

# SUBARU ENGINE REPAIR SPECIFICATIONS

**IMPORTANT NOTE** ALWAYS REFER TO THE ENGINE MODELS SERVICE MANUAL FOR SPECIFIC SERVICE AND MAINTENANCE INFORMATION

## ENGINE SPECIFICATIONS

SUBARU ENGINE MODEL	CYLINDER (INSIDE DIAMETER)	PISTON RING END GAP			Unit: mm (in.)				CLEARANCE BETWEEN VALVE STEM & VALVE GUIDE			VALVE CLEARANCE IN. & EX WHEN COLD	IGNITION COIL AIR GAP	SPARK PLUG		CRANK CASE OIL CAPACITY Max.L (minL)
		TOP RING	SECOND RING	OIL RING	LIMIT FOR END GAP	INTAKE	EXHAUST	LIMIT	MODEL	GAP						
EX13	58.000-58.019 (2.2835-2.2842)	0.2-0.4 (0.0078-0.0157)	0.2-0.4 (0.0078-0.0157)	0.2-0.4 (0.0078-0.0157)	1.5 (0.0591)	0.045-0.078 (0.0018-0.0031)	0.056-0.092 (0.0022-0.0036)	0.3 (0.0118)	0.12-0.15 (0.0047-0.0059)	0.3-0.5 (0.012-0.020)	NGK BR-6HS	0.6-0.7 (0.024-0.028)	0.6L (0.25L)			
EX17/21	67.000-67.019 (2.6378-2.6385)	0.2-0.4 (0.0078-0.0157)	0.2-0.4 (0.0078-0.0157)	0.05-0.25 (0.0020-0.0098)	1.5 (0.0591)	0.045-0.078 (0.0018-0.0031)	0.056-0.092 (0.0022-0.0036)	0.3 (0.0118)	0.12-0.15 (0.0047-0.0059)	0.3-0.5 (0.012-0.020)	NGK BR-6HS	0.6-0.7 (0.024-0.028)	0.6L (0.25L)			
EX27	75.000-75.019 (2.9528-2.9535)	0.1-0.3 (0.0039-0.0118)	0.1-0.3 (0.0039-0.0118)	0.1-0.3 (0.0039-0.0118)	1.5 (0.0591)	0.045-0.078 (0.0018-0.0031)	0.056-0.092 (0.0022-0.0036)	0.3 (0.0118)	0.12-0.15 (0.0047-0.0059)	0.3-0.5 (0.012-0.020)	NGK BR-6HS	0.6-0.7 (0.024-0.028)	1.0L (0.5L)			
EX35/40	89.000-89.022 (3.5039-3.5040)	0.10-0.25 (0.0039-0.0098)	-	0.15-0.55 (0.0059-0.0217)	1.5 (0.0591)	0.050-0.083 (0.0197-0.0033)	0.050-0.083 (0.00197-0.0033)	0.3 (0.0118)	0.12-0.15 (0.0047-0.0059)	0.3-0.5 (0.012-0.020)	NGK BR-6HS	0.6-0.7 (0.024-0.028)	1.2L (0.6L)			
EH025	34.00-34.02 (1.3386-1.3394)	0.1-0.25 (0.0039-0.0098)	0.1-0.25 (0.0039-0.0098)	0.1-0.6 (0.0039-0.0236)	0.8 (0.0315)	0.015-0.050 (0.0006-0.0020)	0.040-0.075 (0.0016-0.0030)	0.2 (0.0079)	0.15 (0.0059)	0.3 (0.012)	NGK-CM6A	0.7-0.8 (0.028-0.032)	0.08L (0.03L)			
EH035	39.000-39.020 (1.5354-1.5362)	0.1-0.25 (0.0039-0.0098)	0.1-0.25 (0.0039-0.0098)	0.1-0.6 (0.0039-0.0236)	0.8 (0.0315)	0.017-0.050 (0.0007-0.0020)	0.040-0.075 (0.0016-0.0030)	0.2 (0.0079)	0.15 (0.0059)	0.3 (0.012)	NGK-CM6A CMR6A	0.7-0.8 (0.028-0.032)	0.10L (0.04L)			
EH09-2 (EH09)	51.000-51.019 (2.008-2.009)	0.15-0.35 (0.006-0.014)	0.35-0.55 (0.014-0.022)	0.05-0.25 (0.002-0.010)	1.5 (0.0591)	0.045-0.078 (0.0018-0.0031)	0.056-0.092 (0.0022-0.0036)	0.3 (0.0118)	0.06-0.10 (0.0024-0.0039)	0.3-0.5 (0.012-0.020)	NGK BMR4A (NGK BMR6A)	0.6-0.7 (0.024-0.028)	STD 0.38L (0.22L) RAMMER 0.3L (0.2L)			
EH12-2	60.000-60.019 (2.3622-2.3630)	0.2-0.4 (0.0078-0.0157)	0.2-0.4 (0.0078-0.0157)	0.2-0.4 (0.0078-0.0157)	1.5 (0.0591)	0.045-0.078 (0.0018-0.0031)	0.056-0.092 (0.0022-0.0036)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK B6ES	0.6-0.7 (0.024-0.028)	STD 0.60L (0.25L) RAMMER 0.4L (0.2L)			
EH17-2	67.000-67.019 (2.6378-2.6385)	0.2-0.4 (0.0078-0.0157)	0.2-0.4 (0.0078-0.0157)	0.05-0.25 (0.002-0.010)	1.5 (0.0591)	0.045-0.078 (0.0018-0.0031)	0.056-0.092 (0.0022-0.0036)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK B6HS	0.6-0.7 (0.024-0.028)	0.65L (0.25L)			
EH25-2	75.000-75.019 (2.9528-2.9535)	0.1-0.3 (0.0039-0.0118)	0.1-0.3 (0.0039-0.0118)	0.1-0.3 (0.0039-0.0118)	1.5 (0.0591)	0.045-0.078 (0.0018-0.0031)	0.060-0.093 (0.0024-0.0037)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK B6HS	0.6-0.7 (0.024-0.028)	1.0L (0.5L)			
EH30	78.000-78.019 (3.071-3.072)	0.2-0.4 (0.0078-0.0157)	0.2-0.4 (0.0078-0.0157)	0.1-0.3 (0.0039-0.0118)	1.5 (0.0591)	0.050-0.087 (0.0022-0.0034)	0.056-0.100 (0.0022-0.0036)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK B6ES	0.6-0.7 (0.024-0.028)	1.2L (0.5L)			
EH34	84.000-84.022 (3.307-3.308)	0.2-0.4 (0.0078-0.0157)	0.2-0.4 (0.0078-0.0157)	0.1-0.3 (0.0039-0.0118)	1.5 (0.0591)	0.050-0.087 (0.0022-0.0034)	0.056-0.100 (0.0022-0.0036)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK B6ES	0.6-0.7 (0.024-0.028)	1.2L (0.5L)			
EH36/41	89.000-89.022 (3.504-3.505)	0.15-0.35 (0.0059-0.0138)	0.4-0.6 (0.0157-0.0236)	0.2-0.7 (0.0079-0.0276)	1.5 (0.0591)	0.050-0.083 (0.0022-0.0033)	0.060-0.093 (0.0024-0.0037)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK BP6ES	0.7-0.8 (0.028-0.032)	1.2L (0.5L)			
EH63/64/65	80.000-80.019 (3.1496-3.1504)	0.2-0.4 (0.0079-0.0157)	0.2-0.4 (0.0079-0.0157)	0.2-0.7 (0.0079-0.0276)	1.5 (0.0591)	0.050-0.083 (0.0022-0.0033)	0.060-0.093 (0.0024-0.0037)	0.3 (0.0118)	0.07-0.13 (0.0028-0.0051)	0.3-0.5 (0.012-0.020)	NGK BP6ES	0.7-0.8 (0.028-0.032)	1.55L (0.57L)			
EH72	84.000-84.022 (3.3071-3.3080)	0.2-0.4 (0.0079-0.0157)	0.2-0.4 (0.0078-0.0157)	0.2-0.7 (0.0079-0.0276)	1.5 (0.0591)	0.050-0.083 (0.0022-0.0033)	0.050-0.083 (0.0022-0.0033)	0.3 (0.0118)	0.07-0.13 (0.0028-0.0051)	0.3-0.5 (0.012-0.020)	NGK BP6ES	0.7-0.8 (0.028-0.032)	1.55L (0.57L)			
EY08	51-51.019 (2.0079-2.0086)	0.2-0.4 (0.0079-0.0157)	0.2-0.4 (0.0079-0.0157)	0.05-0.25 (0.0020-0.0098)	1.5 (0.0591)	0.020-0.050 (0.0008-0.0020)	0.056-0.092 (0.0022-0.0036)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK BM4A	0.6-0.7 (0.024-0.028)	0.4L (0.25L)			
EY15-3 (EY15)	63-63.019 (2.4803-2.4811)	0.2-0.4 (0.0079-0.0157)	0.2-0.4 (0.0079-0.0157)	0.1-0.3 (0.0039-0.0118)	1.5 (0.0590)	0.025-0.062 (0.0010-0.0024)	0.056-0.100 (0.0022-0.0039)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK B6HS	0.6-0.7 (0.024-0.028)	0.6L (0.25L)			
EY20-3 (EY20)	67.000-67.019 (2.6378-2.6385)	0.05-0.25 (0.0020-0.0098)	0.05-0.25 (0.0020-0.0098)	0.05-0.25 (0.0020-0.0098)	1.5 (0.0590)	0.025-0.062 (0.0010-0.0024)	0.056-0.100 (0.0022-0.0039)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.5 (0.012-0.020)	NGK B6HS	0.6-0.7 (0.024-0.028)	0.6L (0.25L)			
EY28	75.000-75.019 (2.9528-2.9535)	0.1-0.3 (0.0039-0.0118)	0.1-0.3 (0.0039-0.0118)	0.1-0.3 (0.0039-0.0118)	1.5 (0.0590)	0.025-0.062 (0.0010-0.0024)	0.056-0.100 (0.0022-0.0039)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.5 (0.020)	NGK B6HS BP6HS	0.6-0.7 (0.024-0.028)	0.85L (0.4L)			
EY35	78.000-78.019 (3.0709-3.0716)	0.1-0.3 (0.0039-0.0118)	0.1-0.3 (0.0039-0.0118)	0.2-0.9 (0.0079-0.0354)	1.5 (0.0590)	0.030-0.091 (0.0012-0.0036)	0.070-0.126 (0.0028-0.0050)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.4 (0.012-0.016)	NGK BP4HS	0.6-0.7 (0.024-0.028)	1.2L (0.6L)			
EY40	84.000-84.019 (3.3071-3.3078)	0.1-0.3 (0.0039-0.0118)	0.1-0.3 (0.0039-0.0118)	0.2-0.9 (0.0079-0.0354)	1.5 (0.0590)	0.030-0.091 (0.0012-0.0036)	0.070-0.126 (0.0028-0.0050)	0.3 (0.0118)	0.08-0.12 (0.0031-0.0047)	0.3-0.4 (0.012-0.016)	NGK BP4HS	0.6-0.7 (0.024-0.028)	1.2L (0.6L)			
DY23-2	70.000-70.019 (2.7559-2.7567)	0.15-0.35 (0.0059-0.0138)	0.35-0.55 (0.0138-0.0216)	0.1-0.3 (0.0039-0.0118)	1.0 (0.0394)	0.063-0.096 (0.0025-0.0038)	0.083-0.116 (0.0033-0.0046)	0.3 (0.0118)	0.12-0.16 (0.0047-0.0063)	195 kg/cm <sup>2</sup> 2773 lb/in <sup>2</sup>	18 kg/cm <sup>2</sup> (400rpm) 256.0 lb/in <sup>2</sup> (400rpm)	0.9L (0.5L)				
DY27-2	75.000-75.019 (2.9528-2.9535)	0.15-0.35 (0.0059-0.0138)	0.35-0.55 (0.0138-0.0216)	0.1-0.3 (0.0039-0.0118)	1.0 (0.0394)	0.063-0.096 (0.0025-0.0038)	0.083-0.116 (0.0033-0.0046)	0.3 (0.0118)	0.12-0.16 (0.0047-0.0063)	195 kg/cm <sup>2</sup> 2773 lb/in <sup>2</sup>	17-17.5 kg/cm <sup>2</sup> (400rpm) 241.8-248.9 lb/in <sup>2</sup> (400rpm)	0.9L (0.5L)				
DY30	76.000-76.019 (2.9921-2.9929)	0.3-0.5 (0.0118-0.0197)	0.3-0.5 (0.0118-0.0197)	0.25-0.45 (0.0098-0.0177)	1.0 (0.0394)	0.063-0.093 (0.0025-0.0036)	0.083-0.113 (0.0033-0.0044)	0.3 (0.0118)	0.07-0.10 (0.0028-0.0039)	195 kg/cm <sup>2</sup> 2773 lb/in <sup>2</sup>	18 kg/cm <sup>2</sup> (400rpm) 256.0 lb/in <sup>2</sup> (400rpm)	1.0L (0.6L)				
DY35	82.000-82.022 (3.2283-3.2292)	0.15-0.35 (0.0059-0.0138)	0.3-0.5 (0.0118-0.0197)	0.1-0.3 (0.0039-0.0118)	1.0 (0.0394)	0.063-0.093 (0.0025-0.0036)	0.083-0.113 (0.0033-0.0044)	0.3 (0.0118)	0.07-0.10 (0.0028-0.0039)	195 kg/cm <sup>2</sup> 2773 lb/in <sup>2</sup>	17-17.5 kg/cm <sup>2</sup> (400rpm) 241.8-248.9 lb/in <sup>2</sup> (400rpm)	1.0L (0.6L)				
DY41/42	82.000-82.022 (3.2283-3.2292)	0.15-0.35 (0.0059-0.0138)	0.3-0.5 (0.0118-0.0197)	0.1-0.3 (0.0039-0.0118)	1.0 (0.0394)	0.063-0.093 (0.0025-0.0036)	0.083-0.113 (0.0033-0.0044)	0.3 (0.0118)	0.07-0.10 (0.0028-0.0039)	195 kg/cm <sup>2</sup> 2773 lb/in <sup>2</sup>	19-20 kg/cm <sup>2</sup> (400rpm) 270.2-284.5 lb/in <sup>2</sup> (400rpm)	1.1L (0.7L)				

## TIGHTENING TORQUE

CYLINDER HEAD BOLTS			CONNECTING ROD CAP BOLTS		
kgf.cm	N.m	ft.lb	kgf.cm	N.m	ft.lb
M8 X 68 250-270 (New: 280-300)	M8 X 68 25-27 (New: 28-30)	M8 X 68 18.1-19.5 (New: 20.3-21.7)	130-150	13-15	9.4-10.8
M8 X 35 170-190	M8 X 35 17-19	M8 X 35 12.3-13.7	130-150	13-15	9.4-10.8
290-310 (New: 370-390) M8: 170-190	29-31 (New: 37-39) M8: 17-19	21.0-22.4 (New: 26.7-28.2) M8: 12.3-13.7	170-200	17-20	12.3-14.5
45-65 (Cylinder Block)	5-7 (Cylinder Block)	3.3-4.7 (Cylinder Block)	225-275	28-28	16.3-19.9
45-65 (Cylinder Block)	5-7 (Cylinder Block)	3.3-4.7 (Cylinder Block)	-	-	-
190-210	19-21	13.7-15.2	60-80	6-8	4.3-5.7
230-270	23-27	16.6-19.5	90-115	9-11	6.5-8.3
230-270	23-27	16.6-19.5	170-200	17-20	12.2-14.4
340-420	34-42	24.6-30.3	225-275	22-27	16.3-19.8
340-420	34-42	24.6-30.4	225-275	22-27	16.3-19.9
340-420	34-42	24.6-30.4	225-275	22-27	16.3-19.9
340-420	34-42	24.6-30.4	225-275	22-27	16.3-19.9
340-420	34-42	24.6-30.4	225-275	22-27	16.3-19.9
340-420	34-42	24.6-30.4	225-275	22-27	16.3-19.9
90-110	9-11	6.5-7.9	60-80	6-8	4.4-5.7
190-230	19-23	13.7-16.6	90-115	9-11	6.5-8.3
190-230	19-23	13.7-16.6	170-200	17-20	12.2-14.4
220-260	22-26	15.9-18.8	170-200	17-20	12.2-14.4
340-390	34-39	24.6-28.3	250-300	25-30	18.1-21.7
340-390	34-39	24.6-28.3	250-300	25-30	18.1-21.7
330-350	33-35	23.9-25.3	180-200	18-20	13.0-14.5
330-350	33-35	23.9-25.3	180-200	18-20	13.0-14.5
330-350	33-35	23.9-25.3	250-270	25-27	18.1-19.5
330-350	33-35	23.9-25.3	250-270	25-27	18.1-19.5
330-350	33-35	23.9-25.3	250-270	25-27	18.1-19.5
330-350	33-35	23.9-25.3	250-270	25-27	18.1-19.5

## UPGRADE YOUR STEEL FRAME

- AUSTRALIAN MADE STEEL FRAMES
- CUSTOMISED TO YOUR SPECIFICATIONS
- HEAVY DUTY TUBULAR STEEL
- POWDER COATED



Crommelins can custom build any frame to protect your Generator, Drive Unit, Pressure Cleaner or Pump against accidental damage or misuse.

