

303700 to 303799

SERVICE ENGINE



SALES MANUAL

**MODEL 303700 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 23:** If the original engine is equipped with a Six Pin Wiring Harness transfer to the replacement engine.
- NOTE 41:** Original engine was equipped for or with a 12 volt or 120 volt Gear Drive Starter and/or with alternator only. Transfer all related parts as required.
- NOTE 61:** The original engine was equipped with Debris Gard. Transfer these parts to replacement engine.
- NOTE 72:** Transfer Exhaust Ducting and/or Muffler Assembly from original engine to replacement engine.
- NOTE 81:** Transfer Governor Spring to replacement engine.
- NOTE 94:** Transfer Static Guard from original engine to replacement engine.
- NOTE 105:** Transfer the Governor Spring and Governor Idle Spring to the replacement engine.
- NOTE 108:** Transfer the Muffler and/or Spark Arrester Assembly from the original engine if suitable for additional service, or add new parts as required. In some cases it maybe necessary to transfer the Oil Filter Adapter to the replacement engine.
- NOTE 110:** Transfer the Rewind Starter Assembly to the replacement engine.
- NOTE 126:** Transfer Manual Choke Control Assembly from the original engine to 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:

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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
0015	303777	807586	303777	1032					108		All	3600	494057	
0016	303777	807586	303777	1032					108		01	3600	494057	
									110		02	3600		
0017	303777	807586	303777	1032							All	3600	494057	
0020	303772	807586	303772	1020					108		01	3600	494057	
0021	303772	807586	303772	1020					108		All	3600	494057	
0030	303777	807804	303777	1032	1	692159	1	692164	108	0030	All	3300		
0031	303777	807586	303777	1032	1	491056	1	492932	108		01	3300	494057	
					1	805460	1	805462			02	3300		
0032	303777	807586	303777	1032	1	491056	1	492932	108		All	3300	494057	
					1	805460	1	805462						
0033	303777	807586	303777	1032					108		All	3600	494057	
0119	303775		See Equipment Manufacturer for Replacement Engines and Parts.											
0120	303775		See Equipment Manufacturer for Replacement Engines and Parts.											
0121	303777	807586	303777	1032	1	805460	1	805462	108		01	3200	494057	
0122	303777	807586	303777	1032	1	805460	1	805461	72		01	3400	494057	
									108					
0124	303777	807586	303777	1032	1	805460	1	805462	108		01	3300	494057	
0125	303772	807586	303772	1020					108		01	3600	494057	
0126	303777	807586	303777	1032					108		01	3600	494057	
0127	303777	807586	303777	1032	1	805460	1	805462	108		01	3200	494057	

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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
0128	303777	807586	303777	1032					108 110		01	3600	494057	
0129	303777	807586	303777	1032					108		01	3600	494057	
0130	303777	807586	303777	1032					108		01	3600	494057	
0131	303777	807586	303777	1032	1	805460	1	805462	108		01	3200	494057	
0132	303772	807586	303772	1020					108		01	3600	494057	
0133	303777	807586	303777	1032	1	805460	1	805462	108		01	3200	494057	
0134	303777	807586	303777	1032					108 110		01	3600	494057	
0135	303777	807586	303777	1032	1	805460	1	805462	108		01	3200	494057	
0136	303777	807586	303777	1032	1	491056	1	492932	108		01	3300	494057	
					1	805460	1	805462						
0137	303777	807586	303777	1032	1	805460	1	805461	108		01	3000	494057	
0138	303777	807586	303777	1032	1	805059	1	491657	108		01	3600	494057	
0139	303777	807586	303777	1032	1	805460	1	805463	108		01	3200	494057	
0140	303777	807586	303777	1032	1	805460	1	805463	108		01	3200	494057	
0141	303772	807586	303772	1020					108		01	3600	494057	
0142	303777	807586	303777	1032					108		All	3600	494057	
0316	303777	807586	303777	1032					108 110		All	3600	494057	
0320	303772	807586	303772	1020					108		01	3600	494057	
0321	303772	807586	303772	1020					108		All	3600	494057	
0330	303777	807804	303777	1032	1	692159	1	692164	108	0330	01	3600		
					1	805461	1	805462			02	3600		
0331	303777	807586	303777	1032					72 108		01 02	3300 3300	494057	
0332	303777	807586	303777	1032					108		All	3300	494057	
0333	303777	807586	303777	1032	1	805461	1	805460	108		All	3600	494057	
0344	303777	807586	303777	1032	1	805461	1	805460	108		All	3600	494057	
0345	303772	807586	303772	1020					108		All	3600	494057	
0346	303776	807586	350776	1046					108		02	3600	494057	
0355	303772	807586	303772	1020					61 108		All	3600	494057	
0410	303777	807586	303777	1032	1	805461	1	805460	108		01	3600	494057	
0411	303777	807586	303777	1032					108		01	3400	494057	
0412	303777	807586	303777	1032	1	805461	1	805462	108		01	3250	494057	
0413	303777	807586	303777	1032	1	805461	1	805460	108		01	3600	494057	
0414	303777	807586	303777	1032	1	805461	1	805460	108		01	3600	494057	
0415	303772	807586	303772	1020					108		01	3600	494057	
0416	303777	807586	303777	1032	1	805461	1	805464	108		All	3000	494057	
0417	303777	807586	303777	1032	1	805461	1	805460	108		01	3600	494057	
0418	303777	807586	303777	1032	1	805461	1	805460	108 110		01	3500	494057	
0419	303777	807586	303777	1032	1	805461	1	805460	108		01	3600	494057	
0420	303777	807586	303777	1032	1	805461	1	805464	108		01	3000	494057	
0421	303777	807586	303777	1032	1	805461	1	805460	61 108		01	3600	494057	
0422	303776	807586	303777	1032	1	805461	1	805460	108 110		01	3600	494057	
0423	303772	807586	303772	1020	1	805461	1	805460	108		01	3600	494057	
0424	303777	807586	303777	1032					108		01	3400	494057	
0425	303777	807804	303777	1032	1	692159	1	692164	108		01	3300		
0426	303777	807586	303777	1032	1	805461	1	805464	108		01	2900	494057	

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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
0427	303777	807586	303777	1032	1	805461	1	805464	108 110		01	3150	494057	
0428	303777	807586	303777	1032					108		01	3600	494057	
0429	303777	807586	303777	1032					108 110		01	3600	494057	
0430	303776	807586	303777	1032					108 110		01	3300	494057	
0431	303777	807586	303777	1032	1	805461	1	805464	108		01	2800	494057	
0434	303777	807586	303777	1032					108		01	3400	494057	
0435	303777	807586	303777	1032					108 110		ALL	3600	494057	
0436	303777	807586	303777	1032					108		01	3300	494057	
0437	303772	807586	303772	1020					108		01	3600	494057	
0438	303777	807586	303777	1032	1	805461	1	805464	108		01	2800	494057	
0439	303777	807586	303777	1032					108		01	3500	494057	
0440	303777	807586	303777	1032					108		01	3200	494057	
1020	303772		STD.						108		All	3600	494057	
1032	303777		STD.						108		All	3300	494057	
1033	303777		303777	1032	1	805461	1	805460	108		All	3600	494057	
1035	303777		303777	1032					108		All	3300	494057	
1036	303777	807586	303777	1032					41 108		A1	3300	494057	
1044	303777		303777	1032	1	805461	1	805460	61 108		All	3600	494057	
1045	303772		303772	1020					108		All	3600	494057	
1046	303776		350776	1046					108		All	3600	494057	
1055	303772		303772	1020					61 108		All	3600	494057	
1056	303772	692159	303772	1020					61 81 108		All	3600	494057	
1111	303777		303777	1032					108		All	3400	494057	
1112	303777	807586	303777	1032					23 108		A1	3250	494057	
1113	303777	807586	303777	1032	1	805461	1	805460	23 108		A1	3600	494057	
1114	303777	692159	303777	1032					23 108		E1	3600	494057	
1116	303777		303777	1032	1	805461	1	805464	23 108		ALL	3000	494057	
1117	303777	807586	303777	1032	1	805461	1	805460	23 108		A1	3600	494057	
1118	303777	807586	303777	1032	1	805461	1	805460	23 108 110		A1	3500	494057	
1119	303777	807586	303777	1032	1	805461	1	805460	23 108		A1	3600	494057	
1120	303777		303777	1032	1	805461	1	805464	23 108		All	3000	494057	
1121	303777	807586	303777	1032					23 108		A1	3300	494057	
1123	303772	807586	303772	1020					23 108		A1	3600	494057	
1124	303777	807586	303777	1032					23 108		A1	3400	494057	
1125	303777	807804	303777	1032	1	692159	1	692164	23 108	1125	A1	3300		

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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
1126	303777	807586	303777	1032	1	805461	1	805464	23 108		A1	2900	494057	
1127	303776		350776	1046					23 108		All	3600	494057	
1128	303777		303777	1032	1	805461	1	805460	23 108		All	3600	494057	
1129	303777	807586	303777	1032	1	805461	1	805460	23 108 110		A1	3600	494057	
1130	303776		303777	1032					23 108 110		All	3300	494057	
1131	303777	807586	303777	1032	1	805461	1	805464	23 108		A1	2800	494057	
1132	303777	807586	303777	1032					23 108		A1	3200	494057	
1133	303777	807586	303777	1032	1	805461	1	805460	23 108		A1	3600	494057	
1134	303777		303777	1032					23 108		All	3300	494057	
1135	303777	807586	303777	1032	1	805461	1	805460	23 108 110		All	3600	494057	
1136	303777	807586	303777	1032					23 108		A1	3300	494057	
1137	303772	807586	303772	1020					23 108		A1	3600	494057	
1138	303777	807586	303777	1032	1	805461	1	805464	23 108		A1	2800	494057	
1139	303777		303777	1032	1	805461	1	805460	23 108		All	3500	494057	
1140	303777		303777	1032					23 108		All	3200	494057	
1141	303777	807586	303777	1032	1	805461	1	805460	23 108		A1	3600	494057	
1142	303777		303777	1032					23 108		All	3300	494057	
1143	303772	807586	303772	1020					23 108		A1	3600	494057	
1144	303777	807586	303777	1032					23 108		A1	3250	494057	
1145	303777		303777	1032	1	805461	1	805460	23 108		All	3500	494057	
1146	303777	807586	303777	1032					23 108		A1	3300	494057	
1147	303777		303777	1032					23 108		A1	3200	494057	
1148	303777		303777	1032	1	805461	1	805464	23 108		A1	3000	494057	
1149	303777	692159	303777	1032	1	805461	1	805464	23 61 108		E1	3600	494057	
1150	303777		303777	1032	1	805461	1	805464	23 108		A1	3100	494057	
1151	303777		303777	1032	1	805461	1	805460	23 41 108 110		A1	3500	494057	

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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
1152	303776	807586	350776	1046					23 108		A1	3600	494057	
1153	303777		303777	1032					23 41 108		A1 E1	3300 3300	494057	
1154	303777	692159	303777	1032	1	805461	1	805460	23 108		E1	3500	494057	
1155	303772	692159	303772	1020					23 61 108		E1	3600	494057	
1156	303776	692159	350776	1046					23 61 108		E1	3600	494057	
1157	303776	692159	303772	1020					23 41 108		E1	3300	494057	
1158	303777	692159	303777	1032					23 108		E1	3300	494057	
1159	303777	692159	303777	1032	1	805461	1	805464	23 61 108		E1	3600	494057	
1160	303777	692159	303777	1032					23 108		E1	3600	494057	
1161	303777	692159	303777	1032	1	805460	1	805461	23 108		E1	3300	494057	
1162	303777	692159	303777	1032					23 41 108		E1	3350	494057	
1163	303777	692159	303777	1032					23 108		E1	3500	494057	
1164	303777	692159	303777	1032					23 108		E1	3400	494057	
1165	303777	692159	303777	1032					23 108		All	3350	494057	
1166	303777	692159	303777	1032					23 105 108		All	2700	494057	
1167	303777	692159	303777	1032					23 81 108 110		All	3600	494057	
1168	303777	692159	303777	1032					23 108		All	3200	494057	
1169	303777	692159	303777	1032					94 105 108		All	3000	494057	
1170	303777	807586	303777	1032					23 94 108		All	3200	494057	
1172	303777	692159	303777	1032					94 105 108		All	3000	494057	
1173	303777	692159	303777	1032					94 108		All	3000	494057	
1174	303777	692159	303777	1032				1	494768	108	All	3300	494057	
1175	303777	692159	303777	1032					61 105 108		All	3600	494057	

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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
1188	303776	807586	350776	1046	1	805460	1	805461	23 108		A1	3200	494057	
1189	303777	807586	303777	1032					23 108		A1	3300	494057	
1190	303777		303777	1032					23 108		A1	3300	494057	
1191	303777	692159	303777	1032					23 61 108		E1	3300	494057	
1192	303777	692159	303777	1032					23 108		E1	3300	494057	
1193	303772	692159	303772	1020					23 108		E1	3300	494057	
1194	303777	692159	303777	1032					23 108		All	3300	494057	
1195	303777	692159	303777	1032					23 108		E1	3300	494057	
1196	303777	692159	303777	1032	1	805460	1	805465	23 108		E1	3300	494057	
1197	303772	692159	303772	1020					23 108		E1	3600	494057	
1198	303777	692159	303777	1032					23 81 108 110		All	3600	494057	
1199	303777	692157	303777	1032					108 110		All	3300	494057	
1202	303777	692159	303777	1032					108		All	3300	494057	
1206	303772	692159	303772	1020					110 126		All	3600	494057	