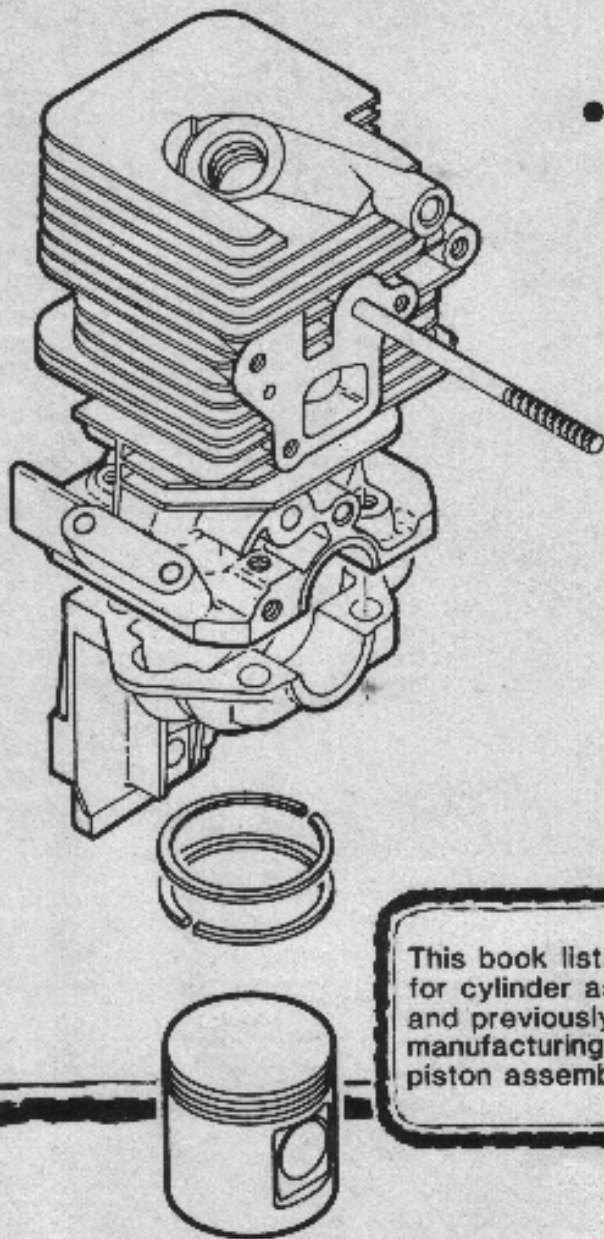


CYLINDERS, PISTON ASSEMBLIES AND RING SETS

For Service Replacement on McCULLOCH

- CHAIN SAWS
- STRING TRIMMERS
- KART ENGINES



This book lists service replacement part numbers for cylinder assemblies and ring sets on current and previously built units. Also included are the manufacturing dimensions of these cylinder and piston assemblies.

Many of the McCulloch chain saws and kart engines, having given long and satisfactory service, are now being rebored, honed and fitted with an oversize piston and rings. This is especially true concerning the earlier chain saw and kart engine models. Installation of oversize piston and rings in a rebored cylinder will restore much of the engine's original power, provide a longer working life and in many cases eliminate other costly repairs.

Principal conditions which should govern the decision to re bore and re-ring are ...

- ... If taper or out-of-round condition exceeds 0.005 inch.
- ... If cylinder is scored, scratched, pitted or scuffed.
- ... If ports are pounded.
- ... If new rings won't seal and engine lacks power (even though taper is less than 0.005 inch).
- ... If piston-to-cylinder clearance exceeds the high limit by 0.005 inch (0.007 inch in kart engines).

When reboring cylinders, the oversize dimensions should be measured in even steps of 0.010 inch (0.010, 0.020, 0.030 inch) over the standard bore diameter of new engines. If the correct oversize dimension is not held, possible interference or a tight fit will exist between the piston and the cylinder wall. In chain saw engines the piston-to-cylinder clearance is 0.0025 to 0.005 inch. In kart engines, because of higher temperatures resulting from high speed running, it is desirable to have the greater piston-to-cylinder clearance of 0.005 to 0.007 inch. This is particularly true when thin ring pistons are used.

When reboring and/or honing requires the removal of more than 0.010 inch of metal (but less than 0.020 inch) from the cylinder to remove scuff or other marks, it will be necessary to continue the boring and honing operation until the 0.020-inch oversize is reached. Having done this, 0.020-inch oversize pistons and rings must be used. In a like manner, if more than 0.020 inch of metal is removed to clean up the cylinder marks, the cylinder will have to be bored and honed for 0.030-inch oversize piston and rings. If the cylinder is bored to an in-between

size, the correct piston-to-cylinder wall clearance cannot be obtained with a stock oversize piston.

Maximum taper or out-of-round permitted after reboring or re honing is 0.0007 inch. (Engines can be operated until taper has increased to 0.005 inch before reboring or re honing will be necessary.)

Dimensional tolerance factor for the cylinders is 0.001 inch and is incorporated in the chart data.

Correct end gap for cast piston rings in chain saw engines is 0.004 to 0.012 inch. In chain saw and kart engines using chrome plated steel rings and pistons with an 0.047 inch ring locating pin, the end gap is 0.051 to 0.097 inch. End gap may be checked by pushing a ring halfway down in a new or rebored cylinder and using a feeler gauge to measure the gap between the ring ends.

To improve piston balance and reduce vibration, service replacement pistons with extended piston pin bosses are available for the late model chain saw engines. The use of an extended boss piston eliminates the need for thrust washers between the piston pin bosses and the connecting rod. Some of the extended boss pistons can also be used for service replacement in early model chain saw engines. On some models it will be necessary to replace the connecting rod with one having a different width at its pin end when an extended boss piston is installed. A different length piston pin will be required in these cases.

As a guide, a chart of dimensions, sizes, and part numbers of pistons and piston rings for McCulloch engines has been compiled with a separate column in the chart listing the extended boss pistons by engine model and the piston assembly they replace. This chart will be found in the following pages.

NOTE

TO CHANGE THE DIMENSIONS GIVEN IN THIS BULLETIN AND CHART TO THEIR METRIC EQUIVALENTS, MULTIPLY THE DIMENSIONS GIVEN BY THE FACTOR OF 25.4 TO OBTAIN MILLIMETERS; TO CHANGE THEM TO CENTIMETERS USE THE FACTOR OF 2.54.

Table Of Contents

CURRENT MODELS

MAC 110	PM 310	PM 510	PM 700	MAC 60
MAC 120	PM 320	PM 555	PM 800	MAC 70
MAC 130	PM 330	PM 610	PM 850	MAC 80
MAC 140	PM 340	PM 650	PM 850S	MAC 95
			PM 10-10	

NON-CURRENT MODELS

3-25	S-55							MC 2	MC 75
47	5-49	1-41	1-92	380	795L	MAC 10-10 Models	Super 250	MC 5	MC 100
33	7-55	1-42	1-93	380A	797	PRO 10-10	G-70	MC 6	MC 90
33B	5-44A	1-43	1-45	440	797L	Super LG-2A	CP 125	MC 7	MC 91
35	5-55A	1-51	1-46	450	Super 797	LG-6A Models	CP 125S	MC 10	MC 91A, B, C, M/C
MAC 35	1-70	1-61	250	550	890	Power Mac 6, 6A	CP 55	MC 20	MC 101
MAC 35A	1-80	1-62	200	Super 550	895	Mini Mac 1, 1A	CP 70	MC 30	MC 49C
S-33	1-40	1-63	1-75	640	895C	Mini Mac 6, 6A	SP 60	MC 8	MC 49E
4-30	0-30	1-71	1-85	650	940	Mini Mac 25, 30	SP 70	MC 9	MC 93
4-30A	1-50	1-81	1-76	660	MAC 1-10	Mini Mac 35, 35AS	SP 80, 81, 81E	MC 40	MC 91B
49	1-60	1-81HD	1-76L	740	MAC 2-10	Super Pro 40	SP 105	MC 45	MC 91B/1
39	0-36	1-52	1-86	740L	MAC 3-10	Pro Mac 55	SP 125	MC 45D	MC 91C
0-44	73	1-53	BP-1	840	MAC 4-10	Pro Mac 60	SP 125C	MC 49	MC 101A, B, C, D
55	77	1-72	MAC 15	790	MAC 5-10Mdl	Pro Mac 105	170 Welder	MC 49C, E, M/C	MC 101AA
S-44	99	1-82	300	795	MAC 6-10Mdl	7-10A	MC 1	MC 70	MC 101M/C

CURRENT MODELS

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
MAC 110, 120, 140 Prefix 11-	Standard		92274	1.3705/1.3695	1.3730/1.3720	92279	1.3770/1.3760	92752
MAC 110, 120, 140 Prefix 12-	Standard		94476	1.4347/1.4333	1.4372/1.4358	214157	1.4402/1.4392	95143
MAC 110, 120, 140 Prefix 13-, 14-	Standard		94662	1.4347/1.4333	1.4372/1.4358	214157	1.4402/1.4392	95143
MAC 130	Standard		68098	1.4330/1.4325	1.4355/1.4350	906658	1.4390/1.4375	85165
PM 300 Prefix 11-, 12-	Standard		94660	1.4915/1.4909	1.4940/1.4934	214150	1.4974/1.4960	94136
PM 300 Prefix 14-	Standard		94660	1.4915/1.4909	1.4940/1.4934	215355	1.4974/1.4960	94136
PM 510 Prefix 11-, 12-, 13-	Standard		91704	1.5590/1.5580	1.5610/1.5600	93764	1.5640/1.5625	91703
PM 510 Prefix 14-, 15-	Standard		94661	1.5590/1.5580	1.5610/1.5600	214156	1.5640/1.5625	91703
PM 610	Standard		94131	1.6770/1.6670	1.7300/1.7200	94304	1.8413/1.8398	94133
PM 650	Standard		94130	1.8350/1.8345	1.8378/1.8373	94536	1.8413/1.8398	94132
PM 700	Standard		85239	1.9940/1.9935	1.9963/1.9958	214671	1.9995/1.9980	89732
PM 555	Standard		89783A	1.8072/1.8067	1.8100/1.8095	894358	1.8135/1.8120	91517
PM 800, 850S Prefix 11-, 12-	Standard		92518 "A"	2.0573/2.0566	2.0600/2.0594	214740 "A"	1.0625/2.0632	87854
			92519 "B"	2.0581/2.0574	2.0609/2.0602	214140 "B"	2.0633/2.0640	87854
			92520 "C"	2.0590/2.0582	2.0618/2.0610	214740 "C"	2.0641/2.0649	87854
PM 850	Standard		92518 "A"	2.0573/2.0506	2.0601/2.0594	95167 "A"	2.0625/2.0632	87854
			92519 "B"	2.0581/2.0574	2.0609/2.0602	95167 "B"	2.0633/2.0640	87854
			92520 "C"	1.0590/2.0582	2.0618/2.0610	95167 "C"	2.0641/2.0649	87854
PM 10-10	Standard		69212	1.7440/1.7435	1.7465/1.7400	214704	1.7510/1.7500	62814
MAC 60, 70 Prefix 11-, 12-	Standard		213925		1.0180/1.0200	213927	1.0240/1.0245	213926
MAC 80, 95 Prefix	Standard		213838		1.2630/1.2650	213841	1.2680/1.2685	213839

NON-CURRENT MODELS

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
3-25 47	Standard 0.010 0.020 0.030	19931A* 19910C* 19920C* 19907B*		1.9912/1.9907 2.0012/2.0007 2.0112/2.0107 2.0212/2.0207	1.9953/1.9948 2.0053/2.0048 2.0153/2.0148 2.0253/2.0248			51747* 51748* 51749* 51750*
3-25 47	Standard 0.010 0.020 0.030	Obsolete						47253* 47254* 47255* 47256*
33 33B 35 MAC 35 MAC 35A	Standard 0.010 0.020 0.030	52379* 52380* 52382* 52384*		1.7475/1.7470 1.7575/1.7570 1.7675/1.7670 1.7775/1.7770	1.7495/1.7490 1.7595/1.7590 1.7695/1.7690 1.7795/1.7790	62377*	1.7535/1.7525	52046 52047* 52048* 52049*
S-33	Standard 0.010 0.020 0.030	36616C* 36664C* 36665C*		1.7475/1.7470 1.7675/1.7670 1.7775/1.7770	1.7495/1.7490 1.7695/1.7690 1.7795/1.7790			52046 52047* 52048* 52049*
4-30 4-30A 49	Standard 0.010 0.020 0.030	Obsolete						28886* 28887* 28888* 28889*
39	Standard 0.010 0.020 0.030	52045* 52052* 52053*		1.7475/1.7470 1.7675/1.7670 1.7775/1.7770	1.7495/1.7490 1.7695/1.7690 1.7795/1.7790			52046 52047* 52048* 52049*
D-44 55	Standard 0.010 0.020 0.030	51210B* 51451B* 51452B* 51453B*		1.9955/1.9950 2.0055/2.0050 2.0155/2.0150 2.0255/2.0250	1.9975/1.9970 2.0075/2.0070 2.0175/2.0170 2.0275/2.0270	55443*	2.0010/2.0000	51747* 51748* 51749* 51750*
S-44 S-55	Standard 0.010 0.020 0.030	55007A* 55057A* 55058A* 55059A*	53936* 53937* 53938* 53939*	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	55441*	2.1260/2.1250	55123* 55124* 55125 55126
S-49	Standard 0.010 0.020 0.030	Obsolete						38043*
7-55	Standard 0.010 0.020 0.030	Obsolete				24023A*	2.5035/2.5025	28809* 28810* 28811* 28812*
S-44A S-55A 1-70 1-80	Standard 0.010 0.020 0.030	55310A* 55322A* 55323A* 55324A*	53941A 53942A* 53943A 53944A	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	55438A*	2.1260/2.1250	55123* 55124* 55125 55126
1-40 0-30	Standard 0.020	50206* 50134*		2.1190/2.1185 2.1390/2.1385	2.1220/2.1215 2.1420/2.1415	50737*	2.1260/2.1250	55123* 55124* 55125 55126
1-50 1-60 0-36	Standard 0.010 0.020 0.030	55007A* 55057A* 55058A* 55059A*	53936* 53937* 53938* 53939*	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	50737*	2.1260/2.1250	55123* 55124* 55125 55126

*No longer available from factory, but may be available in Distributor stock.

Non-Current Models (Continued)

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
73 77	Standard 0.010 0.020 0.030	Obsolete				28779*	2.5035/2.5025	28809* 28810* 28811* 28812*
99	Standard 0.010 0.020 0.030	24754A* 24684B* 24687B*		2.4924/2.4919 2.5124/2.5119 2.5224/2.5219	2.4970/2.4965 2.5170/2.5165 2.5270/2.5265			28809* 28810* 28811* 28812*
1-41 1-42 1-43	Standard 0.010 0.020 0.030	50206* 50134*		2.1190/2.1185 2.1390/2.1385	2.1220/2.1215 2.1420/2.1415	61911*	2.1260/2.1250	55123* 55125
1-51 1-61 1-62 1-63	Standard 0.010 0.020 0.030	55007A* 55057A* 55058A* 55059A*	53936* 53937* 53938* 53939*	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	61911*	2.1260/2.1250	55123* 55124* 55125 55126
1-71 1-81	Standard 0.010 0.020 0.030	55310A* 55322A* 55323A* 55324A*	53941A 53942A* 53943A 53944A	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	55557*	2.1260/2.1250	55123* 55124* 55125 55126
1-81HD (Thin Rings)	Standard 0.010 0.020 0.030	48695* 48684* 48685* 48686*	53927 53924 53925 53926	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1214 2.1320/2.1314 2.1420/2.1414 2.1520/2.1514	55557*	2.1260/2.1250	48691 48692 48693 48694
1-52 1-53	Standard 0.010 0.020 0.030	55310A* 55322A* 55323A* 55324A*	53941A 53942A* 53943A 53944A	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	53563A*	2.1260/2.1250	55123* 55124* 55125 55126
1-72 1-82	Standard 0.010 0.020 0.030	48695* 48684* 48685* 48686*	53927 53924 53925 53926	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1214 2.1320/2.1314 2.1420/2.1414 2.1520/2.1514	57894*	2.1260/2.1250	48691 48692 48693 48694
1-92 1-93	Standard 0.010 0.020 0.030	58356* 58390* 58355* 58391*	62877* 62878 62879 62880	2.2115/2.2109 2.2215/2.2209 2.2315/2.2309 2.2415/2.2409	2.2145/2.2139 2.2245/2.2239 2.2345/2.2339 2.2445/2.2439	58551A*	2.2190/2.2180	58353 58394* 58354* 58395
1-45 1-46 250 (before S/N 39000)	Standard 0.010 0.020 0.030	48695* 48684* 48685* 48686*	53927 53924 53925 53926	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1214 2.1320/2.1314 2.1420/2.1414 2.1520/2.1514	61911*	2.1260/2.1250	48691 48692 48693 48694
200 250 (S/N 39001-up)	Standard 0.010 0.020 0.030		53941A 53942A* 53943A 53944A			61911*		55123* 55124* 55125 55126
1-75 1-85	Standard 0.010 0.020 0.030	48904A* 48927* 48928* 48929*		2.1170/2.1164 2.1270/2.1264 2.1370/2.1364 2.1470/2.1464	2.1200/2.1194 2.1300/2.1294 2.1400/2.1394 2.1500/2.1494	57962*	2.1240/2.1230	48691 48692 48693 48694
1-76 1-76L 1-86	Standard 0.010 0.020 0.030	59582* 59583* 59584* 59585*	53726* 53727* 53728* 53729*	2.1570/2.1564 2.1670/2.1664 2.1770/2.1764 2.1870/2.1864	2.1600/2.1594 2.1700/2.1694 2.1800/2.1794 2.1900/2.1894	59564*	2.1640/2.1630	48978* 48934* 59587* 59586*

*No longer available from factory, but may be available in Distributor stock.

Non-Current Models (Continued)

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
1-76 1-86	Standard 0.010 0.020 0.030	58878A* 58882A* 58886A* 58890A*	0.062 in. Wide Ring Grooves				0.062 in. Wide Rings	58881 58885* 58889* 58893*
BP-1 (Power Piston) Early	Standard 0.010 0.020 0.030			Obsolete				
BP-1 (Pinned Rings)	Standard 0.010	59501A* 59086A*		1.7440/1.7435 1.7540/1.7535	1.7470/1.7465 1.7570/1.7565	59676* (Two Parts)	1.7510/1.7500	59643*
BP-1 (Balance Piston)	Standard No Oversize	59043*		1.1435/1.1430	Same	59677* (Removable Sleeve)	1.1460/1.1450	No Rings
MAC 15	Standard 0.020	50206* 50134*		2.1190/2.1185 2.1390/2.1385	2.1220/2.1215 2.1420/2.1415	52886A*	2.1260/2.1250	55123* 55125
200	Standard 0.010 0.020 0.030		50206* 50134*	2.1190/2.1185 2.1390/2.1385	2.1220/2.1215 2.1420/2.1415	61911*	2.1260/2.1250	55123* 55124* 55125 55126
300 380 380A 440	Standard 0.010 0.020 0.030		53941A 53942A* 53943A 53944A	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	53563A*	2.1260/2.1250	55123* 55124* 55125 55126
450	Standard 0.010 0.020 0.030		61428* 61426* 61427*	2.1570/2.1564 2.1770/2.1764 2.1870/2.1864	2.1600/2.1594 2.1800/2.1794 2.1900/2.1894	61406*	2.1640/2.1630	58881 58885* 58889* 58893*
550	Standard 0.010 0.020 0.030		58878A* 58886A* 58890A*	2.1570/2.1564 2.1770/2.1764 2.1870/2.1864	2.1600/2.1594 2.1800/2.1794 2.1900/2.1894	68259*	2.1640/2.1630	58881 58885* 58889* 58893*
640 (to Ser.No. 21,859)	Standard 0.010 0.020 0.030		53941A 53942A* 53943A 53944A	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	61911*	2.1260/2.1250	55123* 55124* 55125 55126
640 (Ser.No. 21,859 and up)	Standard 0.010 0.020 0.030		53941A 53942A* 53943A 53944A	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	68633*	2.126/2.125	55123* 55124* 55125 55126
650 660	Standard 0.010 0.020 0.030		53941A 53942A* 53943A 53944A	2.1190/2.1184 2.1290/2.1284 2.1390/2.1384 2.1490/2.1484	2.1220/2.1213 2.1320/2.1313 2.1420/2.1413 2.1520/2.1513	68260*	2.126/2.125	55123* 55124* 55125 55126
740 840 (Thick Rings)	Standard 0.010 0.020 0.030		58878A* 58882A* 58886A* 58890A*	2.1570/2.1564 2.1670/2.1664 2.1770/2.1764 2.1870/2.1864	2.1600/2.1594 2.1700/2.1694 2.1800/2.1794 2.1900/2.1894	59564*	2.1640/2.1630	58881 58885* 58889* 58893*
740 740L* 840 (Thin Rings)	Standard 0.010 0.020 0.030		53726* 53727* 53728* 53729*	2.1570/2.1564 2.1670/2.1664 2.1770/2.1764 2.1870/2.1864	2.1600/2.1594 2.1700/2.1694 2.1800/2.1794 2.1900/2.1894	59564*	2.1640/2.1630	48978* 48934* 59587* 59586*

*No longer available from factory, but may be available in Distributor stock.

Non-Current Models (Continued)

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
790 890	Standard 0.010 0.020 0.030 Standard 0.030	(Wide Rings)	62877* 62878 62879 62880 62883* 62884*	2.2115/2.2109 2.2215/2.2209 2.2315/2.2309 2.2415/2.2409 2.2115/2.2109 2.2415/2.2409	2.2145/2.2139 2.2245/2.2239 2.2345/2.2339 2.2445/2.2439 2.2145/2.2139 2.2445/2.2439	61209A*	2.2190/2.2180	58353 58394* 58354* 58395 62422 62423*
795 795L 895	Standard 0.010 0.020 0.030 Standard 0.030	(Wide Rings)	62877* 62878 62879 62880 62883* 62884*	2.2115/2.2109 2.2215/2.2209 2.2315/2.2309 2.2415/2.2409 2.2115/2.2109 2.2415/2.2409	2.2145/2.2139 2.2245/2.2239 2.2345/2.2339 2.2445/2.2439 2.2145/2.2139 2.2445/2.2439	87273	2.219/2.218	58353 58394* 58354* 58395 62422 62423*
895C	Standard		89251*	2.2435/2.2425	2.2470/2.2460	89265*	2.2510/2.2495	89250
797 (Ser.No. w/o prefix, 10-,11-)	Standard 0.010 0.020 0.030		67089* 67091* 67092* 67093	2.2710/2.2700 2.2810/2.2800 2.2910/2.2900 2.3010/2.3000	2.2735/2.2725 2.2835/2.2825 2.2935/2.2925 2.3035/2.3025	89897*	2.2805/2.2795	47865 66048 66047 66045
797 (Ser.No. 12-)	Standard 0.010 0.020 0.030		69540 67091* 67092* 67093	2.2730/2.2720 2.2830/2.2820 2.2930/2.2920 2.3030/2.3020	2.2755/2.2745 2.2855/2.2845 2.2955/2.2945 2.3055/2.3045	89897*	2.2805/2.2795	47865 66048 66047 66045
940	Standard 0.010 0.020 0.030		62877 62878 62879 62880	2.2115/2.2109 2.2215/2.2209 2.2315/2.2309 2.2415/2.2409	2.2145/2.2139 2.2245/2.2239 2.2345/2.2339 2.2445/2.2439	90603	2.2190/2.2180	58353 58394* 58354* 58395
MAC 10 A11 1-10 2-10 3-10 10-10 Models: MAC 1-10 MAC 2-10 MAC 2-10A MAC 2-10PS MAC 2-10G Super 2-10A MAC 3-10 MAC 3-10E MAC 10-10 MAC 10-10A Super 10-10 Super 10-10A Pro 10-10	Standard 0.010 0.020 0.030		69212 69210 69211	1.7440/1.7435 1.7640/1.7635 1.7740/1.7735	1.7465/1.7460 1.7665/1.7660 1.7765/1.7760	214664 214664 67250* 67250* 67121* 85809A 67250* 67216* 69993* 84113A 69993* 214704 214704	1.751/1.750	62814 62813 62812
MAC 10 A11 4-10 5-10 6-10 Models: MAC 4-10 MAC 5-10A MAC 5-10E MAC 5-10G MAC 6-10A Super 6-10A	Standard 0.010 0.020 0.030		69412 69006 69414	1.9940/1.9935 2.0140/2.0135 2.0240/2.0235	1.9965/1.9960 2.0165/2.0160 2.0265/2.0260	63294* 67354* 67432* 67120* 214690 214690	2.001/2.000	87166 63291 63292

*No longer available from factory, but may be available in Distributor stock.

Non-Current Models (Continued)

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
LG-6 10-	Standard 0.010 0.020 0.030		69412	1.9940/1.9935	1.9965/1.9960	214708	2.001/2.000	87166
			69006	2.0140/2.0135	2.0165/2.0160			63291
			69414	2.0240/2.0235	2.0265/2.0260			63292
Super LG-2	Standard 0.020 0.030		69212	1.7440/1.7435	1.7465/1.7460	68925*	1.7510/1.7500	62814
			69210	1.7540/1.7535	1.7565/1.7560			62813
			69211	1.7640/1.7635	1.7665/1.7660			62812
Mini Mac 6, 6A, 1, 1A	Standard		84981	1.3705/1.3695	1.3730/1.3710	214162	1.3760/1.3750	87164
Mini Mac 25, 30	Standard		92274	1.3705/1.3695	1.3730/1.3720	214162	1.3770/1.3760	92752
Mini Mac 35, 35AS	Standard		68098	1.4330/1.4325	1.4355/1.4350	214164	1.4390/1.4375	87165
Power Mac 6, 6A	Standard		68098	1.4330/1.4325	1.4355/1.4350	214703	1.4388/1.4375	68096
SP 40	Standard		91704	1.5590/1.5580	1.5610/1.5600	93764	1.5640/1.5625	91703
PM 55	Standard		89783A	1.8072/1.8067	1.8100/1.8095	214672	1.8135/1.8120	92517
PH 60	Standard		87713	1.8705/1.8700	1.8724/1.8719	87715	1.8760/1.8745	87716
MAC 7-10A	Standard 0.020 0.030		85239	1.9940/1.9935	1.9963/1.9958	214690	1.9995/1.9980	87166
			69031	2.0140/2.0130	2.0163/2.0153			63291
			69032	2.0240/2.0230	2.0263/2.0253			62292
7-10A	Standard		85239	1.9940/1.9935	1.9963/1.9958	214671	1.9995/1.9980	89732
S-250	Standard 0.010 0.020 0.030		53941A	2.1190/2.1184	2.1220/2.1213	83830	2.1260/2.1250	55123*
			53942A*	2.1290/2.1284	2.1320/2.1310			55124
			53943A	2.1390/2.1380	2.1420/2.1410			55125
			53944A	2.1490/2.1480	2.1520/2.1510			55126
G-70	Standard		85239	1.9940/1.9935	1.9963/1.9958	214708	1.9995/1.9980	85241
CP 125	Standard 0.010 0.020 0.030		69301	2.2730/2.2720	2.2755/2.2745	89897*	2.2805/2.2795	47865
			69302	2.2830/2.2820	2.2855/2.2845			66048
			69303	2.2930/2.2920	2.2955/2.2945			66047
			69304	2.3030/2.3020	2.3055/2.3045			66045
CP 125S	Standard 0.010 0.020 0.030		69241	2.2730/2.2720	2.2755/2.2745	89897*	2.2805/2.2795	69305
			69242	2.2830/2.2820	2.2855/2.2845			69306
			69243	2.2930/2.2920	2.2955/2.2945			69307
			69244	2.3030/2.3020	2.3055/2.3045			69308
CP 55	Standard		69212	1.7440/1.7435	1.7465/1.7460	83221	1.7510/1.7500	62814
CP 70 Prefix 11-, 12-	Standard 0.020 0.030		85239	1.9940/1.9930	1.9963/1.9953	N.A.	1.9995/1.9983	85241
			69031	2.0140/2.0130	2.0163/2.0153			63291
			69032	2.0240/2.0230	2.0263/2.0253			63292
CP 70 Prefix 13-	Standard		85239	1.9940/1.9935	1.9963/1.9953	87185	1.9995/1.9980	85241
SP 60	Standard		87713	1.8705/1.8700	1.8724/1.8719	877378	1.8795/1.8785	87716
SP 70	Standard		85239	1.9940/1.9935	1.9963/1.9958	87768	1.9995/1.9980	89732
SP 80 Prefix 11-, 12-, 13-	Standard		92519	2.0581/2.0574	2.0609/2.0602	214716	2.0640/2.0625	85245

*No longer available from factory, but may be available in Distributor stock.

Non-Current Models (Continued)

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
SP 80 Prefix 14-	Standard		92519	2.0581/2.0574	2.0609/2.0602	214716	2.0640/2.0625	87854
SP 81 SP 81E	Standard		92518 ("A")	2.0573/2.0566	2.0601/2.0594	214716 ("A")**	2.0625/2.0632	87854
			92519 ("B")	2.0581/2.0574	2.0609/2.0602	("B")**	2.0633/2.0640	87854
			92520 ("C")	2.0590/2.0582	2.0618/2.0610	("C")**	2.0641/2.0649	87854
SP 105	Standard		89251*	2.2435/2.2425	2.2470/2.2460	89265*	2.2510/2.2495	89258
PM 105	Standard		89251*	2.2435/2.2425	2.2470/2.2460	89265*	2.2510/2.2495	89250
SP 125	Standard 0.010 0.020 0.030	85539		2.2730/2.2720	2.2755/2.2745	91110*	2.2790/2.2780	85608
		85540		2.2830/2.2820	2.2855/2.2845			85609
		85541		2.2930/2.2920	2.2955/2.2945			85610
		85542		2.3030/2.3020	2.3055/2.3045			85611
SP 125C	Standard	85539		2.2730/2.2720	2.2755/2.2745	91110*	2.2790/2.2780	85608
170 Welder	Standard 0.010 0.020 0.030		62872	2.2115/2.2109	2.2145/2.2139	90603	2.2200/2.2190	58699A*
			62873*	2.2215/2.2209	2.2245/2.2239			58831*
			62888	2.2315/2.2309	2.2345/2.2339			47825*
			62889*	2.2415/2.2409	2.2445/2.2439			47826*
MC-1	Standard							48691
MC-2	Standard 0.010	59582*	53726*	2.1570/2.1564	2.1600/2.1594			48978*
		59583*	53727*	2.1670/2.1664	2.1700/2.1694			48934*
MC-5 (Wide Rings)	Standard 0.010 0.020 0.030	55007A	53936*	2.1190/2.1184	2.1220/2.1213	48701*	2.1260/2.1250	55123*
		55057A*	53937*	2.1290/2.1284	2.1320/2.1313			55124*
		55058A*	53938	2.1390/2.1384	2.1420/2.1413			55125
		55059A*	53939*	2.1490/2.1484	2.1520/2.1513			55126
MC-5 MC-6 (Thin Rings)	Standard 0.010 0.020 0.030	48844*		2.1170/2.1165	2.1200/2.1195	48701*	2.1260/2.1250	48691
		48845*		2.1270/2.1265	2.1300/2.1295			48692
		48846*		2.1370/2.1365	2.1400/2.1395			48693
		48847*		2.1470/2.1465	2.1500/2.1495			48694
MC-7	Standard 0.010	59582*	53726*	2.1570/2.1564	2.1600/2.1594	48993B*	2.1660/2.1650	48978*
		59583*	53727*	2.1670/2.1664	2.1700/2.1694			48934*
MC-10 (Wide Rings)	Standard 0.010 0.020 0.030	55310A*	53941A	2.1190/2.1184	2.1220/2.1213	48612A*	2.1260/2.1250	55123*
		55322A*	53942A*	2.1290/2.1284	2.1320/2.1313			55124*
		55323A*	53943A	2.1390/2.1384	2.1420/2.1413			55125
		55324A*	53944A	2.1490/2.1484	2.1520/2.1513			55126
MC-10 (Thin Rings)	Standard 0.010 0.020 0.030	48844*		2.1170/2.1165	2.1200/2.1195	48612A*	2.1260/2.1250	48691
		48845*		2.1270/2.1265	2.1300/2.1295			48692
		48846*		2.1370/2.1365	2.1400/2.1395			48693
		48847*		2.1470/2.1465	2.1500/2.1495			48694
MC-10 (Power Kit)	Standard 0.010 0.020 0.030	48832*		2.1170/2.1165	2.1200/2.1195	48612A*	2.1260/2.1250	48691
		48833*		2.1270/2.1265	2.1300/2.1295			48692
		48834*		2.1370/2.1365	2.1400/2.1395			48693
								48694

*No longer available from factory, but may be available in Distributor stock.

**Pistons marked "A", "B" or "C" must be used with cylinders marked with corresponding identifying letters. Cylinders with no identifying letter must use pistons stamped "B".

Non-Current Models (Continued)

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
MC-20	Standard	48695*	53927	2.1190/2.1184	2.1220/2.1214	48871*	2.1260/2.1250	48691
	0.010	48684*	53924	2.1290/2.1284	2.1320/2.1314			48692
	0.020	48685*	53925	2.1390/2.1384	2.1420/2.1414			48693
	0.030	48686*	53926	2.1490/2.1484	2.1520/2.1514			48694
	0.040	59582*	53726*	2.1570/2.1564	2.1600/2.1594			48978*
0.050	59583*	53727*	2.1670/2.1664	2.1700/2.1694	48934*			
MC-30	Standard	59582*	53726*	2.1570/2.1564	2.1600/2.1594	48992*	2.1660/2.1650	48978*
	0.010	59583*	53727*	2.1670/2.1664	2.1700/2.1694			48934*
MC-8	Standard		53726*	2.1570/2.1564	2.1600/2.1594	48993B*	2.1660/2.1650	48978*
	0.010		53727*	2.1670/2.1664	2.1700/2.1694			48934*
MC-9	Standard		53726*	2.1570/2.1564	2.1600/2.1594	48993B*	2.1660/2.1650	48978*
	0.010		53727*	2.1670/2.1664	2.1700/2.1694			48934*
MC-40	Standard		47765*	2.1570/2.1564	2.1600/2.1594	47749*	2.1660/2.1650	47767
	0.010		47766*	2.1670/2.1664	2.1700/2.1694			47768
MC-45	Standard		47765*	2.1570/2.1564	2.1600/2.1594	47878*	2.1600/2.1650	47767
MC-45D		0.010	47766*	2.1670/2.1664	2.1700/2.1694			47768
MC-49	Standard		50206	2.1190/2.1185	2.1220/2.1215	52886A*	2.1260/2.1250	55123*
	0.020		50134*	2.1390/2.1385	2.1420/2.1415			55125
MC-49C	Standard		53927	2.1190/2.1184	2.1220/2.1214	62481	2.126/2.125	48691
	0.010		53924	2.1290/2.1284	2.1320/2.1314			48692
	0.020		53925	2.1390/2.1384	2.1420/2.1414			48693
	0.030		53926	2.1490/2.1484	2.1520/2.1514			48694
MC-70	Standard		47813*	2.2115/2.2109	2.2145/2.2139			58699A*
	0.010		47814*	2.2215/2.2209	2.2245/2.2239			58831*
	0.020		47829*	2.2315/2.2309	2.2345/2.2339			47825*
	0.030		47830*	2.2415/2.2409	2.2445/2.2439			47826*
MC-75	Standard		47902*	2.2409/2.2402	2.2433/2.2427	47873B*	2.2505/2.2495	47826*
	0.010		47856*	2.2509/2.2504	2.2533/2.2527			47863*
	0.020		47857*	2.2609/2.2604	2.2633/2.2627			47864*
	0.030		47858*	2.2709/2.2704	2.2733/2.2727			47865
MC-90	Standard		47765	2.1570/2.1564	2.1600/2.1594	63909*	2.166/2.165	47767
	0.010		47766	2.1670/2.1664	2.1700/2.1694			47768
MC-91	Standard		68898	2.157/2.156	2.160/2.159	84325*	2.166/2.165	47767
	10-	0.010	68897*	2.167/2.166	2.170/2.169			47768
MC-91A	Standard		68898	2.157/2.156	2.160/2.159	84325*	2.166/2.165	47767
	11-	0.010	68897*	2.167/2.166	2.170/2.169			47768
MC-101	Standard		67089*	2.271/2.270	2.2735/2.2725	84534*	2.2805/2.2795	47865
	0.010		67091*	2.281/2.280	2.2835/2.2825			66048
	0.020		67092*	2.291/2.290	2.2935/2.2925			66047
	0.030		67093*	2.301/2.300	2.3035/2.3025			66045
MC-101C	Standard		67089*	2.2710/2.2700	2.2735/2.2725	84534*	2.2805/2.2795	47865
	0.010		67091*	2.2810/2.2800	2.2835/2.2825			66048
	0.020		67092*	2.2910/2.2900	2.2935/2.2925			66047
	0.030		67093*	2.3010/2.3000	2.3035/2.3025			66045
	0.050		84476	2.3110/2.3100	2.3235/2.3225			69469*
MC-49E	Standard		53927	2.1190/2.1184	2.1220/2.1140	62481	2.1260/2.1250	48691
	0.010		53924	2.1290/2.1280	2.1320/2.1310			48692
	0.020		53925	2.1390/2.1380	2.1420/2.1410			48693
	0.030		53926	2.1490/2.1480	2.1520/2.1510			48694

*No longer available from factory, but may be available in Distributor stock.

Non-Current Models (Continued)

Model	Size and Oversize	Piston Assembly (thrust washers used)	Piston Assembly (thrust washers not used)	Piston Top Dimension	Piston Skirt Dimension	Cylinder Assembly Number	Cylinder Dimension	Ring Set
MC-91B MC-91B/1	Standard 0.005 0.010 0.020 0.030		68898 68899 68897* 87940 87938	2.1570/2.1560 2.1620/2.1610 2.1670/2.1660 2.1770/2.1760 2.1870/2.1860	2.1600/2.1590 2.1650/2.1640 2.1700/2.1690 2.1800/2.1790 2.1900/2.1890	214700	2.1660/2.1650	47767 66790 47768 87935 87934
MC-91C	Standard 0.005 0.010 0.020 0.030		68898 68899 68897* 87940* 87938	2.1570/2.1560 2.1620/2.1610 2.1670/2.1660 2.1770/2.1760 2.1870/2.1860	2.1600/2.1590 2.1650/2.1640 2.1700/2.1690 2.1800/2.1790 2.1900/2.1890	214700	2.1660/2.1650	47767 66790 47768 87935 87934
MC-93	Standard 0.005 0.010 0.020 0.030		68898 68899 68897* 87940* 87938	2.1570/2.1560 2.1620/2.1610 2.1670/2.1660 2.1770/2.1760 2.1870/2.1860	2.1600/2.1590 2.1650/2.1640 2.1700/2.1690 2.1800/2.1790 2.1900/2.1890	214544	2.1660/2.1650	47767 66790 47768 87935 87934
MC-101A & 101AA	Standard 0.010 0.020 0.030 0.050		84469* 84470 84473 84474 84476	2.2730/2.2720 2.2830/2.2820 2.2930/2.2920 2.3030/2.3020 2.3230/2.3220	2.2755/2.2745 2.2855/2.2845 2.2955/2.2945 2.3055/2.3045 2.3255/2.3245	84534	2.2805/2.2795	47865 66048 66047 66045 69469*

*No longer available from factory, but may be available in Distributor stock.