

196400 to 196499

SERVICE ENGINE



SALES MANUAL

**MODEL 196400 SERIES ENGINES REPLACED WITH
 STANDARD SERVICE ENGINES**

In most cases, the Original Type numbers shown may be replaced by a Service Type Number without making any changes. Necessary changes of engine parts such as crankshafts, reduction parts, blower housings, etc., are noted. Other differences, such as mufflers, elbows, deflectors, etc., are not listed but are very important for safety and engine performance. Be sure the exhaust system on the replacement engine duplicates the system originally selected by the equipment manufacturer. Parts that are suitable for additional use should be transferred. Before making any conversion, check the data shown in the column labeled "REMOVE, ADD and NOTE." See if the changes, which are shown, are actually necessary on the application in question. Often a standard service engine will be a WORKABLE replacement without converting to such things as a special fuel tank or starter position.

If the crankshaft number does not appear in the "Original Engine" column, consult the Illustrated Parts List for the correct service replacement crankshaft number.

Engine Replacement Notes:

- NOTE 7:** Drill and retap PTO end of Crankshaft 7/16"-20 (1-1/8" deep). Use 25/64" tap drill.
- NOTE 15:** For all Go-Karts use only a Model 136200 series engine as a replacement, regardless of the original Model.
- NOTE 17:** Gear Red. @ 3 o'clock.
- NOTE 30:** If the replacement engine supersedes to or is a Model 200000 series engine, refer to the illustrations located after the conversion data for this model series. To make the crankshaft center line the same add 695154 spacer kit, other overall dimensions which differ, are shown in the illustrations. If after making a visual inspection and it is determined the Model 200000 series engine cannot be used because of equipment interference, the original engine should be repaired with a short block and/or individual parts.
- NOTE 48:** Remove Fuel Tank Assembly from replacement engine.

Short Block Notes:

The SHORT BLOCK part number shown, is the assembly which can be used to rebuild the Original Type Number. If a letter appears after the short block number, it indicates the short block must be modified. The change denoted by each letter is as follows:

- NOTE G:** Drill and re-tap end of Crankshaft 7/16"-20 (1-1/8" deep). Use 25/64" tap drill.

196400 to 196499

Original Engine			Make From		Remove		Add		Note	Change to Type	Trim	RPM	Short Block	
Type	Model	Crank	Model	Type #	Qty	Part #	Qty	Part #					Part #	Notes
0004	196422	495648	No Replacement		Repair With Individual Parts.				15		01	3600		
0005	196432	495655	203432	0036					15		01	3600		
									30					
0006	196432	495790	205432	0038					15		01	3800		
									30		02	3150		
0007	196432	495790	205432	0038					15		01	3800		
									30		02	3150		
											03	3800		
0008	196437	495790	No Replacement		Repair With Individual Parts.				15		01	3800		
											02	3150		
0009	196432	495789	202432	1035					15		All	3600		
									30					
0010	196437	495655	203437	0041					15		01	3600		
									30					
0011	196452	495663	202452	0049					15		01	2900		
									30					
									48					
0022	196422	495648	202432	0036					15		All	4000		
									30					
0025	196432	495866	No Replacement		Repair With Individual Parts.				15		01	3600		
0030	196437	495790	No Replacement		Repair With Individual Parts.				15		01	3800		
0033	196432	495655	203432	0036					15		All	3600		
									30					
0035	196432	495655	203432	0036					15		All	3600		
									30					

196400 to 196499

Original Engine			Make From		Remove		Add		Note	Change to Type	Trim	RPM	Short Block	
Type	Model	Crank	Model	Type #	Qty	Part #	Qty	Part #					Part #	Notes
0039	196437	495655	203437	0041					15 30		01	3600		
0041	196437	495655	203437	0041					15 30		01	3600		
0042	196437	495790	No Replacement Repair With Individual Parts.						15		01 02	3800 3150		
0047	196432	495789	202432	0035					15 30		All	3600		
0048	196457	495633	No Replacement Repair With Individual Parts.						15		01	3600		
0049	196452	495663	202452	0049					15		All	3600		
0050	196432	495790	205432	0038					15 30		All	3150		
0051	196452	495663	202452	0049					15 17 30		01	3600		
0057	196437	495789	No Replacement Repair With Individual Parts.						15		01	3600		
0065	196432	495866	No Replacement Repair With Individual Parts.						15		01	3600		
0070	196432	495790	205432	0038					15 30		01 02	3800 3150		
0073	196432	495790	205432	0038					15 30		01	3150		
0101	196432	495655	203432	0036					15 30		01	3600		
0112	196432	495790	205432	0038					15 30		01	3150		
0113	196432	495790	205432	0038					15 30		All	3150		
0114	196432	495789	202432	0035					15 30		01	3800		
0115	196432	495655	203432	0036					15 30		01	3600		
0116	196432	495788	202432	0063					15		01	3600		
0117	196412	495884	202432	0036					15 30		01	3600	497542	
0118	196432	495655	203432	0036					15 30		01	3600		
0119	196436	496779	No Replacement Repair With Individual Parts.						15		01	3700		
0120	196432	495790	205432	0038					15 30		All	3150		
0121	196432	497146	No Replacement Repair With Individual Parts.						15		01	3600		
0123	196422	495648	No Replacement Repair With Individual Parts.						15		01	4000		
0125	196432	495655	203432	0036					15 30		01	3900		
0126	196422	495648	No Replacement Repair With Individual Parts.						15		01	4000		
0127	196437	497146	No Replacement Repair With Individual Parts.						15		01	3600		
0129	196432	495884	202432	0036					15 30		01	4000		
0130	196432	495655	203432	0036					15 30		01	3700		
0131	196432	495655	203432	0036					15 30		01	3600		
0132	196432	495866	No Replacement Repair With Individual Parts.						15		01	3600		
0133	196437	495788	202437	0033					15 30		01	3600		
0134	196437	495788	202437	0033					15 30		01	3600		
0135	196432	495655	203432	0036					15 30		01	3600		

196400 to 196499

Original Engine			Make From		Remove		Add		Note	Change to Type	Trim	RPM	Short Block	
Type	Model	Crank	Model	Type #	Qty	Part #	Qty	Part #					Part #	Notes
0136	196432	495655	203432	0036					15 30		01	3600		
0137	196432	495655	203432	0036					15 30 48		01	3600		
0138	196432	495655	203432	0036					15 30		01	3600		
0139	196432	495790	205432	0038					15 30		01	3150		
0140	196436	497155	No Replacement Repair With Individual Parts.						15		01	3300		
0141	196436	496779	No Replacement Repair With Individual Parts.						15		01	3700		
0143	196432	495790	205432	0038					15 30		01	3750		
0144	196432	495788	No Replacement Repair With Individual Parts.						15		01	3600		
0145	196432	495788	202432	0063					15 30		01	3600		
0146	196432	495655	203432	0036					15 30 48		01	3600		
0147	196437	495790	No Replacement Repair With Individual Parts.						15		01	3750		
0148	196437	495788	202437	0033					15 30		01	3600		
0149	196427	495648	No Replacement Repair With Individual Parts.						15		01	3200		
0150	196432	495655	203432	0036					15 30		01	3600		
0151	196432	495655	203432	0036					15 30		01	3600		
0152	196432	495655	203432	0036					15 30		01	3600		
0157	196437	495790	No Replacement Repair With Individual Parts.						15		01	3750		
0158	196432	495790	205432	0038					15 30		01	3150		
0160	196432	495790	205432	0038					15 30		01	3150		
0161	196432	495790	205432	0038					15 30		01	3150		
0162	196422	495648	No Replacement Repair With Individual Parts.						15		01	3200		
0163	196432	495788	202432	0063					15 30		01	3600		
0164	196437	495655	203437	0041					15 30		01	3600		
0165	196402	498693	No Replacement Repair With Individual Parts.						15		01	4000		
0166	196437	495790	No Replacement Repair With Individual Parts.						15		01	3750		
0167	196432	495790	No Replacement Repair With Individual Parts.						15		01	3750		
0168	196432	495790	No Replacement Repair With Individual Parts.						15		01	3750		
0169	196432	495790	205432	0038					15 30		01	3800		
0170	196437	495655	203437	0041					15 30		01	3600		
0171	196412	495790	No Replacement Repair With Individual Parts.						15		01	3750		
0172	196417	495790	No Replacement Repair With Individual Parts.						15		01	3750		
0173	196437	495655	203437	0041					15 30		01	3600		
0174	196432	495790	No Replacement Repair With Individual Parts.						15		01	3150		
0175	196432	495655	No Replacement Repair With Individual Parts.						15		01	3200		
0176	196437	495655	203437	0041					15 30		01	3600		
0179	196436	495655	No Replacement Repair With Individual Parts.						15		01	3600		

196400 to 196499

Original Engine			Make From		Remove		Add		Note	Change to Type	Trim	RPM	Short Block	
Type	Model	Crank	Model	Type #	Qty	Part #	Qty	Part #					Part #	Notes
0180	196432	495866	No Replacement Repair With Individual Parts.						15		01	3600		
0181	196432	495790	No Replacement Repair With Individual Parts.						15		01	3150		
0182	196432	495790	205432	0038					15		01	3800		
									30					
0195	196432	497146	No Replacement Repair With Individual Parts.						15		01	3600		
0196	196437	497146	No Replacement Repair With Individual Parts.						15		01	3600		
0197	196432	495655	203432	0036					15		01	3000		
									30					
0198	196432	495655	203432	0036					15		01	3600		
									30					
0201	196432	495655	203432	0036					15		01	3600		
									30					
0220	196432	495884	202432	0036					15		01	4000		
									30					
0223	196432	495866	No Replacement Repair With Individual Parts.						15		01	3600		
0224	196432	495655	203432	0036					15		01	4000		
									30					
0225	196432	495655	203432	0036					15		A1	3800		
									30					
0506	196432	495790	No Replacement Repair With Individual Parts.						15		A1	3800		
0513	196432	495655	203432	0036					15		A1	3600		
									30					
0522	196402	495648	No Replacement Repair With Individual Parts.						15		A1	4000		
0533	196432	495655	203432	0036					15		A1	3600		
									30					
0535	196432	495655	203432	0036					15		A1	3600		
									30					
0539	196437	495655	203437	0041					15		A1	3600		
									30					
0541	196437	495655	203437	0041					15		A1	3600		
									30					
0542	196437	495790	No Replacement Repair With Individual Parts.						15		A1	3800		
											A2	3800		
0547	196432	495789	202432	0035					15		A1	3600		
									30					
0549	196452	495633	202452	0049					15		A1	3600		
									30		A2	3600		
0559	196452	495622	202452	0049					15		A1	3600		
									30					
0565	196432	495866	No Replacement Repair With Individual Parts.						15		A1	3600		
0570	196432	495790	205432	0038					15		A1	3750		
									30		A2	3800		
0615	196432	495655	203432	0036					15		A1	3600		
									30					
0621	196432	497146	No Replacement Repair With Individual Parts.						15		A1	3600		
0624	196432	495655	203432	0036					15		A1	3600		
									30					
0626	196422	495648	No Replacement Repair With Individual Parts.						15		A1	4000		
0627	196437	497146	No Replacement Repair With Individual Parts.						15		A1	3600		
0629	196432	495884	202432	0036					15		A1	4000		
									30					
0630	196432	495655	203432	0036					15		A1	3700		
									30					
0634	196437	495788	202432	0063					15		All	3600		
									30					
0635	196432	495655	203432	0036					15		A1	3600		
									30					

196400 to 196499

Original Engine			Make From		Remove		Add		Note	Change to Type	Trim	RPM	Short Block	
Type	Model	Crank	Model	Type #	Qty	Part #	Qty	Part #					Part #	Notes
0645	196432	495788	202432	0063					15 30		A1	3600		
0646	196432	495655	203432	0036					15 30 48		A1	3600		
0650	196432	495655	203432	0036					15 30		A1	3600		
0653	196432	495884	202432	0036					15 30		A1	3800		
0662	196422	495648	No Replacement Repair With Individual Parts.						15		A1	3200		
0663	196432	495788	202432	0063					15 30		All	3600		
0664	196432	495655	203432	0036					15 30		A1	3600		
0665	196437	495655	203437	0041					15 30		A1	3600		
0666	196432	495655	203432	0036					15 30		A1	3600		
0667	196437	495655	203437	0041					15 30		A1	3600		
0668	196412	495884	No Replacement Repair With Individual Parts.						15		A1	4000	497542	
0671	196412	495790	No Replacement Repair With Individual Parts.						15		A1 A2	3750 3750		
0672	196417	495790	No Replacement Repair With Individual Parts.						15		A1	3750		
0673	196412	495884	No Replacement Repair With Individual Parts.						15		A1	3600	497542	
0674	196432	495655	203432	0036					15 30		A1	3600		
0675	196437	495655	203437	0041					15 30		A1	3600		
0677	196432	495884	202432	0036					15 30		A1	4000		
0685	196432	495655	No Replacement Repair With Individual Parts.						15		A1	3200		
0690	196432	495655	203432	0036					15 30		A1	4000		
0692	196432	495790	205432	0038					15 30		A1	3800		
0695	196432	497146	No Replacement Repair With Individual Parts.						15		A1	3600		
0696	196437	497146	No Replacement Repair With Individual Parts.						15		A1	3600		
0702	196432	495884	202432	0036					15 30		A1	3600		
0703	196412	499391	No Replacement Repair With Individual Parts.						15		A1	4000	497542	G
0704	196432	495655	203432	0036					15		A1	4000		
1004	196422	495648	No Replacement Repair With Individual Parts.						15		E1	3600		
1006	196432	495790	No Replacement Repair With Individual Parts.						15		E1	3800		
1008	196437	495790	No Replacement Repair With Individual Parts.						15		E1	3800		
1009	196432	495789	202432	0035					15 30		E1	3600		
1010	196437	495655	203437	0041					15 30		E1	3600		
1011	196452	495663	202452	0049					15 30 48		E1	2900		
1012	196437	495790	No Replacement Repair With Individual Parts.						15		E1	3800		
1013	196432	495655	202432	0036					15 30		E1	3600		
1022	196402	495648	No Replacement Repair With Individual Parts.						15		E1	4000		
1024	196412	495663	202452	0049					15 30		E1	3600		

196400 to 196499

Original Engine			Make From		Remove		Add		Note	Change to Type	Trim	RPM	Short Block	
Type	Model	Crank	Model	Type #	Qty	Part #	Qty	Part #					Part #	Notes
1033	196432	495655	203432	0036					15 30		E1	3600		
1035	196432	495655	203432	0036					15 30		E1	3600		
1036	196432	495884	202432	0036					15 30		E1	3600		
1039	196437	495655	203437	0041					15 30		E1	3600		
1041	196437	495655	203437	0041					15 30		E1	3600		
1042	196437	495790	No Replacement Repair With Individual Parts.						15		All	3800		
1047	196432	495789	202432	0035					15 30		All	3600		
1048	196457	495663	No Replacement Repair With Individual Parts.						15		E1	3600		
1049	196452	495663	202452	0049					15 30		All	3600		
1050	196432	495790	205432	0038					15 30		E2	3150		
1057	196437	495789	No Replacement Repair With Individual Parts.						15		E1	3600		
1059	196452	495663	202452	0049					15 30		E1	3600		
1061	196452	495663	202452	0049					15 30		E1	3600		
1063	196432	495788	202432	0063					15 30		E2	3600		
1070	196432	495790	205432	0038					15 30		E1 E2 E4	3800 3150 3800		
1073	196432	495790	205432	0038					15 30		E1	3150		
1080	196437	495790	No Replacement Repair With Individual Parts.						15		E1	3150		
1113	196432	495790	205432	0038					15 30		E2	3150		
1114	196432	495789	202432	0035					15 30		E2	3800		
1115	196432	495655	203432	0036					15 30		E1	3600		
1123	196402	495648	No Replacement Repair With Individual Parts.						15		E1	4000		
1124	196432	495655	203432	0036					15 30		E1	3900		
1125	196437	495790	No Replacement Repair With Individual Parts.						15		E1	3150		
1126	196432	495655	203432	0036					15 30		E1	3600		
1129	196432	495884	202432	0036					15 30		E1	4000		
1130	196432	495655	203432	0036					15 30		E1	3700		
1132	196432	495278	No Replacement Repair With Individual Parts.						15		E1	3600		
1133	196437	495788	202437	0033					15		E2	3600		
1134	196437	495788	202437	0033					15 30		E1	3600		
1135	196432	495655	203432	0036					15 30		E1	3600		
1136	196457	495663	No Replacement Repair With Individual Parts.						15		All	3600		
1140	196436	497155	No Replacement Repair With Individual Parts.						15		E1	3300		
1144	196432	495884	202432	0036					15 30		E1	3500		

196400 to 196499

Original Engine			Make From		Remove		Add		Note	Change to Type	Trim	RPM	Short Block	
Type	Model	Crank	Model	Type #	Qty	Part #	Qty	Part #					Part #	Notes
1145	196432	495788	202432	0063					15 30		E1	3600		
1146	196432	495655	203432	0036					15 30 48		E1	3600		
1149	196427	495648	No Replacement Repair With Individual Parts.						15		E1	3200		
1150	196432	495655	203432	0036					15 30		E1	3600		
1151	196432	495655	203432	0036					15 30		E1	3600		
1152	196432	495655	203432	0036					15 30		E1	3800		
1153	196432	495884	202432	0036					15 30		E1	3800		
1154	196437	495790	No Replacement Repair With Individual Parts.						15		E1	3800		
1155	196432	495655	203432	0036					15 30		All	3600		
1162	196422	495648	No Replacement Repair With Individual Parts.						15		E1	3200		
1163	196432	495788	202432	0063					15 30		All	3600		
1164	196437	495655	203437	0041					15 30		E1	3600		
1165	196402	499531	No Replacement Repair With Individual Parts.						15		E1	4000		
1166	196432	495655	203432	0036					15 30		E1	3600		
1167	196437	495655	203437	0041					15 30		E1	3600		
1171	196412	495790	No Replacement Repair With Individual Parts.						15		All	3750		
1172	196417	495790	No Replacement Repair With Individual Parts.						15		E2	3800		
1175	196432	495655	No Replacement Repair With Individual Parts.						15		All	3200		
1178	196432	495790	No Replacement Repair With Individual Parts.						15		E1	3750		
1181	196432	495790	No Replacement Repair With Individual Parts.						15		E1	3150		
1183	196432	495655	203432	0036					15 30		E1	3600		
1184	196437	495655	203437	0041					15 30 48		E1	3600		
1197	196432	495655	203432	0036					15 30		E1	3000		
1198	196432	495655	203432	0036					15 30		E1	3600		
1202	196432	495884	202432	0036					15 30		E1	3600		
1203	196437	495655	No Replacement Repair With Individual Parts.						15		E1	3200		
1204	196432	495655	No Replacement Repair With Individual Parts.						15		E1	3200		
1205	196432	495655	203432	0036					15 30		E1	3600		
1215	196432	499391	202432	0036					7 15 30		E1	3800		
1226	196437	495655	203437	0041					15 30		E1	3800		
1227	196432	495655	203432	0036					15 30		E1	3600		
1228	196402	499531	No Replacement Repair With Individual Parts.						15		E1	4000		
1229	196432	495884	202432	0036					15 30		E1	3600		

196400 to 196499

Original Engine			Make From		Remove		Add		Note	Change to Type	Trim	RPM	Short Block	
Type	Model	Crank	Model	Type #	Qty	Part #	Qty	Part #					Part #	Notes
1230	196432	499391	202432	0036					7 15 30		E1	3800		
1231	196402	495648	No Replacement Repair With Individual Parts.						15		E1	3600		
1232	196437	495790	No Replacement Repair With Individual Parts.						15		E1	3750		
1233	196432	497590	No Replacement Repair With Individual Parts.						15		E1	3750		
1234	196437	497590	No Replacement Repair With Individual Parts.						15		E1	3750		
1235	196432	497590	No Replacement Repair With Individual Parts.						15		E1	3750		
1236	196402	495648	No Replacement Repair With Individual Parts.						15		E1	3200		
1237	196437	495655	203437	0041					15 30		E1	3800		
1238	196437	495655	203437	0041					15 30		All	3800		
1240	196436	495655	No Replacement Repair With Individual Parts.						15		E1	3600		
1241	196432	495790	205432	0038					15 30		All	3800		
1242	196432	499391	202432	0036					7 15 30		E1	3500		
1243	196432	499391	202432	0036					7 15 30		E1	3500		
1244	196402	499531	No Replacement Repair With Individual Parts.						15		E1	3600		
1245	196436	495884	No Replacement Repair With Individual Parts.						15		E1	3600		
1246	196432	495655	203432	0036					15 30		E1	3600		
1247	196432	495655	203432	0036					15 30		All	3600		

MODEL 196400

MODEL 200000

