

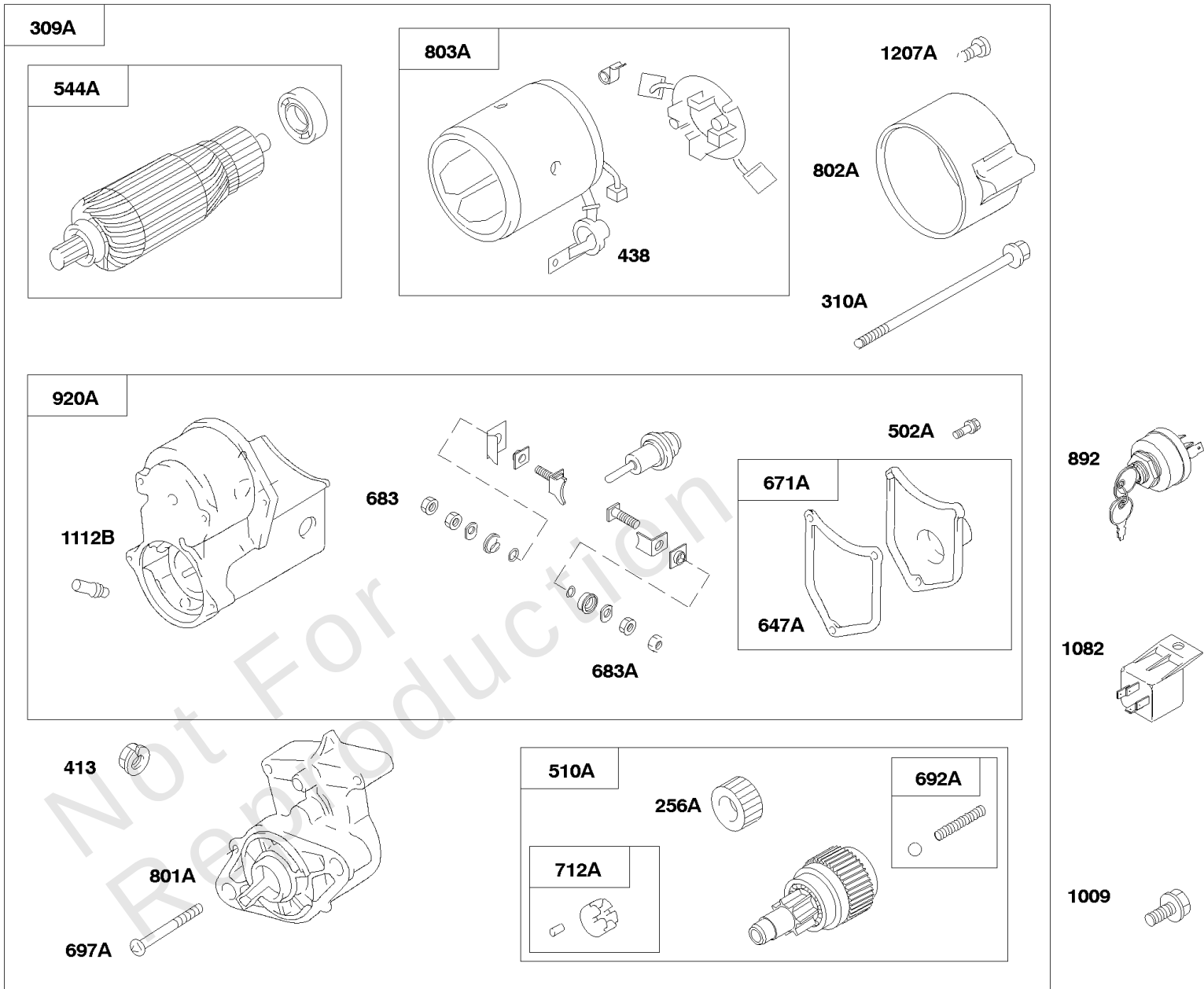


Parts Manual

Mfg. No: 522447-0105-E2

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1.0KW BLUE/GREEN LABEL

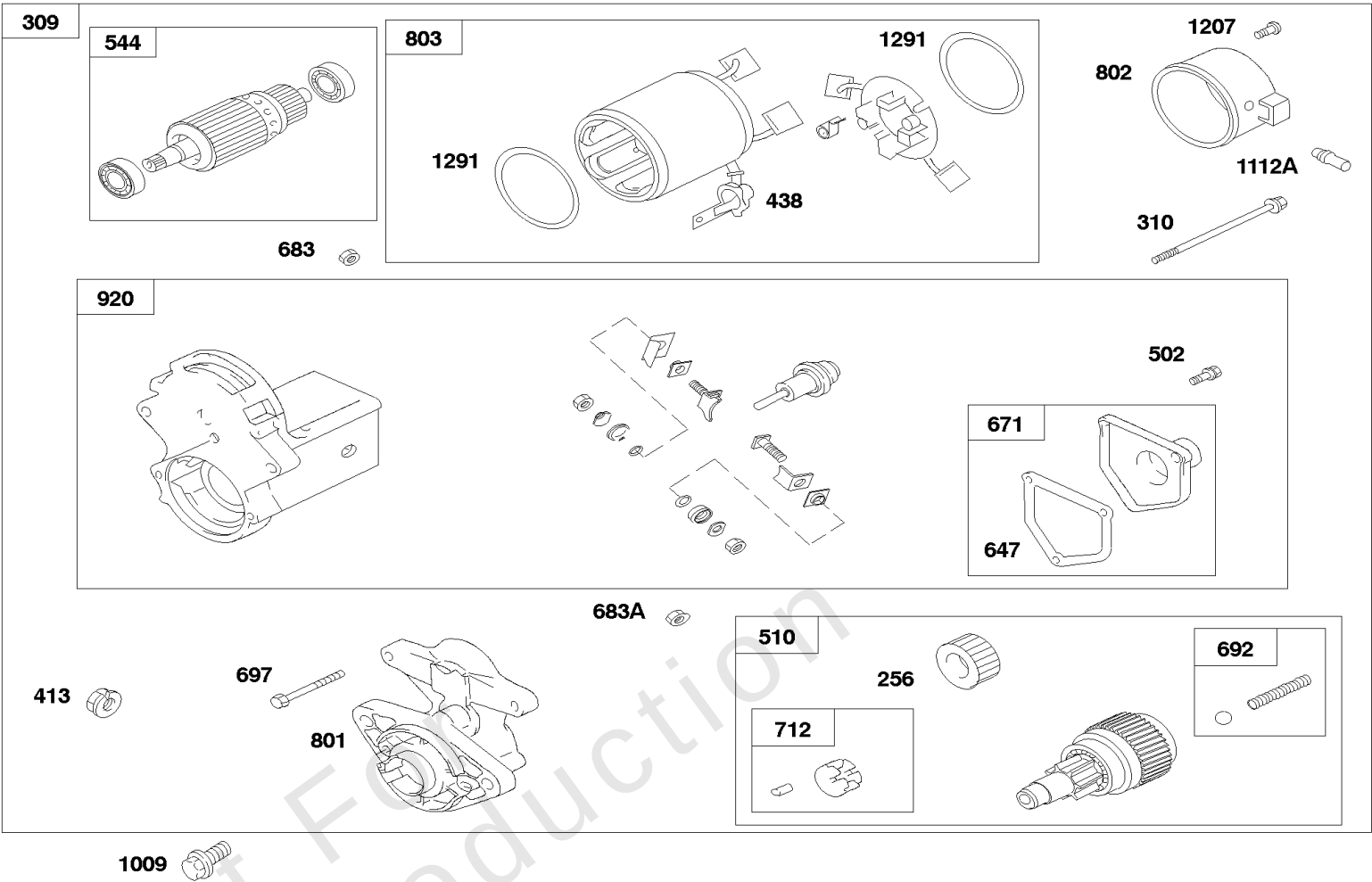


REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
256A	820745	Gear-Starter Drive	510A	825394	Drive-Starter	801A	825396	Cap-Drive
309A		Motor-Starter	544A	825392	Armature-Starter	802A	820743	Cap-End
		(For Replacement	647A	820733	Gasket-	803A	825399	Housing-Starter
		Starter Motor, Order			Solenoid Cover			(Includes Brushes,
		Reference 309)	671A	825400	Cover-Solenoid			Springs and
		Used on Type No(s).	683	820723	Nut	892	692318	Switch-Key
		0105, 0107, 0111,			(Starter Solenoid)	920A	825398	Solenoid-Starter
		0314, 0376.			(Terminal)	1009	820019	Screw
310A	820755	Bolt	683A	820721	Nut			(Starter Motor)
		(Starter Motor)			(Starter Solenoid)	1082	820455	Relay-Starter
413	820067	Nut			(Terminal)	1112B	820737	Plug-Vent
		(Starter Motor)	692A	825425	Spring-Detent	1207A	820754	Screw
438	820725	Boot-Terminal	697A	820751	Screw			(End Cap)
502A	820739	Screw			(Drive Cap)			
		(Solenoid Cover)	712A	825424	Roller-Clutch			

1.0 KW Starter Motor

REF NO	PART NO	QTY	DESCRIPTION
256A	820745		GEAR, Starter Drive -(1.0 KW) (Green/Blue Label)
309A	-----		Motor-Starter -(For Replacement Starter Motor, Order Reference 309)
310A	820755		SCREW -(Starter Motor) (1.0 KW) (Green/Blue Label)
413	820067		NUT -(Starter Motor)
438	820725		BOOT, Terminal
502A	820739		SCREW -(Solenoid Cover) (1.0 KW) (Green/Blue Label)
510A	825394		DRIVE, Starter -(1.0 KW) (Green/Blue Label)
544A	825392		ARMATURE, Starter -(1.0 KW) (Green/Blue Label)
647A	820733		GASKET, Solenoid Cover -(1.0 KW) (Green/Blue Label)
671A	825400		COVER, Solenoid -(1.0 KW) (Green/Blue Label)
683	820723		NUT -(Starter Solenoid) (Terminal) -Used Before Code Date 05030100
683	820067		NUT -(Starter Solenoid) (Terminal) -Used After Code Date 05022800
683A	820721		NUT -(Starter Solenoid) (Terminal)
692A	825425		SPRING, Detent -(1.0 KW) (Green/Blue Label)
697A	820751		SCREW -(Drive Cap) (1.0 KW) (Green/Blue Label)
712A	825424		ROLLER, Clutch -(1.0 KW) (Green/Blue Label)
801A	825396		CAP, Drive -(1.0 KW) (Green/Blue Label)
802A	820743		CAP, End -(1.0 KW) (Green/Blue Label)
803A	825399		HOUSING, Starter -(1.0 KW) (Green/Blue Label)
892	692318		SWITCH, Key
920A	825398		SOLENOID, Starter -(1.0 KW) (Green/Blue Label)
1009	820019		SCREW -(Starter Motor)
1082	820455		RELAY, Starter -(1.0 KW) (Green/Blue Label)
1112B	820737		PLUG, Vent -(1.0 KW) (Green/Blue Label)
1207A	820754		SCREW -(End Cap) (1.0 KW) (Green/Blue Label)

1.2 KW PURPLE/BROWN LABEL

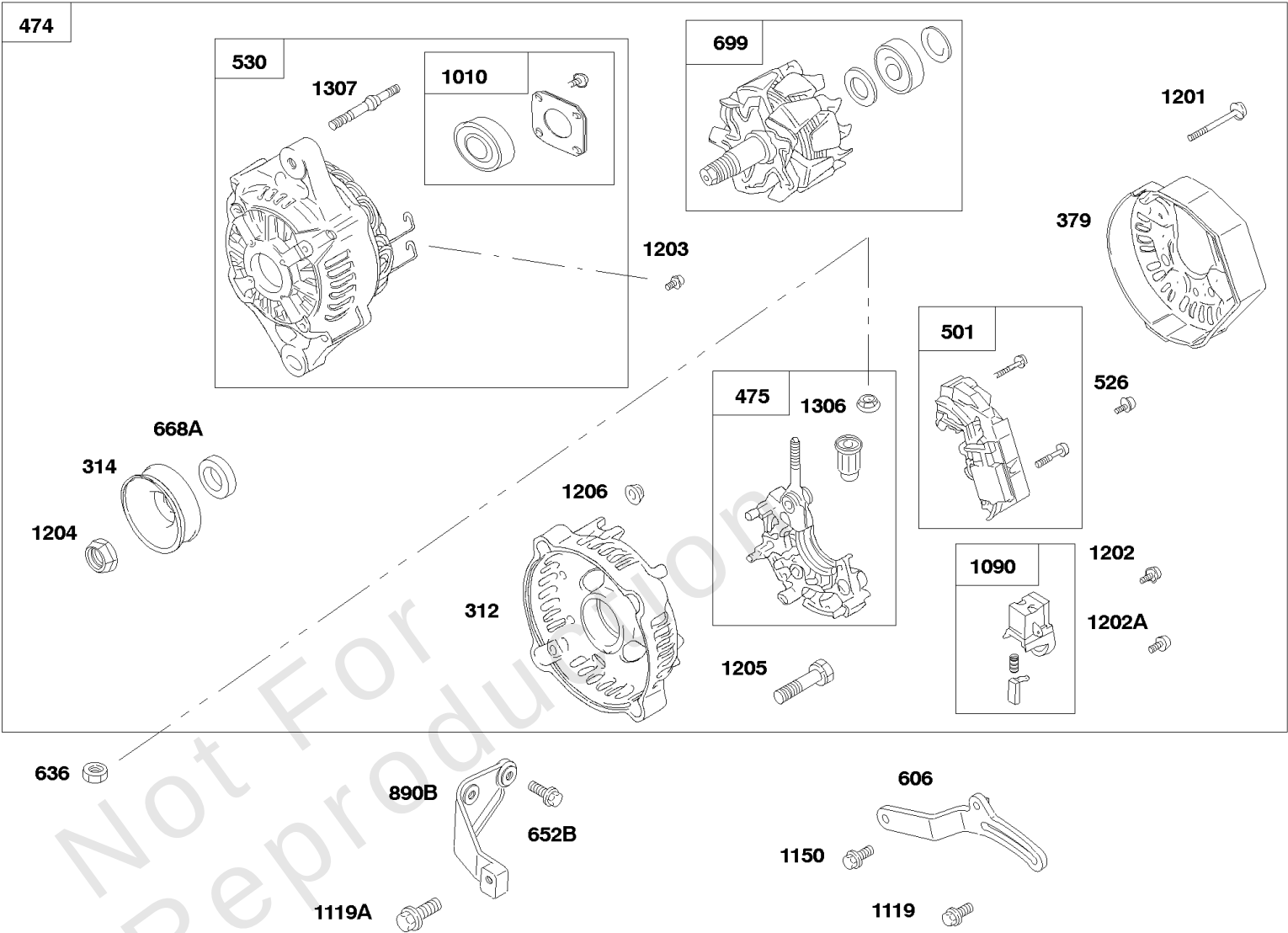


REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
256	820767	Gear-Starter Drive	683	820067	Nut (Starter Solenoid) (Terminal) (Used After Code Date 05022800). ----- Note ----- 820723 Nut (Starter Solenoid) (Terminal) (Used Before Code Date 05030100).	802	821231	Cap-End (Used After Code Date 05022800). ----- Note ----- 820771 Cap-End (Used Before Code Date 05030100).
309	825700	Motor-Starter				803	825423	Housing-Starter
310	820773	Bolt (Starter Motor)				920	825702	Solenoid-Starter (Used After Code Date 05022800). ----- Note ----- 825410 Solenoid-Starter (Used Before Code Date 05030100).
413	820067	Nut (Starter Motor)	683A	820721	Nut (Starter Solenoid) (Terminal)	1009	820019	Screw (Starter Motor)
438	820725	Boot-Terminal	692	825402	Spring-Detent	1112A	820779	Plug-Vent
502	820763	Screw (Solenoid Cover)	697	820777	Screw (Drive Cap)	1207	820775	Screw (End Cap) (Includes O-Ring Seal)
510	825406	Drive-Starter	712	825401	Roller-Clutch	1291	820769	Seal-O Ring (Starter Housing)
544	825404	Armatutre-Starter	801	821228	Cap-Drive (Used After Code Date 05022800). ----- Note ----- 825408 Cap-Drive (Used Before Code Date 05030100).			
647	820719	Gasket-Solenoid Cover						
671	825703	Cover-Solenoid (Used After Code Date 05022800). ----- Note ----- 825422 Cover-Solenoid (Used Before Code Date 05030100).						

1.2 KW Starter Motor

REF NO	PART NO	QTY	DESCRIPTION
256	820767		GEAR, Starter Drive
310	820773		SCREW -(Starter Motor) (1.2 KW)(Purple/Brown Label)
413	820067		NUT -(Starter Motor)
438	820725		BOOT, Terminal
502	820763		SCREW -(Solenoid Cover) (1.2 KW)(Purple/Brown Label)
510	825406		DRIVE, Starter -(1.2 KW)(Purple/Brown Label)
544	825404		ARMATURE, Starter -(1.2 KW)(Purple/Brown Label)
647	820719		GASKET, Solenoid Cover -(1.2 KW)(Purple/Brown Label)
671	825422		COVER, Solenoid -(1.2 KW)(Purple/Brown Label) -Used Before Code Date 05030100
671	825703		COVER, Solenoid -(1.2 KW)(Purple/Brown Label) -Used After Code Date 05022800
683	820067		NUT -(Starter Solenoid) (Terminal) -Used After Code Date 05022800
683	820723		NUT -(Starter Solenoid) (Terminal) -Used Before Code Date 05030100
683A	820721		NUT -(Starter Solenoid) (Terminal)
692	825402		SPRING, Detent -(1.2 KW)(Purple/Brown Label)
697	820777		SCREW -(Drive Cap) (1.2 KW)(Purple/Brown Label)
712	825401		ROLLER, Clutch -(1.2 KW)(Purple/Brown Label)
801	821228		CAP, Drive -(1.2 KW)(Purple/Brown Label) -Used After Code Date 05022800
801	825408		CAP, Drive -(1.2 KW)(Purple/Brown Label) -Used Before Code Date 05030100
802	820771		CAP, End -(1.2 KW)(Purple/Brown Label) -Used Before Code Date 05030100
802	821231		CAP, End -(1.2 KW)(Purple/Brown Label) -Used After Code Date 05022800
803	825423		HOUSING, Starter -(1.2 KW)(Purple/Brown Label)
920	825410		SOLENOID, Starter -(1.2 KW)(Purple/Brown Label) -Used Before Code Date 05030100
920	825702		SOLENOID, Starter -(1.2 KW)(Purple/Brown Label) -Used After Code Date 05022800
1009	820019		SCREW -(Starter Motor)
1112A	820779		PLUG, Vent -(1.2 KW)(Purple/Brown Label)
1207	820775		SCREW -(End Cap) (Includes O-Ring Seal)
1291	820769		SEAL, O-Ring -(Starter Housing)

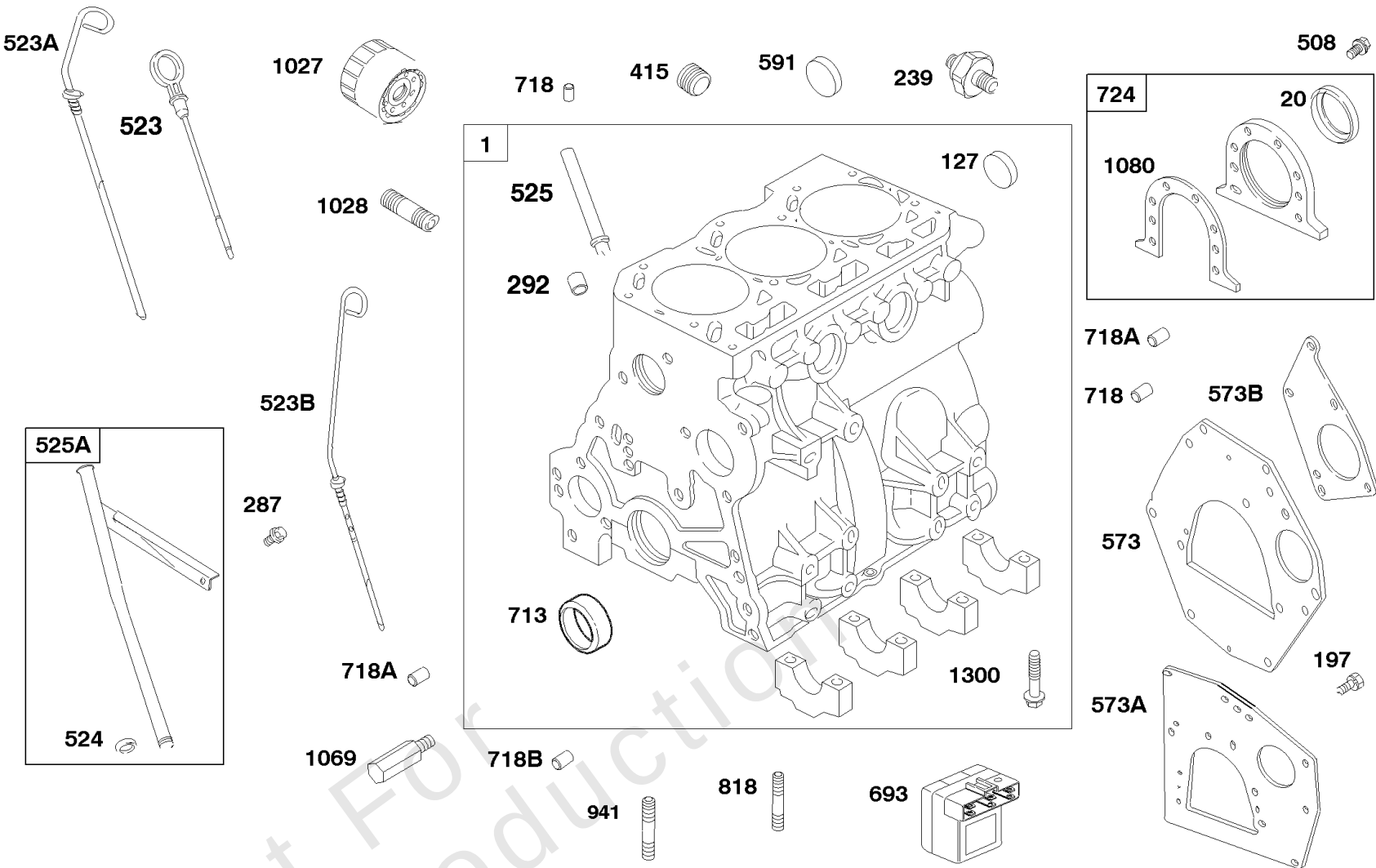
40 AMP



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
312	820692	Housing-Brush End	699	825390	Rotor Assembly	1203	820702	Screw (Ground Terminal)
314	820711	Pulley-Alternator	890B	820213	Bracket-Support	1204	820705	Nut (Alternator Pulley)
379	820703	Cover-Brush	1010	825384	Retainer-Bearing	1205	820707	Screw (Brush End Housing)
474	825084	Alternator	1090	825387	Retainer-Brush	1206	820709	Nut (Brush End Housing)
475	825385	Rectifier	1119	820483	Screw (Alternator)	1306	820781	Nut (Alternator)
501	825388	Regulator	1119A	820270	Screw (Alternator)	1307	820690	Stud (Drive End Housing)
526	820702	Screw (Regulator)	1150	820023	Screw (Adjusting Strap)			
530	825383	Housing-Drive End	1201	820715	Screw (Brush Cover)			
606	820819	Strap-Adjusting	1202	820701	Screw (Brush Retainer)			
636	820069	Nut (Starting Switch)	1202A	820702	Screw (Brush Retainer)			
652B	820275	Screw (Support Bracket)						
668A	820713	Spacer (Alternator)						

Alternator 40 AMP

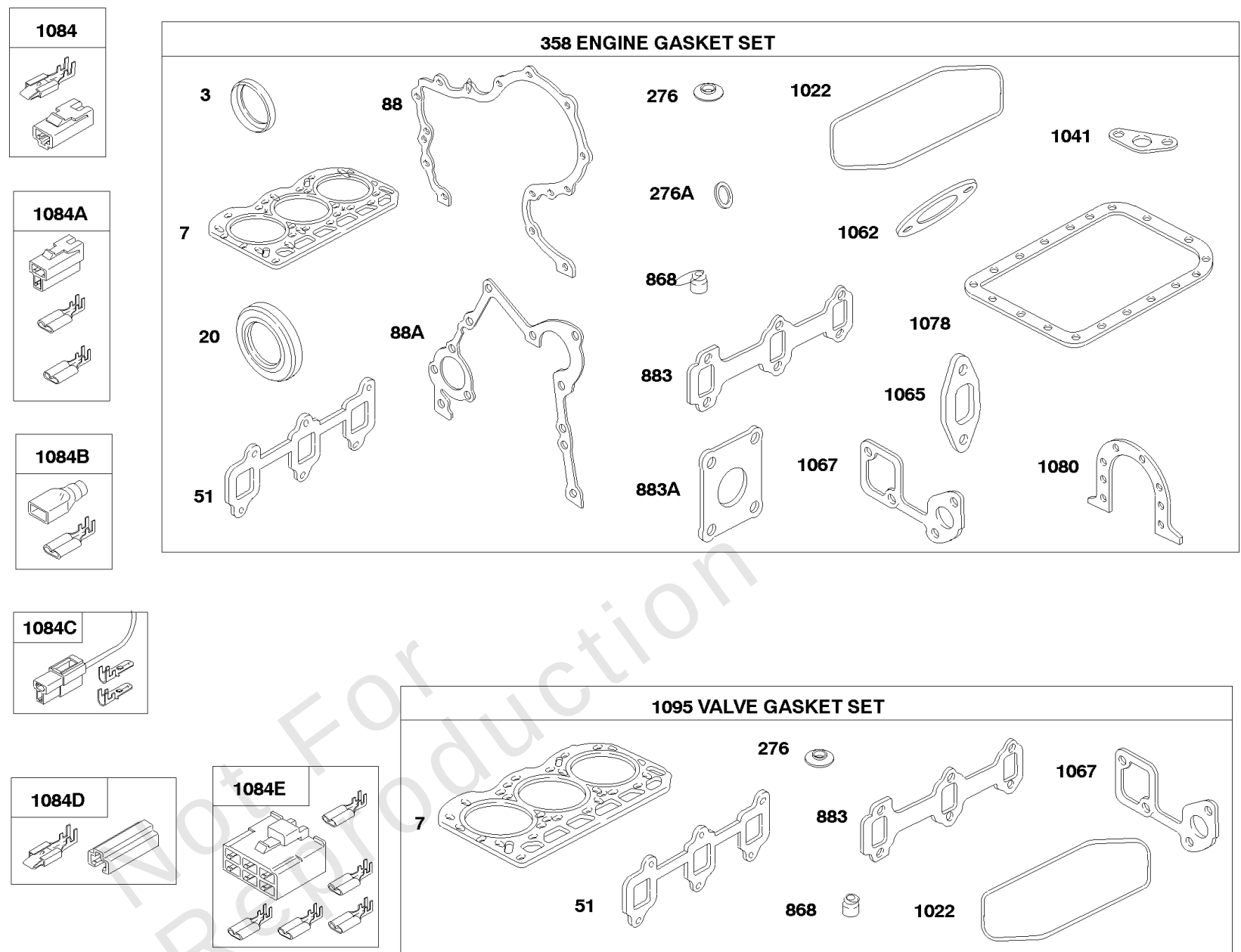
REF NO	PART NO	QTY	DESCRIPTION
312	820692		HOUSING, Brush End
314	820711		PULLEY, Alternator
379	820703		COVER, Brush
474	825084		ALTERNATOR -(40 Amp)
475	825385		RECTIFIER
501	825388		REGULATOR
526	820702		SCREW -(Regulator)
530	825383		HOUSING, Drive End
606	820819		STRAP, Adjusting
636	820069		NUT -(Starting Switch)
652B	820275		SCREW -(Support Bracket)
668A	820713		SPACER -(Alternator)
699	825390		ROTOR ASSEMBLY
890B	820213		BRACKET, Support
1010	825384		RETAINER, Bearing -(Alternator)
1090	825387		RETAINER, Brush
1119	820483		SCREW -(Alternator)
1119A	820270		SCREW -(Alternator)
1150	820023		SCREW -(Adjusting Strap)
1201	820715		SCREW -(Brush Cover)
1202	820701		SCREW -(Brush Retainer)
1202A	820702		SCREW -(Brush Retainer)
1203	820702		SCREW -(Stator Wire)
1204	820705		NUT -(Alternator Pulley)
1205	820707		SCREW -(Brush End Housing)
1206	820709		NUT -(Brush End Housing)
1306	820781		NUT -(Rectifier)
1307	820690		STUD -(Drive End Housing)



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	825733	Cylinder Assembly (Used After Code Date 06033100). ----- Note ----- 825593 Cylinder Assembly (Used After Code Date 02053100 and Before Code Date 06040100). 825356 Cylinder Assembly (Used Before Code Date 02060100).	508	820031	Screw (Seal Retainer)	693	821319	Module-Pre Heat (Used After Code Date 07033100). ----- Note ----- 820373 Module-Pre Heat (Used Before Code Date 07040100).
20	821328	Seal-Oil (PTO Side)	523	821158	Dipstick (Short)	713	821299	Bushing-Camshaft
127	820004	Plug-Welch (Cylinder)	523A	820643	Dipstick Used on Type No(s). 0107, 0108, 0407.	718	820063	Pin-Locating
197	820176	Screw (Back Plate)	523B	820572	Dipstick Used on Type No(s). 0106, 0111, 0376, 0406, 0476.	718A	820062	Pin-Locating
239	821135	Switch-Oil Pressure	524	820654	Seal-Dipstick Tube	718B	820061	Pin-Locating
287	820273	Screw (Dipstick Tube)	525	820144	Tube-Dipstick	724	825731	Retainer-Seal
292	820662	Collar-Dipstick Tube	525A	820666	Tube-Dipstick	818	820016	Stud (Oil Pump Screen)
415	820375	Plug (Cylinder)	573	820170	Plate-Back	941	820017	Stud (Oil Pan)
			573A	820283	Plate-Back Used on Type No(s). 0107, 0407.	1027	820314	Filter-Oil
			573B	820147	Plate-Back Used on Type No(s). 0106, 0109, 0111, 0314, 0414.	1028	820851	Adapter-Oil Filter
			591	821069	Plug-Camshaft	1069	820102	Nozzle-Oil
						1080	820145	Gasket-Seal Retainer
						1300	820042	Screw (Crankshaft Bearing Cap)

Cylinder, Oil Filter, Dipstick, Back Plate, Oil Seal

REF NO	PART NO	QTY	DESCRIPTION
1	825356		CYLINDER ASSEMBLY -Used Before Code Date 02060100
1	825593		CYLINDER ASSEMBLY -Used After Code Date 02053100 -Used Before Code Date 06040100
1	825733		CYLINDER ASSEMBLY -Used After Code Date 06033100
20	821328		SEAL, Oil -(PTO Side)
127	820004		PLUG, Welch
197	820176		SCREW -(Back Plate)
239	821135		SWITCH, Oil Pressure
287	820273		SCREW -(Dipstick Tube)
292	820662		COLLAR, Dipstick Tube
415	820375		PLUG -(Cylinder)
508	820031		SCREW -(Seal Retainer)
523	821158		DIPSTICK -(Short)
524	820654		SEAL, O-Ring -(Dipstick Tube)
525	820144		TUBE, Dipstick
525A	820666		TUBE, Dipstick
573	820170		PLATE, Back
591	821069		PLUG, Camshaft
693	821319		MODULE, Pre Heat -Used After Code Date 07033100
693	820373		MODULE, Pre Heat -Used Before Code Date 07040100
713	821299		BUSHING, Camshaft
718	820063		PIN, Locating
718A	820062		PIN, Locating
718B	820061		PIN, Locating
724	825731		RETAINER, Seal
818	820016		STUD -(Oil Pump Screen)
941	820017		STUD -(Oil Pan)
1027	820314		FILTER, Oil
1028	820851		ADAPTER, Oil Filter
1069	820102		NOZZLE, Oil
1080	820145		GASKET, Seal Retainer
1300	820042		SCREW -(Crankshaft Bearing Cap)

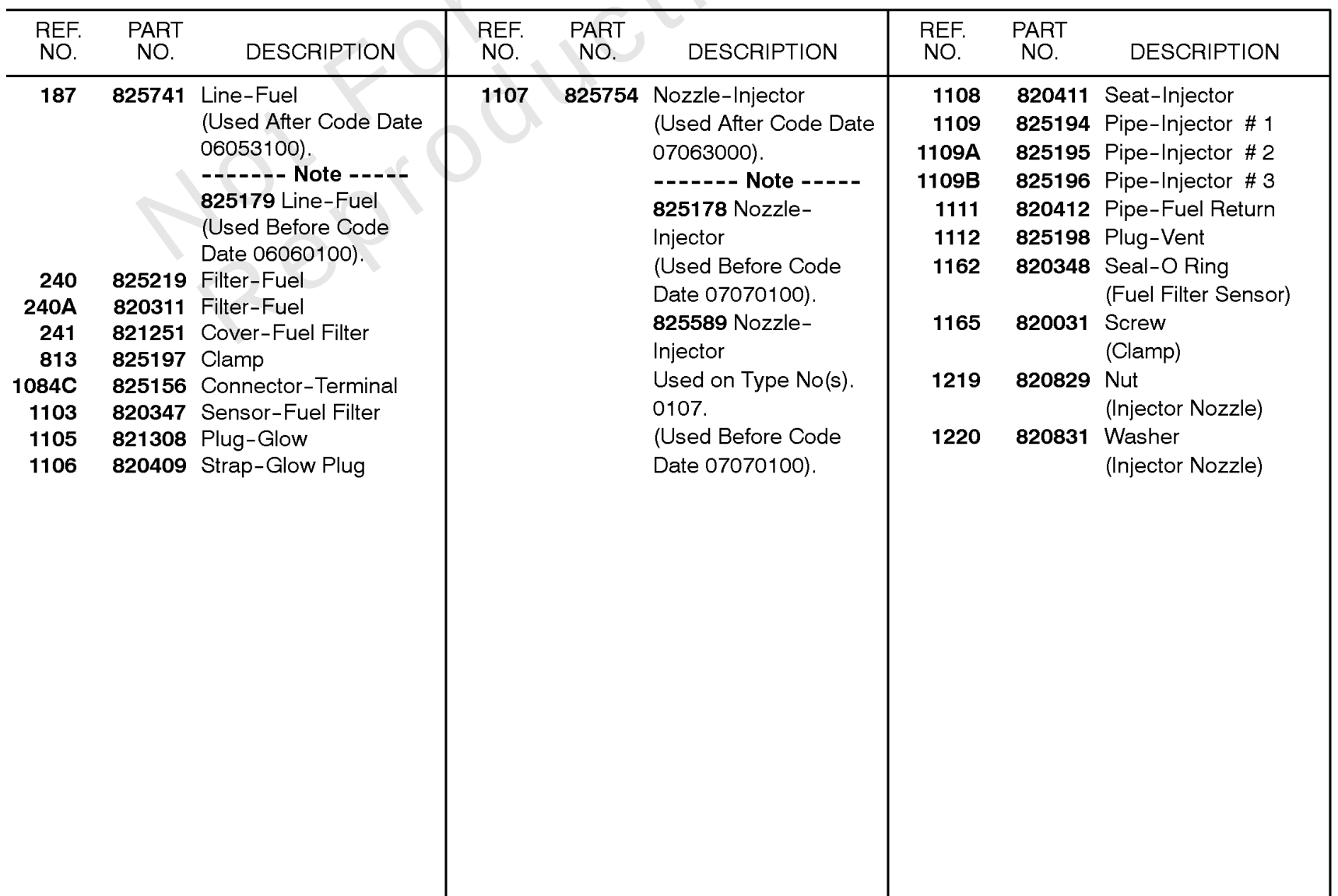


REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
3	821326	Seal-Oil (Magneto Side)	358	825315	Gasket Set-Engine	1084	825266	Connector-Terminal
7	820621	Gasket-Cylinder Head	868	820405	Seal-Valve	1084A	825157	Connector-Terminal
20	821328	Seal-Oil (PTO Side)	883	820817	Gasket-Exhaust (Exhaust Manifold)	1084B	825160	Connector-Terminal
51	820407	Gasket-Intake	883A	821001	Gasket-Exhaust (Muffler)	1084C	825156	Connector-Terminal
88	820377	Gasket- Gear Reduction Cover	1022	820150	Gasket-Rocker Cover	1084D	825154	Connector-Terminal
88A	820155	Gasket- Gear Reduction Cover	1041	820104	Gasket- Oil Pump Screen	1084E	825162	Connector-Terminal
276	820064	Washer-Sealing (Rocker Cover)	1062	820093	Gasket-Outlet	1095	825316	Gasket Set-Valve
276A	820582	Washer-Sealing (Oil Drain Plug)	1065	820098	Gasket-Inlet Housing			
			1067	820100	Gasket-Water Pump			
			1078	820137	Gasket-Oil Pan			
			1080	820145	Gasket-Seal Retainer			

Engine & Valve Gasket Sets, Terminal Connectors

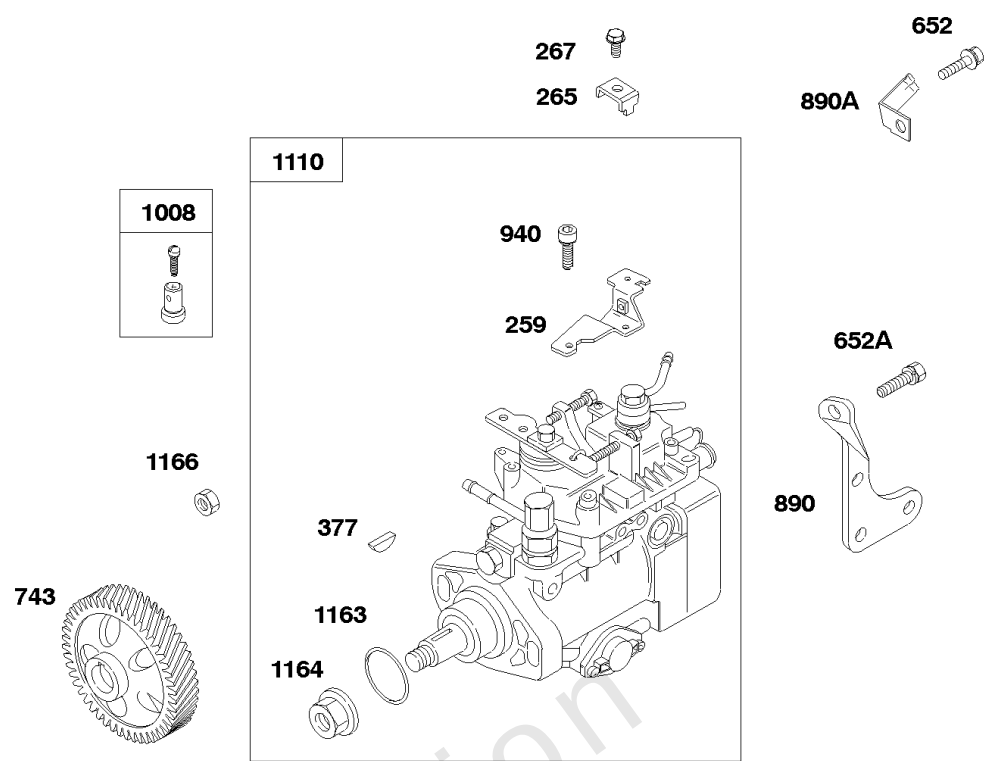
REF NO	PART NO	QTY	DESCRIPTION
3	821326		SEAL, Oil -(Magneto Side)
7	820621		GASKET, Cylinder Head
20	821328		SEAL, Oil -(PTO Side)
51	820407		GASKET, Intake
88	820377		GASKET, Gear Cover/Housing
88A	820155		GASKET, Gear Cover/Housing
276	820064		WASHER, Sealing -(Rocker Cover)
276A	820582		WASHER, Sealing -(Oil Drain Plug)
358	825315		GASKET SET, Engine
868	820405		SEAL, Valve
883	820817		GASKET, Exhaust -(Exhaust Manifold)
883A	821001		GASKET, Exhaust
1022	820150		GASKET, Rocker Cover
1041	820104		GASKET, Oil Pump Screen
1062	820093		GASKET, Outlet Housing
1065	820098		GASKET, Inlet Housing
1067	820100		GASKET, Water Pump
1078	820137		GASKET, Oil Pan
1080	820145		GASKET, Seal Retainer
1084	825266		CONNECTOR, Terminal
1084A	825157		CONNECTOR-TERMINAL
1084C	825156		CONNECTOR, Terminal
1084D	825154		CONNECTOR, Terminal
1084B	825160		CONNECTOR, Terminal
1084E	825162		CONNECTOR, Terminal
1095	825316		GASKET SET, Valve

Mfg. No: 522447-0105-E2



Fuel Filter, Injector Pipes, Glow Plugs

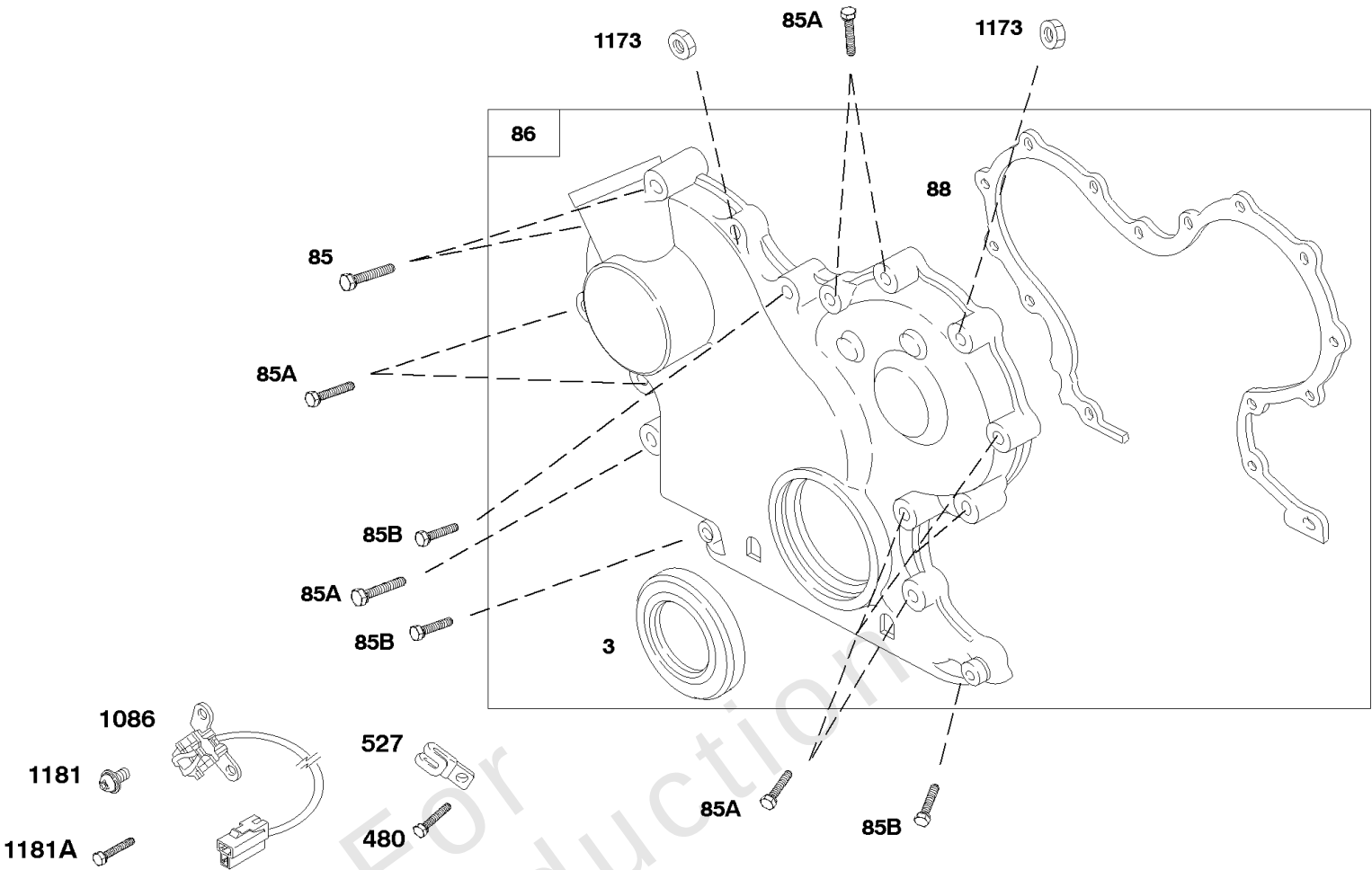
REF NO	PART NO	QTY	DESCRIPTION
187	825179		LINE, Fuel -Used Before Code Date 06060100
187	825741		LINE, Fuel -Used After Code Date 06053100
240	825219		FILTER, Fuel
240A	820311		FILTER, Fuel
241	821251		COVER, Fuel Filter
813	825197		CLAMP -(Injector Pipe)
1084C	825156		CONNECTOR, Terminal
1103	820347		SENSOR, Fuel Filter
1105	821308		PLUG, Glow
1106	820409		STRAP, Glow Plug
1107	825754		NOZZLE, Injector -Used After Code Date 07063000
1107	825178		NOZZLE, Injector -Used Before Code Date 07070100
1108	820411		SEAT, Injector
1109	825194		PIPE, Injector -(Cylinder 1)
1109A	825195		PIPE, Injector -(Cylinder 2)
1109B	825196		PIPE, Injector -(Cylinder #3)
1111	820412		PIPE, Fuel Return
1112	825198		PLUG, Vent
1162	820348		SEAL, O-Ring -(Fuel Filter Sensor)
1165	820031		SCREW -(Clamp)
1219	820829		NUT -(Injector Nozzle)
1220	820831		WASHER -(Injector Nozzle)



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
259	820634	Bracket-Casing Clamp	1110	825747	Pump-Fuel Injection (Used After Code Date 07063000). Used on Type No(s). 0105, 0111, 0112, 0376.			825749 Pump-Fuel Injection (Used After Code Date 07063000). Used on Type No(s). 0107.
265	691024	Clamp-Casing			----- Note -----			825326 Pump-Fuel Injection (Used Before Code Date 07070100). Used on Type No(s). 0107.
267	820012	Screw (Casing Clamp)			825324 Pump-Fuel Injection (Used Before Code Date 07070100). Used on Type No(s). 0105, 0108, 0111, 0112, 0376.			
377	821064	Key-Woodruff (Fuel Injection Pump)			825748 Pump-Fuel Injection (Used After Code Date 07063000). Used on Type No(s). 0106, 0314, 0414.	1163	820414	Seal-O Ring (Injection Pump Shaft)
652	820593	Screw (Support Bracket)			825317 Pump-Fuel Injection (Used Before Code Date 07070100). Used on Type No(s). 0106, 0109, 0314, 0414.	1164	820419	Nut (Injection Pump Shaft)
652A	820180	Screw (Support Bracket)				1166	820417	Nut (Injection Pump)
743	820619	Gear-Drive						
890	820415	Bracket-Support						
890A	820479	Bracket-Support						
940	820640	Screw (Casing Clamp Bracket)						
1008	820467	Clamp-Swivel						

Fuel Injection Pump

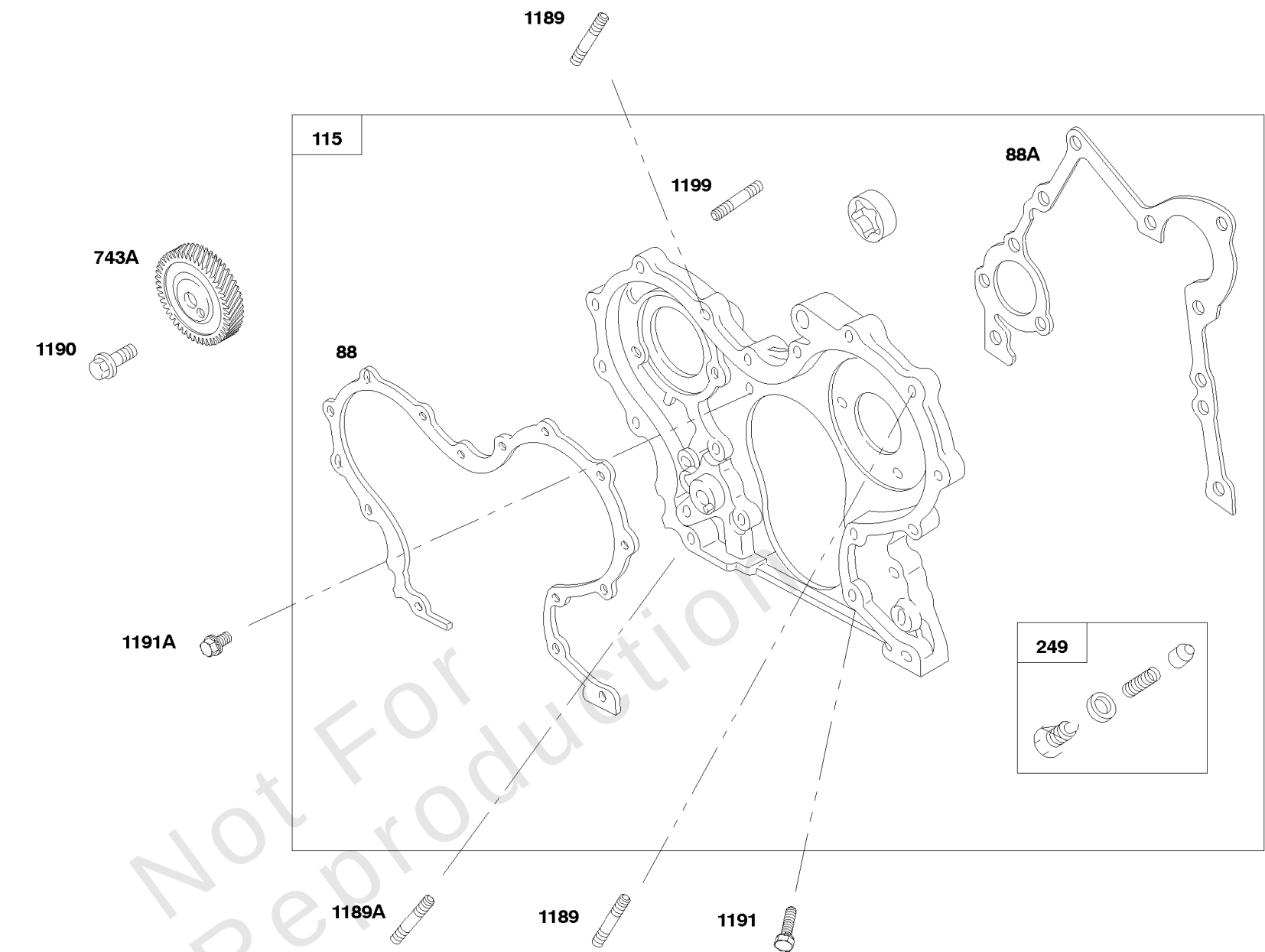
REF NO	PART NO	QTY	DESCRIPTION
259	820634		BRACKET, Casing Clamp
265	691024		CLAMP, Casing
267	820012		SCREW -(Casing Clamp)
377	821064		KEY, Woodruff -(Fuel Injection Pump)
652	820593		SCREW -(Support Bracket)
652A	820180		SCREW -(Support Bracket)
743	820619		GEAR, Drive -(Fuel Injection Pump)
890	820415		BRACKET, Support
890A	820479		BRACKET, Support -(Dipstick)
940	820640		SCREW -(Casing Clamp Bracket)
1008	820467		CLAMP, Swivel
1110	825747		PUMP, Fuel Injection -Used After Code Date 07063000
1110	825324		PUMP, Fuel Injection -Used Before Code Date 07070100
1163	820414		SEAL, O-Ring -(Injection Pump Shaft)
1164	820419		NUT -(Injection Pump Shaft)
1166	820417		NUT -(Injection Pump)



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
3	821326	Seal-Oil (Magneto Side)	85B	820027	Screw (Gear Cover to Gear Reduction Case)	527	820047	Clamp-Tube
85	820425	Screw (Gear Cover to Gear Reduction Case)	86	825758	Cover-Gear	1086	825009	Trigger-Ignition
85A	820029	Screw (Gear Cover to Gear Reduction Case)	88	820377	Gasket-Gear Reduction Cover	1173	820069	Nut (Gear Cover)
			480	820029	Screw (Tube Clamp)	1181	820013	Screw (Ignition Trigger)
						1181A	820029	Screw (Ignition Trigger)

Gear Cover

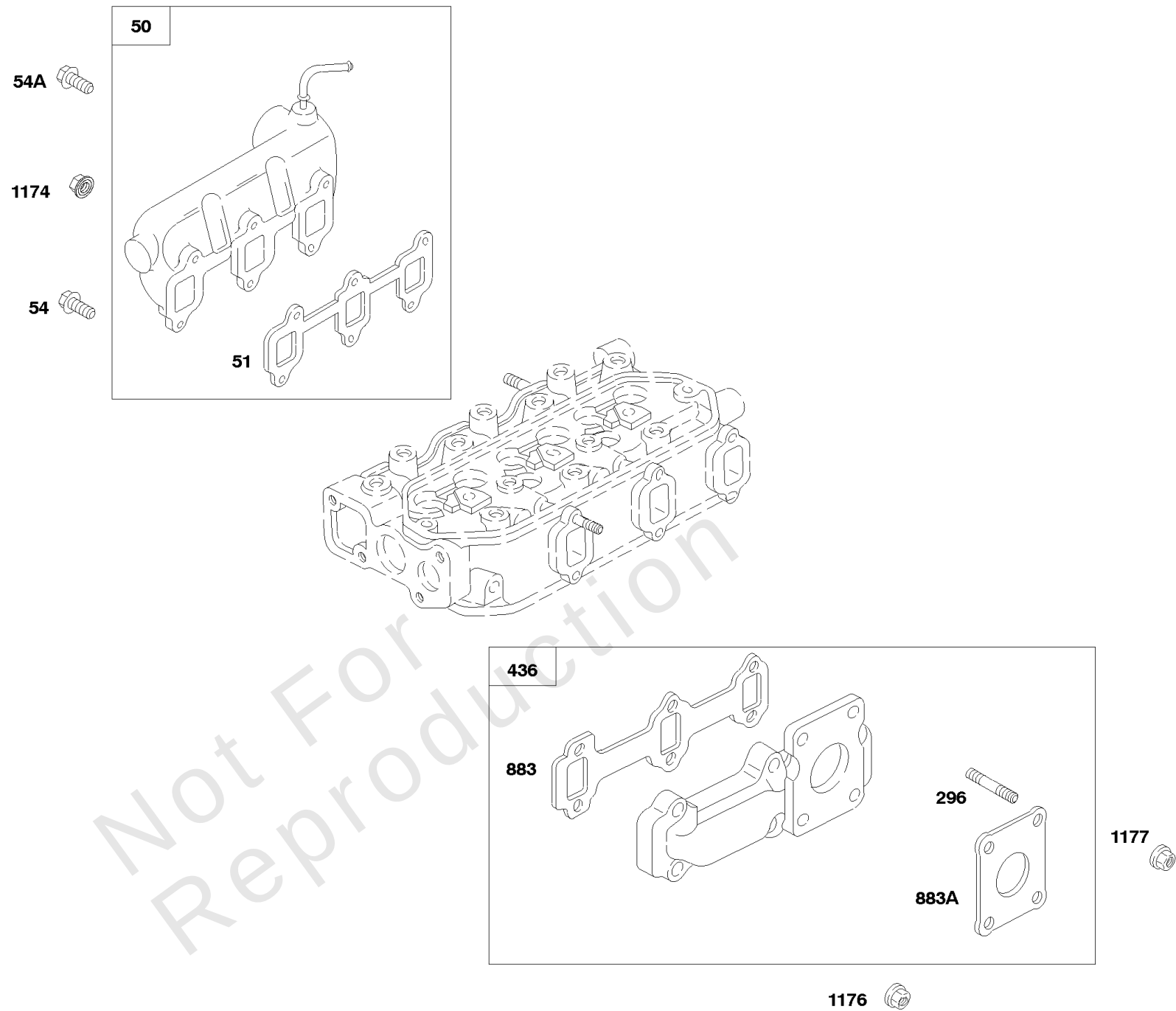
REF NO	PART NO	QTY	DESCRIPTION
3	821326		SEAL, Oil -(Magneto Side)
85	820425		SCREW -(Gear Cover to Gear Reduction Case)
85A	820029		SCREW -(Gear Cover to Gear Reduction Case)
85B	820027		SCREW -(Gear Cover to Gear Reduction Case)
86	825758		COVER, Timing Gear
88	820377		GASKET, Gear Cover/Housing
480	820029		SCREW -(Tube Clamp)
527	820047		CLAMP, Hose
1086	825009		TRIGGER, Ignition
1173	820069		NUT -(Gear Cover)
1181	820013		SCREW -(Ignition Trigger)
1181A	820029		SCREW -(Ignition Trigger)



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
88	820377	Gasket- Gear Reduction Cover	1189	820156	Stud (Gear Housing)	1191	820030	Screw (Gear Housing)
88A	820155	Gasket- Gear Reduction Cover	1189A	820016	Stud (Gear Housing)	1191A	820033	Screw (Gear Housing)
115	825186	Housing-Gear	1190	820272	Screw (Drive Gear) (Used After Code Date 04083100).	1199	820426	Stud (Injection Pump)
249	825032	Valve-Pressure Relief	----- Note -----					
743A	820615	Gear-Drive (Gear Housing)		820182	Screw (Drive Gear) (Used Before Code Date 04090100).			

Gear Housing

REF NO	PART NO	QTY	DESCRIPTION
88	820377		GASKET, Gear Cover/Housing
88A	820155		GASKET, Gear Cover/Housing
115	825186		HOUSING, Gear
249	825032		VALVE, Pressure Relief
743A	820615		GEAR, Drive -(Gear Housing)
1189	820156		STUD -(Gear Housing)
1189A	820016		STUD -(Gear Housing)
1190	820180		SCREW -(Drive Gear) -Used Before Code Date 04090100
1190	820272		SCREW -(Drive Gear) -Used After Code Date 04083100
1191	820030		SCREW -(Gear Housing)
1191A	820033		SCREW -(Gear Housing)
1199	820426		STUD -(Injection Pump)



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
50	825175	Manifold-Intake	296	820553	Stud (Muffler)	1174	820069	Nut (Intake Manifold)
51	820407	Gasket-Intake	436	825055	Manifold-Exhaust	1176	820010	Nut (Exhaust Manifold)
54	820031	Screw (Intake Manifold)	883	820817	Gasket-Exhaust (Exhaust Manifold)	1177	820178	Nut (Muffler)
54A	820408	Screw (Intake Manifold)	883A	821001	Gasket-Exhaust (Muffler)			

Intake Manifold, Exhaust Manifold

REF NO	PART NO	QTY	DESCRIPTION
50	825175		MANIFOLD, Intake
51	820407		GASKET, Intake
54	820031		SCREW -(Intake Manifold)
54A	820408		SCREW -(Intake Manifold)
296	820553		STUD -(Muffler)
436	825055		MANIFOLD, Exhaust
883	820817		GASKET, Exhaust -(Exhaust Manifold)
883A	821001		GASKET, Exhaust
1174	820069		NUT -(Intake Manifold)
1176	820010		NUT -(Exhaust Manifold)
1177	820178		NUT -(Muffler)

1019

VANGUARD

DAIHATSU

DM850D

Manufactured In Japan by Daihatsu

1040

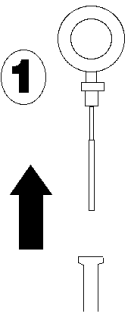
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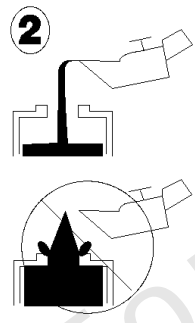
CODE

1319

1



2



DO NOT OVER FILL

FULL

LOW

F

L

1036

DAIHATSU MOTOR CO., LTD.

TYPE: XXXXXX-X

FAMILY: XXXXX.XXXXXX

APPROVAL NUMBER: XXXXX/XXXX/XXXX/XXXX

XXXXX-X

IMPORTANT ENGINE INFORMATION

ENGINE FAMILY NAME: XXXXX.XXXXXX

ADVERTISED POWER: XXX kW/XXXX rpm

ENGINE TUNEUP SPECIFICATIONS AND ADJUSTMENTS:

VALVE CLEARANCE (COLD): IN XXXX in. (X.XX mm), EX XXXX in. (X.XX mm)

LOW IDLE: XXXX rpm, HIGH IDLE: XXXX rpm

INJECTION TIMING: X.XX mm/TDC

EQUIPMENT LABEL

DAIHATSU MOTOR CO., LTD.

FUEL REQUIREMENT: DIESEL

ENGINE DISPLACEMENT: XXX cc

THIS ENGINE CONFORMS TO XXXX MODEL YEAR U.S. EPA AND CA EMISSION REGS FOR NONROAD COMPRESSION - IGNITION ENGINES. FEL: NMHC+NOx X.X (g/kW h)

REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.

THIS ENGINE IS MEETING XXXX EPA AND CA STANDARDS EARLY BY MEETING THE FELs.

1058 OPERATOR'S MANUAL

1330 REPAIR MANUAL

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1019	825650	Kit-Label	1036		Label-Emissions (Available from a Briggs & Stratton Authorized Dealer)	1040	820290	Plate-Trim
						1058	277110	Operator's Manual
						1319	821160	Label-Warning
						1330	MS1055	Repair Manual (Refer to Repair Manual For Assembly and Torque Requirements)

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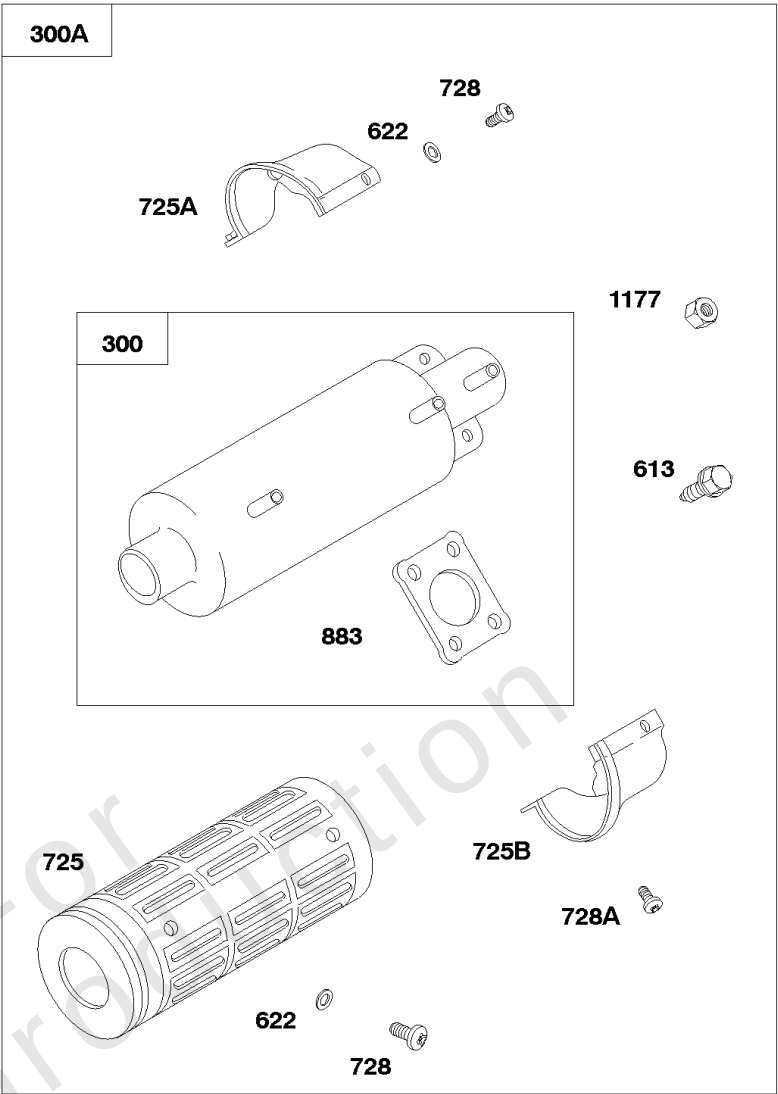
24

22-Jun-2026

Label Kit, Emissions Label, Operator's Manual

REF NO	PART NO	QTY	DESCRIPTION
1019	825650		KIT, Label
1036	-----		Label-Emissions -(Available From A Briggs & Stratton Authorized Dealer)
1040	820290		PLATE, Trim
1058	277110TRI		MANUAL, Operator's
1319	821160		LABEL, Warning
1330	MS1055		MANUAL, Repair

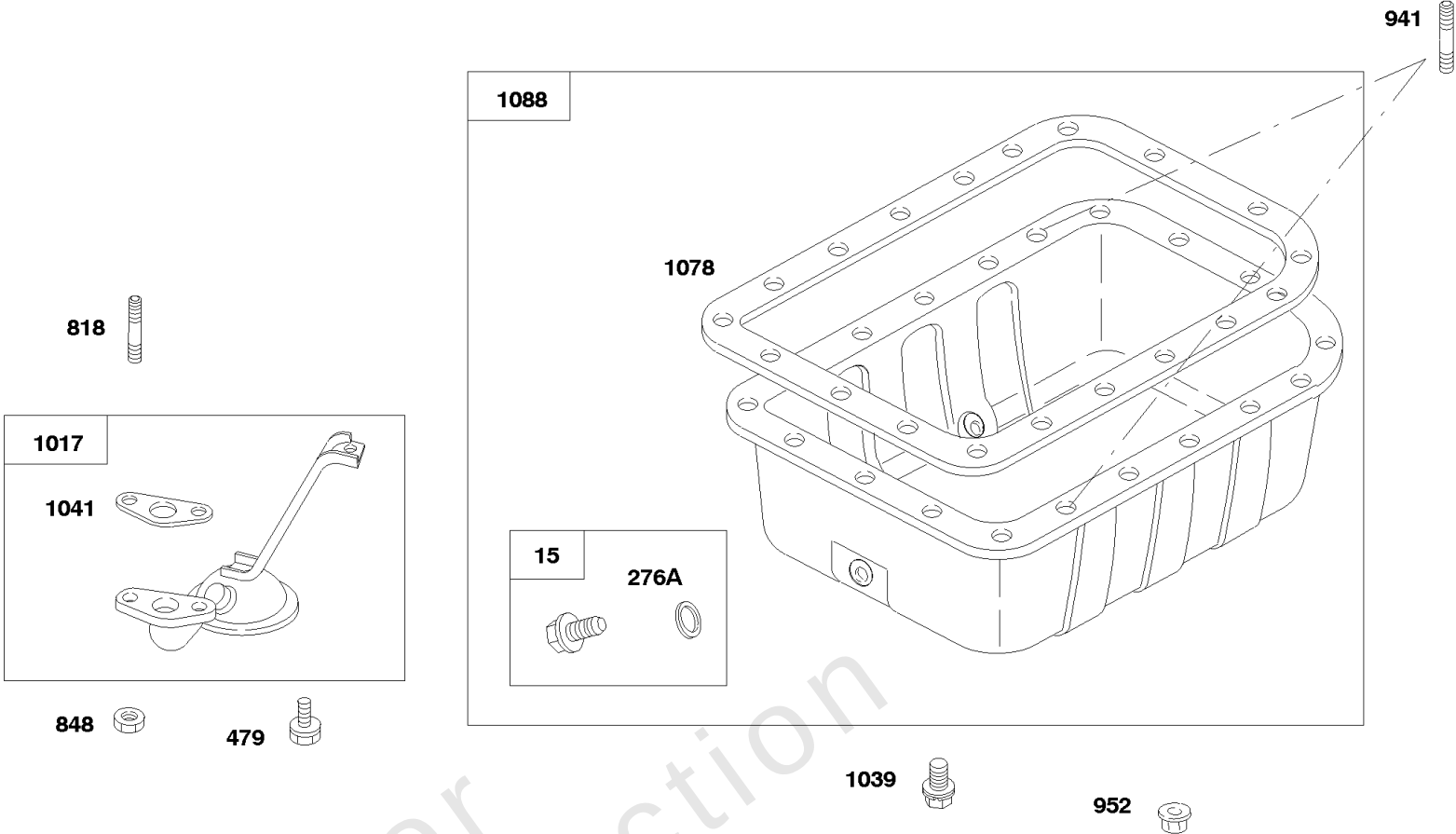
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REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
264	820178	Nut (Muffler Adapter)	622	820631	Washer (Heat Shield)	728	821011	Screw (Heat Shield)
300	825550	Muffler	725	820628	Shield-Heat	728A	820431	Screw (Heat Shield)
300A	825200	Muffler	725A	820630	Shield-Heat	883A	821001	Gasket-Exhaust
613	820023	Screw (Muffler)	725B	820629	Shield-Heat	1177	820178	Nut (Muffler)

Muffler

REF NO	PART NO	QTY	DESCRIPTION
264	820178		NUT -(Muffler Adapter)
300	825550		MUFFLER
300A	825200		MUFFLER
613	820023		SCREW -(Muffler)
622	820631		WASHER -(Heat Shield)
725	820628		SHIELD, Heat
725A	820630		SHIELD, Heat
725B	820629		SHIELD, Heat
728	821011		SCREW -(Heat Shield)
728A	820431		SCREW -(Heat Shield)
883	820817		GASKET, Exhaust -(Exhaust Manifold)
1177	820178		NUT -(Muffler)



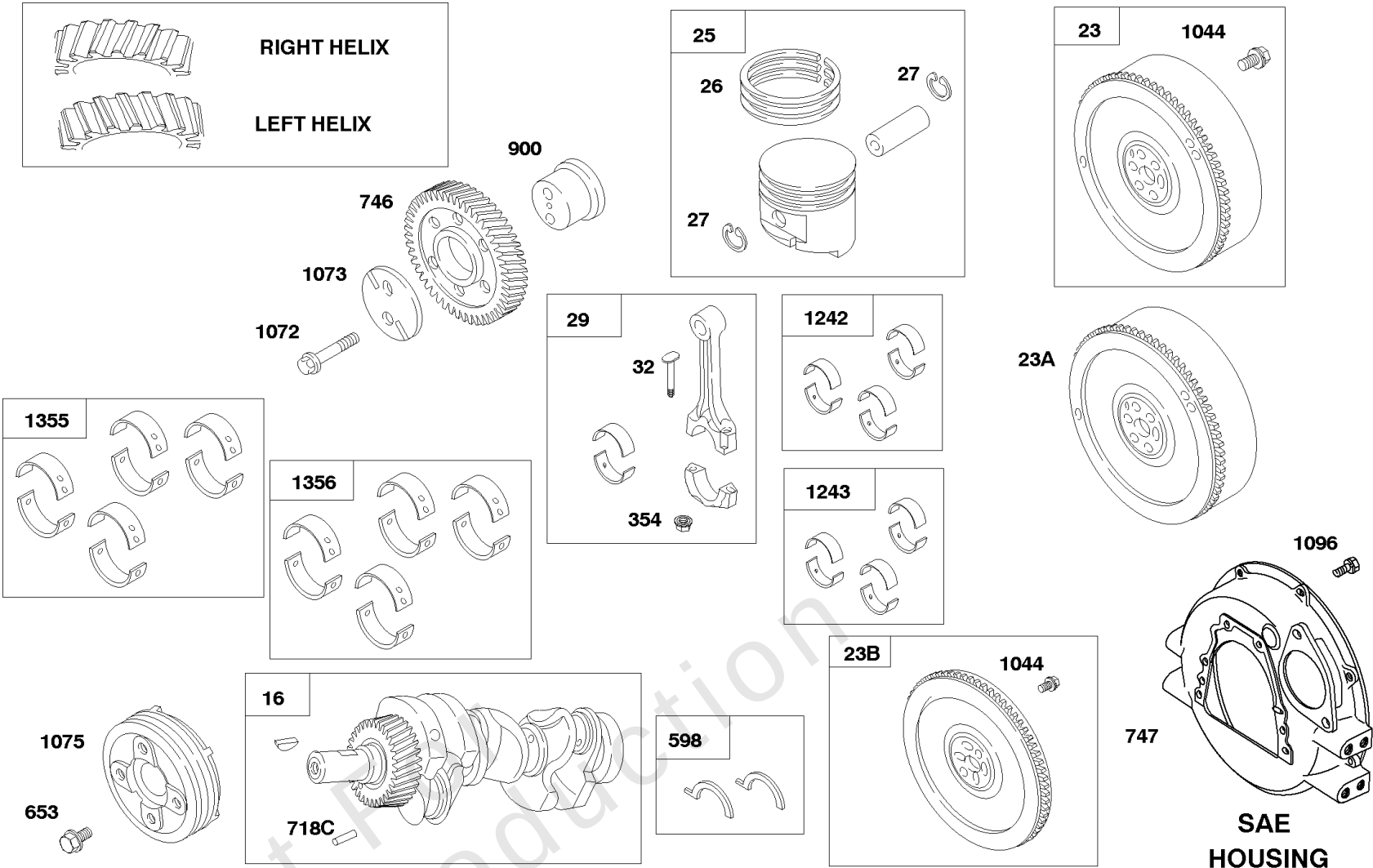
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
15	825278	Plug-Oil Drain	848	820069	Nut (Oil Pump Screen)	1017	825089	Screen-Oil Pump
276A	820582	Washer-Sealing (Oil Drain Plug)	941	820017	Stud (Oil Pan)	1039	821233	Screw (Oil Pan)
479	821233	Screw (Oil Pump Screen)	952	820068	Nut (Oil Pan)	1041	820104	Gasket-Oil Pump Screen
818	820016	Stud (Oil Pump Screen)				1078	820137	Gasket-Oil Pan
						1088	825734	Pan-Oil (Dual Drain)

Oil Pan

REF NO	PART NO	QTY	DESCRIPTION
15	825278		PLUG, Oil Drain
276A	820582		WASHER, Sealing -(Oil Drain Plug)
479	821233		SCREW -(Oil Pump Screen)
818	820016		STUD -(Oil Pump Screen)
848	820069		NUT -(Oil Pump Screen)
941	820017		STUD -(Oil Pan)
952	820068		NUT -(Oil Pan)
1017	825089		SCREEN, Oil Pump
1039	821233		SCREW -(Oil Pan)
1041	820104		GASKET, Oil Pump Screen
1078	820137		GASKET, Oil Pan
1088	825734		PAN, Oil -(Dual Drain)

Piston/Rings/Connecting Rod, Flywheel, Crankshaft

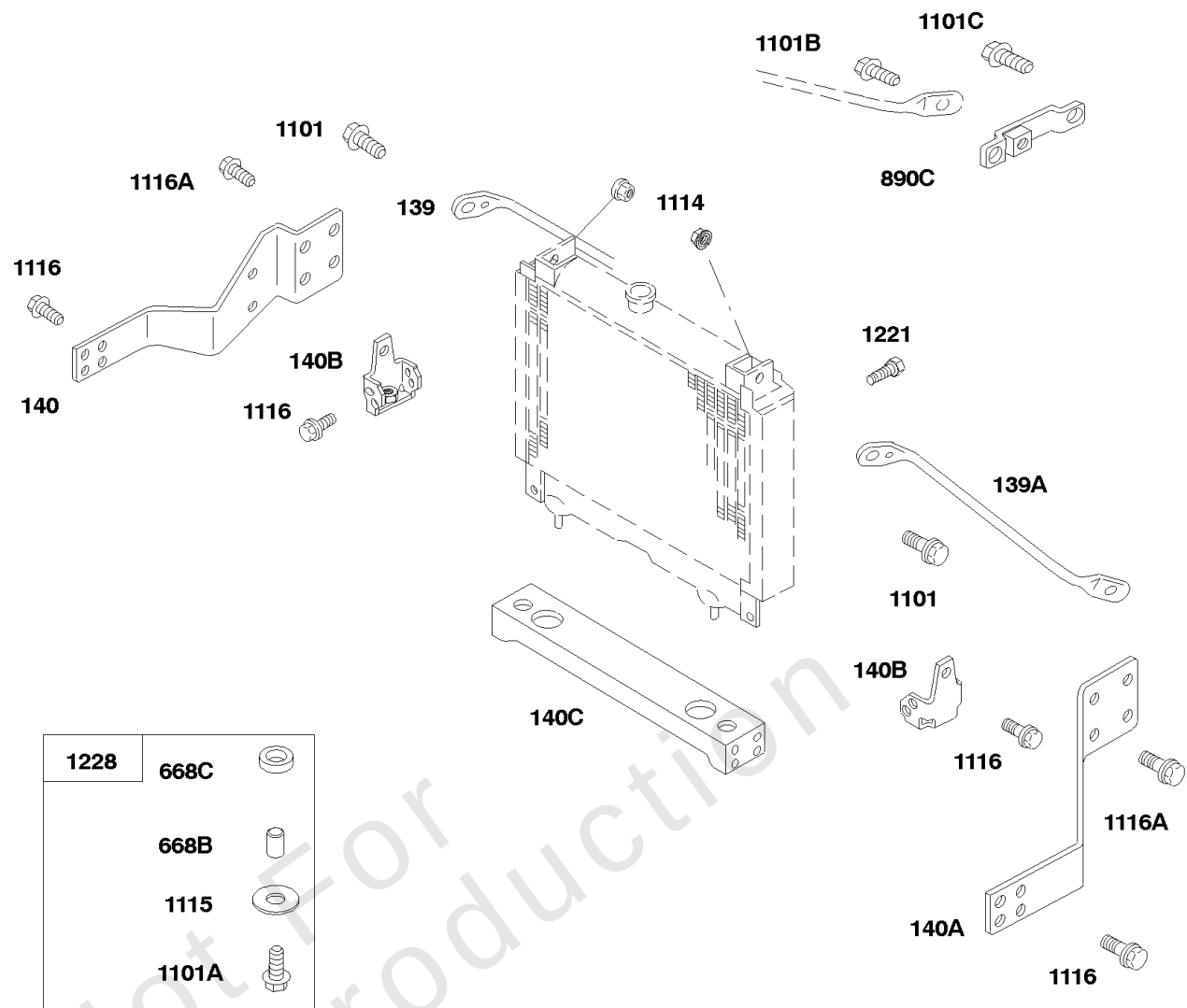
Mfg. No: 522447-0105-E2



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
16	825552	Crankshaft	598	821295	Shim-Endplay (Crankshaft) (Standard)	747	820248	Housing-Flywheel (SAE)
23	825303	Flywheel			----- Note -----	900	820116	Shaft-Gear
23A	825071	Flywheel Used on Type No(s). 0478.			821297 Shim-Endplay (Crankshaft) (.005" Oversize)	1044	820080	Screw (Flywheel to Crankshaft)
23B	825302	Flywheel Used on Type No(s). 0106, 0109.	653	821138	Screw (Crankshaft Pulley)	1072	820081	Screw (Idle Gear Plate)
25	825311	Piston Assembly (Standard)	718C	820059	Pin-Locating (Crankshaft)	1073	820117	Plate-Idle Gear
		----- Note -----	746	820611	Gear-Idler (Left Helix) (Used After Code Date 98123100).	1075	820236	Pulley-Crankshaft
		825312 Piston Assembly (.010" Oversize)			----- Note -----	1096	820241	Screw (Flywheel Housing)
26	825164	Ring Set (Standard)			825013 Gear-Idler (Right Helix) (Used Before Code Date 99010100).	1242	825737	Bearing Set/STD-Rod
		----- Note -----				1243	825738	Bearing Set/010-Rod
		825165 Ring Set (.010" Oversize)				1355	821291	Bearing Set/STD-Main
27	820402	Lock-Piston Pin				1356	821293	Bearing Set/010-Main
29	825735	Rod-Connecting						
32	820128	Screw (Connecting Rod)						
354	820073	Nut (Connecting Rod)						

Piston/Rings/Connecting Rod, Flywheel, Crankshaft

REF NO	PART NO	QTY	DESCRIPTION
16	825552		CRANKSHAFT
23	825303		FLYWHEEL
25	825312		PISTON ASSEMBLY -(.010 Oversize)
25	825311		PISTON ASSEMBLY -(Standard)
26	825165		SET, Ring -(.010 Oversize)
26	825164		SET, Ring -(Standard)
27	820402		LOCK, Piston Pin
29	825735		ROD, Connecting
32	820128		SCREW -(Connecting Rod)
354	820073		NUT -(Connecting Rod)
598	821297		SHIM, End Play -(Crankshaft or Camshaft Bearing) (.005 Oversize)
598	821295		SHIM, End Play -(Crankshaft or Camshaft Bearing) (Standard)
653	820079		SCREW -(Crankshaft Pulley)
718C	820059		PIN, Locating -(Crankshaft)
746	825013		GEAR, Idler -(Right Helix) -Used Before Code Date 99010100
746	820611		GEAR, Idler -(Left Helix) -Used After Code Date 98123100
747	820248		HOUSING, Flywheel -(SAE)
900	820116		SHAFT, Gear
1044	820080		SCREW -(Flywheel) (Flywheel to Crankshaft)
1072	820081		SCREW -(Idle Gear Plate)
1073	820117		PLATE, Idle Gear
1075	820236		PULLEY, Crankshaft
1096	820241		SCREW -(Flywheel Housing)
1242	825737		SET, Rod Bearing, Standard
1243	825738		SET, Rod Bearing, 010
1355	821291		SET, Main Bearing, Standard
1356	821293		SET, Main Bearing, 010



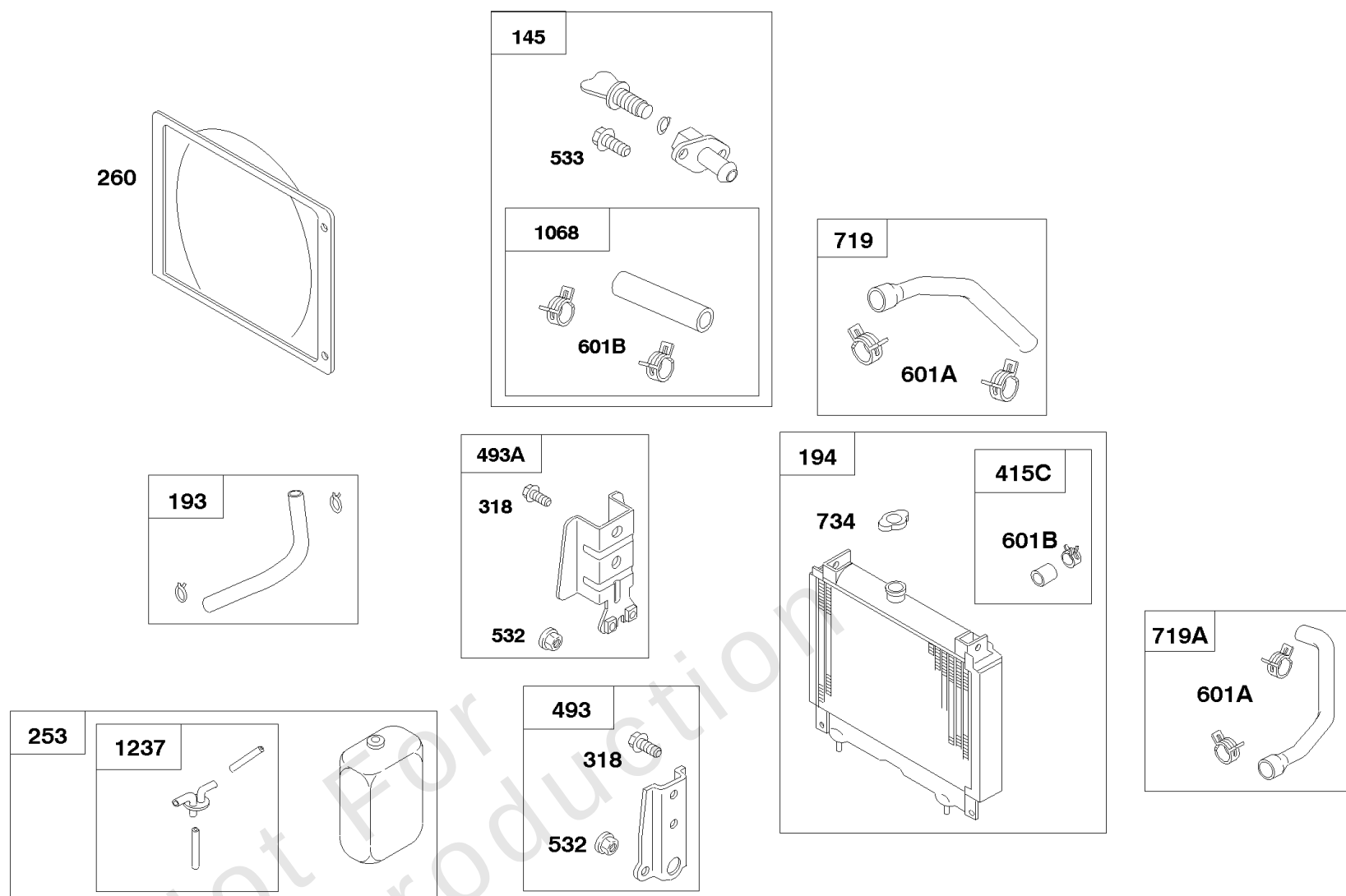
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
139	820617	Support-Radiator (Right Hand)	890C	820194	Bracket-Support (Radiator)	1116	820878	Screw (Radiator Bracket)
139A	820191	Support-Radiator (Left Hand)	1101	820272	Screw (Radiator Support)	1116A	820024	Screw (Radiator Bracket) (Used With Engine Mounts Only)
140	820192	Bracket-Radiator (Right Hand)	1101A	820309	Screw (Radiator Support)	----- Note -----		
140A	820193	Bracket-Radiator (Left Hand)	1101B	820273	Screw (Radiator Support)	820023	820023	Screw (Radiator Bracket) (Used With Engine Mounts And Radiator Brackets)
140B	821039	Bracket-Radiator	1101C	820452	Screw (Radiator Support)	1221	820865	Screw (Fan Shroud) (340mm Fan)
140C	820255	Bracket-Radiator (Front)	1114	820070	Nut (Radiator Support)	1228	825135	Mount-Radiator
260	820863	Shroud-Fan (340mm)	1115	820296	Washer (Radiator Support)			
668B	820307	Spacer (Radiator Mount)						
668C	820198	Spacer (Radiator Mount)						

Radiator Support Brackets

REF NO	PART NO	QTY	DESCRIPTION
139	820617		SUPPORT, Radiator -(Right Hand)
139A	820191		SUPPORT, Radiator -(Left Hand)
140	820192		BRACKET, Radiator -(Right Hand)
140A	820193		BRACKET, Radiator -(Left Hand)
140B	821039		BRACKET, Radiator
140C	820255		BRACKET, Radiator -(Front)
668B	820307		SPACER -(Radiator Mount)
668C	820198		SPACER -(Radiator Mount)
890C	820194		BRACKET, Support -(Radiator)
1101	820272		SCREW -(Radiator Support)
1101A	820309		SCREW -(Radiator Support)
1101C	820452		SCREW -(Radiator Support)
1101B	820273		SCREW -(Radiator Support)
1114	820070		NUT -(Radiator Support)
1115	820296		WASHER -(Radiator Support)
1116	820878		SCREW -(Radiator Bracket)
1116A	820023		SCREW -(Radiator Bracket) (Used With Engine Mounts And Radiator Brackets)
1221	820865		SCREW -(Fan Shroud) (340mm)
1228	825135		MOUNT, Radiator

Radiator, Hoses, Mounting Brackets

Mfg. No: 522447-0105-E2



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
145	825072	Valve-Drain	415C	825075	Plug (Radiator)	601A	820256	Clamp-Hose
193	825697	Hose-Reserve Tank				601B	820201	Clamp-Hose
194	825574	Radiator Used on Type No(s). 0376, 0406, 0476.	493	825106	Bracket-Mounting (Reserve Tank)	719	821351	Hose-Radiator
			493A	825314	Bracket-Mounting (Reserve Tank)	719A	825671	Hose-Radiator
253	825462	Tank-Reserve	532	820011	Nut (Mounting Bracket)	734	820258	Cap-Radiator
318	821233	Screw (Mounting Bracket)	533	821233	Screw (Drain Valve)	1068	825696	Hose/Clamp Assembly
						1237	825461	Cap/Hose-Reserve

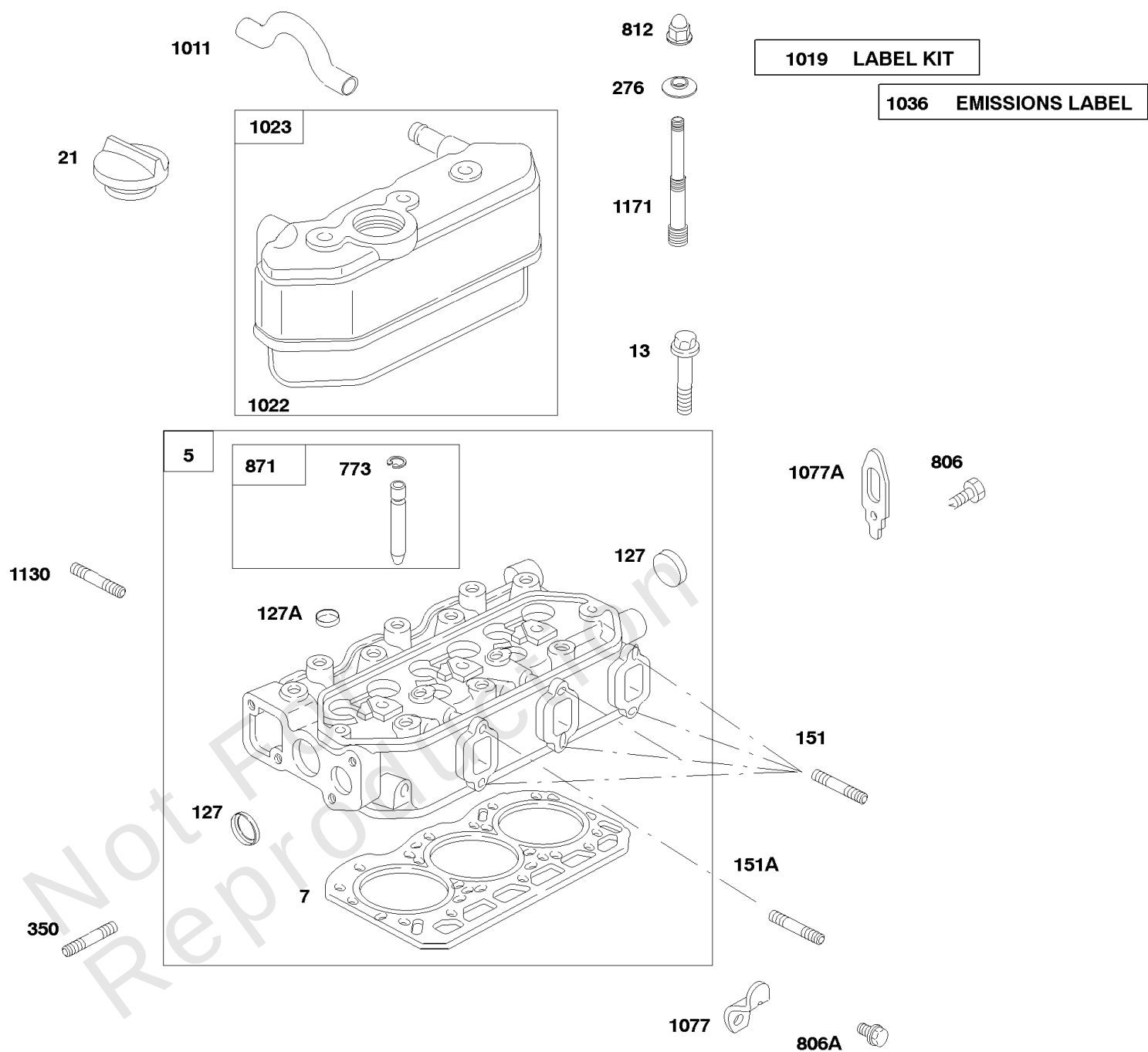
Radiator, Hoses, Mounting Brackets

REF NO	PART NO	QTY	DESCRIPTION
145	825072		VALVE, Drain
193	825697		HOSE, Reserve Tank
253	825462		TANK, Reserve
260	820863		SHROUD, Fan -(340mm Fan)
318	821233		SCREW -(Mounting Bracket)
415C	825075		PLUG -(Radiator)
493	825106		BRACKET, Mounting -(Reserve Tank)
493A	825314		BRACKET, Mounting -(Reserve Tank)
532	820011		NUT -(Mounting Bracket)
533	821233		SCREW -(Drain Valve)
601A	820256		CLAMP, Hose
601B	820201		CLAMP, Hose
719	821351		HOSE, Radiator
719A	825671		HOSE, Radiator
734	820258		CAP, Radiator
1068	825696		HOSE/CLAMP ASSEMBLY
1237	825461		CAP, Reserve Tank

Replacement Engine - US & Canada

REF NO	PART NO	QTY	DESCRIPTION
	5224470105	1	Replacement Engine
	-----		Top No-Load Speed: 3600 -Trim: ALL

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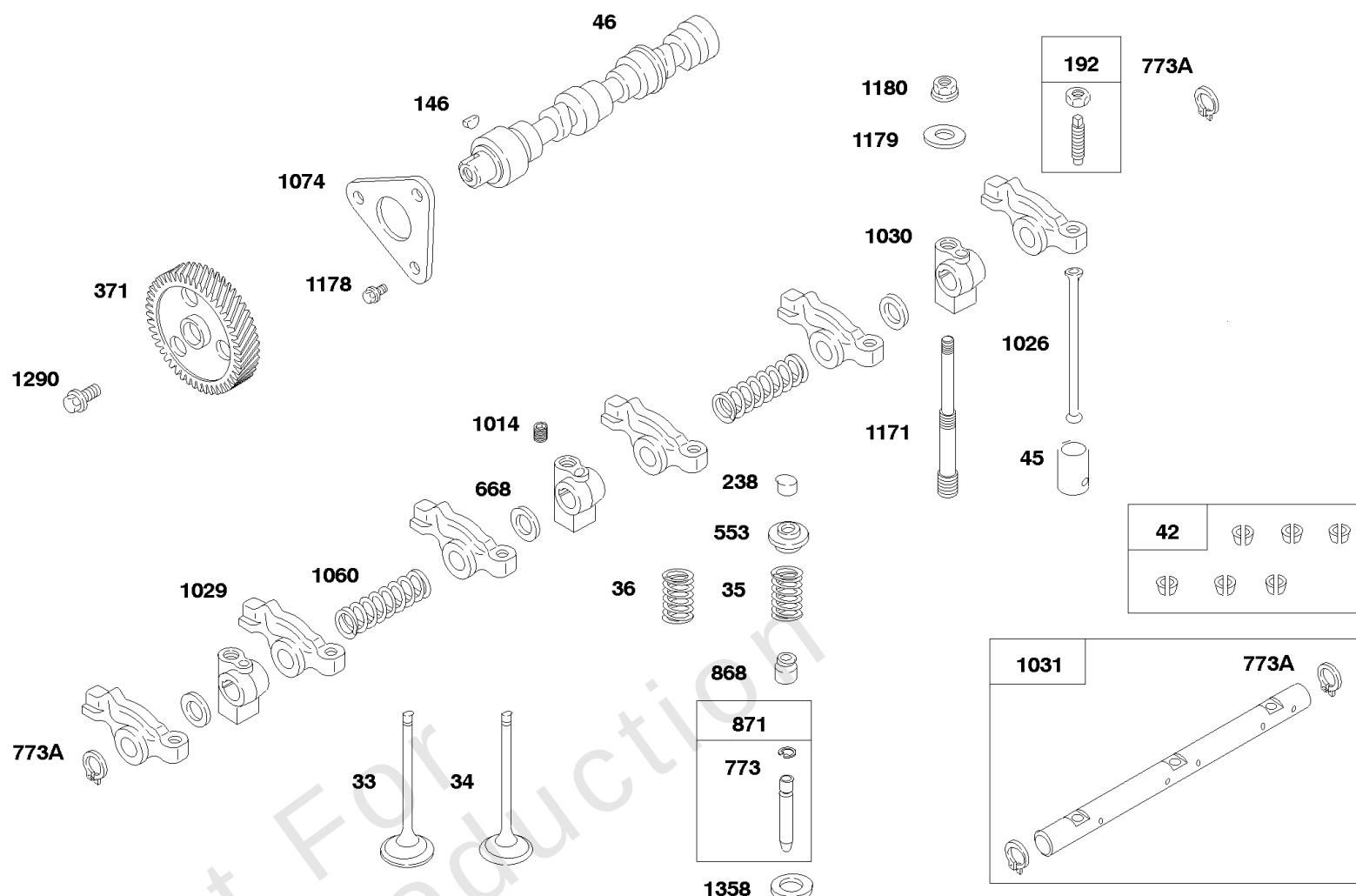
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
5	825692	Head-Cylinder	806	820212	Screw (Lifting Bracket)	1036		Label-Emissions (Available from a Briggs & Stratton Authorized Dealer)
7	820621	Gasket-Cylinder Head	806A	820024	Screw (Lifting Bracket)	1077	820260	Bracket-Lifting
13	820623	Screw (Cylinder Head)	812	820071	Nut (Rocker Cover)	1077A	820254	Bracket-Lifting
21	825024	Cap-Oil Fill	871	825030	Bushing-Valve Guide	1130	820015	Stud (Intake Manifold)
127	820004	Plug-Welch	1011	821003	Tube-Vent	1171	820076	Stud (Rocker Cover)
127A	820005	Plug-Welch	1019	825650	Kit-Label			
151	820014	Stud (Exhaust Manifold)	1022	820150	Gasket-Rocker Cover			
151A	820466	Stud (Exhaust Manifold)	1023	825672	Cover-Rocker (Order Reference 1019, Label Kit and Reference 1036, Emissions Label for your Model, Type, and Date Code)			
276	820064	Washer-Sealing (Rocker Cover)						
350	820078	Stud (Water Pump)						
773	820130	Retainer (Water Pump)						

Rocker Cover, Cylinder Head

REF NO	PART NO	QTY	DESCRIPTION
5	825692		HEAD, Cylinder
7	820621		GASKET, Cylinder Head
13	820623		SCREW -(Cylinder Head)
21	825024		CAP, Oil Fill
127	820004		PLUG, Welch
127A	820005		PLUG, Welch
151	820014		STUD -(Exhaust Manifold)
151A	820466		STUD -(Exhaust Manifold)
276	820064		WASHER, Sealing -(Rocker Cover)
350	820078		STUD -(Water Pump)
773	820130		RETAINER -(Valve Guide Bushing)
806	820212		SCREW -(Lifting Bracket)
806A	820024		SCREW -(Lifting Bracket)
812	820071		NUT -(Rocker Cover)
871	825030		BUSHING, Valve Guide
1011	821003		TUBE, Vent
1019	825650		KIT, Label
1022	820150		GASKET, Rocker Cover
1023	825672		COVER, Rocker -(Order Reference 1019, Label Kit, and Reference 1036, Emissions Label, for your Model, Type, Trim with Engine Date Code)
1036	-----		Label-Emissions -(Available From A Briggs & Stratton Authorized Dealer)
1077	820260		BRACKET, Lifting
1077A	820254		BRACKET, Lifting
1130	820015		STUD -(Intake Manifold)
1171	820076		STUD -(Rocker Cover)

Valves, Springs, Camshaft, Push Rods

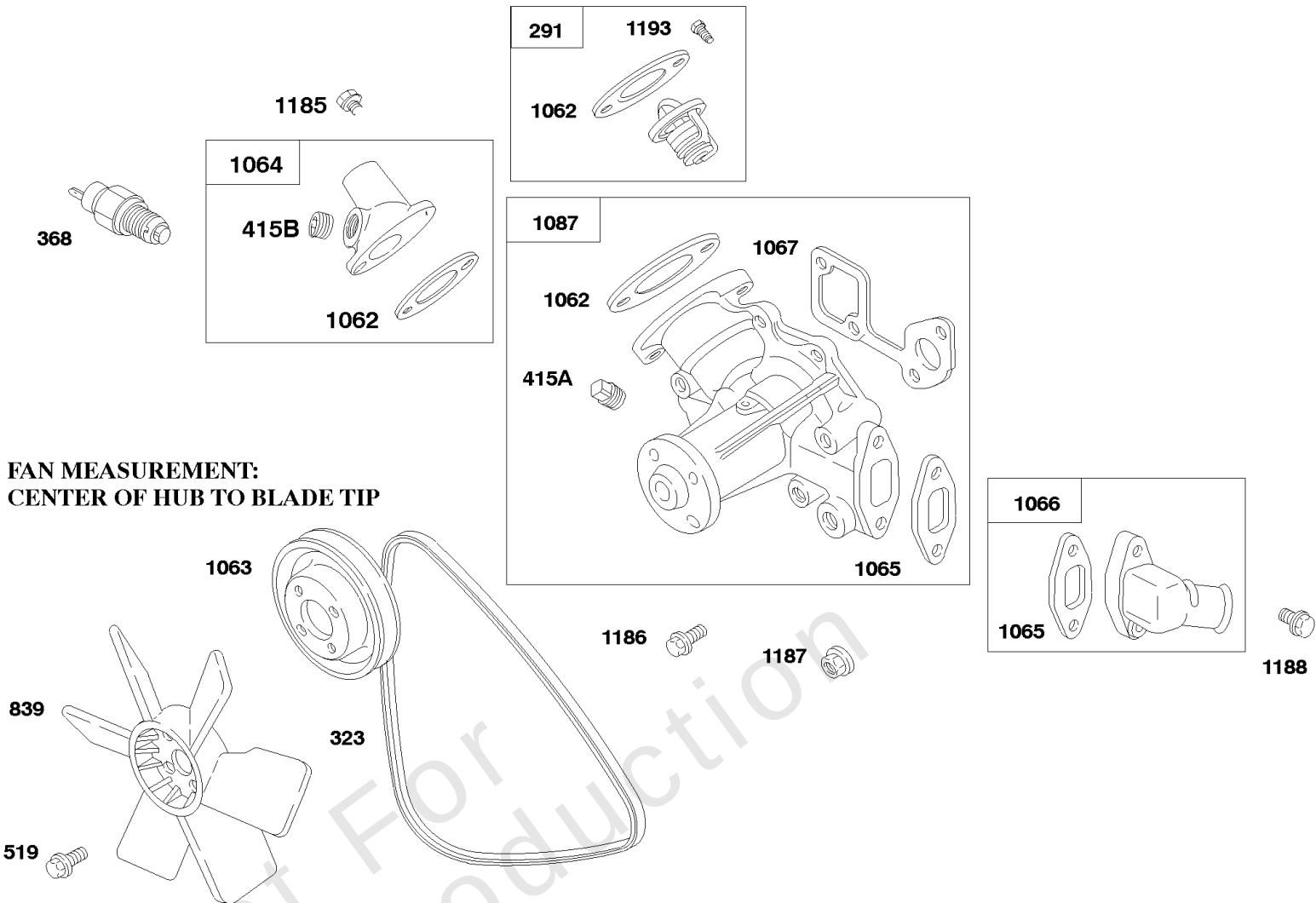
Mfg. No: 522447-0105-E2



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
33	820404	Valve-Exhaust	238	821214	Cap-Valve	1026	821218	Rod-Push
34	820403	Valve-Intake			(Used After Code Date			(Used After Code Date
35	820406	Spring-Valve			04083100).			04083100).
		(Intake)			----- Note -----			----- Note -----
36	820406	Spring-Valve			820113 Cap-Valve			820422 Rod-Push
		(Exhaust)			(Used Before Code			(Used Before Code
42	825082	Keeper-Valve			Date 04090100).			Date 04090100).
45	820110	Tappet-Valve	371	820613	Gear-Cam	1029	820387	Arm-Rocker
46	820388	Camshaft	553	820111	Retainer-Valve Spring	1030	820106	Support-Rocker Arm
146	691639	Key-Timing	668	820065	Spacer	1031	825093	Shaft-Rocker Arm
192	825688	Adjuster-Rocker Arm			(Rocker Arm Shaft)	1060	820044	Spring-Rocker Shaft
		(Used After Code Date	773	820130	Retainer	1074	820118	Retainer-Camshaft
		04083100).			(Valve Guide Bushing)	1171	820076	Stud
		----- Note -----	773A	820003	Retainer			(Rocker Cover)
		825041 Adjuster-			(Rocker Arm Shaft)	1178	820032	Screw
		Rocker Arm	868	820405	Seal-Valve			(Camshaft Retainer)
		(Used Before Code	871	825030	Bushing-Valve Guide	1179	820177	Washer
		Date 04090100).	1014	820105	Screw			(Rocker Arm Support)
					(Rocker Arm Support)	1180	820070	Nut
								(Rocker Arm Support)
						1290	820075	Screw
								(Cam Gear)
						1358	820112	Seat-Valve Spring

Valves, Springs, Camshaft, Push Rods

REF NO	PART NO	QTY	DESCRIPTION
33	820404		VALVE, Exhaust
34	820403		VALVE, Intake
35	820406		SPRING, Valve -(Intake)
36	820406		SPRING, Valve -(Exhaust)
42	825082		KEEPER, Valve
45	820110		TAPPET, Valve
46	820388		CAMSHAFT
146	691639		KEY, Woodruff
192	825688		ADJUSTER, Rocker Arm -Used After Code Date 04083100
192	825041		ADJUSTER, Rocker Arm -Used Before Code Date 04090100
238	821214		CAP, Valve -Used After Code Date 04083100
238	820113		CAP, Valve -Used Before Code Date 04090100
371	820613		GEAR, Cam
553	820111		RETAINER, Valve
668	820065		SPACER -(Rocker Arm Shaft)
773	820130		RETAINER -(Valve Guide Bushing)
773A	820003		RETAINER -(Rocker Arm Shaft)
868	820405		SEAL, Valve
871	825030		BUSHING, Valve Guide
1014	820105		SCREW -(Rocker Arm Support)
1026	820422		ROD, Push -Used Before Code Date 04090100
1026	821218		ROD, Push -Used After Code Date 04083100
1029	820387		ARM, Rocker
1030	820106		SUPPORT, Rocker Arm
1031	825093		SHAFT, Rocker Arm
1060	820044		SPRING, Rocker Shaft
1074	820118		RETAINER, Camshaft
1171	820076		STUD -(Rocker Cover)
1178	820032		SCREW -(Camshaft Retainer)
1179	820177		WASHER -(Rocker Arm Support)
1180	820070		NUT -(Rocker Arm Support)
1290	820075		SCREW -(Cam Gear)
1358	820112		SEAT, Valve Spring



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
291	825064	Thermostat	839	825454	Fan-Radiator (320mm)	1065	820098	Gasket-Inlet Housing
323	821075	Belt-Vee (940mm)	----- Note -----			1066	825051	Housing-Inlet
	820664	Belt-Vee (930mm)		825223	Fan-Radiator (290mm)	1067	820100	Gasket-Water Pump
	Used on Type No(s). 0107, 0314, 0407, 0414.			825435	Fan-Radiator (280mm)	1087	825265	Pump-Water
368	820208	Switch-Water Temperature (115 Degree)		825538	Fan-Radiator (310mm Pusher)	----- Note -----		
415A	820182	Plug (Water Pump)		Used on Type No(s). 0107, 0407.		1185	820031	Screw (Outlet Housing)
415B	820052	Plug (Outlet Housing)		Used on Type No(s). 0376.		1186	820022	Screw (Water Pump)
519	821233	Screw (Radiator Fan)	1062	820093	Gasket-Outlet Housing	1187	820181	Nut (Water Pump)
			1063	820095	Pump-Pulley	1188	820031	Screw (Inlet Housing)
			1064	825074	Housing-Outlet	1193	820185	Screw (Thermostat)
			----- Note -----					
				825267	Housing-Outlet			
				Used on Type No(s). 0111, 0314, 0414.				

Water Pump, Radiator Fan

REF NO	PART NO	QTY	DESCRIPTION
291	825064		THERMOSTAT
323	821075		BELT, Vee -(940 mm)
368	820208		SWITCH, Water Temperature -(115 Degree)
415A	820182		PLUG -(Water Pump)
415B	820052		PLUG -(Outlet Housing)
519	821233		SCREW -(Radiator Fan)
839	825454		FAN, Radiator -(320 mm Fan)
1062	820093		GASKET, Outlet Housing
1063	820095		PULLEY, Pump
1064	825074		HOUSING, Outlet
1065	820098		GASKET, Inlet Housing
1066	825051		HOUSING, Inlet
1067	820100		GASKET, Water Pump
1087	825265		PUMP, Water
1185	820031		SCREW -(Outlet Housing)
1186	820022		SCREW -(Water Pump)
1187	820181		NUT -(Water Pump)
1188	820031		SCREW -(Inlet Housing)
1193	820185		SCREW -(Thermostat)

