

25. Inlet and exhaust system

Heating element, crankcase ventilation

Resistance at 20°C Ohms

B18F/FT/K

10-19

Turbo B18FT/FTM

Type

Garett T2

Diaphragm valve, boost pressure control . . .

small

large

Boost pressure at maximum load kPa

56

75

Boost pressure regulating valve

B18FT, B18FTM

Operating voltage Volt

8-16

Resistance of magnetic coil at 20°C . . . Ohms

29±3

Regulation frequency Hz

128

Diaphragm valve, boost pressure control . . .

small

large

Basic pressure:

Value when checking kPa(Bar)

26-30 (0.26-0.30)

16.5-18.5(0.165-0.185)

Value when adjusting kPa(Bar)

28±1 (0.28±0.01)

17.5±1(0.175±0.01)

Tightening torques

Nm

Studs, manifold

12

Attachment nuts, turbocharger unit

35

Studs, turbocharger unit

21

Oil pipe, turbocharger, below union

35

Oil pipe, turbocharger, below flange

21

Oil pipe, turbocharger, upper

22

Exhaust to manifold turbo

40

Banjo bolts, turbocharger cooling

40

EGR control system - D19T

Thermopneumatic valve (in coolant hose)

Opens at °C >20

Electrical EGR valve

Resistance ohms 30

Altitude sensing switch

Opens at an air pressure of Mbar >875 (1,500 metres)

Turbocharger unit, D19T

Type Garrett T2

Boost pressure

at 2,500 r/min (full load) kPa (Bar) 70-85 (0.7-0.85)

Tightening torques

Nm

Flexible attachment,

exhaust downpipe to turbocharger unit 30

Bolts, exhaust downpipe to turbocharger 45

Bolts, turbine housing 22

Curved exhaust pipe on turbine housing 90

Nuts, turbocharger unit to manifold 35

Diaphragm valve 15

Lock nut, actuating rod to diaphragm valve .. 7

Coolant pipes, turbocharger unit 25

Inlet oil pipe, turbocharger unit 20

Outlet oil pipe, turbocharger unit 40

Tightening torques

	Nm
Exhaust to manifold	25
Exhaust clamps	24
Exhaust clips, wide	50
Bolts, catalytic converter to front pipe with spring	20
Bolts, catalytic converter to front pipe without spring	40
Plug in catalytic converter	25
Inlet and exhaust manifolds, nut	20
Studs, inlet and exhaust manifold	10
Inlet manifold	10
Throttle linkage on manifold	7
Throttle valve housing to inlet manifold	17
Exhaust to manifold, EP/FP	25
Bolt, manifold support	20
Bolts, fuel distribution manifold	20
Bracket, air filter housing	9
 B18K/KP only:	
Air filter, studs	8
Air filter, nuts	5
Exhaust studs in manifold	20
Inlet and exhaust manifolds, nuts	17.5
Downpipe connection, bolt	17.5
 B18U only:	
Exhaust to manifold, nuts	10
Exhaust to manifold, studs	15
Exhaust clips	20
Catalytic converter, bolts	20
Throttle valve to SPI unit on rubber base	9
Rubber base to inlet manifold	15
Manifold studs	17
 B20F only:	
Retaining nuts, fuel distribution manifold	10
Pressure regulator on fuel distribution manifold	5
Throttle valve housing, nut	9
Exhaust to manifold	30
Bolts, catalytic converter	20
Heat shield	8