



CHECK CHART

COMMON METRIC SPECS FOR ALL POPULAR ENGINE MODELS

Model Series	Idle Speed	Armature Air Gap	Valve Clearance Intake	Valve Clearance Exhaust	Valve Guide Reject Gage	Torque Specifications				Crankshaft Reject Size			Crankshaft End Play	Main Bearing Reject Gage Or Reject Dimension	Cylinder Bore Standard	NOTES
						Flywheel Nut Nm.	Cylinder Head Nm.	Conn. Rod Torque Nm.	Crankcase Cover/Sump Nm.	Mag Journal	Crankpin Journal	PTO Journal				
L-HEAD ALUMINUM/CAST SLEEVE SINGLE CYLINDER																
60000	1750	.15 .25	.12 .18	.18 .23	19122	75	16	11	10	22.17	22.10	22.17	.05 .20	19166	60.30 60.32	
80000	1750	.15 .25	.12 .18	.18 .23	19122	75	16	11	10	22.17	25.30	22.17	.05 .20	19166	60.30 60.32	
90000	1750	.15 .25	.12 .18	.18 .23	19122	75	16	11	10	22.17	25.30	22.17	*.05 .76	19166	65.06 65.08	* Horizontal Crankshaft - -.05 - .25
10A000 thru 10M000	None	.15 .25	.12 .18	.18 .23	19122	75	16	11	10	22.17	22.15	22.17	.05 .76	19166	65.06 65.08	
110000	1750	.15 .25	.12 .18	.18 .23	19122	75	16	11	10	22.17	25.30	22.17	.05 .20	19166	70.61 70.64	
120000	1750	.15 .25	.12 .18	.18 .23	19122	75	16	11	10	22.17	*25.30 **27.86	26.92	.05 .76	19166 Mag. 19375 PTO	68.26 68.28	* Before 97011300 ** After 97011200
130000	1750	.25 .35	.12 .18	.23 .28	19122	75	16	11	13	22.17	25.30	25.35	*.05 .76	19166 Mag. 19178 PTO	65.06 65.08	* Horizontal Threaded Crankshaft - .05 - .20
170000	1750	.25 .35	.12 .18	.23 .28	19151	88	18	18	16	25.32	27.68	29.94	*.05 .76	19178	76.17 76.20	* Horizontal Threaded Crankshaft - .05 - .20
171700	1750	.25 .35	.12 .18	.23 .28	19151	88	18	18	16	29.94	28.50	29.94	.05 .76	19178	76.17 76.20	
190000	1750	.25 .35	.12 .18	.23 .28	19151	88	18	21	16	25.32	28.50	29.94	*.05 .76	19178	76.17 76.20	* Horizontal Threaded Crankshaft - .05 - .20
191700	1750	.25 .35	.12 .18	.23 .28	19151	88	18	21	16	29.94	28.50	29.94	.05 .76	19178	76.17 76.20	
220000 250000	1750	.25 .35	.12 .18	.23 .28	19151	88	18	21	16	34.95	31.67	34.95	.05 .76	19219	87.28 87.31	
280000	1750	.25 .35	.12 .18	.23 .28	19151	115	21	* ..	Torque Varies By Type Of Screw See Fig. 1	34.95	31.67	34.95	.05 .58	19219	87.28 87.31	* Both Rod Screws Same Size: Torque to 21Nm. ** Torque Small Rod Screw First: 18 Nm. Torque Large Rod Screw Second: 29 Nm.
L-HEAD CAST IRON SINGLE CYLINDER																
230000	1200	.25 .35	.18 .23	.43 .48	19151	195	21	21	10 Mag 21 PTO	34.97	30.08	34.97	.05 .20	35.10	76.17 76.20	
240000	1200	.25 .35	.18 .23	.43 .48	19151	195	21	21	10 Mag 21 PTO	Ball	33.26	Ball	.05 .20	Ball	77.76 77.78	
320000	1200	.25 .35	.18 .23	.43 .48	19151	195	21	21	10 Mag 21 PTO	Ball	33.26	Ball	.05 .20	Ball	90.46 90.49	
L-HEAD OPPOSED TWIN CYLINDER																
400000 420000 460000	1400	.25 .35	*.10 .15	*.18 .23	19151	195	18	21	25	34.95	41.20	34.95	** .05 .66	19219	87.28 87.31	* Clearance With Valve Springs Installed ** Horizontal Crankshaft - .10 - .30
OHV SINGLE CYLINDER																
50000	1500	.30 .50	.10 .20	.10 .20	19382	47	28	10	10	Ball	22.96	Ball	.05 .15	Ball	51.99 52.01	
85400	1300	.30 .50	.05 .10	.05 .10	19382	60	25	10	20	Ball	25.98	Ball	.02 .20	Ball	62.00 62.02	
97700 99700	1500	.15 .30	.12 .18	.12 .18	19122	80	18	11	10	22.17	28.50	26.92	.05 .86	19166 Mag. 19178 PTO	65.06 65.08	
115400 117400 118400	1300	.30 .50	.05 .10	.05 .10	19382	60	25	10	20	Ball	29.98	Ball	.02 .20	Ball	67.99 68.02	
120000 Horizontal Shaft	1750	.25 .35	.10 .15	.10 .15	19122	80	24	11	12	22.30	27.86	27.05	*.05 .84	19166 Mag. 19375 PTO	68.26 68.28	* Threaded Crankshaft: - .05 - .23
120000 Vertical Shaft	1750	.15 .35	.10 .20	.10 .20	19122	80	24	11	12	22.30	27.86	22.30	.05 .84	19166 Mag. 19375 PTO	68.26 68.28	
138400	1300	.30 .50	.05 .10	.05 .10	19382	60	25	10	22	Ball	29.95	Ball	.02 .20	Ball	67.99 68.02	
185400	1300	.30 .50	.05 .10	.05 .10	19382	80	34	20	20	Ball	33.95	Ball	.02 .20	Ball	79.99 80.02	
200000	1750	.20 .30	.10 .15	.10 .15	19381	135	25	11	22	29.92	31.66	29.92	*.05 .76	19380	79.22 79.25	* Threaded Crankshaft:- .05 - .20
210000 Horizontal Shaft	1750	.20 .30	.10 .15	.10 .15	19381	135	25	11	22	29.92	31.66	29.92	*.05 .76	19380	83.79 83.82	* Threaded Crankshaft: - .05 - .20
210000 Vertical Shaft	1750	.20 .30	.10 .15	.10 .15	19381	135	25	17	20	34.95	38.02	41.22	.05 .58	19219 Mag. 41.37 PTO	87.28 87.31	
235400, 245400	1300	.20 .30	.10 .15	.10 .15	19382	80	47	20	20	Ball	37.98	Ball	.02 .20	Ball	79.99 80.02	
280000	1750	.25 .35	.07 .12	.12 .18	19381	135	25	* ..	Torque Varies By Type Of Screw See Fig.1	34.95	31.67	34.95	.05 .58	19219	87.28 87.31	* Both Rod Screws Same Size: Torque to 21Nm. ** Torque Small Rod Screw First: 18Nm. Torque Large Rod Screw Second: 29Nm.
310000	1750	.25 .35	.07 .12	.12 .18	19381	135	25	17	20	34.95	38.02	34.95	.05 .58	19219	90.47 90.50	
OHV TWIN CYLINDER																
290000, 294000 303000	*1100 **1400	.20 .30	.10 .15	.10 .15	19382	170	19	13	17	# 29.94 ## 34.95	36.97	34.92	.07 .38	# 19380 Mag. ## 19219 Mag. 19380 PTO	67.99 68.02	* White Governed Idle Spring: ** Red Governed Idle Spring: # Before 97050100 ## After 97043000
350000	*1100 **1400	.20 .30	.10 .15	.10 .15	19382	170	19	13	17	# 29.94 ## 34.95	36.97	34.92	.07 .38	# 19380 Mag. ## 19219 Mag. 19380 PTO	72.01 72.03	
380000	*1100 **1400	.20 .30	.10 .15	.10 .15	19382	170	19	13	17	# 29.94 ## 34.95	36.97	34.92	.07 .38	# 19380 Mag. ## 19219 Mag. 19380 PTO	75.50 75.51	
405000	1750	.20 .30	.10 .15	.10 .15	19381	200	25	11	22	34.95	38.01	41.22	.05 .76	19219 Mag. 41.37 PTO	75.41 75.44	
445000	1750	.20 .30	.10 .15	.10 .15	19381	200	25	11	22	34.95	38.01	41.22	.05 .76	19219 Mag. 41.37 PTO	79.22 79.25	
540000	1500	.12 .18	.10 .15	.10 .15	19381	200	40	14	22	44.94	41.97	44.94	.05 .30	45.13	85.48 85.51	

