the necessary high degree of air movement through the cylinder head with turbocharging, larger bolted joints on the cylinder have been incorporated, also, to ensure leak-free joint integrity. More robust steel gaskets have been incorporated into the cylinder head.

Other key mechanical developments include a new, 4-bearing main shaft, already mentioned in the special two-part, 4-parting edition gear testing and oil-control. Optimizing the position of the high-speed flywheel, combined with the use of a variable, V-type crankshaft.

In line with the externally captured intake, the latest intake pump from Lucas, the EPT20, is used. This comes from the motorcycle market and has been developed specifically to create optimum air intake resistance regardless without creating too complex and expensive structures. The fuel is distributed with precision through valves, into various fuel injection systems, with the geometry of the nozzle holes being designed to give good atomization and efficient results.

A major feature of the fuel system is the Turgo common system, which is designed to make the flexibility to be optimized for maximum performance and emissions. This means, says V&P/Perkins, that there is no longer a need to compromise a pump's hydraulic performance and longevity to produce delivery curves. The manufacturer can shape the fuel delivery curve to avoid these traditional trade-offs and still achieve the optimal timing demanded by emission regulations.

High-rated servicing is introduced with maintenance-free, oil and water seals on the pump is designed with maintenance-free like oil filters, injectors and filter. Inquiries can be referred to: ■

ISUZU NORTH AMERICA CORP. (IAC)

900 Series



Isuzu's new 900 Series turbo engine. Features variable valve timing, 4000 rpm, 4.0 liter, 5000 rpm, AC, by Isuzu/John Deere.

Isuzu's new 902-DT (shown above) 43.7 kW (59.4-hp) 4.0 liter, 5000 rpm, AC, by Isuzu/John Deere. The 902-DT engine has dual-stage turbocharging for improved drive performance at the tractor.

