

	YD25DDTi (R51 & D40) (Non DPF engine)	ZD30DDTi VP44 (Y61)	ZD30DDTi CRD (Y61)
Cylinder Arrangement	Inline 4 Cylinder	Inline 4 Cylinder	Inline 4 Cylinder
Displacement (cc)	2488	2953	2953
Bore & Stroke (mm)	89.0 x 100	93.0 x 102.0	93.0 x 102.0
Compression Ratio	16.5 : 1	17.9 : 1	17.9 : 1
Firing Order	1-3-4-2	1-3-4-2	1-3-4-2
Cylinder head	Alloy, cross flow	Alloy, cross flow,	Alloy, cross flow,
Air Intake system	Vacuum operated Air Intake Control valve. (No swirl valves)	Vacuum operated Air Intake Control valve. Swirl valves utilised	Electrically operated Air Intake Control valve. Swirl valves utilised
Valve gear & drive system	DOHC, 16 Valve, shim adjustable. All chain driven	DOHC, 16 Valve, shim adjustable. Combination of gear & chain drive	DOHC, 16 Valve, shim adjustable. Combination of gear & chain drive
Injection	Direct – HP Common Rail (1800 Bar DENSO)	Direct – HP Radial type pump (Bosch VP44 )	Direct – HP Common Rail (1800 Bar BOSCH)
Cylinder Block	Cast Iron, 1 piece	Cast iron, 2 piece	Cast iron, 2 piece
Power (kW / rpm) & Torque (Nm / rpm)	128 / 4000 & 403 / 2000	116 / 3600 & 352 / 2000 (*4) (*5)	MT; 118/3600 & AT; 118/3600 MT; 380/2000 & AT; 354/2000
Balance Shafts	Separate Unit located in sump, gear driven	Integrated into Engine Block, gear driven	Integrated into Engine Block, gear driven
VNT Turbo & Intercooler	Yes & Yes	Yes & Yes (*4)	Yes & Yes
Engine Oil Pressure detection system	Standard single switch system	Dual switch system (*3, *4) (HP & LP switches)	OP sensor & separate OP switch system
Engine Oil Level detection system	Electronic. Oil Level Gauge to manually inspect also	Oil Level Gauge to manually inspect only	Oil Level Gauge to manually inspect only
Engine Oil Maint. Intervals (km's)	10,000	10,000	10,000
Engine Oil Specification	ACEA B3 10W40 (*1) Do <b>NOT</b> use in DPF models.	ACEA B3 10W40 (*2)	ACEA B3 10W40 (*2)

(\*1) REFER TO STB MA 05-001. (\*2) REFER TO STB MA 04-001. (\*3) REFER TO STB's EC 06-002a, EC 05-006, EC 03-006.

(\*4) Not D22 models (\*5) Increase in power & torque, different specs between A/T & M/T on Ser IV, figures not shown.