

COLT 2310, 2510, AND 2712 COMPACT TRACTORS

CHAPTER 10 SPECIFICATIONS AND TOOLS

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CROSS REFERENCE LIST FOR TABLE OF SPECIFICATIONS

Craftsman Engine Model	See Model
143.558012	HH80
143.558022	HH80
143.558032	HH80
143.558052	HH80
143.559012	HH100
143.559022	HH100
143.559032	HH100
143.559042	HH100
143.562012	HH120
143.562022	HH120
143.562032	HH120
143.568032	HH80
143.569022	HH100
143.569032	HH100
143.569042	HH100
143.569052	HH100
143.569082	HH100

TABLE OF SPECIFICATIONS

Model		HH80	HH100	HH120
Displacement		19.44	23.70	27.66
Stroke		2-3/4"	2-3/4"	2-7/8"
Bore		<u>3.0000</u> 3.0010	<u>3.3120</u> 3.3130	<u>3.500</u> 3.501
Timing Dimension		TDC-Start .095 Run	TDC-Start .095 Run	TDC-Start .095 Run
Point Gap		.020	.020	.020
Spark Plug Gap		<u>.028</u> .033	<u>.028</u> .033	<u>.028</u> .033
Valve Clearance (Both)		.010	.010	.010
Valve Seat Angle		46° +1 -0	46° +1 -0	46° +1 -0
Valve Seat Width		<u>.042</u> .052	<u>.042</u> .052	<u>.042</u> .052
Valve Face Angle		45° ± 15'	45° ± 15'	45° ± 15'
Valve Face Width		<u>.088</u> .099	<u>.089</u> .099	<u>.089</u> .099
Valve Lip Width		.06	.06	.06
Valve Spring Free Length	Early	2.125	2.125	2.125
	Late	1.885	1.885	1.885
Valve Spring Compressed Tension Early Prod. Models		19 - 21 lbs. at 1.65 Length	19 - 21 lbs. at 1.65 Length	19 - 21 lbs. at 1.65 Length
Valve Spring Compressed Tension Late Prod. Models		23 lbs. ± 2.5 at 1.55 Length	23 lbs. ± 2.5 at 1.55 Length	23 lbs. ± 2.5 at 1.55 Length
Valve Guides STD Diameter		<u>.312</u> .313	<u>.312</u> .313	<u>.312</u> .313
Valve Guides Over-Size Dimensions		<u>.343</u> .344	<u>.343</u> .344	<u>.343</u> .344
Dia. Crankshaft Conn. Rod Journal		<u>1.3750</u> 1.3755	<u>1.3750</u> 1.3755	<u>1.3750</u> 1.3755
Maximum Conn. Rod Dia. Crank Bearing		Maximum 1.3765	Maximum 1.3765	Maximum 1.3765
Shaft Seat Dia. For Roller Bearings		<u>1.1865</u> 1.1870	<u>1.1865</u> 1.1870	<u>1.1865</u> 1.1870

TABLE OF SPECIFICATIONS (Continued)

Model	HH80	HH100	HH120
Crankshaft End Play	$\frac{.002}{.003}$	$\frac{.002}{.003}$	$\frac{.002}{.003}$
Piston Diameter	$\frac{2.993}{2.994}$	$\frac{3.304}{3.305}$	$\frac{3.4880}{3.4890}$
Piston Pin Diameter	$\frac{.6873}{.6875}$	$\frac{.6873}{.6875}$	$\frac{.6873}{.6875}$
Width Comp. Ring Groove	$\frac{.0950}{.0960}$	$\frac{.0950}{.0960}$	$\frac{.0950}{.0960}$
Width Oil Ring Groove	$\frac{.1880}{.1900}$	$\frac{.1880}{.1900}$	$\frac{.1880}{.1890}$
Side Clearance Ring Groove	$\frac{.0020}{.0035}$	$\frac{.0020}{.0035}$	$\frac{.0020}{.0035}$
Ring End Gap	$\frac{.010}{.020}$	$\frac{.010}{.020}$	$\frac{.010}{.020}$
Top Piston Land Clearance	$\frac{.030}{.033}$	$\frac{.0305}{.0335}$	$\frac{.032}{.035}$
Piston Skirt Clearance	$\frac{.005}{.007}$	$\frac{.006}{.008}$	$\frac{.010}{.012}$
Camshaft Bearing Dia.	$\frac{.6233}{.6240}$	$\frac{.6235}{.6240}$	$\frac{.6235}{.6240}$
Cam Lobe Dia. Nose to Heel	$\frac{.803}{.806}$	$\frac{.803}{.806}$	$\frac{.803}{.806}$

TORQUE SPECIFICATIONS

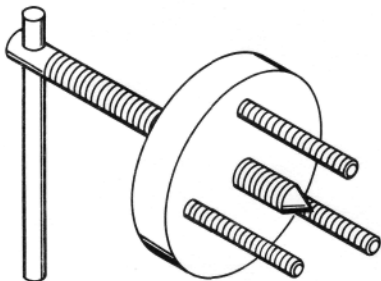
	INCH POUNDS	FT. LBS.
Cylinder Head Bolts	200 - Retorque Hot	16.7
Connecting Rod Lock Nuts	86 - 110	7. - 9
Cylinder Cover P. T. O. & Magneto	65 - 110	5.5 - 9
Flywheel Nut	600 - 660	50 - 55
Spark Plug	180 - 360	25 - 30
Carburetor to Cylinder	72 - 96	6 - 8
Air Cleaner to Elbow	15 - 25	
Air Cleaner to Air Cleaner Bracket	15 - 25	
Fuel Tank to Mounting Bracket	72 - 96	6 - 8
Recoil Starter to Housing	40 - 60	3 - 5
Belt Guard to Blower Housing	25 - 35	2 - 3
Flywheel Screen & Pulley	72 - 96	6 - 8
Stationary Point Screw	15 - 25	
Blower Housing Baffle to Cylinder	72 - 96	6 - 8
Breaker Point Cover	15 - 25	
Magneto Stator Mounting	72 - 96	6 - 8
Blower Housing & Baffle	110 - 130	9 - 11
Breather to Cylinder	20 - 26	
Oil Drain Plug	80 - 100	6.6 - 8
Blower Housing Extension to Cylinder	72 - 96	6 - 8
Stub Shaft Bolts to Flywheel	100 - 125	8 - 10
Motor - Generator all Mounting Bolts	65 - 100	5.5 - 8

FLYWHEEL TOOL



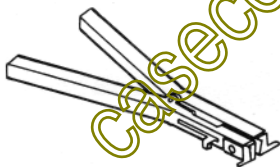
NO. 21637 - Flywheel tool. Used on all Lauson vertical and horizontal engines.

FLYWHEEL PULLER



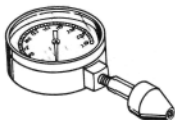
NO. 25183 - Flywheel puller. Used on some 4, 5 and 6 H. P. vertical and horizontal engines and all 8 H. P. and larger engines.

PISTON RING EXPANDER



NO. 670117 - Piston ring expander.

COMPRESSION GAUGE



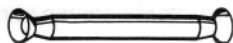
NO. 670120 - Compression gauge.

SPARK PLUG GAP TOOL



NO. 670121 - Spark plug gap tool.

VALVE LAPPING TOOL



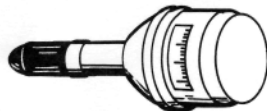
NO. 670154 - Valve lapping tool.

VIBRATION TACHOMETER



NO. 670156 - Tachometer

TACHOMETER



NO. 670110 - Tachometer.

POINT ALIGNING TOOL



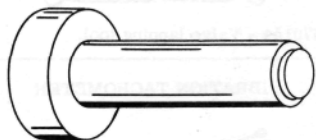
NO. 670192 - Breaker point aligning tool.

OIL SEAL SLEEVE



NO. 670196 - Oil seal sleeve. Used on Power Take-Off and flywheel end of Lauson HH80, HH100, and HH120 engines.

CRANKCASE DRIVER TOOL



NO. 670104 - Driver

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