

RAPTOR III RACING ENGINES

Illustrated Parts List Motorsports Model Series



133230

TYPE NUMBER
8014, 8124.



WARNING:



- MODEL 133230-8124-01 IS A RACING ENGINE
- SPECIAL SKILLS AND KNOWLEDGE ARE REQUIRED TO PREPARE THE ENGINES FOR COMPETITIVE USE. IF YOU ARE NOT FAMILIAR WITH THE PROPER TECHNIQUES AND PROCEDURES, HAVE QUALIFIED INDIVIDUALS DO THE WORK FOR YOU
- THE ENGINES DO NOT HAVE GOVERNORS. ANY THROTTLE MECHANISM MUST HAVE A RETURN-TO-IDLE SPRING SO THE ENGINE WILL RETURN TO IDLE SPEED WHEN THE THROTTLE PEDAL IS RELEASED

**FAILURE TO FOLLOW THESE WARNINGS COULD
RESULT IN SERIOUS PERSONAL INJURY OR DEATH**

TO FIND THE CORRECT NUMBER OF THE PART YOU NEED: FOLLOW THE INSTRUCTIONS ON THE REVERSE SIDE

- Refer to Engine Model, Type and Code Number that is stamped on the blower housing of engine. Engine type numbers such as 0123 01 are listed only as 0123 in most instances. The two digits (01 or 02, etc.) to the right of the space may be required for more accurate parts identification in some instances. Select the Illustrated Parts List covering the correct Model Series and Type Number.
- Refer to the Illustrations and compare the original part with Illustration. The number next to the illustration is the Reference Number. Assemblies include all parts shown in frames. All parts shown in assembly frames having individual reference numbers can be purchased separately.
- After the Reference Number has been identified, refer to the Numerical text, where Reference and Primary Part Number are listed. THE PRIMARY PART IS USED ON ALL TYPE NUMBERS EXCEPT THOSE TYPE NUMBERS UNDER "NOTE."
- If a "Note" appears below the Primary Part Number, it means that this part differs from the Primary Part for certain types. If your Type number is listed under "Note," order the part referred to at the "Note."
- If your Engine Type Number does not appear after any part number listed under "Note," use the Primary Part Number.
- For Engine Type Numbers not covered by this book, check other Parts Lists having the same engine model or contact your source of supply.

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In the Interest of Safety

! This safety alert symbol indicates that this message involves personal safety. Words danger, warning and caution indicate degree of hazard. Death, personal injury and/or property damage may occur unless instructions are followed carefully.

The Briggs & Stratton engine you bought is made of the finest material in a state-of-the-art manufacturing facility. Please understand that Briggs & Stratton sells engines to original equipment manufacturers. It also sells to others in the distribution chain who may sell to the ultimate consumer, an equipment manufacturer, another distributor or a dealer. As a result, Briggs & Stratton does not necessarily know the application on which the engine will be placed. For that reason, you should carefully read and understand the operating instructions of the equipment on which your engine is placed before you operate it.

You should also understand that there are equipment applications for which Briggs & Stratton does not approve the use of its engines. Briggs & Stratton engines are not to be used on vehicles with less than 4 wheels. They include motor bikes, aircraft products and All Terrain Vehicles. **FOR THAT REASON, BRIGGS & STRATTON ENGINES ARE NOT AUTHORIZED FOR ANY OF THESE APPLICATIONS.** Failure to follow this warning could result in death, serious injury (including paralysis) or property damage.



You are not ready to operate this engine if you have not read and understood the following safety items.



WARNING

DO NOT run engine in an enclosed area. (Exhaust gases contain carbon monoxide, an odorless and deadly poison.)

DO NOT place hands or feet near moving or rotating parts.
 DO NOT store, spill, or use gasoline near an open flame, nor near an appliance like a stove, furnace, or water heater that uses a pilot light or can create a spark.
 DO NOT refuel indoors or in an unventilated area.
 DO NOT remove fuel tank cap nor fill fuel tank while engine is hot or running. (Allow engine to cool 2 minutes before refueling.)
 DO NOT operate or tip engine/equipment at such a severe angle that causes gasoline spillage.
 DO NOT operate engine if gasoline is spilled or when smell of gasoline is present or other explosive conditions exist. (Move equipment away from spill and avoid any ignition until gasoline has evaporated.)
 DO NOT transport engine with fuel in tank or with fuel shut-off valve open.
 DO NOT choke carburetor to stop engine, especially in an enclosed vehicle. (Whenever possible, gradually reduce engine speed before stopping.)

DO NOT check for spark with spark plug removed. (Use an approved tester.)
 DO NOT crank engine with spark plug removed. (If engine is flooded, place throttle in FAST and crank until engine starts.)
 DO NOT strike flywheel with a hammer or hard object as this may cause flywheel to shatter in operation. (Use correct tools to service engine.)
 DO NOT operate engine without a muffler. (Inspect periodically and replace if worn or leaking. If engine is equipped with muffler deflector, inspect periodically and, if necessary, replace with correct deflector.)
 DO NOT operate engine with an accumulation of grass, leaves or other combustible material in muffler area.
 DO NOT use this engine on any forest covered, brush covered, or grass covered unimproved land unless a spark arrester is installed on muffler. Spark arrester must be maintained in effective working order by owner and/or operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.
 DO NOT touch hot muffler, cylinder, or fins which can cause burns.
 DO NOT start engine with air cleaner or air cleaner cover removed (or cover over carburetor air intake, if Sno/Gard engine).



WARNING

PREVENT ACCIDENTAL STARTING by removing spark plug wire when servicing engine or equipment. Disconnect negative wire from battery terminal if equipped with electric starting system.

KEEP cylinder fins and governor parts free of dirt, grass and other debris which can affect engine speed.
 PULL starter cord slowly until resistance is felt. Then pull cord rapidly to avoid kickback and prevent hand or arm injury.
 USE fresh gasoline. Stale fuel can gum carburetor and cause leakage.

CHECK fuel lines and fittings frequently for cracks or leaks. Replace if required.
 4 Use only Genuine Briggs & Stratton Parts or their equivalent. The use of replacement parts which are not of equivalent quality may damage the engine.

! **WARNING:** **!**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

International Symbols



Safety Alert



Read Owner's Manual

| ○ On Off



Stop



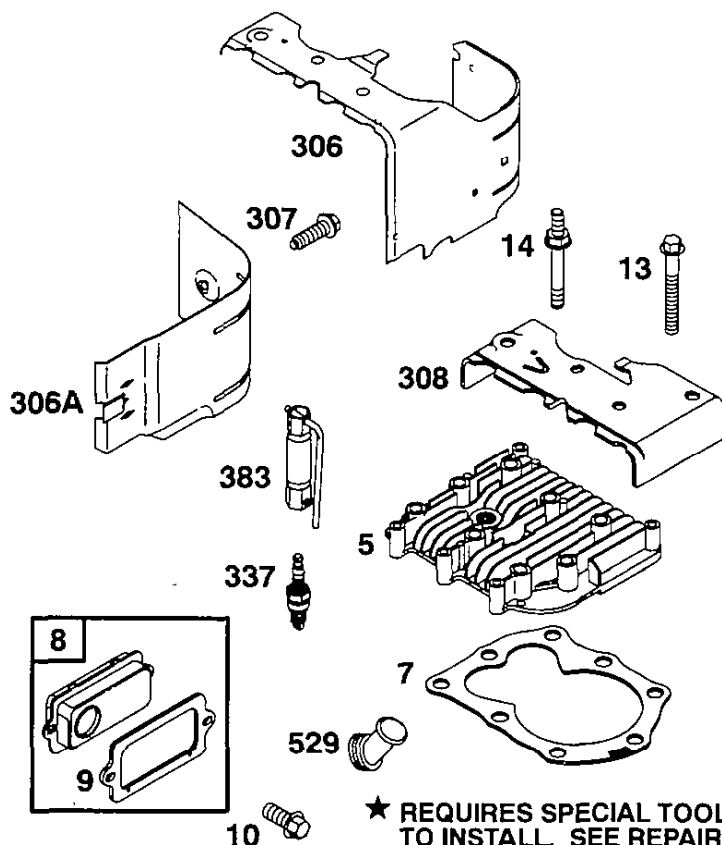
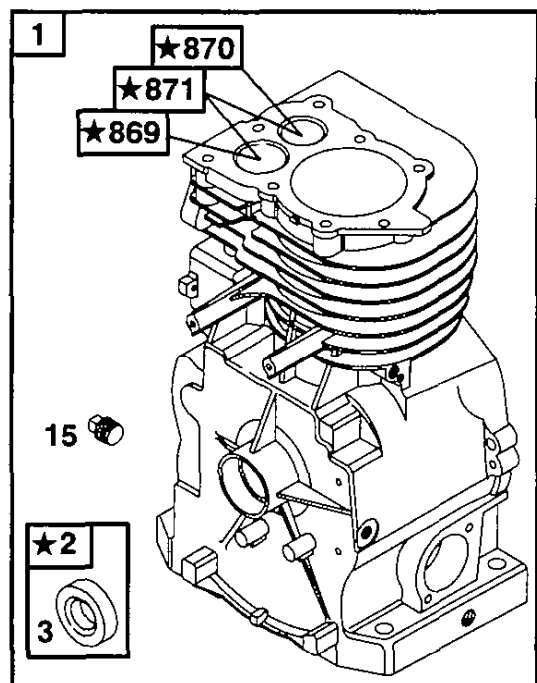
Fuel Shutoff



Fuel



Choke

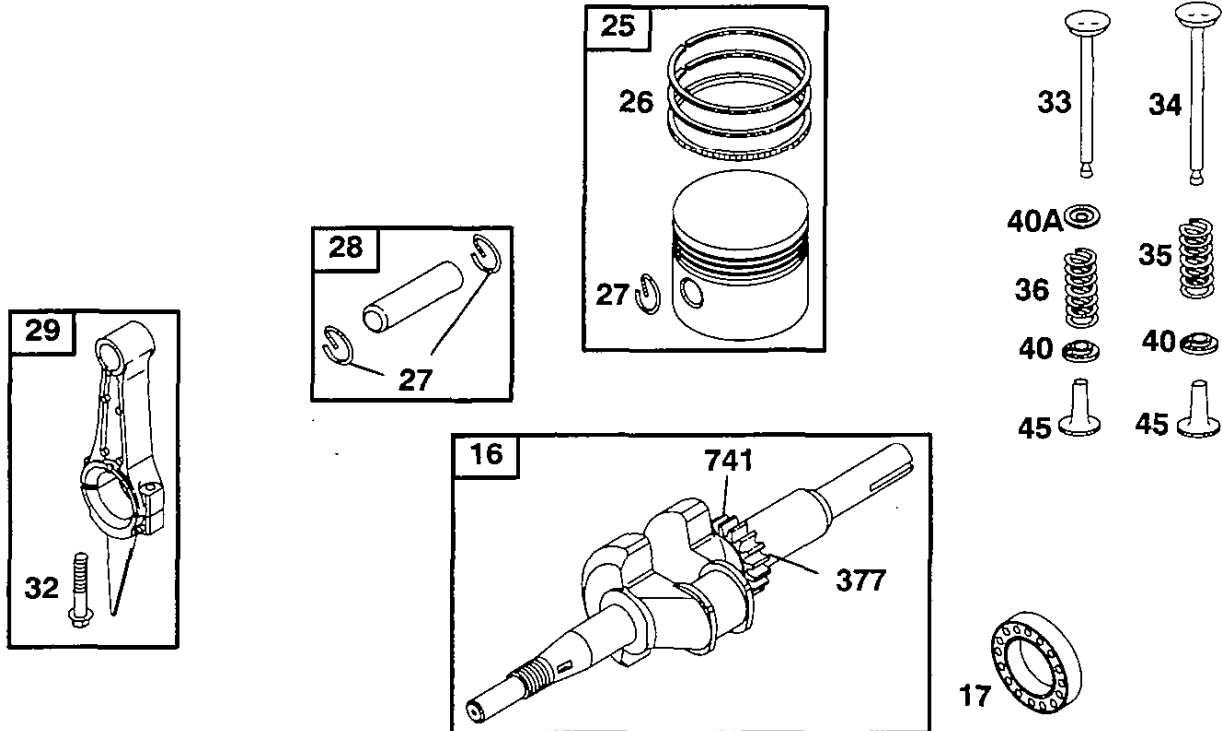


★ REQUIRES SPECIAL TOOLS TO INSTALL. SEE REPAIR INSTRUCTION MANUAL.

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	555206	Cylinder Assembly	14	555082	Stud (Cylinder Head)	869	555136	Seat-Valve (Intake)
2	555140	Kit-Bushing/Seal	15	555079	Plug-Oil Drain	870	555137	Seat-Valve (Exhaust)
3	★555071	Seal-Oil	306	555498	Shield-Cylinder (Used After Code Date 99031400).	871	555214	Bushing-Valve Guide (Exhaust Valve) (Sintered Bronze)
5	555257	Head-Cylinder	306A	555057	Shield-Cylinder (Used Before Code Date 99031500).	----- Note ----- 555158 Bushing-Valve Guide (Exhaust Valve) (Sintered Iron)		
7	★555236	Gasket-Cylinder Head	307	555046	Screw (Cylinder Shield)			
8	555073	Breather Assembly	308	555056	Cover-Cylinder Head	555139 Bushing-Valve Guide (Intake Valve)		
9	★555036	Gasket-Breather	337	555132	Sparkplug			
10	555043	Screw (Breather Assembly)	383	89838	Wrench-Sparkplug			
13	555045	Screw (Cylinder Head) (2 15/32" Long)	529	555074	Grommet			

★ Included in Gasket Set-See Ref No.358.

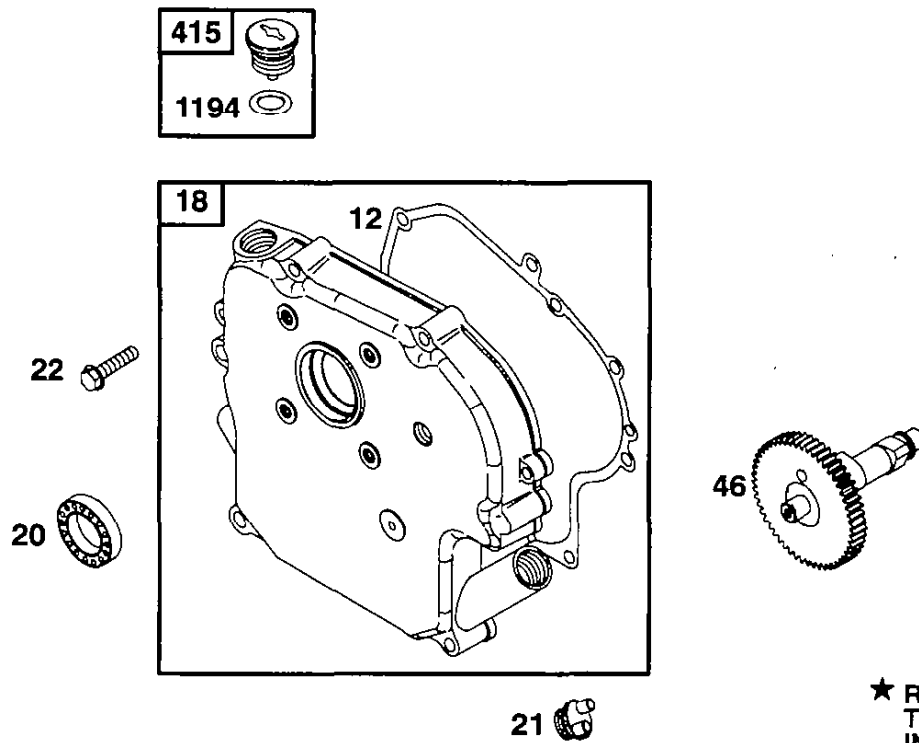
● Included in Carburetor Kit-See Ref.No. 121.



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
16	555204	Crankshaft	26	555485	Ring Set (Standard)	32	555070	Screw (Connecting Rod)
17	555050	Bearing-Ball			----- Note -----	33	555077	Valve-Exhaust
25	555478	Piston Assembly			555486 Ring Set (.015" O.S.)	34	555062	Valve-Intake
		----- Note -----			555487 Ring Set (.025" O.S.)	35	555076	Spring-Valve (Intake)
		555479 Piston Assembly (.010" O.S.)			555488 Ring Set (.035" O.S.)	36	555076	Spring-Valve (Exhaust)
		555480 Piston Assembly (.015" O.S.)	27	555035	Lock-Piston Pin	40	555039	Retainer-Valve
		555481 Piston Assembly (.020" O.S.)	28	555493	Pin-Piston (Standard)	40A	555147	Retainer-Valve
		555482 Piston Assembly (.025" O.S.)	29	555207	Rod-Connecting (Standard)	45	555061	Tappet-Valve
		555483 Piston Assembly (.030" O.S.)			----- Note -----	377	555049	Key-Woodruff
		555484 Piston Assembly (.035" O.S.)			555208 Rod-Connecting (.020" Undersize)	741	555235	Gear-Timing (Tempered)

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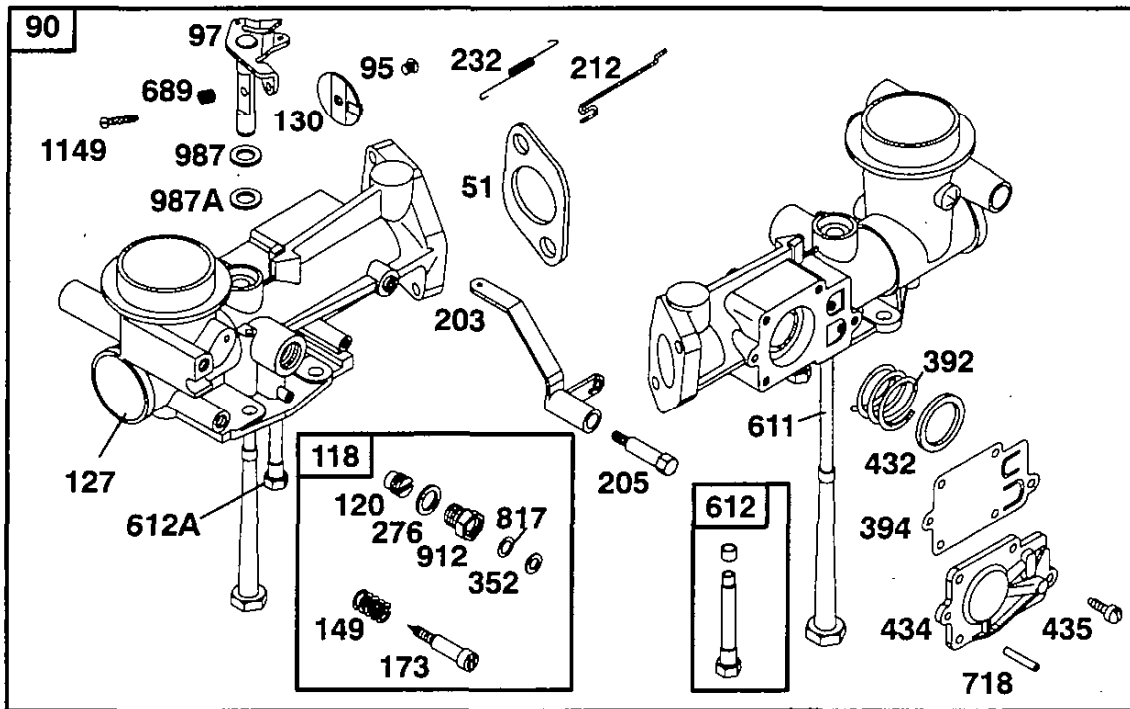


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REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
12	★555237	Gasket-Crankcase (.015" Standard)	18	555209	Cover-Crankcase	46	555052	Camshaft (Machined Lobes)
		----- Note -----	20	★555087	Seal-Oil			----- Note -----
		★555064 Gasket-Crankcase (.005")	21	555037	Cap-Oil Fill			555000 Camshaft (Unmachined Lobes)
		★555065 Gasket-Crankcase (.009")	22	555047	Screw (Crankcase Cover)	415	555138	Plug
						1194	★555135	O-Ring Seal (Plug)

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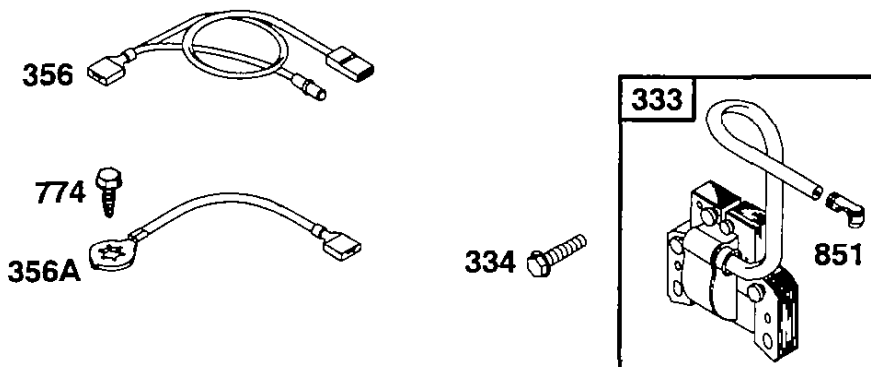
● Included in Carburetor Kit-See Ref.No. 121.



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
51	★555078	Gasket-Intake	212	555116	Link-Throttle	611	555103	Pipe-Fuel
90	555129	Carburetor	232	555117	Spring-Governor Link	612	555128	Tube-Pick Up
95	555258	Screw (Throttle Valve)	276	●555106	Washer-Sealing	612A	555120	Tube-Pick Up
97	555100	Shaft-Throttle	352	●555125	Washer (High Speed Valve)	689	555101	Spring-Friction
118	●555127	Valve-High Speed	365	555238	Screw (Carburetor)	718	555108	Pin-Locating
120	●555114	Seat-Needle Valve	392	555115	Spring-Pump Diaphragm	817	●555122	O-Ring Seal (High Speed Valve)
127	555105	Plug-Welch	394	●555119	Diaphragm-Carburetor	912	●555126	Nut-Needle Valve
130	555111	Valve-Throttle	432	555113	Cap-Spring	987	555118	Seal-Throttle Shaft
149	●555123	Spring-Needle Valve	434	555112	Cover-Diaphragm	987A	555121	Seal-Throttle Shaft
173	●555124	Valve-Idle Mixture	435	555107	Screw (Diaphragm Cover)	1149	555102	Screw (Throttle Shaft)
203	555104	Crank-Bell						
205	555110	Screw (Bell Crank)						

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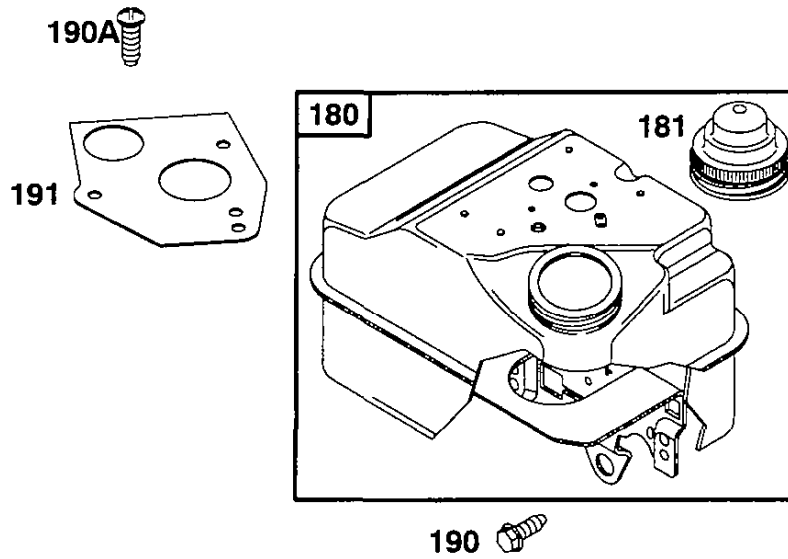
● Included in Carburetor Kit-See Ref.No. 121.



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
333	555075	Armature-Magneto	356	555086	Wire-Stop (Armature to Switch)	774	555080	Screw (Stop Wire)
334	555040	Screw (Magneto Armature)	356A	555099	Wire-Stop (Stop Switch to Ground)	851	493880	Terminal-Sparkplug

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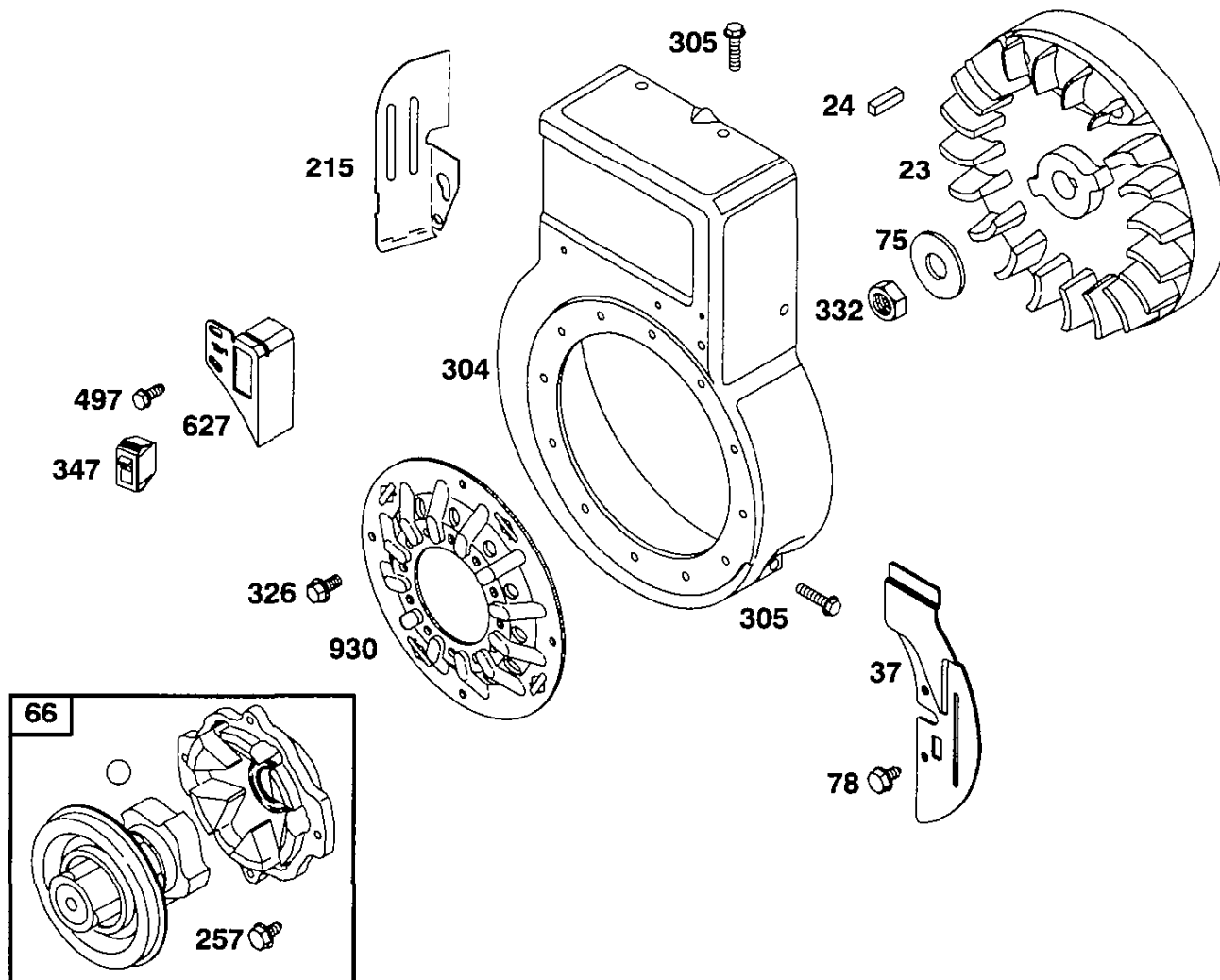
● Included in Carburetor Kit-See Ref.No. 121.



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
180	555192	Tank-Fuel	190	555044	Screw (Fuel Tank)	190A	555048	Screw (Carburetor)
181	555085	Cap-Fuel Tank				191	★555084	Gasket-Fuel Tank

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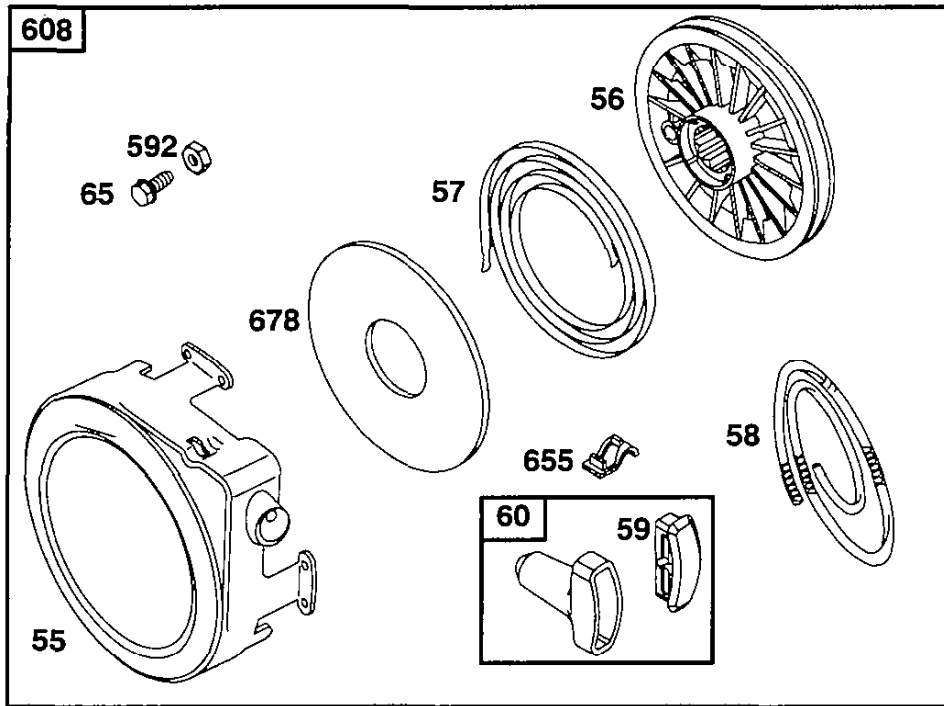


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REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
23	555067	Flywheel	215	555055	Guide-Air	332	555038	Nut (Flywheel)
24	555054	Key-Flywheel	257	555046	Screw (Starter Clutch)	347	555098	Switch-Rocker (Stop Switch Bracket)
37	555053	Guard-Flywheel	304	555256	Housing-Blower (Blower Housing)	497	555081	Screw (Stop Switch Bracket)
66	555171	Clutch-Starter	305	555051	Screw (Blower Housing)	627	555097	Bracket-Stop Switch
75	555083	Washer (Flywheel)	326	555211	Screw (Rewind Guard)	930	555255	Guard-Rewind
78	555046	Screw (Flywheel Guard)						

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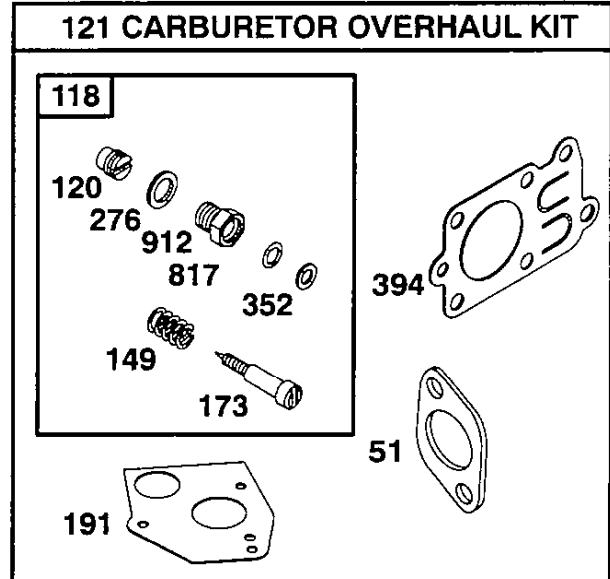
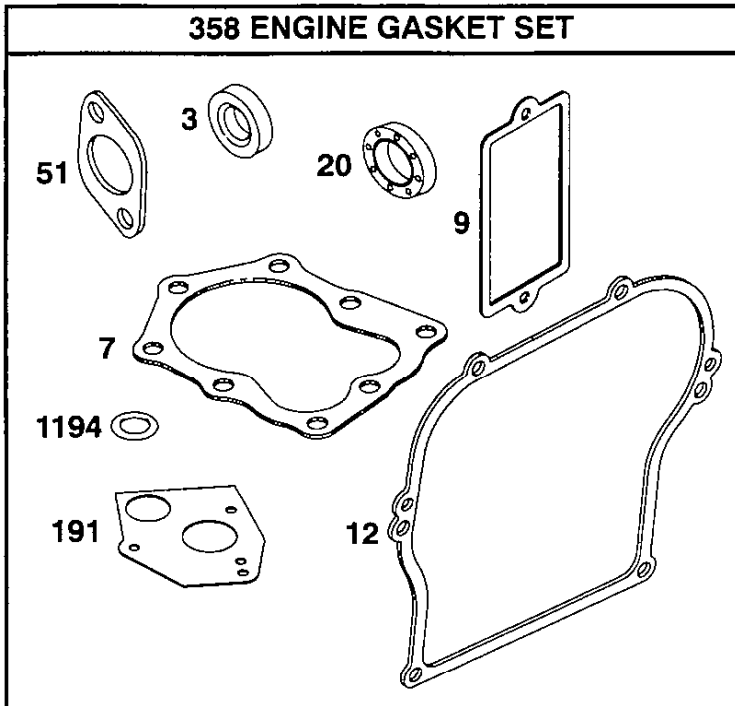
● Included in Carburetor Kit-See Ref.No. 121.



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
55	555222	Housing-Rewind Starter	58	555221	Rope-Starter (63" Long)	592	690800	Nut (Rewind Starter)
56	555224	Pulley-Starter	59	490653	Insert-Grip	608	555165	Starter-Rewind
57	490179	Spring-Rewind Starter	60	490652	Grip-Starter Rope	655	691734	Anchor-Rewind Spring
			65	690837	Screw (Rewind Starter)	678	490817	Spacer-Rewind

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● Included in Carburetor Kit-See Ref.No. 121.



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
3	★555071	Seal-Oil	20	★555087	Seal-Oil	352	●555125	Washer (High Speed Valve)
7	★555236	Gasket-Cylinder Head	51	★555078	Gasket-Intake	358	555210	Gasket Set-Engine
9	★555036	Gasket-Breather	118	●555127	Valve-High Speed	394	●555119	Diaphragm-Carburetor
12	★555237	Gasket-Crankcase (.015" Standard)	120	●555114	Seat-Needle Valve	817	●555122	O-Ring Seal (High Speed Valve)
		----- Note -----	121	555130	Kit-Carburetor Overhaul	912	●555126	Nut-Needle Valve
		★555064 Gasket-Crankcase (.005")	149	●555123	Spring-Needle Valve	1194	★555135	O-Ring Seal (Plug)
		★555065 Gasket-Crankcase (.009")	173	●555124	Valve-Idle Mixture			
			191	★555084	Gasket-Fuel Tank			
			276	●555106	Washer-Sealing			

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