Adjusting Shim Selection Chart (Intake)

Measured clearance mm (in.) \ Installed shim thickness mm (in.)	2.50 (0.0984)	2.52 (0.0992)	2.54 (0.1000)	2.55 (0.1004)	2.56 (0.1008)	2.58 (0.1016)	2.60 (0.1024)	2.62 (0.1031)	2.64 (0.1039)	2.65 (0.1043)	2.66 (0.1047)	2.67 (0.1051)	2.68 (0.1055)	2.69 (0.1059)	2.70 (0.1063)	2.71 (0.1067)	2.72 (0.1071)	2.73 (0.1075)	2.74 (0.1079)	2.75 (0.1083)	2.76 (0.1087)	2.77 (0.1091)	2.78 (0.1094)	2.79 (0.1098)	2.80 (0.1102)	2.81 (0.1106)	2.82 (0.1110)	2.83 (0.1114)	2.84 (0.1118)	2.85 (0.1122)	2.86 (0.1126)	2.87 (0.1130)	2.88 (0.1134)	2.89 (0.1138)	2.90 (0.1142)	2.91 (0.1146)	2.92 (0.1150)	2.93 (0.1154)	2.94 (0.1157)	2.95 (0.1161)	2.96 (0.1165)	2.97 (0.1169)	2.98 (0.1173)	2.99 (0.1177)	3.00 (0.1181)	3.01 (0.1185)	3.02 (0.1189)	3.03 (0.1193)	3.04 (0.1197)	3.05 (0.1201)	3.06 (0.1205)	3.08 (0.1213)	3.10 (0.1220)	3.12 (0.1228)	3.14 (0.1236)	3.15 (0.1240)	3.16 (0.1244)	3.18 (0.1252)	3.20 (0.1260)	3.22 (0.1268)	3.24 (0.1276)	3.25 (0.1280)	3.26 (0.1283)	3.28 (0.1291)	3.30 (0.1299)
0.000 — 0.020 (0.0000 — 0.0008)									01	01	01	01	01	01	01	01	63	63	63	63	63	06	06	06	06	06	66	66	66	66	66	13	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	38	38	38	38	43	43	48	48	48	48	51	51
0.021 — 0.040 (0.0008 — 0.0016)								01	01	01	01	01	01	01	63	63	63	63	63	06	06	06	06	06	66	66	66	66	66	13	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	33	33	33	33	38	38	38	43	43	43	48	48	48	51	51	51	77
0.041 — 0.060 (0.0016 — 0.0024)							01	01	01	01	01	01	63	63	63	63	63	06	06	06	06	06	66	66	66	66	66	13	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	38	38	38	43	43	43	48	48	48	51	51	51	77	77
0.061 — 0.080 (0.0024 — 0.0031)						01	01	01	01	01	63	63	63	63	63	06	06	06	06	06	66	66	66	66	66	13	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	43	43	43	48	48	48	51	51	51	77	77	77
0.081 — 0.100 (0.0032 — 0.0039)				01	01	01	01	01	63	63	63	63	63	06	06	06	06	06	66	66	66	66	66	13	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	43	43	48	48	48	48	51	51	77	77	77	77	56
0.101 — 0.120 (0.0040 — 0.0047)			01	01	01	01	01	63	63	63	63	06	06	06	06	06	66	66	66	66	66	13	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	48	48	48	48	51	51	77	77	77	56	56
0.121 — 0.140 (0.0048 — 0.0055)		01	01	01	01	01	63	63	63	06	06	06	06	06	66	66	66	66	66	13	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	48	48	48	51	51	51	77	77	77	56	56	56
0.141 — 0.149 (0.0056 — 0.0059)		01	01	01	01	63	63	63	06	06	06	06	66	66	66	66	66	13	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	48	48	48	51	51	51	77	77	77	56	56	56	80	80
0.150 — 0.250 (0.0059 — 0.0098)																																																																			
0.251 — 0.260 (0.0099 — 0.0102)	63	06	06	06	06	66	66	13	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	51	77	77	56	56	56	56	80	80	61	61	61	61	61
0.261 — 0.281 (0.0103 — 0.0110)	63	06	06	06	66	66	66	13	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	56	56	56	80	80	61	61	61	61	61
0.281 — 0.300 (0.0111 — 0.0118)	06	06	66	66	66	66	13	13	18	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	56	56	80	80	80	80	61	61	61	61	61
0.301 — 0.320 (0.0119 — 0.0126)	06	66	66	66	66	13	13	18	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	80	80	80	80	61	61	61	61	61
0.321 — 0.340 (0.0126 — 0.0134)	66	66	66	13	13	13	18	18	18	23	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	80	80	80	61	61	61	61	61	61
0.341 — 0.360 (0.0134 — 0.0142)	66	66	13	13	13	18	18	18	23	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	61	61	61	61	61	61
0.361 — 0.380 (0.0142 — 0.0150)	66	13	13	13	18	18	18	23	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	61	61	61	61	61	61				
0.381 — 0.400 (0.0150 — 0.0157)	13	13	18	18	18	18	23	23	28	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	56	80	80	80	61	61	61	61	61						
0.401 — 0.420 (0.0158 — 0.0165)	13	18	18	18	18	23	23	28	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	56	80	80	80	80	80	61	61	61	61							
0.421 — 0.440 (0.0166 — 0.0173)	18	18	18	23	23	23	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61							
0.441 — 0.460 (0.0174 — 0.0181)	18	18	23	23	23	28	28	28	33	33	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61							
0.461 — 0.480 (0.0181 — 0.0189)	18	23	23	23	28	28	28	33	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61									
0.481 — 0.500 (0.0189 — 0.0197)	23	23	28	28	28	28	33	33	38	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61									
0.501 — 0.520 (0.0197 — 0.0205)	23	28	28	28	28	33	33	38	38	38	38	43	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61											
0.521 — 0.540 (0.0205 — 0.0213)	28	28	28	33	33	33	38	38	38	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61	61													
0.541 — 0.560 (0.0213 — 0.0220)	28	28	33	33	33	38	38	38	43	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61															
0.561 — 0.580 (0.0221 — 0.0228)	28	33	33	33	38	38	38	43	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61																	
0.581 — 0.600 (0.0229 — 0.0236)	33	33	38	38	38	38	43	43	48	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61																			
0.601 — 0.620 (0.0237 — 0.0244)	33	38	38	38	43	43	48	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61	61																					
0.621 — 0.640 (0.0244 — 0.0252)	38	38	38	43	43	43	48	48	48	51	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61																							
0.641 — 0.660 (0.0252 — 0.0260)	38	38	43	43	43	48	48	48	51	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61																									
0.661 — 0.680 (0.0260 — 0.0268)	38	43	43	43	48	48	48	51	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61																													
0.681 — 0.700 (0.0268 — 0.0276)	43	43	48	48	48	48	51	51	77	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61																													
0.701 — 0.720 (0.0276 — 0.0283)	43	48	48	48	48	51	51	77	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61																															
0.721 — 0.740 (0.0284 — 0.0291)	48	48	48	51	51	51	77	77	77	56	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61																															
0.741 — 0.760 (0.0292 — 0.0299)	48	48	51	51	51	77	77	77	56	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61																															
0.761 — 0.780 (0.0300 — 0.0307)	48	51	51	51	77	77	77	56	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61																															
0.781 — 0.800 (0.0307 — 0.0315)	51	51	77	77	77	77	56	56	80	80	80	80	80	61	61	61	61	61	61	61	61	61																															
0.801 — 0.820 (0.0315 — 0.0323)	51	77	77	77	77	56	56	80	80	80	80	61	61	61	61	61	61	61	61																																			
0.821 — 0.840 (0.0323 — 0.0331)	77	77	77	56	56	56	80	80	80	61	61	61	61	61	61	61	61																																						
0.841 — 0.860 (0.0331 — 0.0339)	77	77	56	56	56	80	80	80	61	61	61	61	61	61	61	61																																							
0.861 — 0.880 (0.0339 — 0.0346)	77	56	56	56	80	80	80	61	61	61	61	61	61	61																																							
0.881 — 0.900 (0.0347 — 0.0354)	56	56	80	80	80	80	61	61	61	61	61																																										
0.901 — 0.920 (0.0355 — 0.0362)	56	80	80	80	80	61	61	61	61																																												
0.921 — 0.940 (0.0363 — 0.0370)	80	80	80	61	61	61	61	61																																													
0.941 — 0.960 (0.0370 — 0.0378)	80	80	61	61	61	61	61																																														
0.961 — 0.980 (0.0378 — 0.0386)	80	61	61	61	61	61																																															
0.981 — 1.000 (0.0386 — 0.0394)	61	61	61	61	61																																																
1.001 — 1.020 (0.0394 — 0.0402)	61	61	61																																																		
1.021 — 1.040 (0.0402 — 0.0409)	61	61																																																			
1.041 — 1.050 (0.0410 — 0.0413)	61																																																				

Intake valve clearance (Cold):

0.15 — 0.25 mm (0.006 — 0.010 in.)

EXAMPLE: The 2.80 mm (0.1102 in.) shim is installed, and the measured clearance is 0.450 mm (0.0177 in.). Replace the 2.80 mm (0.1102 in.) shim with a No.48 shim.

New shim thickness mm (in.)

Shim No.	Thickness	Shim No.	Thickness
01	2.50 (0.0984)	38	2.95 (0.1161)
63	2.55 (0.1004)	43	3.00 (0.1181)
06	2.60 (0.1024)	48	3.05 (0.1201)
66	2.65 (0.1043)	51	3.10 (0.1220)
13	2.70 (0.1063)	77	3.15 (0.1240)
18	2.75 (0.1083)	56	3.20 (0.1260)
23	2.80 (0.1102)	80	3.25 (0.1280)
28	2.85 (0.1122)	61	3.30 (0.1299)
33	2.90 (0.1142)		