

Notes		Specified value		Measured value
Vehicle identification				
No. of cylinders	Type	6/OHV		
Capacity	cc	12028		
Compression ratio	:1	18		
Injection system				
Fuel/injection pump assembly	Make	Bosch		
Fuel/injection pump assembly	Type	PES 6P RS7236		
Fuel/injection pump assembly	Part No.	0 402 746 909		
Pump type		In-Line		
Governor	Type	0 421 813 936		
Injection sequence		1-5-3-6-2-4		
Injector nozzle	Make	Bosch		
Nozzle and holder assembly	Part No.	0 432 231 707		
Nozzle opening pressure - new/used	bar	255-263/245-253		
Tuning and emissions				
Crankshaft position (n = ATDC)	°BTDC	13±1		
Adjusting method	Engine/Pump	Pointer / Special Tool		
Idle speed	rpm	620±50		
Rated no load speed	rpm	2360-2440		
Oil temperature	°C	80		
Starting and charging				
Battery	V/RC(Ah)	12/320 (165)		
Alternator output	A/V/rpm	65/-		
Service checks and adjustments				
Valve clearance - INLET	mm	0,50 cold		
Valve clearance - EXHAUST	mm	0,80 cold		
Oil pressure	bar/rpm	4-5/1900		
Thermostat (primary/secondary) open	°C	83		
Lubricants and capacities				
Engine oil options				
Ambient temperature range		Moderate climate		
Engine oil grade	SAE	15W/40		
Engine oil classification	API/ACEA	CD		
Engine with filter(s)	litres	27,0		
Other lubricants and capacities				
Manual transmission oil grade	SAE	80W/90		
Manual transmission	litres	12,5		
Differential oil grade - rear	SAE	80W/90		
Cooling system - total capacity	litres	55,0		
Tightening torques				
83	Cylinder head instructions			
Other engine tightening torques				
84	Main bearings	Stage 1		
	Big end bearings	Stage 1	30 Nm	
	Big end bearings	Stage 2	55°	
	Flywheel/driveplate		65 Nm+80°	
85	Crankshaft pulley/damper centre bolt			
	Injector/clamp		60 Nm	
	Injector pipe unions		30 Nm	
	Injector nozzle to holder		100 Nm	
	Fuel/injection pump sprocket/gear		100 Nm	
Chassis tightening torques				
298	Road wheels		500±50 Nm	

Manufacturer: Renault HGV
Engine code: MIDR 06 35 40 J3
Tuned for: Euro 1

Model: Magnum (AE) 12,0D 420ti
Output: 305 (415) 2000
Year: 1992-99

© Autodata Limited 2010
Valid forever. 09.10.2014
V8.500- **/Autodata**

Autodata Note 83

→ Eng. No. 175853

- 1) 100 Nm
- 2) 100 Nm
- 3) 120°
- 4) 90°

Eng. No. 175854→

- 1) 100 Nm
- 2) 100 Nm
- 3) 100°
- 4) 95°

Autodata Note 84

M16 = 100 Nm + 75°

M20 = 100 Nm + 90°

Autodata Note 85

- 1) 150 Nm
- 2) 150 Nm
- 3) 90°

Autodata Note 298

Clean nuts, studs and mating surfaces.

Lubricate studs, mating surfaces and between nut and integral washer.

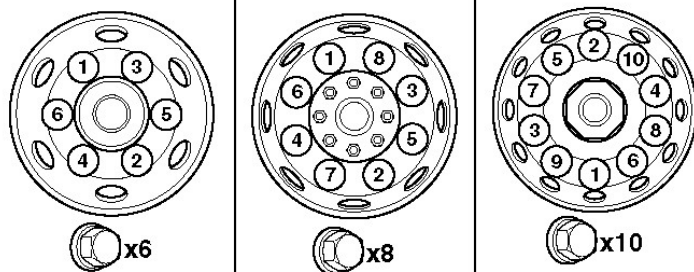
Tighten wheel nuts in stages, in sequence shown.

Move vehicle and re-check tightening torque.

Re-tighten wheel nuts after 20-30 km, then again after 150-250 km.

Fig. 110867

110867

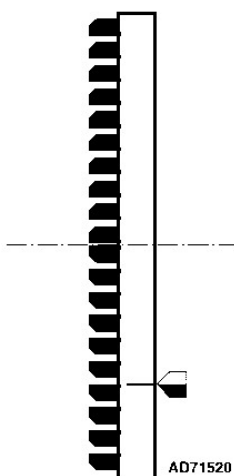
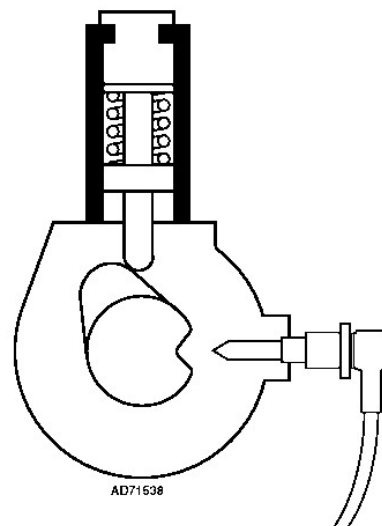
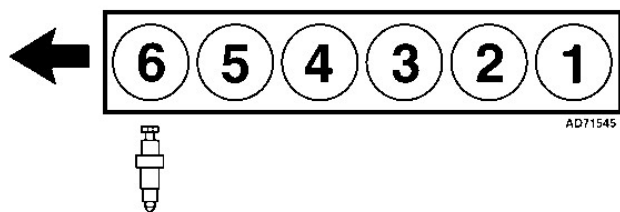


Manufacturer: Renault HGV
Engine code: MIDR 06 35 40 J3
Tuned for: Euro 1

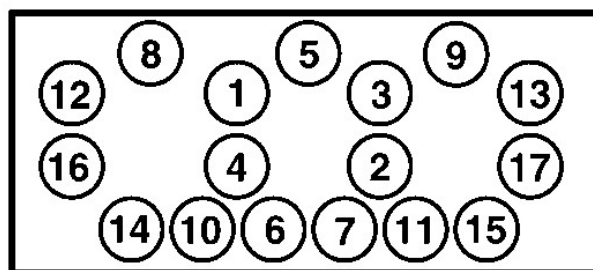
Model: Magnum (AE) 12,0D 420ti
Output: 305 (415) 2000
Year: 1992-99

© Autodata Limited 2010
Valid forever. 09.10.2014
V8.500- **/Autodata**

Cylinder layout



Tightening sequence



Manufacturer: Renault HGV
Engine code: MIDR 06 35 40 J3
Tuned for: Euro 1

Model: Magnum (AE) 12,0D 420ti
Output: 305 (415) 2000
Year: 1992-99

© Autodata Limited 2010
 Valid forever. 09.10.2014
 V8.500- **/Autodata**