

THE ANIMAL RACING ENGINE

Illustrated Parts List



124332

TYPE NUMBER
8002.

WARNING

TO REDUCE THE RISK OF DEATH, SERIOUS INJURY AND PROPERTY DAMAGE, AT ALL TIMES:

- **INSTALL A RETURN TO IDLE SPRING!** This engine does not have a GOVERNOR. Before operating this engine a RETURN TO IDLE SPRING MUST BE ATTACHED to the throttle linkage and/or cable.
- **USE AN APPROPRIATE FLYWHEEL!** This engine is equipped with a stock flywheel. If the engine is MODIFIED, the STOCK FLYWHEEL MUST BE REPLACED with one appropriate for your modified engine.
- **FOLLOW BRIGGS & STRATTON REPAIR MANUAL P/N 272147 INSTRUCTIONS!** When removing and installing the flywheel and for all repairs, follow instructions and use only proper tools.
- **Special skills and knowledge are required to prepare the engine for competitive events and Sanctioned Racing.** Only qualified persons should perform this work.
- **READ AND FOLLOW OWNER'S MANUAL.**



BRIGGS & STRATTON
ANIMAL
racing engines

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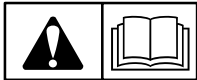
BRIGGS & STRATTON



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BEFORE OPERATING ENGINE

- Read entire Operating & Maintenance Instructions AND the instructions for the equipment this engine powers.*
- Failure to follow instructions could result in serious injury or death.

THESE INSTRUCTIONS CONTAIN SAFETY INFORMATION TO

- Make you aware of hazards associated with engines
- Inform you of the risk of injury associated with those hazards, and
- Tell you how to avoid or reduce the risk of injury.

The safety alert symbol () is used to identify safety information about hazards that can result in personal injury.

A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.



DANGER

Indicates a hazard which, if not avoided, **will result in death or serious injury.**



WARNING

Indicates a hazard which, if not avoided, **could result in death or serious injury.**



CAUTION

Indicates a hazard which, if not avoided, **might result in minor or moderate injury.**

CAUTION, when used **without** the alert symbol, indicates a situation that **could result in damage to 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.

HAZARD SYMBOLS AND MEANINGS



Fire



Explosion



Toxic Fumes



Hot Surface



Moving Parts



Kickback



Shock

THE INTERNATIONAL SYMBOLS USED ON THE ENGINE OR IN THIS MANUAL INCLUDE:



Safety Alert



Read Owner's Manual



Fuel



Fuel Shutoff



Oil



Choke



Stop



On Off



WARNING



Engines give off carbon monoxide, an odorless, colorless, poison gas.

Breathing carbon monoxide can cause nausea, fainting or death.

- Start and run engine outdoors.
- Do not start or run engine in enclosed area, even if doors or windows are open.



WARNING



Rapid retraction of starter cord (kickback) will pull hand and arm toward engine faster than you can let go.

Broken bones, fractures, bruises or sprains could result.

- When starting engine, pull cord slowly until resistance is felt, then pull rapidly.
- Remove all external equipment/engine loads before starting engine.
- Direct coupled equipment components such as, but not limited to, blades, impellers, pulleys, sprockets, etc., must be securely attached.

* Briggs & Stratton does not necessarily know what equipment this engine will power. For that reason, you should carefully read and understand the operating instructions for the equipment on which your engine is placed.

WARNING



Gasoline and its vapors are extremely flammable and explosive.

Fire or explosion can cause severe burns or death.

WHEN ADDING FUEL

- Turn engine OFF and let engine cool at least 2 minutes before removing gas cap.
- Fill fuel tank outdoors or in well-ventilated area.
- Do not overfill fuel tank. Fill tank to approximately 1-1/2 inches below top of neck to allow for fuel expansion.
- Keep gasoline away from sparks, open flames, pilot lights, heat, and other ignition sources.
- Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.

WHEN STARTING ENGINE

- Make sure spark plug, muffler, fuel cap and air cleaner are in place.
- Do not crank engine with spark plug removed.
- If fuel spills, wait until it evaporates before starting engine.
- If engine floods, set choke to OPEN/RUN position, place throttle in FAST and crank until engine starts.

WHEN OPERATING EQUIPMENT

- Do not tip engine or equipment at angle which causes gasoline to spill.
- Do not choke carburetor to stop engine.

WHEN TRANSPORTING EQUIPMENT

- Transport with fuel tank EMPTY or with fuel shut-off valve OFF.

WHEN STORING GASOLINE OR EQUIPMENT WITH FUEL IN TANK

- Store away from furnaces, stoves, water heaters or other appliances that have pilot light or other ignition source because they can ignite gasoline vapors.

WARNING



Unintentional sparking can result in fire or electric shock.

Unintentional start-up can result in entanglement, traumatic amputation, or laceration.

BEFORE PERFORMING REPAIRS OR ADJUSTMENTS

- Disconnect spark plug wire and keep it away from spark plug.
- Disconnect battery at negative terminal (only engines with electric start).

WHEN TESTING FOR SPARK

- Use approved spark plug tester.
- Do not check for spark with spark plug removed.

WARNING



Running engines produce heat. Engine parts, especially muffler, become extremely hot.

Severe thermal burns can occur on contact.

Combustible debris, such as leaves, grass, brush, etc. can catch fire.

- Allow muffler, engine cylinder and fins to cool before touching.
- Remove accumulated combustibles from muffler area and cylinder area.
- Install and maintain in working order a spark arrester before using equipment on forest-covered, grass-covered, brush-covered unimproved land. The state of California requires this (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal land.

WARNING



Rotating parts can contact or entangle hands, feet, hair, clothing, or accessories.

Traumatic amputation or severe laceration can result.

- Operate equipment with guards in place.
- Keep hands and feet away from rotating parts.
- Tie up long hair and remove jewelry.
- Do not wear loose-fitting clothing, dangling drawstrings or items that could become caught.

WARNING



Starting engine creates sparking.

Sparking can ignite nearby flammable gases.

Explosion and fire could result.

- If there is natural or LP gas leakage in area, do not start engine.
- Do not use pressurized starting fluids because vapors are flammable.

WARNING

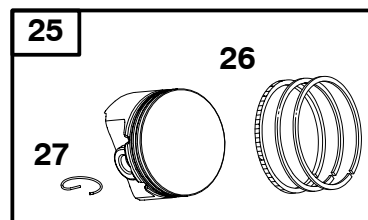
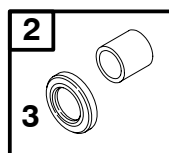
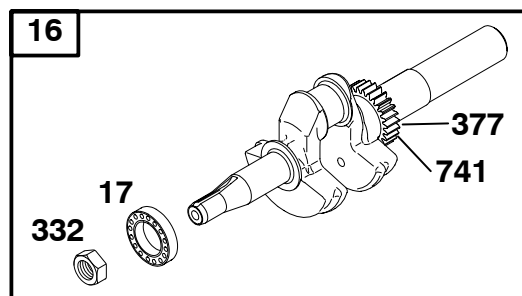
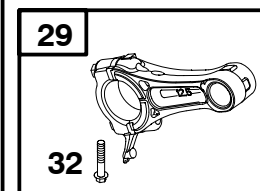
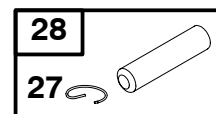
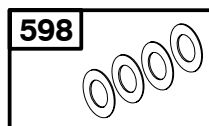
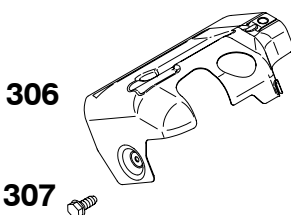
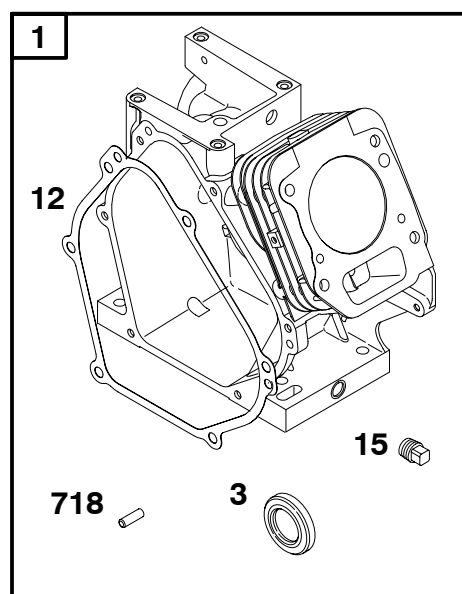


Replacement parts for fuel system (cap, hoses, tanks, filters, etc.) must be the same as original parts, otherwise fire can occur.

WARNING

DO NOT strike the flywheel with a hammer or hard object because the flywheel may later shatter during operation.

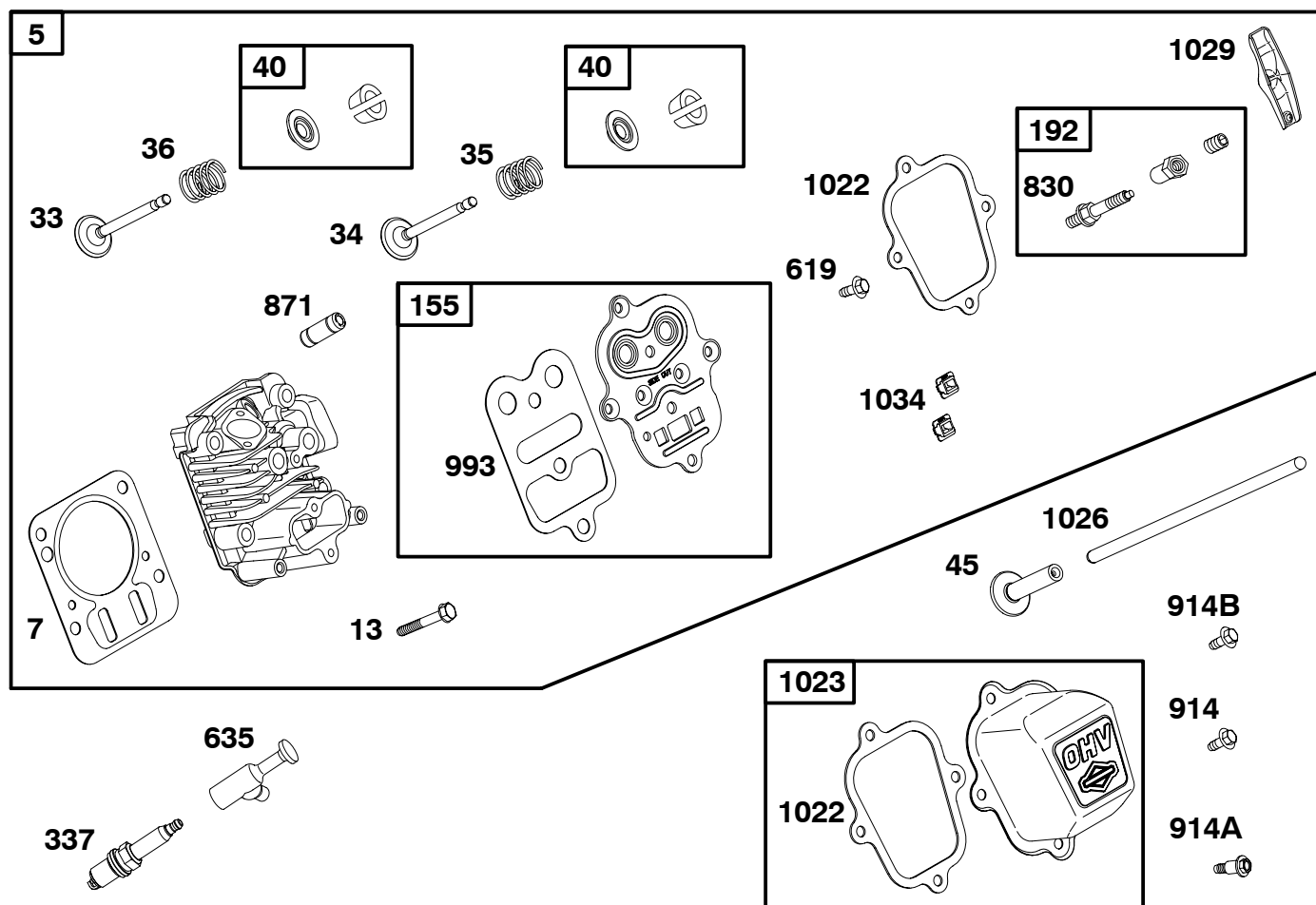
1330 REPAIR MANUAL



| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|---------------------------------|----------|----------|----------------------------------|----------|----------|---|
| 1 | 555655 | Cylinder Assembly | 25 | 555510 | Piston Assembly (Standard) | 27 | 691866 | Lock-Piston Pin |
| 2 | 555140 | Kit-Bushing/Seal (Magneto Side) | | | ----- Note ----- | 28 | 499423 | Pin-Piston |
| 3 | ★299819s | Seal-Oil (Magneto Side) | | 555511 | Piston Assembly (.010" Oversize) | 29 | 555626 | Rod-Connecting |
| 11 | 692600 | Tube-Breather | | 555512 | Piston Assembly (.020" Oversize) | 32 | 557078 | Screw (Connecting Rod) |
| 12 | ★699485 | Gasket-Crankcase | | 555513 | Piston Assembly (.030" Oversize) | 306 | 693610 | Shield-Cylinder |
| 15 | 691686 | Plug-Oil Drain | | 555514 | Ring Set (Standard) | 307 | 699483 | Screw (Cylinder Shield) (Metric) |
| 16 | 555622 | Crankshaft | | | ----- Note ----- | 332 | 699359 | Nut (Flywheel) |
| 17 | 690824 | Bearing-Ball | | 555515 | Ring Set (.010" Oversize) | 377 | 690979 | Key-Woodruff |
| 24 | 222698s | Key-Flywheel | | 555516 | Ring Set (.020" Oversize) | 598 | 555652 | Shim-Endplay (Crankshaft) (Contains .007, .012, .018, and .025) |
| | | | | 555517 | Ring Set (.030" Oversize) | 718 | 690959 | Pin-Locating |
| | | | | | | 741 | 695087 | Gear-Timing |
| | | | | | | 1330 | 272147 | Repair Manual |

★ Engine Gasket Set-Reference 358
 Δ Valve Gasket Set-Reference 1095

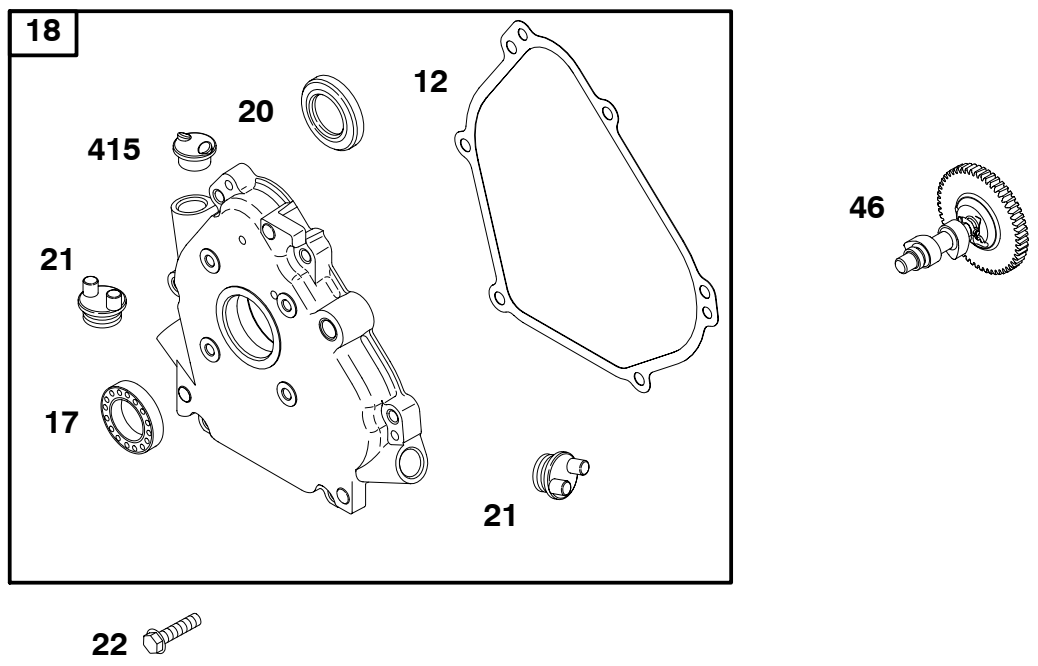
● Carburetor Overhaul Kit-Reference 121



| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|--------------------------------|----------|----------|---------------------------------------|----------|----------|--|
| 5 | 555635 | Head-Cylinder | 155 | 698214 | Plate-Cylinder Head | 914 | 699481 | Screw (Rocker Cover) (Bottom) (Metric) |
| 7 | ★698210 | Gasket-Cylinder Head | 192 | 694543 | Adjuster-Rocker Arm | 914A | 692557 | Screw (Rocker Cover) (Top) |
| 13 | 699482 | Screw (Cylinder Head) (Metric) | 337 | 491055s | Plug-Spark | 914B | 697551 | Screw (Rocker Cover) (Center) |
| 33 | 555552 | Valve-Exhaust | 619 | 699230 | Screw (Cylinder Head Plate) (Metric) | 993 | ★△694088 | Gasket-Cylinder Head Plate |
| 34 | 555551 | Valve-Intake | 635 | 692927 | Boot-Spark Plug | 1022 | ★△691890 | Gasket-Rocker Cover |
| 35 | 26826 | Spring-Valve (Intake) | 830 | 694544 | Stud-Rocker Arm | 1023 | 499924 | Cover-Rocker |
| 36 | 26826 | Spring-Valve (Exhaust) | 871 | 555645 | Bushing-Valve Guide (.002" Oversized) | 1026 | 693517 | Rod-Push |
| 40 | 555550 | Retainer-Valve | | | | 1029 | 691230 | Arm-Rocker |
| 45 | 690977 | Tappet-Valve | | | | 1034 | 691343 | Guide-Push Rod |

★ Engine Gasket Set-Reference 358
 △ Valve Gasket Set-Reference 1095

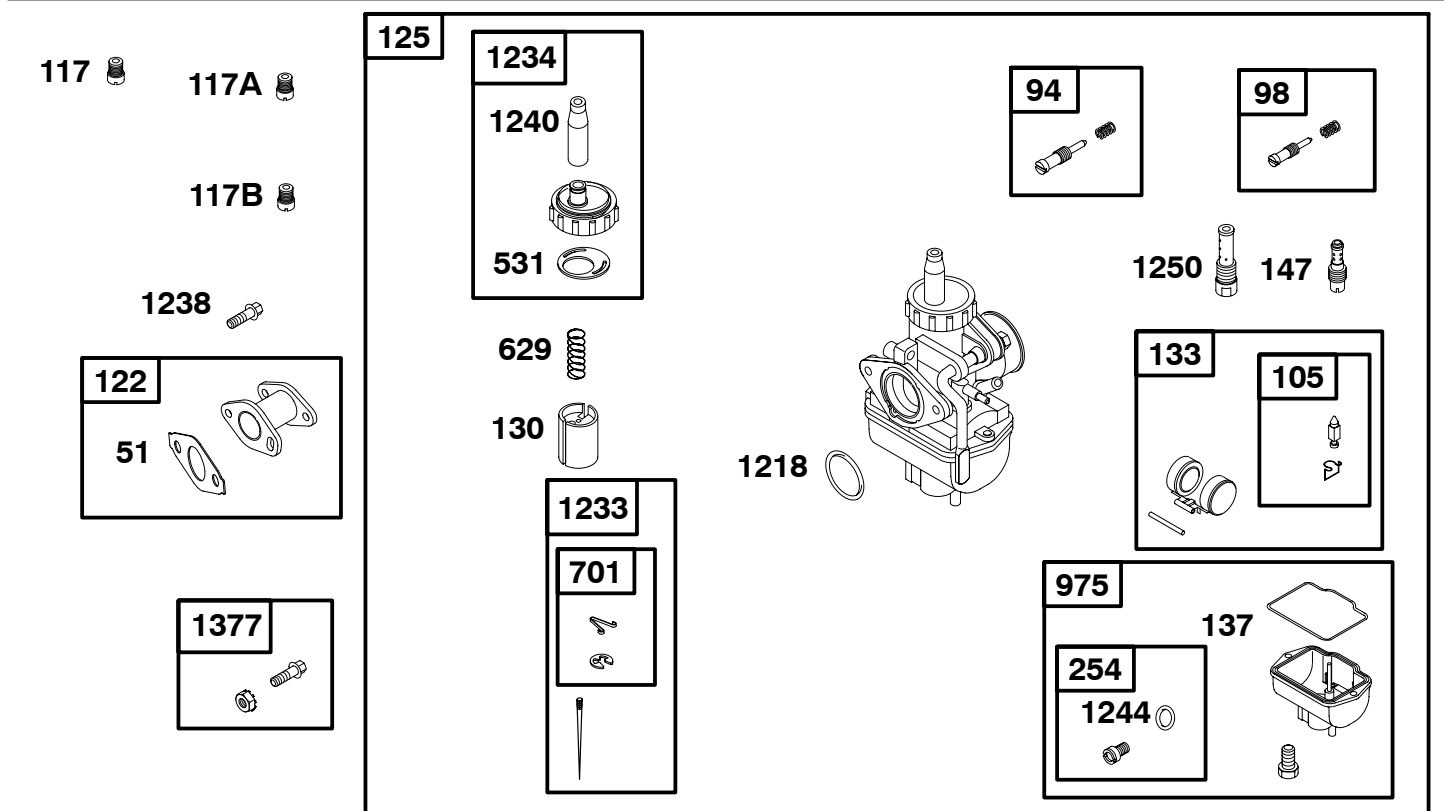
● Carburetor Overhaul Kit-Reference 121



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|-------------|-------------|------------------------|-------------|-------------|--|-------------|-------------|---------------------------------|
| 12 | ★699485 | Gasket-Crankcase | 21 | 281658s | Cap-Oil Fill | 46 | 696813 | Camshaft (Machined) |
| 17 | 692517 | Bearing-Ball | 22 | 699478 | Screw (Crankcase Cover/Sump) (Metric) | | | ----- Note ----- |
| 18 | 555630 | Cover-Crankcase | | | | | | 555584 Camshaft (Unmachined) |
| 20 | ★692550 | Seal-Oil (PTO Side) | | | | 415 | 555563 | Plug |

★ Engine Gasket Set-Reference 358
△ Valve Gasket Set-Reference 1095

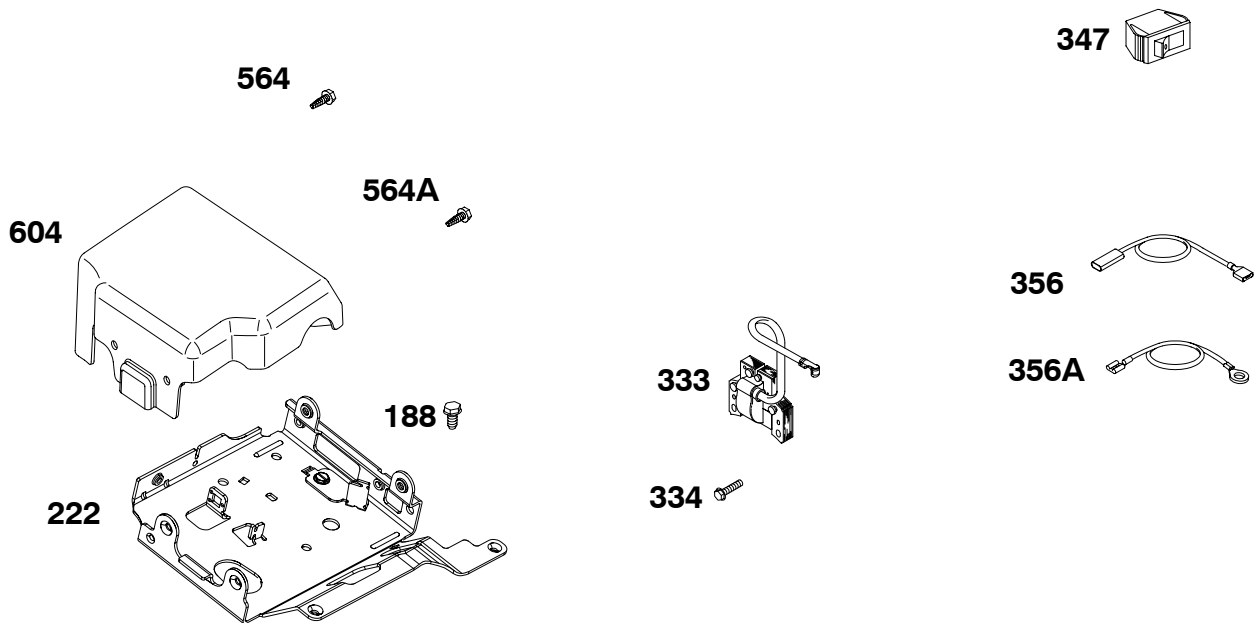
● Carburetor Overhaul Kit-Reference 121



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|----------|----------|---|--|----------|---|-------------------------|----------|--|
| 51 | 691885 | Gasket-Intake | 122 | 555545 | Spacer-Carburetor | 975 | 555653 | Bowl-Float (Used After Code Date 05053100). |
| 94 | 555585 | Kit-Idle Mixture | 125 | 555658 | Carburetor (Used After Code Date 05053100). | ----- Note ----- | | |
| 98 | 555586 | Kit-Idle Speed | 555560 Carburetor (Used Before Code Date 05060100). | | | 1218 | 555601 | Seal-O Ring (Carburetor) |
| 105 | 555648 | Valve-Needle Float | 130 | 555590 | Valve-Throttle | 1233 | 555602 | Jet-Needle (Gasoline) |
| 117 | 555536 | Jet-Main (Gasoline) (Contains: 30 and 34mm Pilot Jets; 86, 93, 95, 96 and 100mm Main Jets) | 133 | 555591 | Float-Carburetor | ----- Note ----- | | |
| 117A | 555537 | Jet-Main (Alcohol) (Contains: 1 Alcohol Main Nozzle; 38, 40, and 42mm Pilot Jets; 135, 137, and 140mm Main Jets and 1 Alcohol Needle) | 137 | 555592 | Gasket-Float Bowl | 1234 | 555603 | Cap-Throttle Cable |
| 117B | 555639 | Jet-Main (Blank) (Contains 5) | 147 | 555594 | Jet-Pilot | 1238 | 555644 | Screw (Carburetor Spacer) (Spacer to Cylinder) (Metric) |
| | | | 254 | 555659 | Drain-Carburetor Bowl (Used After Code Date 05053100). | 1240 | 555647 | Boot-Throttle Cable |
| | | | 555607 Drain-Carburetor Bowl (05060100). | | | 1244 | 555610 | Seal-O Ring (Carburetor Bowl Drain) |
| | | | 531 | 555595 | Gasket-Throttle Cable Cap | 1250 | 555593 | Tube-Emulsion |
| | | | 629 | 555596 | Spring-Throttle Return | 1377 | 555646 | Kit-Screw/Nut (Carburetor to Spacer) (Metric) |
| | | | 701 | 555650 | Retainer-Needle Valve (Contains 5 Clips and 5 Retainers) | | | |

★ Engine Gasket Set-Reference 358
 Δ Valve Gasket Set-Reference 1095

● Carburetor Overhaul Kit-Reference 121

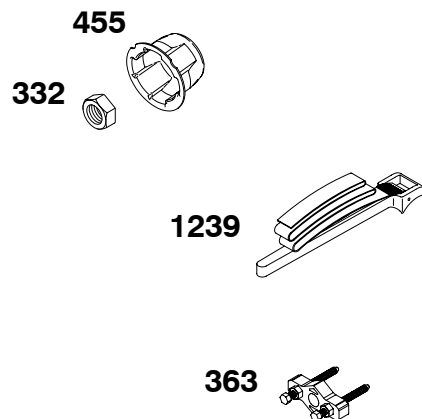
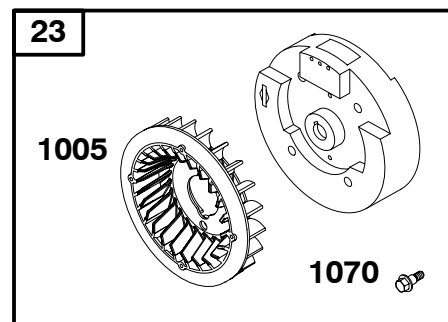
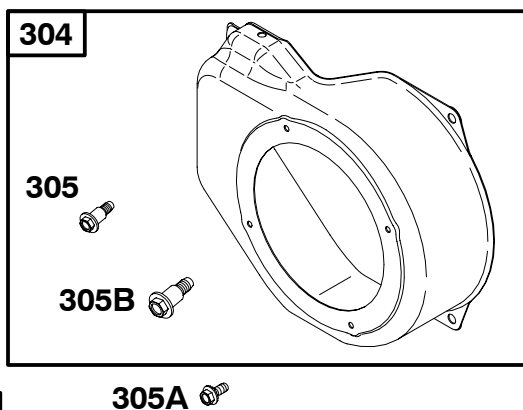
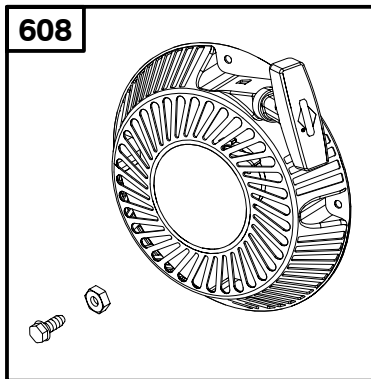


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|-------------|-------------|---|-------------|-------------|------------------------------|-------------|-------------|--------------------------------------|
| 188 | 699479 | Screw (Control Bracket) (Metric) | 347 | 698338 | Switch-Rocker | 564 | 699491 | Screw (Control Cover) (Metric) |
| 222 | 699493 | Bracket-Control | 356 | 692602 | Wire-Stop (Rocker Switch) | 564A | 699492 | Screw (Control Cover) (Metric) |
| 333 | 557040 | Armature-Magneto | 356A | 695630 | Wire-Stop | 604 | 697326 | Cover-Control |
| 334 | 699477 | Screw (Magneto Armature) (Metric) | | | | | | |

★ Engine Gasket Set-Reference 358
△ Valve Gasket Set-Reference 1095

● Carburetor Overhaul Kit-Reference 121

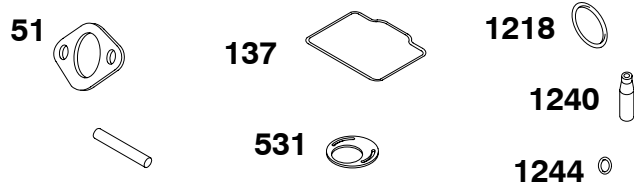
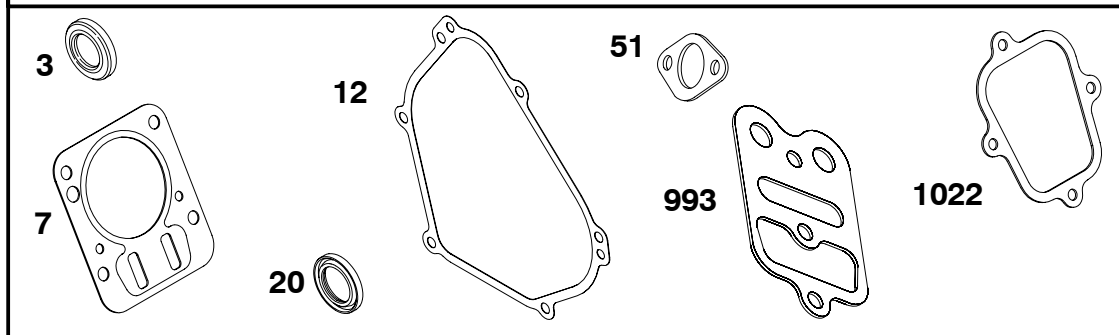
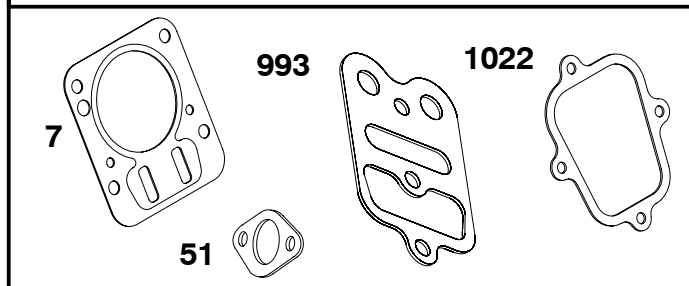
1019 LABEL KIT



| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|----------|----------|--|----------|----------|-----------------|----------|----------|----------------------|
| 23 | 555625 | Flywheel | 332 | 699359 | Nut (Flywheel) | 1005 | 692592 | Fan-Flywheel |
| 304 | 555623 | Housing-Blower | 363 | 19069 | Puller-Flywheel | 1019 | 555577 | Kit-Label |
| 305 | 555629 | Screw (Blower Housing) (Metric) | 455 | 692591 | Cup-Flywheel | 1070 | 699201 | Screw (Flywheel Fan) |
| 305A | 691678 | Screw (Blower Housing) | 608 | 695287 | Starter-Rewind | 1239 | 19433 | Wrench-Flywheel |
| 305B | 557107 | Screw (Blower Housing) (Rewind Starter) (Metric) | | | | | | |

★ Engine Gasket Set-Reference 358
 △ Valve Gasket Set-Reference 1095

● Carburetor Overhaul Kit-Reference 121

121 CARBURETOR OVERHAUL KIT**358 ENGINE GASKET SET****1095 VALVE GASKET SET**

| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|-------------|-------------|----------------------------|-------------|-------------|-------------------------------|-------------|-------------|-----------------------------|
| 3 | ★299819s | Seal–Oil (Magneto Side) | 121 | 555605 | Kit–Carburetor Overhaul | 1022 | ★Δ691890 | Gasket–Rocker Cover |
| 7 | ★698210 | Gasket–Cylinder Head | 137 | ●555592 | Gasket–Float Bowl | 1095 | 555636 | Gasket Set–Valve |
| 12 | 699485 | Gasket–Crankcase | 358 | 555631 | Gasket Set–Engine | 1218 | ●555601 | Seal–O Ring (Carburetor) |
| 20 | ★692550 | Seal–Oil (PTO Side) | 531 | ●555595 | Gasket–Throttle Cable Cap | 1240 | ●555647 | Boot–Throttle Cable |
| 51 | ●★Δ691885 | Gasket–Intake | 993 | ★Δ694088 | Gasket–Cylinder Head Plate | 1244 | ●555610 | Seal–O Ring (Carburetor) |

★ Engine Gasket Set–Reference 358
 Δ Valve Gasket Set–Reference 1095

● Carburetor Overhaul Kit–Reference 121

