

Engine - 2.0L EcoBlue (77kW/105PS) (YL)/2.0L EcoBlue (96kW/130PS) (YM)/2.0L EcoBlue (125kW/170PS) (YN) - Specifications

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MATERIALS



NOTICE: These Parts urgently needed by engine removal and installation !

NECESSARY PARTS	QUANTITY	PART NUMBER
Lifting eye engine	1	GK2Q-17A084-AA
Bolt	2	W500624-S

ENGINE DATA - 105 PS

DESCRIPTION	
Code	YLFS
Emission level	Stage 6
Firing order	1-3-4-2
Bore diameter	84.01 mm
Stroke	90.03 mm
Displacement	1996 cc
Compression ratio	16.5:1
Power output at 3500 rpm	77 kW (105 PS)
Torque between 1375 to 2000 rpm	360 Nm
Idle speed	850 rpm

ENGINE DATA — 130 PS

DESCRIPTION	
Code	YMFS
Emission level	Stage 6
Firing order	1-3-4-2

DESCRIPTION	
Bore diameter	84.01 mm
Stroke	90.03 mm
Displacement	1996 cc
Compression ratio	16.5:1
Power output at 3500 rpm	95 kW (130 PS)
Torque between 1500 to 2000 rpm	385 Nm
Idle speed	850 rpm

ENGINE DATA — 170 PS

DESCRIPTION	
Code	YNFS
Emission level	Stage 6
Firing order	1-3-4-2
Bore diameter	84.01 mm
Stroke	90.03 mm
Displacement	1996 cc
Compression ratio	16.5:1
Power output at 3500 rpm	125 kW (170 PS)
Torque between 1750 to 2500 rpm	405 Nm
Idle speed	850 rpm

ENGINE DATA — 105 PS

DESCRIPTION	
Code	YLF6
Emission level	Stage 6

DESCRIPTION	
Firing order	1-3-4-2
Bore diameter	84.01 mm
Stroke	90.03 mm
Displacement	1996 cc
Compression ratio	16.5:1
Power output at 3500 rpm	77 kW (105 PS)
Torque between 1500 to 2000 rpm	360 Nm
Idle speed	850 rpm

ENGINE DATA — 130 PS

DESCRIPTION	
Code	YMF6
Emission level	Stage 6
Firing order	1-3-4-2
Bore diameter	84.01 mm
Stroke	90.03 mm
Displacement	1996 cc
Compression ratio	16.5:1
Power output at 3500 rpm	95 kW (130 PS)
Torque between 1500 to 2000 rpm	385 Nm
Idle speed	850 rpm

ENGINE DATA — 170 PS

DESCRIPTION	
Code	YNF6

DESCRIPTION	
Emission level	Stage 6
Firing order	1-3-4-2
Bore diameter	84.01 mm
Stroke	90.03 mm
Displacement	1996 cc
Compression ratio	16.5:1
Power output at 3500 rpm	125 kW (170 PS)
Torque between 1750 to 2500 rpm	405 Nm
Idle speed	850 rpm

ENGINE OIL CAPACITY WITH GREY DIPSTICK END

	LITERS
Initial fill including oil filter	9.1
Oil Service fill without filter change	8.1
Oil service fill with filter change	8.3

ENGINE OIL CAPACITY WITH YELLOW DIPSTICK END

	LITERS
Initial fill including oil filter	10
Oil Service fill without filter change	9.2
Oil service fill with filter change	9.8

CYLINDER BLOCK DIMENSIONS

DESCRIPTION	MM
Cylinder bore diameter	84.000 - 84.020
Main bearing housing diameter	65.000 - 65.020

DESCRIPTION	MM
Main bearing running clearance	0.035 - 0.065

PISTON DIMENSIONS

DESCRIPTION	MM
Piston diameter	83.915 - 83.931
Squish hight	0.6045
Piston clearance in cylinder	0.069 - 0.105
Piston ring end gaps	
— upper compression ring	0.250 - 0.400
— lower compression ring	0.850 - 1.100
— oil control ring	0.200 - 0.400

Piston ring gap position: The piston ring gaps must be distributed evenly around the circumference of the piston. This also applies to the oil control ring elements. Align the piston ring gaps at 120 degrees to each other.

CRANKSHAFT DIMENSIONS

DESCRIPTION	MM
Crankpin diameter	49.970 - 49.990
Crankpin width	24.400 - 24.600
Main bearing journals 1 to 5 diameter	59.970 - 59.990
Main bearing shells 1,2,4,5 inner diameter — bearings installed	60.011 - 60.055
Main bearing shell 3 inner diameter — bearings installed	60.019 - 60.063
Main bearings 1,2,4,5 radial clearance	0.019 - 0.035
Main bearing 3 radial clearance	0.023 - 0.039
Crankshaft /Connecting rod running clearance	0.035 - 0.065
Upper main bearing max/min thickness	2.501 - 2.489

DESCRIPTION	MM
Lower main bearing max/min thickness	2.501 - 2.489
Upper and lower main bearing liner free spread	min 65.5
Thrust washer thickness	1.875 - 1.925
Crankshaft end float	0.090 - 0.305

CONNECTING ROD DIMENSIONS

DESCRIPTION	MM
Connecting rod length	142.500
Connecting rod width	24.280 - 24.300
Connecting rod bearing shell inner diameter — bearings installed	46.971 - 47.015
Connecting rod bearing radial clearance	0.017 - 0.029
Connecting rod bearing axial clearance	0.100 - 0.320
Connecting rod big end bore diameter	53.000 - 53.013
Connecting rod small end bore diameter	30.012 - 30.020

PISTON PIN DIMENSIONS

DESCRIPTION	MM
Piston pin length	63.350 - 63.650
Piston pin diameter	29.994 - 30.000
Piston pin slide clearance	0.011 - 1.860
Piston pin bore diameter	30.017 - 29.989

CAMSHAFT DIMENSIONS

DESCRIPTION	MM
Camshaft end float - Axial play	0.025 - 0.060

VALVE DIMENSIONS

DESCRIPTION	MM
Valve stem to valve guide clearance — intake valve	0.0255 - 0.0605
Valve stem to valve guide clearance — exhaust valve	0.0355 - 0.705

CYLINDER HEAD DIMENSIONS

DESCRIPTION	MM
Maximum distortion — measured longitudinally and diagonally	0.100
Peak to valley height of mating surface	0.150
Thickness of cylinder head gasket with piston protrusion of 0.671 - 0.720 mm	1.30 (one tooth) Grade 1
Thickness of cylinder head gasket with piston protrusion of 0.721 - 0.770 mm	1.35 (two teeth) Grade 2
Thickness of cylinder head gasket with piston protrusion of 0.771 - 0.820 mm	1.40 (three teeth) Grade 3
Thickness of cylinder head gasket with piston protrusion of 0.821 - 0.870 mm	1.45 (four teeth) Grade 4
Thickness of cylinder head gasket with piston protrusion of 0.871 - 0.920 mm	1.50 (five teeth) Grade 5

OIL PRESSURE SPECIFICATIONS

DESCRIPTION	PRESSURE BAR (KPA)
Minimum oil pressure at idle speed	1.0 (100)
Minimum oil pressure at 2000 rpm	1.5 (150)

LUBRICANTS, FLUIDS, SEALERS AND ADHESIVES

ITEM	SPECIFICATION
SAE 0W-30	Material: WSS-M2C950-A (Engine Oil - SAE 0W-30)

ITEM	SPECIFICATION
Sealer — oil pan, crankshaft rearseal , ladderframe and engine front cover	Material: WSE-M4G323-A4 (Silicone Sealant)

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