McCULLOCH SERVICE BULLETIN

NO. 1690

MODEL Pro Mac 510 DATE June 1, 1979

SUBJECT Model Number 600018 (14-)

Pro Mac 510 chain saws now being manufactured are identified by Model Number 600018 and Serial Number prefix 14-. The Illustrated Parts List for these models is P/N 94542-R1. Your distributor should provide you with a copy of this IPL in the near future, if he has not already done so. IPL, P/N 94542-R1, supercedes and replaces IPL, P/N 94101.

Pro Mac 510 models now feature changes in two major assemblies, the clutch and the powerhead assemblies. These changes are:

1. Clutch Assembly, P/N 94250, includes Clutch Rotor, P/N 94242, which features:

   a. A threadless rotor assembled in the clutch in the same manner as the old, threaded rotor. The clutch assembly then slides onto the crankshaft.

   b. A dust plate, which helps prevent sawdust and dirt from impacting in the clutch assembly during operation of the unit. The clutch assembly and dust plate are secured by a clutch nut torqued to 125 to 150 lb. x in.

      Please note that all orders for the previous, threaded rotor clutch assemblies used on this unit will be filled with Clutch Kit, P/N 92743C. All orders for Rotor, P/N 92721, will be filled with Rotor Kit, P/N 94247. Both kits include the dust plate and clutch nut.

2. Connecting Rod Assembly, P/N 94135, contains Wrist Pin Needle Bearing, P/N 110984. This bearing is pressed into the connecting rod until it protrudes an equal amount on each side, no more than .005" (.13mm).

   NOTE: This needle bearing cannot be used as replacement in connecting rods originally equipped with Caged Bearing, P/N 110933.

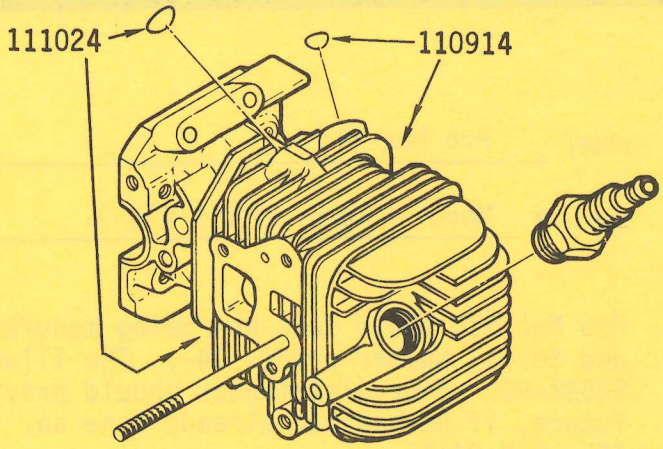
3. Piston Assembly, P/N 94661 - The piston pin used in this assembly is held in place by two Snap Rings, P/N 111026, as opposed to the "E" type retaining rings previously used on PM 510 pistons. These retaining rings can be installed and removed with snap ring pliers. Piston Pin, P/N 92836, is not a press fit and can be tapped into the piston using Wrist Pin Driver, P/N 63094.

   NOTE: Do not attempt to use either of these assemblies individually as replacement for its counterpart on PM 510 units with serial number prefix 11-, 12- and 13-. However, both of these assemblies can be used together to replace the connecting rod and piston assemblies used in these previous models.

4. Bearing Sleeve Assembly, P/N 93763 - The outer diameter of this assembly is smaller than Bearing Sleeve Assembly, P/N 91566 (used with cylinders on PM 510 units with serial number prefix 11-, 12- and 13-). The P/N 93763 bearing can only be used on PM 510 units with serial number prefix 14-, or units equipped with Cylinder Crankcase Assembly, P/N 94370.

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NOTE: Cylinder/Crankcase Assembly, P/N 94370, is a full bore chrome cylinder with drilled fuel transfer ports that replaces the splined fuel transfer port type cylinders previously used on PM 510 units. This porting provides improved piston support which results in better heat dissipation for a cooler running engine. The drilled ports also improve scavenging and engine performance. The four drilled ports are plugged by two Plug Cups, P/N 110914 (near the exhaust port), and two Plug Cups, P/N 111024 (on opposite sides of the cylinder), which were not included in the IPL, P/N 94542-R1. Please use the illustration in this bulletin for reference if it is necessary to replace either type cup plug.



PM 510 (14-) models are now being built with Walbro WA-48 Carburetor Assembly, P/N 94274, as an alternate carburetor. Be certain to identify the carburetor on the unit before ordering parts.

The settings for this carburetor are:

Idle (low speed) mixture needle: Seated, then one turn out.

High speed needle: Seated, then one turn out.

Inlet lever: Flush to +.020" from the chamber floor.

Pressure test (to the inlet lever): 5 psi.

The manufacturer's suggested list price for Carburetor Assembly, P/N 94274, is $24.00.

Information concerning those parts used in the Pro Mac 510, model number 600018, serial number prefix 14-, which differs from the previous Pro Mac 510 IPL is presented in the following table:

IPL LOCATION	PART NUMBER	DESCRIPTION	QTY.	MFG. SUGG. LIST PRICE	STOCK CODE
Figure 1	94996	Drum/Spkt/Brng Asy (E)	1	$ 6.55	C
"	92743C	Kit - Clutch Asy	1	12.00	A
"	94250	. Clutch Asy	1	12.00	A
"	94242	. . Rotor	1	3.00	A
"	94247	. Kit - Clutch rotor	1	3.40	A
"	94244	. . Nut - Clutch	1	.20	A
"	94243	. . Plate - Dust	1	.40	A
"	92410	Filter - Air	1	1.00	A

IPL LOCATION	PART NUMBER	DESCRIPTION	QTY.	MFG. SUGG. LIST PRICE	STOCK CODE
Figure 2	94194	CHAIN BRAKE Asy	1	17.70	A
"	110656	. Screw - Pn 8-32 x 5/8	1	.20	A
"	94709	. Band - Brake	1	1.35	A
"	94006	. Latch	1	.80	A
"	94007	. Spring - Compression	1	.15	A
"	93139A	. . Pin - Roller	1	.70	A
"	94174	. Housing - Brake	1	10.40	A
Figure 4	94514	Starter Asy	1	10.60	A
Tools/Acc.	91485	Wrench - Socket	N/A	3.35	A
"	93284	Case - Carrying, 14"	N/A	24.95	A
"	93285	Case - Carrying, 16"	N/A	24.95	A
"	90958A	Kit - Tool Maintenance	N/A	9.85	A
"	93900	Kit - Pressure Test	N/A	6.30	A
"	90533	Tool - Pressure Test	N/A	19.90	A
"	501334	Tester - Ignition	N/A	4.00	A
"	68090	Lubri - Gun	N/A	4.75	A
"	85702	Lubricant - Custom 6oz. can	N/A	.69	A
"	85703	Lubricant - Custom 6oz. cans, 1-6 pack	N/A	4.12	A
"	67537	Loctite	N/A	3.15	A
"	69794	Locquic	N/A	3.25	A
"	110083	R.T.V. Sealant	N/A	2.65	A
Figure 5	93655	. Body - Cover	1	$ 4.10	A
"	94513	Flywheel/Pawl Asy	1	25.05	A
"	94493	. Pawl - Starter	2	1.25	A
"	110041	Screw - Pn hd 8-32 x 1/2	1	.15	A
"	93764	Cyl/C'case Asy	1	53.00	A
"	94519	. Stud	1	.40	A
"	94370	Cyl/C'case Asy	1	53.00	A
"	94661	Piston Asy	1	16.00	A
"	92836	. Pin - Piston	1	2.00	A
"	111026	. Ring - Snap	2	.15	A
"	94135	Connecting Rod Asy	1	20.00	A
"	110984	. Bearing - Needle	1	2.00	A
"	94654	. Screw - Con Rod	2	1.15	A
"	93763	Sleeve Asy - Bearing	2	4.00	A
Figure 8	94274	Carburetor Asy - Walbro(WA-48)	1	24.00	A
"	94749	. Ring - Retaining	1	.10	A
"	68565	. Screw - Shutter	1	.40	A
"	94778	. Valve - Throttle	1	.70	A
"	94777	. Shaft Asy - Throttle	1	2.55	A
"	94781	. Spring - Throttle return	1	.45	A
"	94783	. Needle - Idle	1	.75	A
"	94763	. Spring - Idle needle	1	.20	A
"	94782	. Needle - Hi speed	1	1.90	A
"	67502	. Spring - Hi speed	1	.40	B
"	94779	. Screw - Idle adjust	1	.75	A
"	67504	. Spring - Friction	1	.45	A
"	94760	. Screw - Pump cover	1	.10	A
"	94776	. Cover - Pump	1	5.30	A
"	94754	. Gasket - Pump	1	.30	A
"	94758	. Diaphragm - Pump	1	2.00	A
"	94769	. Screen - Inlet	1	.40	A
"	80529	. Screw - Diaphragm cover	4	2.50	A

IPL LOCATION	PART NUMBER	DESCRIPTION	QTY.	MFG. SUGG. LIST PRICE	STOCK CODE
Figure 8	94750	. Cover - Metering diaphragm	1	2.40	A
"	94755	. Gasket - Metering diaphragm	1	.20	A
"	94780	. Screw - Circuit plate	1	.25	A
"	94771	. Plate - Circuit	1	.40	A
"	94756	. Gasket - Circuit plate	1	.20	A
"	67500	. Screw - Metering lever	1	.45	A
"	94770	. Pin - Metering lever	1	.40	A
"	94772	. Lever - Metering	1	.95	A
"	67491	. Valve - Needle	1	1.65	A
"	94764	. Spring - Metering lever	1	.95	A

* In the past, items such as air filters, drum, sprocket and bearing assemblies, spark arrester screens etc.,have been available only as skin packed items. These items will now be available in regular service parts packaging. Beginning with Illustrated Parts List, P/N 94542-R1, all service parts listed in our parts lists will be non-skin packed items. However, skin packed items will remain available for display purposes. In the near future, we will send you a complete listing of those items available both in regular service packaging and in skin pack form. See the table below for a breakdown of parts listed in IPL, P/N 94542-R1, which are now available in two kinds of packaging:

DESCRIPTION	PACKAGED PART NUMBER	SKIN PACK PART NUMBER
Drum/Spkt/Brng Asy	94996	94995
Air Filter	89072	92410
Kit-Spark Arrester	95169	95095
Scrench	88755	88756

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