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Supplement to Workshop Manual

T(I)D100, 121, TMD100, T(A)MD121 (Publ. nr. 7753330-5)

New engine versions:

TD 1010G/-GH and TWD 1010G/-GH replacing TD 100GG and TID 100KG respectively

TD 1210G/-GH and TWD 1210G/-GH replacing TD 121GG andTID 121KG respectively

TWD 1211G/-GH replacing TID 121LG

Explanation of engine designations

T	= Turbocharged	1	= Generation number
W	= Water-cooled boost air cooler	0	= Execution or output level
D	= Diesel engine	G	= Genset
12	= Swept volume in litres	H	= High power output

The most important new features are:

TD 1010G/-GH
- Higher standby output
- New injection pump
- Pump setting altered
- New thermostat with lower opening temperature

TWD 1010G/-GH
- Higher standby output
- New injection pump
- New thermostat with lower opening temperature

TD 1210G/-GH
- Higher standby output
- New piston with a "Keystone" type upper compression ring
- Compression ratio altered
- New injection pump
- New thermostat with lower opening temperature

TWD 1210G/-GH
- Higher standby output
- New piston with a "Keystone" type upper compression ring
- Compression ratio altered
- New injection pump
- Pump setting altered
- New nozzles with larger holes
- New turbocharger
- New thermostat with lower opening temperature

TWD 1211G/-GH
- Higher standby output
- Pump setting altered
- New turbocharger
- New thermostat with lower opening temperature

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Technical Data

The technical data values for the replaced engines apply to the new engine versions with the exceptions stated below.

The turbo boost pressures are stated here also for TD 100GG, TID 100KG, TD 121GG, TID 121KG, TID 121LG with increased output (introduced 1990).

General

TD 1210G/-GH, TWD 1210G/-GH
Compression ratio 13.9:1

Turbo charger

Radial clearance, max ..... 0.46 mm (0.018")
Axial clearance, max ..... 0.16 mm (0.0063")
TWD 1210G/-GH
Make, type ..... KKK, K33-4067/24,22
TWD 1211G/-GH
Make, type ..... KKK, K33-4067MNA30,22

Turbo boost pressure

Turbo boost pressures, min.values (measured in the engine´s inlet manifold) at 100% load, full throttle and an air temperature of +25 °C (77 °F).

	1500 r/min	1800 r/min
TD 1010G		
Prime output	90 kPa (13 psi)	110 kPa (16 psi)
TD 1010GH		
Standby output	120 kPa (17 psi)	150 kPa (22 psi)
TWD 1010G		
Prime output	100 kPa (15 psi)	115 kPa (17 psi)
TWD 1010GH		
Standby output	130 kPa (19 psi)	160 kPa (23 psi)
TD 1210G		
Prime output	95 kPa (14 psi)	125 kPa (18 psi)
TD 1210GH		
Standby output	150 kPa (22 psi)	160 kPa (23 psi)
TWD 1210G		
Prime output	120 kPa (17 psi)	140 kPa (20 psi)
TWD 1210GH		
Standby output	160 kPa (23 psi)	165 kPa (24 psi)
TWD 1211G		
Prime output	140 kPa	155 kPa
TWD 1211GH		
Standby output	175 kPa	180 kPa
TWD 1620G		
Prime output	125 kPa (18 psi)	130 kPa (19 psi)
TWD 1620GH		

	1500 r/min	1800 r/min
TD 100GG (prod.nr 868458, -59)		
Prime output	85 kPa (12 psi)	105 kPa (15 psi)
Standby output	95 kPa (14 psi)	115 kPa (17 psi)
TID 100KG (prod.No. 868460, -61)		
Prime output	90 kPa (13 psi)	105 kPa (15 psi)
Standby output	105 kPa (15 psi)	130 kPa (19 psi)
TD 121GG (prod.No. 868462, -63)		
Prime output	105 kPa (15 psi)	130 kPa (19 psi)
Standby output	120 kPa (17 psi)	150 kPa (22 psi)
TID 121KG (prod.No. 868464, -65)		
Prime output	110 kPa (16 psi)	130 kPa (19 psi)
Standby output	130 kPa (19 psi)	145 kPa (21 psi)
TID 121LG (prod.No. 868466, -67)		
Prime output	155 kPa (22 psi)	175 kPa (25 psi)
Standby output	175 kPa (25 psi)	190 kPa (28 psi)

Injection pump

TD 1010G/-GH, TWD 1010G/-GH

Injection pump ..... PE6P 120A 320 RS 3189 alt.
PE6P 120A 300 RS 3075 *
Lift from base diameter ..... 2.6 (+0.1) mm (1.1024+0.0039")
Setting ..... TD 1010G/-GH: 24° B.T.D.C.
..... TWD 1010G/-GH: 22° B.T.D.C.

* Applies to engine with electronic speed governor

TD 1210G/-GH

Injection pump ..... PE6P 120A 320 RS 3189 alt.
PE6P 120A 300 RS 3075 *
Lift from base diameter ..... 2.6 (+0.1) mm (1.1024+0.0039")
Setting ..... 24° B.T.D.C.

* Applies to engine with electronic speed governor

TWD 1210G/-GH, TWD 1211G/-GH

Injection pump ..... PE6P 120A 320 RS 3206-1
Lift from base diameter ..... 3.5 (+0.1) mm (0.1378+0.0039")
Setting ..... TWD 1210: 20° B.T.D.C.
TWD 1211: 22° B.T.D.C.

Injectors

TWD 1210G/-GH

Nozzles ..... Bosch DLLA 150P119
Injector complete, marked 808
Opening pressure ..... 27 MPa (3915 psi)
Setting pressure (new spring) ..... 27.5–28.3 MPa (3988–4104 psi)
Hole diameter ..... 5 st 0.38 mm (0.0149")

Cooling system

Thermostat, starts opening at ..... 75 °C (167 °F)
fully open at ..... 88 °C (190 °F)

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