

**\$1.50**

## THE ANIMAL RACING ENGINE

### Illustrated Parts List Motorsports Model Series



**124432**

TYPE NUMBER  
8001.



#### **WARNING:**



- **MODEL 124432-8001-01 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. The 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 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, carefully read and understand the operating instructions of the equipment before you repair or 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. Moreover, Briggs & Stratton does not approve of its engines being used in competitive events. 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.



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

DO NOT remove fuel tank cap nor fill fuel tank while engine is hot or running. DO NOT refuel indoors or in an unventilated area. (Allow engine to cool 2 minutes before refueling.)

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 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 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 tamper with governor springs, links or other parts to increase engine speed. (Run engine at speed set for equipment manufacturer.)

DO NOT check for spark with spark plug removed. (Use an approved tester.)

DO NOT run engine without blower housing or other safety shields removed when doing repairs.



You are not ready to operate this engine if you have not read and understood the following safety items. Read the entire owner's manual and the operating instructions of the equipment this engine powers.

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. (To remove flywheel, use Briggs & Stratton approved tools and procedures only.)

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 replace if necessary. Replacement parts must be same as on original equipment.)

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. The spark arrester must be maintained in working order by the 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).

DO NOT attempt to start engine with cutting blade loose or removed. (Blade must be tight, otherwise a kickback may occur.)



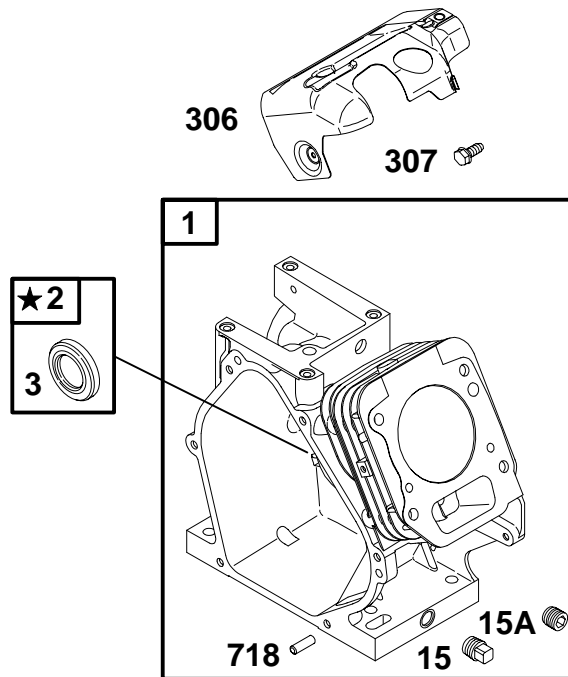
- ✓ Prior to work, read and understand the section(s) of this manual that pertain to the job. Follow all safety warnings.
- ✓ PULL starter cord slowly until resistance is felt. Then pull cord rapidly to avoid kickback and prevent hand or arm injury.
- ✓ WEAR suitable eye protection (safety glasses, goggles or face shield when performing repair procedures.
- ✓ PREVENT ACCIDENTAL STARTING by removing spark plug wire from spark plug when servicing engine or equipment. Disconnect negative wire from battery terminal if equipped with electric starting system.
- ✓ REMOVE blower housing periodically and clean engine. Keep cylinder fins and governor parts free of dirt, grass and other debris which can affect engine speed.
- ✓ USE fresh gasoline. Stale fuel can gum carburetor and cause leakage.
- ✓ CHECK fuel lines and fittings frequently for cracks or leaks. Replace if necessary.
- ✓ 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.

**124432**

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

**1019 LABEL KIT**

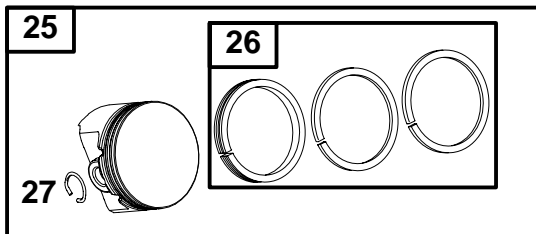
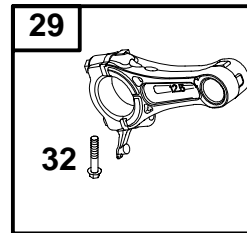
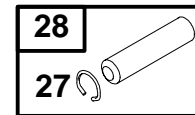
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
<b>1</b>	<b>555582</b>	Cylinder Assembly	<b>15</b>	<b>555079</b>	Plug—Oil Drain	<b>307</b>	<b>555533</b>	Screw
<b>2</b>	<b>555140</b>	Kit—Bushing/Seal (Magneto Side)	<b>15A</b>	<b>555578</b>	Plug—Oil Drain (Flush)			(Cylinder Shield)
<b>3</b>	<b>★555071</b>	Seal—Oil (Magneto Side)	<b>306</b>	<b>555519</b>	Shield—Cylinder	<b>718</b>	<b>555579</b>	Pin—Locating
						<b>1019</b>	<b>555577</b>	Kit—Label

★ Included in Engine Gasket Set—Ref. No. 358.

△ Included in Valve Gasket Set—Ref. No. 1095.

● Included in Carburetor Overhaul Kit—Ref. No. 121.

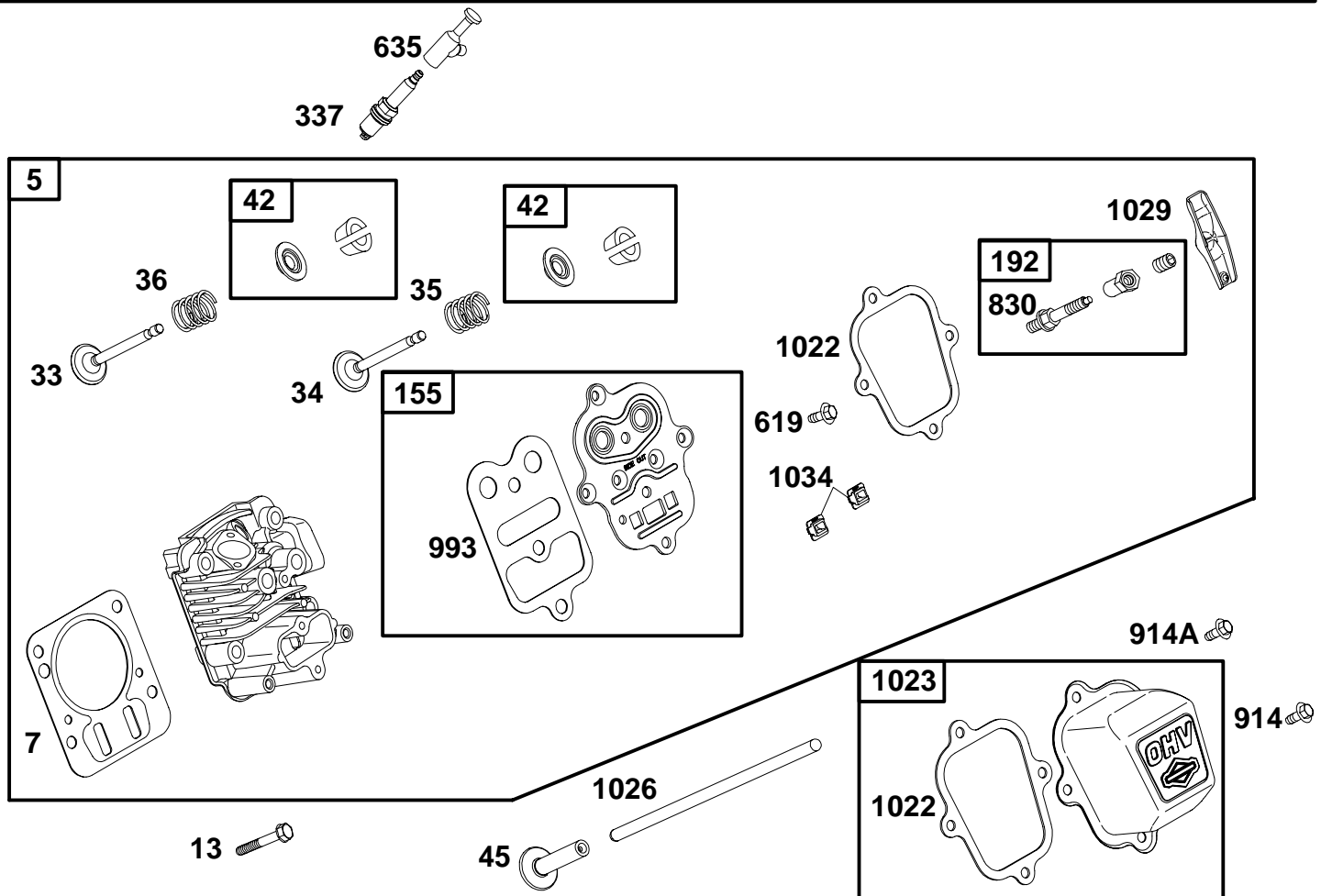
◆ Included in Carburetor Gasket Set—Ref. No. 977.

**124432**

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
<b>25</b>	<b>555510</b>	Piston Assembly (Standard) —— <b>Note</b> —— <b>555511</b> Piston Assembly (.010" Oversize) <b>555512</b> Piston Assembly (.020" Oversize) <b>555513</b> Piston Assembly (.030" Oversize)	<b>26</b>	<b>555514</b>	Ring Set (Standard) —— <b>Note</b> —— <b>555515</b> Ring Set (.010" Oversize) <b>555516</b> Ring Set (.020" Oversize) <b>555517</b> Ring Set (.030" Oversize)	<b>27</b>	<b>555521</b>	Lock-Piston Pin
						<b>28</b>	<b>555520</b>	Pin-Piston
						<b>29</b>	<b>555561</b>	Rod-Connecting
						<b>32</b>	<b>555070</b>	Screw (Connecting Rod)

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**124432**

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
5	555558	Head-Cylinder	42	555550	Keeper-Valve	914	555535	Screw
7	★Ø555524	Gasket-Cylinder Head	45	555307	Tappet-Valve			(Rocker Cover)
13	555540	Screw	155	555547	Plate-Cylinder Head			(7/16" Long)
		(Cylinder Head)	192	555548	Adjuster-Rocker Arm	914A	555542	Screw
33	555552	Valve-Exhaust	337	491055	Sparkplug			(Rocker Cover)
34	555551	Valve-Intake	619	555556	Screw			(3/8" Long)
35	555553	Spring-Valve			(Cylinder Head Plate)	993	★Ø555554	Gasket-Cylinder Head
		(Intake)	635	555162	Boot-Sparkplug			Plate
36	555553	Spring-Valve	830	555549	Stud	1022	★Ø555523	Gasket-Rocker Cover
		(Exhaust)			(Rocker Arm)	1023	555528	Cover-Rocker
						1026	555531	Rod-Push
						1029	555546	Arm-Rocker
						1034	555555	Guide-Push Rod

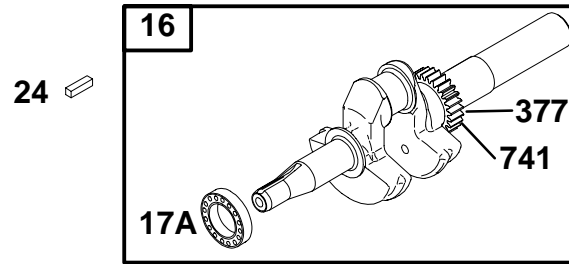
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**124432**



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
<b>16</b>	<b>555565</b>	Crankshaft	<b>24</b>	<b>555054</b>	Key–Flywheel	<b>741</b>	<b>555574</b>	Gear–Timing
<b>17A</b>	<b>555573</b>	Bearing–Ball	<b>377</b>	<b>555049</b>	Key–Woodruff			

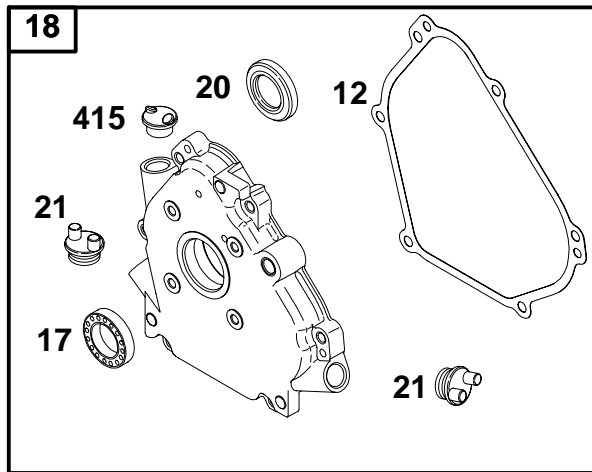
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**6709–5**

**Assemblies include all parts shown in frames.**

**3C–4/2001**

**124432**

22 

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
12	★555525	Gasket-Crankcase	20	555529	Seal-Oil (PTO Side)	22	555534	Screw (Crankcase Cover/Sump)
17	555527	Bearing-Ball	21	555037	Cap-Oil Fill	415	555563	Plug
18	555559	Cover-Crankcase						

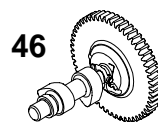
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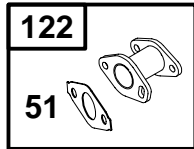
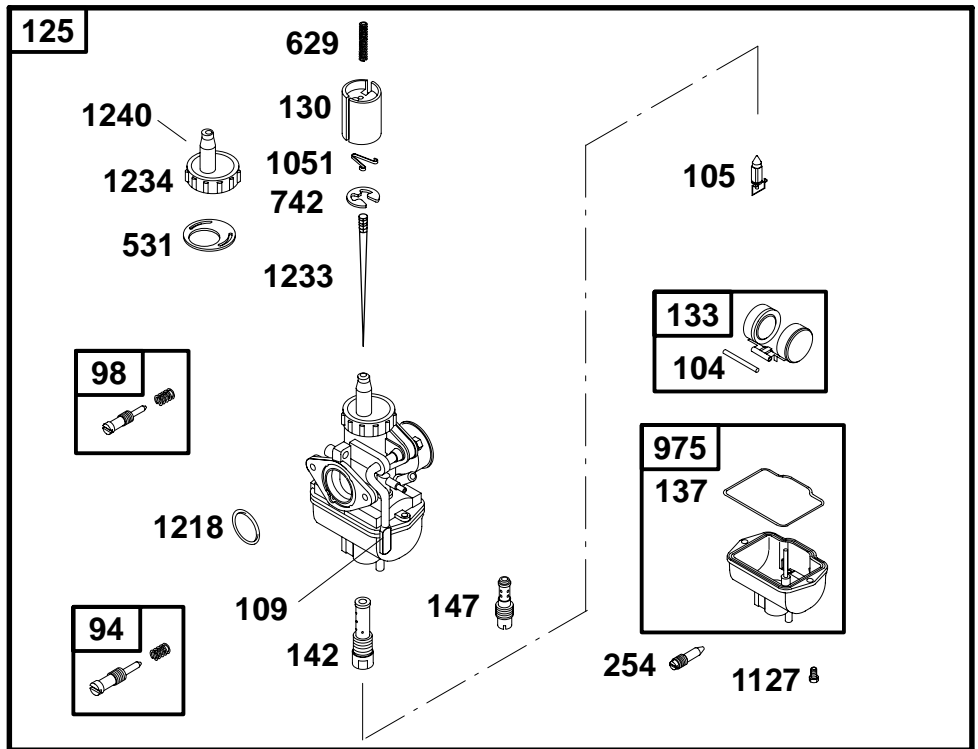
**124432**



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
<b>46</b>	<b>555532</b>	Camshaft (Machined) <b>Note</b> <b>555584</b> Camshaft (Unmachined)						

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**124432**117  117A 1238 365   
654 

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
51	★●555522	Gasket-Intake	125	555560	Carburetor	654	555541	Nut (Carburetor)
94	555585	Kit-Idle Mixture	130	555590	Valve-Throttle	742	555597	Retainer-E Ring
98	555586	Kit-Idle Speed	133	555591	Float-Carburetor	975	555598	Bowl-Float
104	●555587	Pin-Float Needle	137	◆●555592	Gasket-Float Bowl	1051	555599	Ring-Retaining
105	555588	Valve-Float Needle	142	555593	Nozzle-Carburetor	1127	555600	Screw (Float Bowl)
109	555589	Valve-Choke	147	555594	Jet-Pilot	1218	◆●555601	Seal-O Ring (Carburetor)
117	555536	Jet-Main (Gasoline)	254	555607	Drain-Carburetor Bowl	1233	555602	Jet-Needle
		(Contains 7 Different Sizes)	365	555544	Screw (Carburetor)	1234	555603	Cap-Throttle Cable
117A	555537	Jet-Main (Alcohol)			(Carburetor to Spacer)	1238	555559	Screw (Carburetor Spacer)
		(Contains 8 Different Sizes)	531	●555595	Gasket-Throttle Cable Cap			(Spacer to Cylinder)
122	●555545	Spacer-Carburetor	629	555596	Spring-Throttle Return	1240	555604	Boot-Throttle Cable

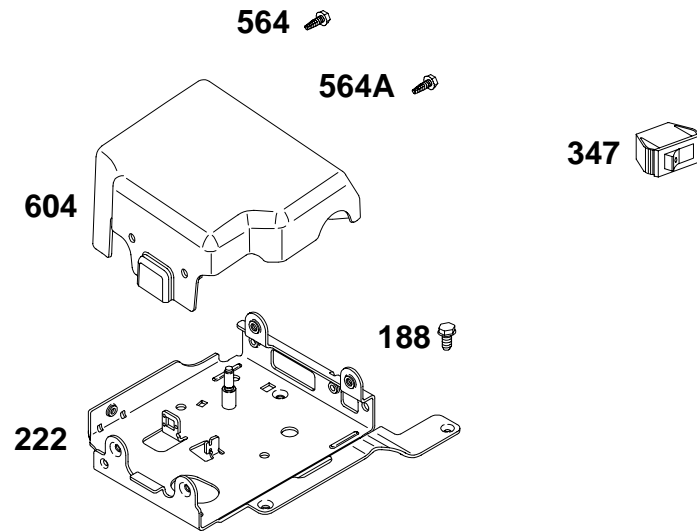
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REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
188	555538	Screw (Control Bracket)	564	555571	Screw (Control Cover)	604	555570	Cover-Control
222	555562	Bracket-Control	564A	555575	Screw (Control Cover)			
347	555564	Switch-Rocker						

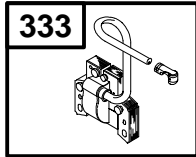
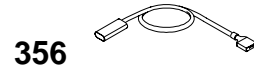
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6709-9

Assemblies include all parts shown in frames.

3C-4/2001

**124432****334** 

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
<b>333</b>	<b>555530</b>	Armature–Magneto	<b>334</b>	<b>555539</b>	Screw (Magneto Armature)	<b>356</b> <b>356A</b>	<b>555569</b> <b>555568</b>	Wire–Stop Wire–Stop

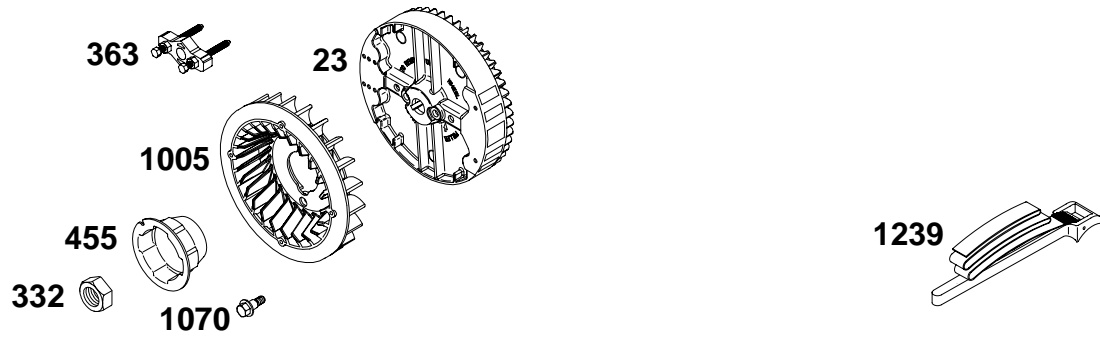
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REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
23	555567	Flywheel	363	19069	Puller-Flywheel	1070	555526	Screw
332	555038	Nut (Flywheel)	455	555518	Cup-Flywheel			(Flywheel Fan)
			1005	555526	Fan-Flywheel	1239	19433	Wrench-Flywheel

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

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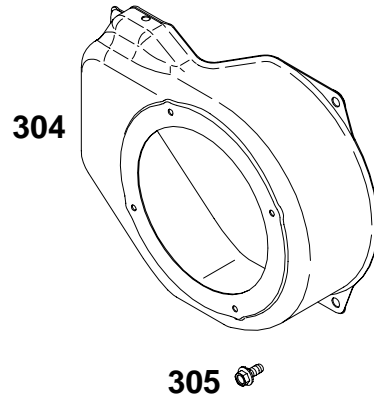
● Included in Carburetor Overhaul Kit-Ref. No. 121.

◆ Included in Carburetor Gasket Set-Ref. No. 977.

6709-11

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3C-4/2001



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
304	555572	Housing-Blower	305	555051	Screw (Blower Housing)			

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

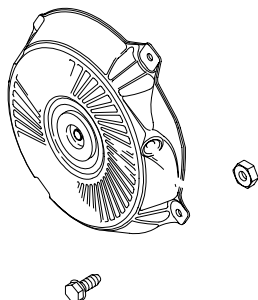
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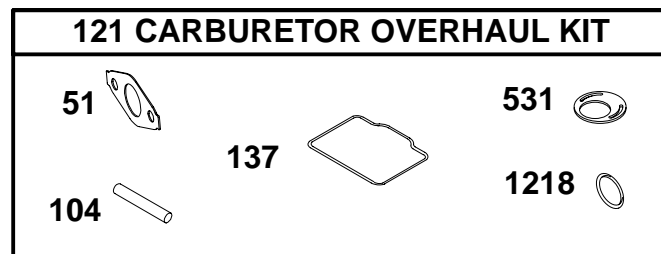
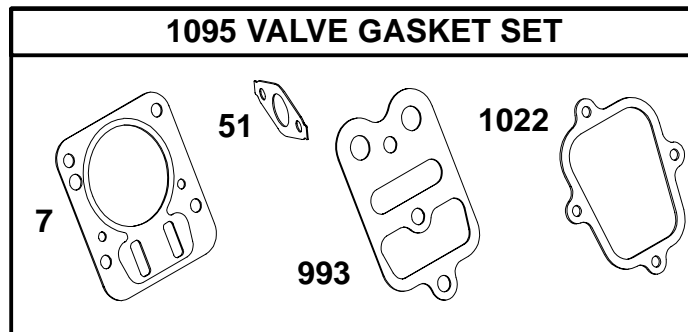
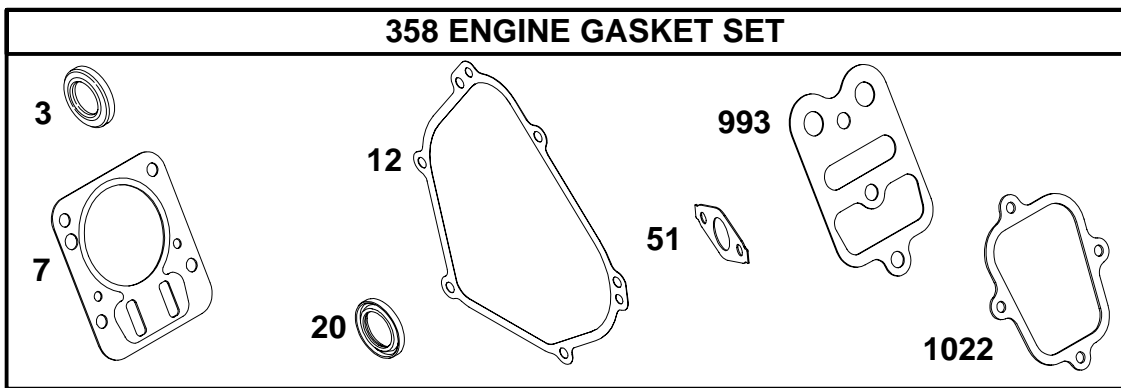
**608**



REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
<b>608</b>	<b>555576</b>	Starter–Rewind						

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REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
3	★555071	Seal-Oil (Magneto Side)	121	555605	Kit-Carburetor Overhaul	993	★Ø555554	Gasket-Cylinder Head Plate
7	★Ø555524	Gasket-Cylinder Head	137	●555592	Gasket-Float Bowl	1022	★Ø555523	Gasket-Rocker Cover
12	★555525	Gasket-Crankcase	358	555580	Gasket Set-Engine	1095	555581	Gasket Set-Valve
20	★555529	Seal-Oil (PTO Side)	531	●555595	Gasket-Throttle Cable Cap	1218	●555601	Seal-O Ring (Carburetor)
51	◆●555522	Gasket-Intake						
104	●555587	Pin-Float Hinge						

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