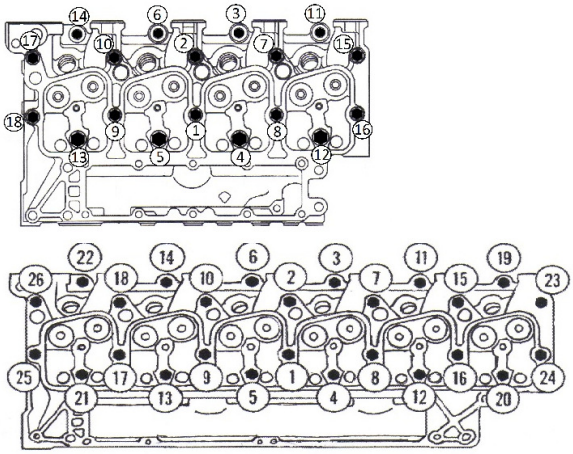
Torque and Rebuild Specifications for Ivecco NEF Four and Six Cylinder F4CE – F4DE – F4GE – F4HE Series Engines

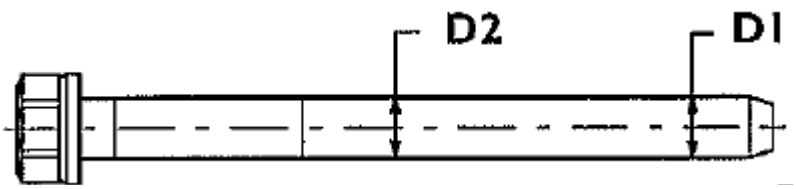
Cylinder Head Bolts 	**See Bolt Reuse Guidelines Below!** Tighten all bolts to their specified torque in sequence; M12 x 70mm: 50Nm / 36.8ft.lbs. M12 x 140mm: 40Nm / 29.5ft.lbs. M12 x 180mm: 70Nm / 51ft.lbs. Tighten all bolts an additional 90° in sequence Tighten all 140mm and 180mm length bolts an additional 90° in sequence
Main Bearing Cap Torque	**See Bolt Reuse Guidelines Below!** 50Nm / 36.8ft.lbs. 80Nm / 59 ft.lbs. 90°
Piston Cooling Nozzles	15Nm / 11ft.lbs.
Piston Protrusion	.28 - .52mm / 0.011" – 0.020"
Piston Skirt to Cylinder Wall Clearance	.252 - .294mm / .010 - .011"
Connecting Rod Bolt	**See Bolt Reuse Guidelines Below!** 30Nm / 22.1ft.lbs. 60Nm / 44.2ft.lbs. +60°
Standard Cylinder Bore	104.0 – 104.24mm / 4.094" – 4.095"
Rocker Assembly Torque	24Nm / 17.7ft.lbs.
Crankshaft End Play	.07 - .41mm / 0.003" – 0.016"

Valve Adjust Sequence		Cyl 1		Cyl 2		Cyl 3		Cyl 4		Cyl 5		Cyl 6	
		I	E	I	E	I	E	I	E	I	E	I	E
	TDC #1	X	X	X			X	X			X		
	TDC #6				X	X			X	X		X	X

Valve Clearance (set cold)	.25mm / 0.010" Intake .50mm / 0.020" Exhaust
Rocker Cover	24Nm / 17.7 Ft Lb

Cylinder head, Main bearing cap and Connecting rod cap bolt reuse guidelines

Measure the bolt thread diameter at the top and bottom of the threaded portion. If the difference is greater than 0.1mm (.004"), the bolt must be replaced.



If D1 – D2 < 0.1mm Reuse
If D1 – D2 > 0.1mm Discard