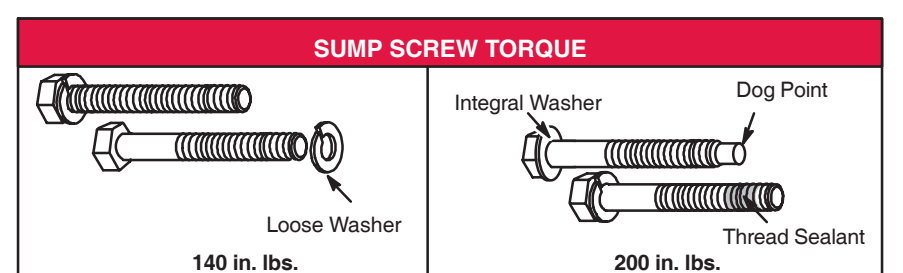


CHECK CHART

COMMON 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			Main Bearing Reject Gage Or Reject Dimension	Cylinder Bore Standard	NOTES		
						Flywheel Nut Ft. Lbs.	Cylinder Head In. Lbs.	Conn. Rod Torque In. Lbs.	Crankcase Cover/Sump In. Lbs.	Mag Journal	Crankpin Journal	PTO Journal				Crankshaft End Play	
L-HEAD ALUMINUM/CAST SLEEVE SINGLE CYLINDER																	
60000	1750	.006 .010	.005 .007	.007 .009	19122	55	140	100	90	.873	.870	.873	.002 .008	19166	2.374 2.375		
80000	1750	.006 .010	.005 .007	.007 .009	19122	55	140	100	90	.873	.996	.873	.002 .008	19166	2.374 2.375		
90000	1750	.006 .010	.005 .007	.007 .009	19122	55	140	100	90	.873	.996	.873	*.002 .030	19166	2.5615 2.5625	* Horizontal Crankshaft - .002 - .010"	
10A000 thru 10M000	None	.006 .010	.005 .007	.007 .009	19122	55	140	100	90	.873	.872	.873	.002 .030	19166	2.5615 2.5625		
110000	1750	.006 .010	.005 .007	.007 .009	19122	55	140	100	90	.873	.996	.873	.002 .008	19166	2.7802 2.7812		
120000	1750	.006 .010	.005 .007	.007 .009	19122	55	140	100	90	.873	*.996 **1.097	1.060	.002 .030	19166 Mag. 19375 PTO	2.6875 2.6885	* Before 97011300 ** After 97011200	
130000	1750	.010 .014	.005 .007	.009 .011	19122	55	140	100	120	.873	.996	.998	*.002 .030	19166 Mag. 19178 PTO	2.5615 2.5625	* Horizontal Threaded Crankshaft - .002 - .008"	
170000	1750	.010 .014	.005 .007	.009 .011	19151	65	165	165	140	.997	1.090	1.179	*.002 .030	19178	2.999 3.000	* Horizontal Threaded Crankshaft - .002 - .008"	
171700	1750	.010 .014	.005 .007	.009 .011	19151	65	165	165	140	1.179	1.122	1.179	.002 .030	19178	2.999 3.000		
190000	1750	.010 .014	.005 .007	.009 .011	19151	65	165	185	140	.997	1.122	1.179	*.002 .030	19178	2.999 3.000	* Horizontal Threaded Crankshaft - .002 - .008"	
191700	1750	.010 .014	.005 .007	.009 .011	19151	65	165	185	140	1.179	1.122	1.179	.002 .030	19178	2.999 3.000		
220000 250000	1750	.010 .014	.005 .007	.009 .011	19151	65	165	185	140	1.376	1.247	1.376	.002 .030	19219	3.4365 3.4375		
280000	1750	.010 .014	.005 .007	.009 .011	19151	85	185	*	..	Torque Varies By Type Of Screw See Fig. 1	1.376	1.247	1.376	.002 .023	19219	3.4365 3.4375	* Both Rod Screws Same Size: Torque to 185 In. Lbs. ** Torque Small Rod Screw First: 160 In. Lbs. Torque Large Rod Screw Second: 260 In. Lbs.
L-HEAD CAST IRON SINGLE CYLINDER																	
230000	1200	.010 .014	.007 .009	.017 .019	19151	145	190	190	90 Mag 190 PTO	1.377	1.1844	1.377	.002 .008	1.382	2.999 3.000		
240000	1200	.010 .014	.007 .009	.017 .019	19151	145	190	190	90 Mag 190 PTO	Ball	1.3094	Ball	.002 .008	Ball	3.0615 3.0625		
320000	1200	.010 .014	.007 .009	.017 .019	19151	145	190	190	90 Mag 190 PTO	Ball	1.3094	Ball	.002 .008	Ball	3.5615 3.5625		
L-HEAD OPPOSED TWIN CYLINDER																	
400000 420000 460000	1400	.010 .014	*.004 .006	*.007 .009	19151	145	160	190	225	1.376	1.622	1.376	** .002 .026	19219	3.4365 3.4375	* Clearance With Valve Springs Installed ** Horizontal Crankshaft - .004 - .012"	
OHV SINGLE CYLINDER																	
50000	1500	.012 .020	.004 .008	.004 .008	19382	35	250	90	90	Ball	.904	Ball	.002 .006	Ball	2.047 2.048		
85400	1300	.012 .020	.002 .004	.002 .004	19382	45	220	90	175	Ball	1.023	Ball	.001 .008	Ball	2.441 2.442		
97700 99700	1500	.006 .012	.005 .007	.005 .007	19122	60	160	100	85	.873	1.122	1.060	.002 .034	19166 Mag. 19178 PTO	2.5615 2.5625		
115400 117400 118400	1300	.012 .020	.002 .004	.002 .004	19382	45	220	90	175	Ball	1.1803	Ball	.001 .008	Ball	2.677 2.678		
120000 Horizontal Shaft	1750	.010 .014	.004 .006	.009 .011	19122	60	210	100	110	.878	1.097	1.065	*.002 .033	19166 Mag. 19375 PTO	2.6875 2.6885	* Threaded Crankshaft: - .002 - .009	
120000 Vertical Shaft	1750	.006 .014	.004 .006	.004 .006	19122	60	210	100	110	.878	1.097	.878	.002 .033	19166 Mag. 19375 PTO	2.6875 2.6885		
138400	1300	.012 .020	.002 .004	.002 .004	19382	45	220	90	190	Ball	1.1793	Ball	.001 .008	Ball	2.677 2.678		
185400	1300	.012 .020	.002 .004	.002 .004	19382	60	300	175	175	Ball	1.3368	Ball	.001 .008	Ball	3.1496 3.1504		
200000	1750	.008 .012	.004 .006	.004 .006	19381	100	220	100	200	1.178	1.2465	1.178	*.002 .030	19380	3.119 3.120	* Threaded Crankshaft: - .002 - .008	
210000 Horizontal Shaft	1750	.008 .012	.004 .006	.004 .006	19381	100	220	100	200	1.178	1.2465	1.178	*.002 .030	19380	3.299 3.300	* Threaded Crankshaft: - .002 - .008	
210000 Vertical Shaft	1750	.008 .012	.004 .006	.004 .006	19381	100	220	150	180	1.376	1.497	1.623	.002 .023	19219 Mag. 1.629" PTO	3.4365 3.4375		
235400, 245400	1300	.008 .012	.004 .006	.004 .006	19382	60	35 Ft. lbs.	175	175	Ball	1.4953	Ball	.001 .008	Ball	3.1496 3.1504		
280000	1750	.010 .014	.003 .005	.005 .007	19381	100	220	*	..	Torque Varies By Type Of Screw See Fig.1	1.376	1.247	1.376	.002 .023	19219	3.4365 3.4375	* Both Rod Screws Same Size: Torque to 185" Lbs. ** Torque Small Rod Screw First: 160 In. Lbs. Torque Large Rod Screw Second: 260 In. Lbs.
310000	1750	.010 .014	.003 .005	.005 .007	19381	100	220	150	180	1.376	1.497	1.376	.002 .023	19219	3.562 3.563		
OHV TWIN CYLINDER																	
290000, 294000 303000	*1100 **1400	.008 .012	.004 .006	.004 .006	19382	125	165	115	150	# 1.179 ## 1.376	1.455	1.375	.003 .015	# 19380 Mag. ## 19219 Mag. 19380 PTO	2.677 2.678	* White Governed Idle Spring: ** Red Governed Idle Spring: # Before 97050100 ## After 97043000	
350000	*1100 **1400	.008 .012	.004 .006	.004 .006	19382	125	165	115	150	# 1.179 ## 1.376	1.455	1.375	.003 .015	# 19380 Mag. ## 19219 Mag. 19380 PTO	2.835 2.836		
380000	*1100 **1400	.008 .012	.004 .006	.004 .006	19382	125	165	115	150	# 1.179 ## 1.376	1.455	1.375	.003 .015	# 19380 Mag. ## 19219 Mag. 19380 PTO	2.9724 2.973		
405000	1750	.008 .012	.004 .006	.004 .006	19381	150	220	100	200	1.376	1.4965	1.623	.002 .030	19219 Mag. 1.629" PTO	2.969 2.970		
445000	1750	.008 .012	.004 .006	.004 .006	19381	150	220	100	200	1.376	1.4965	1.623	.002 .030	19219 Mag. 1.629" PTO	3.119 3.120		
540000	1500	.008 .012	.004 .006	.004 .006	19381	150	30 Ft. Lbs.	125	200	1.7695	1.6525	1.7695	.002 .012	1.777	3.3655 3.3665		



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