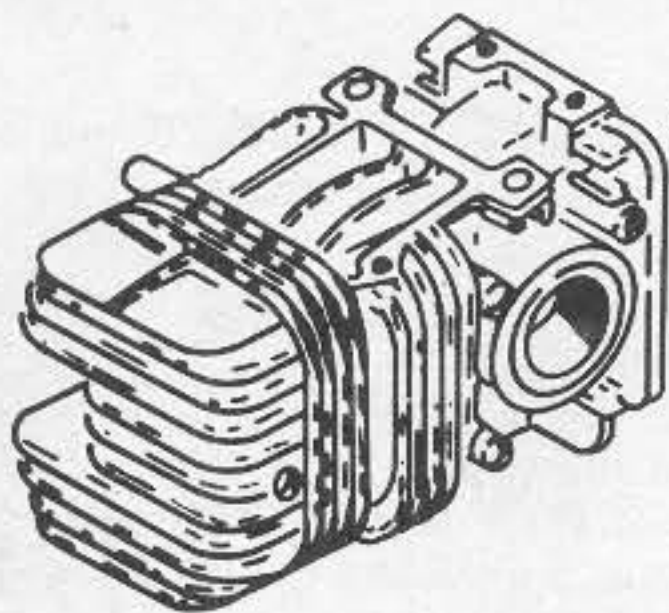




PARTS LIST

Cylinders, Piston Assemblies and Ring Sets used in

McCulloch Chain Saw & Kart Engines

FOREWORD

This parts list provides part numbers for replacement Cylinder Assemblies, standard and oversize Piston Assemblies and Ring Sets for all McCulloch Chain Saws and Kart Engines. The manufacturing dimensions of the cylinders and piston assemblies are included in the list.

MODELS

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



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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 rebores 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").
- . . . 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 piston rings in chain saw engines is 0.004 to 0.012 inch. In kart engines using the thin rings, this end gap is 0.004 to 0.050 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.

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	Standard	19931A*		1.9912/1.9907	1.9953/1.9948			51747*
47	0.010	19910C*		2.0012/2.0007	2.0053/2.0048			51748*
	0.020	19920C*		2.0112/2.0107	2.0153/2.0148			51749*
	0.030	19907B*		2.0212/2.0207	2.0253/2.0248			51750*
3-25	Standard	Obsolete			3-Ring Sets - for use with } early type pistons			47253*
47	0.010							47254*
	0.020							47255*
	0.030							47256*
33	Standard	52379		1.7475/1.7470	1.7495/1.7490	62377*	1.7535/1.7525	52046
33B	0.010	52380		1.7575/1.7570	1.7595/1.7590			52047*
35	0.020	52382		1.7675/1.7670	1.7695/1.7690			52048*
MAC35 MAC35A	0.030	52384*		1.7775/1.7770	1.7795/1.7790			52049*
S-33	Standard	36616C*		1.7475/1.7470	1.7495/1.7490			52046
	0.010							52047*
	0.020	36664C*		1.7675/1.7670	1.7695/1.7690			52048*
	0.030	36665C*		1.7775/1.7770	1.7795/1.7790			52049*
4-30	Standard	Obsolete						28886*
4-30A	0.010							28887*
49	0.020							28888*
	0.030							28889*
39	Standard	52045*		1.7475/1.7470	1.7495/1.7490			52046
	0.010							52047*
	0.020	52052*		1.7675/1.7670	1.7695/1.7690			52048*
	0.030	52053*		1.7775/1.7770	1.7795/1.7790			52049*
D-44	Standard	51210B*		1.9955/1.9950	1.9975/1.9970	55443*	2.0010/2.0000	51747*
55	0.010	51451B*		2.0055/2.0050	2.0075/2.0070			51748*
	0.020	51452B*		2.0155/2.0150	2.0175/2.0170			51749*
	0.030	51453B*		2.0255/2.0250	2.0275/2.0270			51750*

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

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
S-44	Standard	55007A *	53936 *	2. 1190/2. 1184	2. 1220/2. 1213	55441 *	2. 1260/2. 1250	55123
S-55	0. 010	55057A *	53937 *	2. 1290/2. 1284	2. 1320/2. 1313			55124
	0. 020	55058A *	53938	2. 1390/2. 1384	2. 1420/2. 1413			55125
	0. 030	55059A *	53939 *	2. 1490/2. 1484	2. 1520/2. 1513			55126
5-49	Standard	Obsolete						38043 *
	0. 010							
	0. 020							
	0. 030							
7-55	Standard	Obsolete				24023A *	2. 5035/2. 5025	28809 *
	0. 010							28810 *
	0. 020							28811 *
	0. 030							28812 *
S-44A	Standard	55310A	53941A	2. 1190/2. 1184	2. 1220/2. 1213	55438A *	2. 1260/2. 1250	55123
S-55A	0. 010	55322A *	53942A	2. 1290/2. 1284	2. 1320/2. 1313			55124
1-70	0. 020	55323A *	53943A	2. 1390/2. 1384	2. 1420/2. 1413			55125
1-80	0. 030	55324A *	53944A	2. 1490/2. 1484	2. 1520/2. 1513			55126
1-40	Standard	50206		2. 1190/2. 1185	2. 1220/2. 1215	50737 *	2. 1260/2. 1250	55123
D-30								55124
	0. 020	50134		2. 1390/2. 1385	2. 1420/2. 1415			55125
								55126
1-50	Standard	55007A *	53936 *	2. 1190/2. 1184	2. 1220/2. 1213	50737 *	2. 1260/2. 1250	55123
1-60	0. 010	55057A *	53937 *	2. 1290/2. 1284	2. 1320/2. 1313			55124
D-36	0. 020	55058A *	53938 *	2. 1390/2. 1384	2. 1420/2. 1413			55125
	0. 030	55059A *	53939 *	2. 1490/2. 1484	2. 1520/2. 1513			55126
73	Standard	Obsolete				28779 *	2. 5035/2. 5025	28809 *
77	0. 010							28810 *
	0. 020							28811 *
	0. 030							28812 *

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

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
99	Standard	24754A*		2.4924/2.4919	2.4970/2.4965			28809*
	0.010							28810*
	0.020	24684B*		2.5124/2.5119	2.5170/2.5165			28811*
	0.030	24687B*		2.5224/2.5219	2.5270/2.5265			28812*
1-41	Standard	50206		2.1190/2.1185	2.1220/2.1215	61911	2.1260/2.1250	55123
1-42	0.010							
1-43	0.020	50134		2.1390/2.1385	2.1420/2.1415			55125
	0.030							
1-51	Standard	55007A*	53936*	2.1190/2.1184	2.1220/2.1213	61911	2.1260/2.1250	55123
1-61	0.010	55057A*	53937*	2.1290/2.1284	2.1320/2.1313			55124
1-62	0.020	55058A*	53938	2.1390/2.1384	2.1420/2.1413			55125
1-63	0.030	55059A*	53939*	2.1490/2.1484	2.1520/2.1513			55126
1-71	Standard	55310A	53941A	2.1190/2.1184	2.1220/2.1213	55557*	2.1260/2.1250	55123
1-81	0.010	55322A*	53942A	2.1290/2.1284	2.1320/2.1313			55124
	0.020	55323A*	53943A	2.1390/2.1384	2.1420/2.1413			55125
	0.030	55324A*	53944A	2.1490/2.1484	2.1520/2.1513			55126
1-81HD (Thin Rings)	Standard	48695*	53927	2.1190/2.1184	2.1220/2.1214	55557*	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
1-52	Standard	55310A	53941A	2.1190/2.1184	2.1220/2.1213		2.1260/2.1250	55123
1-53	0.010	55322A*	53942A	2.1290/2.1284	2.1320/2.1313	53563A		55124
	0.020	55323A*	53943A	2.1390/2.1384	2.1420/2.1413			55125
	0.030	55324A*	53944A	2.1490/2.1484	2.1520/2.1513			55126
1-72	Standard	48695*	53927	2.1190/2.1184	2.1220/2.1214	57894*	2.1260/2.1250	48691
1-82	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

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
1-92	Standard	58356 *	62877	2. 2115/2. 2109	2. 2145/2. 2139	58551A	2. 2190/2. 2180	58353
1-93	0. 010	58390 *	62878	2. 2215/2. 2209	2. 2245/2. 2239			58394
	0. 020	58355 *	62879	2. 2315/2. 2309	2. 2345/2. 2339			58354
	0. 030	58391 *	62880	2. 2415/2. 2409	2. 2445/2. 2439			58395
1-45	Standard	48695 *	53927	2. 1190/2. 1184	2. 1220/2. 1214	61911	2. 1260/2. 1250	48691
1-46	0. 010	48684 *	53924	2. 1290/2. 1284	2. 1320/2. 1314			48692
250 (before S/N 39000)	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
200 250 (S/N 39001- up)	Standard		53941A			61911		55123
	0. 010		53942A					55124
	0. 020		53943A					55125
	0. 030		53944A					55126
1-75	Standard	48904A *		2. 1170/2. 1164	2. 1200/2. 1194	57962 *	2. 1240/2. 1230	48691
1-85	0. 010	48927 *		2. 1270/2. 1264	2. 1300/2. 1294			48692
	0. 020	48928 *		2. 1370/2. 1364	2. 1400/2. 1394			48693
	0. 030	48929 *		2. 1470/2. 1464	2. 1500/2. 1494			48694
1-76 1-76L 1-86	Standard	59582 *	53726 *	2. 1570/2. 1564	2. 1600/2. 1594	59564	2. 1640/2. 1630	48978
	0. 010	59583 *	53727 *	2. 1670/2. 1664	2. 1700/2. 1694			48934 *
	0. 020	59584 *	53728 *	2. 1770/2. 1764	2. 1800/2. 1794			59587 *
	0. 030	59585 *	53729 *	2. 1870/2. 1864	2. 1900/2. 1894			59586 *
1-76 1-86	Standard	58878A	0. 062 inch Wide Ring Grooves				0. 062 inch } Wide Rings }	58881
	0. 010	58882A						58885
	0. 020	58886A						58889
	0. 030	58890A						58893
BP-1 (Power Piston) Early	Standard							
	0. 010			Obsolete				
	0. 020							
	0. 030							

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

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
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* (Remov- able 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. #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

Model	Size 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
640 Ser. # 21, 859 and up	Standard		53941A	2.1190/2.1184	2.1220/2.1213	68633	2.126/2.125	55123
	0.010		53942A	2.1290/2.1284	2.1320/2.1313			55124
	0.020		53943A	2.1390/2.1384	2.1420/2.1413			55125
	0.030		53944A	2.1490/2.1484	2.1520/2.1513			55126
650 660	Standard		53941A	2.1190/2.1184	2.1220/2.1213	68260	2.126/2.125	55123
	0.010		53942A	2.1290/2.1284	2.1320/2.1313			55124
	0.020		53943A	2.1390/2.1384	2.1420/2.1413			55125
	0.030		53944A	2.1490/2.1484	2.1520/2.1513			55126
740 840 (Thick Rings)	Standard		58878A	2.1570/2.1564	2.1600/2.1594	59564	2.1640/2.1630	58881
	0.010		58882A	2.1670/2.1664	2.1700/2.1694			58885
	0.020		58886A	2.1770/2.1764	2.1800/2.1794			58889
	0.030		58890A	2.1870/2.1864	2.1900/2.1894			58893
740 740L* 840 (Thin Rings)	Standard		53726*	2.1570/2.1564	2.1600/2.1594	59564	2.1640/2.1630	48978
	0.010		53727*	2.1670/2.1664	2.1700/2.1694			48934*
	0.020		53728*	2.1770/2.1764	2.1800/2.1794			59587*
	0.030		53729*	2.1870/2.1864	2.1900/2.1894			59586*
790 890	Standard		62877	2.2115/2.2109	2.2145/2.2139	61209A	2.2190/2.2180	58353
	0.010		62878	2.2215/2.2209	2.2245/2.2239			58394
	0.020		62879	2.2315/2.2309	2.2345/2.2339			58354
	0.030		62880	2.2415/2.2409	2.2445/2.2439			58395
	Standard	(Wide Rings)	62883	2.2115/2.2109	2.2145/2.2139			62422
	0.030		62884	2.2415/2.2409	2.2445/2.2439			62423
795 895	Standard		62877	2.2115/2.2109	2.2145/2.2139	87273	2.219/2.218	58353
	0.010		62878	2.2215/2.2209	2.2245/2.2239			58394
	0.020		62879	2.2315/2.2309	2.2345/2.2339			58354
	0.030		62880	2.2415/2.2409	2.2445/2.2439			58395
	Standard	(Wide Rings)	62883	2.2115/2.2109	2.2145/2.2139			62422
	0.030		62884	2.2415/2.2409	2.2445/2.2439			62423

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

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
797 Ser. # w/o pre, 10-, 11-	Standard		67089	2.2710/2.2700	2.2735/2.2725	67420	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
797 Ser. # 12-	Standard		69540	2.2730/2.2720	2.2755/2.2745	67420	2.2805/2.2795	47865
	0.010		67091	2.2830/2.2820	2.2855/2.2845			66048
	0.020		67092	2.2930/2.2920	2.2955/2.2945			66047
	0.030		67093	2.3030/2.3020	2.3055/2.3045			66045
940	Standard		62877	2.2115/2.2109	2.2145/2.2139	58551A	2.2190/2.2180	58353
	0.010		62878	2.2215/2.2209	2.2245/2.2239			58394
	0.020		62879	2.2315/2.2309	2.2345/2.2339			58354
	0.030		62880	2.2415/2.2409	2.2445/2.2439			58395
MAC 10 All 1-10 2-10 3-10 10-10 Models	Standard		69212	1.7440/1.7435	1.7465/1.7460		1.751/1.750	62814
	0.010							
	0.020		69210	1.7640/1.7635	1.7665/1.7660			62813
	0.030		69211	1.7740/1.7735	1.7765/1.7760			62812
				MAC 1-10				67908
				MAC 2-10				67908
				MAC 2-10A				67250
				MAC 2-10PS				67250
				MAC 2-10G				67121
				Super 2-10A				85809
				MAC 3-10				67250
				MAC 3-10E				67216
				MAC 10-10				69993
				MAC 10-10A				84113
				Super 10-10				69993
				Super 10-10A				84113

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 10 All 4-10 5-10 6-10 Models	Standard		69412	1.9940/1.9935	1.9965/1.9960		2.001/2.000	85241
	0.010							
	0.020		69413	2.0140/2.0135	2.0165/2.0160			63291
	0.030		69414	2.0240/2.0235	2.0265/2.0260			63292
				MAC 4-10 MAC 5-10A MAC 5-10E MAC 5-10G MAC 6-10A Super 6-10A		63294 67354 67432 67120 87681 87681		
LG-6 10-	Standard		69412	1.9940/1.9935	1.9965/1.9960	87810	2.001/2.000	85241
	0.010							
	0.020		69413	2.0140/2.0135	2.0165/2.0160			63291
	0.030		69414	2.0240/2.0235	2.0265/2.0260			63292
Super LG-2	Standard		69212	1.7440/1.7435	1.7465/1.7460	68824	1.7510/1.7500	62814
	0.020		69210	1.7540/1.7535	1.7565/1.7560			62813
	0.030		69211	1.7640/1.7635	1.7665/1.7660			62812
MM 6	Standard		84981	1.3705/1.3695	1.3730/1.3710	84684	1.3760/1.3750	87164
PM 6	Standard		68098	1.4330/1.4325	1.4355/1.4350	83454	1.4388/1.4375	68096
PM 60	Standard		87713	1.8705/1.8700	1.8724/1.8719	87715	1.8760/1.8745	87716
7-10A	Standard		85239	1.9940/1.9935	1.9963/1.9958	87681	1.9995/1.9980	87166
	0.020		69031	2.0140/2.0130	2.0163/2.0153			63291
	0.030		69032	2.0240/2.0230	2.0263/2.0253			62292
S-250	Standard		53941A	2.1190/2.1184	2.1220/2.1213	83830	2.1260/2.1250	55123
	0.010		53942A	2.1290/2.1284	2.1320/2.1310			55124
	0.020		53943A	2.1390/2.1380	2.1420/2.1410			55125
	0.030		53944A	2.1490/2.1480	2.1520/2.1510			55126
G-70	Standard		85239	1.9940/1.9935	1.9963/1.9958	85871	1.9995/1.9980	85241
CP 125	Standard	69301		2.2730/2.2720	2.2755/2.2745	84071	2.2805/2.2795	47865
	0.010	69302		2.2830/2.2820	2.2855/2.2845			66048
	0.020	69303		2.2930/2.2920	2.2955/2.2945			66047
	0.030	69304		2.3030/2.3020	2.3055/2.3045			66025

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
CP 125S	Standard	69241		2. 2730/2. 2720	2. 2755/2. 2745	84071	2. 2805/2. 2795	69305
	0.010	69242		2. 2830/2. 2820	2. 2855/2. 2845			69306
	0.020	69243		2. 2930/2. 2920	2. 2955/2. 2945			69307
	0.030	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		85239	1. 9940/1. 9930	1. 9963/1. 9953	N. A.	1. 9995/1. 9983	85241
	0.020		69031	2. 0140/2. 0130	2. 0163/2. 0153			63291
	0.030		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	87737	1. 8795/1. 8785	87716
SP 70	Standard		85239	1. 9940/1. 9935	1. 9963/1. 9958	87768	1. 9995/1. 9980	87166
SP 80 Prefix 11-, 12-, 13-	Standard		87791	2. 0585/2. 0580	2. 0604/2. 0599	87296	2. 0640/2. 0625	85245
SP 80 Prefix 14-	Standard		87791	2. 0585/2. 0580	2. 0604/2. 0599	87296	2. 0640/2. 0625	87854
SP 125	Standard	85539		2. 2730/2. 2720	2. 2755/2. 2745	85145	2. 2805/2. 2795	85608
	0.010	85540		2. 2830/2. 2820	2. 2855/2. 2845			85609
	0.020	85541		2. 2930/2. 2920	2. 2955/2. 2945			85610
	0.030	85542		2. 3030/2. 3020	2. 3055/2. 3045			85611
SP 125C	Standard	85539		2. 2730/2. 2720	2. 2755/2. 2745	88738	2. 2790/2. 2780	85608
170 Welder	Standard		62872	2. 2115/2. 2109	2. 2145/2. 2139	84300	2. 2200/2. 2190	58699A
	0.010		62873	2. 2215/2. 2209	2. 2245/2. 2239			58831
	0.020		62888	2. 2315/2. 2309	2. 2345/2. 2339			47825
	0.030		62889	2. 2415/2. 2409	2. 2445/2. 2439			47826

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 (Cont)	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	49878
	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 MC-45D	Standard		47765	2.1570/2.1564	2.1600/2.1594	47878*	2.1600/2.1650	47767
	0.010		47766	2.1670/2.1694	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 MC-100	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

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

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-1	Standard							48691
MC-2	Standard	59582*	53726*	2.1570/2.1564	2.1600/2.1594			48978
	0.010	59583*	53727*	2.1670/2.1664	2.1700/2.1694			48934*
MC-5 (Wide Rings)	Standard	55007A	53936*	2.1190/2.1184	2.1220/2.1213	48701*	2.1260/2.1250	55123
	0.010	55057A*	53937*	2.1290/2.1284	2.1320/2.1313			55124
	0.020	55058A*	53938	2.1390/2.1384	2.1420/2.1413			55125
	0.030	55059A*	53939*	2.1490/2.1484	2.1520/2.1513			55126
MC-5 MC-6 (Thin Rings)	Standard	48844*		2.1170/2.1165	2.1200/2.1195	48701*	2.1260/2.1250	48691
	0.010	48845*		2.1270/2.1265	2.1300/2.1295			48692
	0.020	48846*		2.1370/2.1365	2.1400/2.1395			48693
	0.030	48847*		2.1470/2.1465	2.1500/2.1495			48694
MC-7	Standard	59582*	53726*	2.1570/2.1564	2.1600/2.1594	48993B*	2.1660/2.1650	48978
	0.010	59583*	53727*	2.1670/2.1664	2.1700/2.1694			48934*
MC-10 (Wide Rings)	Standard	55310A*	53941A	2.1190/2.1184	2.1220/2.1213	48612A*	2.1260/2.1250	55123
	0.010	55322A*	53942A	2.1290/2.1284	2.1320/2.1313			55124
	0.020	55323A*	53943A	2.1390/2.1384	2.1420/2.1413			55125
	0.030	55324A*	53944A	2.1490/2.1484	2.1520/2.1513			55126
MC-10 (Thin Rings)	Standard	48844*		2.1170/2.1165	2.1200/2.1195	48612A*	2.1260/2.1250	48691
	0.010	48845*		2.1270/2.1265	2.1300/2.1295			48692
	0.020	48846*		2.1370/2.1365	2.1400/2.1395			48693
	0.030	48847*		2.1470/2.1465	2.1500/2.1495			48694
MC-10 (Power Kit)	Standard	48832*		2.1170/2.1165	2.1200/2.1195	48612A*	2.1260/2.1250	48691
	0.010	48833*		2.1270/2.1265	2.1300/2.1295			48692
	0.020	48834*		2.1370/2.1365	2.1400/2.1395			48693
	0.030							48694
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

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-91 10-	Standard		68898	2.157/2.156	2.160/2.159	84325	2.166/2.165	47767
	0.010		68897	2.167/2.166	2.170/2.169			47768
MC-91A 11-	Standard		68898	2.157/2.156	2.160/2.159	84325	2.166/2.165	47767
	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
MC-91B & 91B/1	Standard		68898	2.1570/2.1560	2.1600/2.1590	84325	2.1660/2.1650	47767
	0.005		68899	2.1620/2.1610	2.1650/2.1640			66790
	0.010		68897	2.1670/2.1660	2.1700/2.1690			47768
	0.020		87940	2.1770/2.1760	2.1800/2.1790			87935
	0.030		87938	2.1870/2.1860	2.1900/2.1890			87934
MC-91C	Standard		68898	2.1570/2.1560	2.1600/2.1590	84325	2.1660/2.1650	47767
	0.005		68899	2.1620/2.1610	2.1650/2.1640			66790
	0.010		68897	2.1670/2.1660	2.1700/2.1690			47768
	0.020		87940	2.1770/2.1760	2.1800/2.1790			87935
	0.030		87938	2.1870/2.1860	2.1900/2.1890			87934

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-101A & 101AA	Standard		84469	2. 2730/2. 2720	2. 2755/2. 2745	84534	2. 2805/2. 2795	47865
	0. 010		84470	2. 2830/2. 2820	2. 2855/2. 2845			66048
	0. 020		84473	2. 2930/2. 2920	2. 2955/2. 2945			66047
	0. 030		84474	2. 3030/2. 3020	2. 3055/2. 3045			66045
	0. 050		84476	2. 3230/2. 3220	2. 3255/2. 3245			69469