GRAZOR® Owner's Manual

GZ550H

Accessories

8" PREMIUM HEAVY DUTY REPLACEMENT BRUSH	8" STANDARD REPLACEMENT BRUSH	DRIVE BELT	ENGINE PULLEY	BRUSH DRIVE PULLEY
OEM quality replacement wire brush.	Standard replacement wire brush.	Original equipment belt for replacement.	Original equipment pulley for replacement.	Original equipment pulley for replacement.
P/N 600172	**P/N 610140**	**P/N 610420**	**P/N 610417**	**P/N 610403**

Original Instructions

IMPORTANT- READ CAREFULLY BEFORE USE AND KEEP FOR FUTURE REFERENCE

NOT FOR REPRODUCTION

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Go to http://www.billygoat.com for translations of the product manuals.

Visitez http://www.billygoat.com pour la version canadienne-française des manuels de produits.

SPECIFICATIONS

	GZ550H
Engine HP	4.8 (3.6 kW)
Engine model	GX160UT2QA2
Engine type	HONDA OHV
Engine fuel capacity	3.3 qt. (3.1 L)
Engine oil capacity	0.63 qt. (0.6 L)
Total unit weight:	89# (38.6 kg)
Max. operating slope	20°

SAFETY

WARNING

This product can expose you to chemicals including gasoline engine exhaust, which is known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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INSTRUCTION LABELS

The labels shown below were installed on your BILLY GOAT® Grazor. If any labels are damaged or missing, replace them before operating this equipment. For your convenience in ordering replacement labels, part numbers are included in the Illustrated Parts List.The correct position for each label may be determined by referring to the Figure and Item numbers shown.

LABEL WARNING GUARDS
ITEM #59 P/N 900327

LABEL EXPLOSIVE FUEL
ITEM # 2 P/N 400268

DANGER FLYING DEBRIS
ITEM #66 P/N 810736

LABEL SAFETY PROTECT
ITEM #57 P/N 100346

LABEL EXPLOSIVE FUEL
ITEM # 63 P/N 610107
(Honda only)

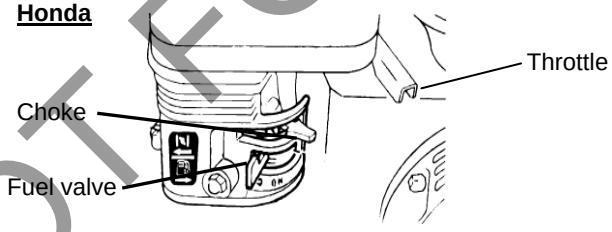
LABEL DANGER
ITEM #5 P/N 600117

ENGINE LABELS

HONDA

THROTTLE CONTROLS

Honda



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PACKING CHECKLIST

Your Billy Goat is shipped from the factory in one carton, completely assembled except for the upper handle assembly, lower handles, handle brace, brush lift rod, and brush.

READ all safety instructions before assembling unit.

TAKE CAUTION when removing the unit from the box.

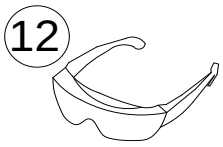
PUT OIL IN ENGINE BEFORE STARTING

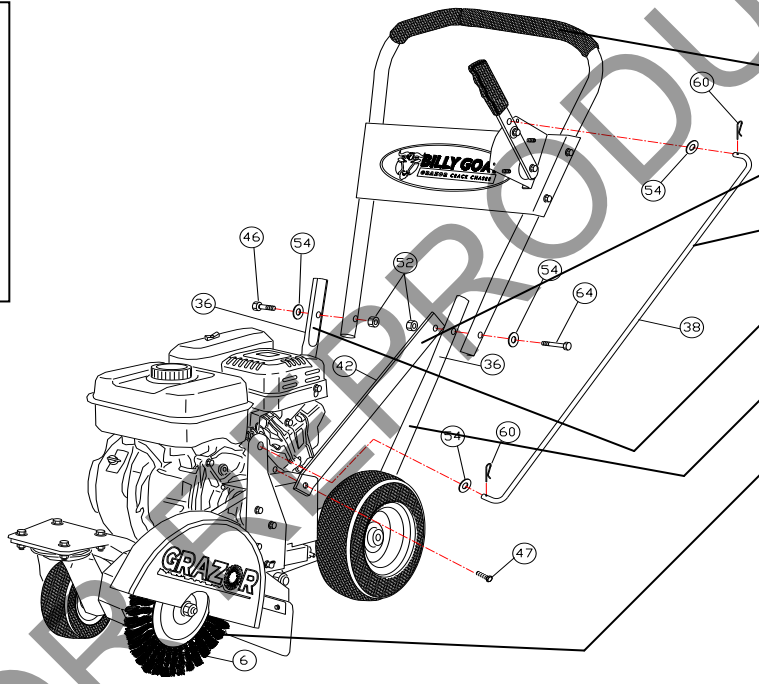
PARTS BAG & LITERATURE ASSY

Warranty card P/N- 400972, Owner's Manual P/N-610501, General Safety and Warnings manual P/N-100296.

Parts Bag *Checklist*

☐ **Safety Glasses 610129 qty. 1**





Boxing Parts *Checklist*

☐ **Handle upper assembly 610438-S**

☐ **Handle Brace 610442**

☐ **Brush Lift Rod 610426**

☐ **Handle Lower RH 610423**

☐ **Handle Lower LH 610424**

☐ **Brush 8" Wire 610140**

☐ **Owner's Manual GZ 610501**

Engine Manual Per Model

☐ **Honda 4.8 HP**

ASSEMBLY

1. Install the lower handles one on each side of the unit using bolt (item 45), washer (item 54) and nut (item 52). There are two bolts per lower handle section. *NOTE:* The lower handle has a left and right hand section. Be sure when installing that each section will point to the outside of the unit when hardware is secured.
2. Install upper handle assembly by aligning the holes in the upper handle with the holes in the lower handle stubs that are preassembled on the machine. Secure the handles together using bolt (Item 46), washer (Item 54), and nut (Item 52) on the operator's right hand side. Secure using bolt (Item 64), washer (Item 54), and nut (Item 52) on the operator's left hand side. Use the same hardware to secure the flat end of the handle brace (Item 42) to the left side of the handle.
3. Secure the bent end of the handle brace (Item 42) to the face of the engine using bolt (Item 47).
4. Install the brush lift rod (Item 38) by placing one end through the hole in the lift control arm mounted on the upper handle and securing it with a washer (Item 54) and pin (Item 60). Place the other end though the brush pivot arm and secure in the same way. *NOTE:* The pin and washer come pre-installed in the ends of the rod (Item 38). Remove and re-use them for final assembly.
5. Install brush (Item 6) by removing the brush guard (Item 27) and removing the brush mounting nut (Item 15) and one washer (Item 16). Slide the brush on the shaft and reinstall the washer, nut, and brush guard.

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OPERATION

1. Do not operate product when barefoot or wearing open sandals. Always wear safety footwear, pants or slacks that cover your legs.
2. DO NOT use product on graveled surfaces.
3. Never operate this product without good visibility or light.
4. Start the engine carefully. Make certain the brush is raised in the store position, and that the engine stop switch is set to "on" before attempting to start. Keep hands, feet, clothing and the like well away from cutting member and other moving parts.
5. Never attempt to make any adjustments while engine is running.
6. Never direct discharge of material toward bystanders nor allow anyone near the area of operation. Use care in directing discharge to avoid glass enclosures, automobiles and the like.
7. Stay alert for uneven pavement, holes in terrain or other unstable conditions when using this product. Always push the machine slowly over rough surfaces.
8. Objects struck by the brush can cause injuries. The surface should always be carefully examined and cleared of all foreign objects prior to operation. See brush safety instructions, below and next page.
9. Move brush lever to store position when the product is not in use. Take all possible precautions when leaving the machine unattended. Disengage attachments and stop the engine.
10. When cleaning, repairing, or inspecting, make certain the brush and all moving parts have stopped, and the engine is not running. Disconnect the spark plug wire and keep the wire away from the plug so that unintentional starting does not occur. Keep all guards free from debris build-up.
11. Never operate this product without guards, plates or other protective devices in place.
12. Use only accessories and attachments supplied, or specifically recommended by the manufacturer.
13. Do not operate this product with a damaged or excessively worn brush.
14. **CAUTION:** Operate this product from a position where guards block the line of sight to the brush.

Brush usage recommendations

Pressure

Avoid excessive pressure when using a power brush. Excessive pressure causes over-bending of the filaments and heat build-up resulting in filament breakage, rapid dulling and reduced brush life. Instead of greater pressure on a brush, it is suggested that you try:

1. A brush with a more aggressive cutting action (increased wire size, decreased filament length, change to a different brush type, i.e., knot type instead of crimped wire type).
2. Higher speed increased R.P.M., increased brush diameter.

NOTE: Never exceed the recommended maximum safe free speed R.P.M. (MSFS) rating of the brush.

Failure to observe any of the requirements shown in the safety section will create hazards and can cause injury.

Brushing Problems

DO NOT allow unsafe conditions to continue. Occasionally, due to worn bearings, a bent spindle, an unusual application, operator abuse, or inappropriate use, a brush may fail.

A brush which is not received in acceptable condition for trouble-free operation may also fail. Do not use or continue to use a failed brush or one which is functioning improperly (i.e., throwing filaments, out-of-balance, etc.) as this increases the possibility for further brush failure and hazard of injury. The cause of the failure should be evaluated and corrected.

This information is based on the collective experience of the ABMA industrial division members and provided solely as a public service for the guidance of the users of the members' products. These recommendations are not necessarily complete with respect to any particular application and common sense safety considerations should be adhered to generally. Any applicable federal, state, local law or regulation must be strictly adhered to, and is controlling over any recommendation contained herein.

Safety Instructions (Twisted-in-wire brushes)

The Twisted-In-Wire Brushes, used under power, shall be securely held in a collet, chuck or similar holding device.

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*****TIPS*****

OPERATION

A side-to-side sweeping motion is the quickest way to remove surface vegetation from crevices, even if deeper crevice cleaning is desired. After removing surface vegetation, the crevice will be more visible for a deeper cleaning.

Power Brush Safety Requirements

WARNING: In normal power brushing operations, the material being removed such as burrs, scale, dirt, weld slat, or other residue, will fly off the brush with considerable force along with brush filaments, which break off due to fatigue.

The potential of serious injury exists for both the brush operator and others in the work area (possible 50 or more feet from the brush). To protect against this hazard, wear safety goggles or full face shields (worn over safety glasses with side shields), along with protective clothing. You must follow all operator and safety instructions, as well as all common safety practices, which reduce the likelihood of physical injury.

Guards

Keep all machine guards in place.

Speeds

Observe all speed restrictions indicated on brushes, containers, labels or printed in pertinent literature. "MSFS" means Maximum Safe Free Speed (RPM) – spinning free with no work applied. For reasons of safety, "MSFS" should not be exceeded under any circumstances.

Protective Equipment

Appropriate protective clothing and equipment must be used where there is a possibility of injury that can be prevented by such clothing or equipment.

WARNING: Failure to observe safety precautions may result in injury.

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MAINTENANCE

PERIODIC MAINTENANCE

Periodic maintenance should be performed at the following intervals:

Maintenance Operation	Every Use (daily)	Every 5 Hrs or (daily)	Every 25 Hours
Inspect for loose, worn or damaged parts		●	
Check for excessive vibration	●		
Inspect belt for wear			●
Engine (See Engine Manual)			
Service the air cleaner (see Engine Manual for details)			●
Lubricate front wheels and rear wheels			●
Grease brush arm mechanism			●

CHANGING BRUSH

1. Wait for engine to cool and disconnect spark plug.
2. Remove the brush guard (item 27) by removing the two screws (item 45) that secure it in place. Use gloves and a shop rag to hold the brush and prevent it from rotating.
3. Using a 3/4" wrench remove brush nut (item 15), and slide brush washer (item 16) off the bearing shaft.
4. Slide the brush (item 6) sideways off of the bearing shaft.
5. Install new brush over the shaft. NOTE: Be sure to use the nylon bushing that comes with the Billy Goat replacement brush to insure proper fit between the brush and the shaft.
6. Replace the brush washer (item 16), and the brush nut (item 15). Use a 3/4" wrench to torque the nut to 45 ft.lbs. to secure the brush in place. Be sure to wear gloves and use a shop rag to hold the brush while tightening. Reinstall the brush guard that was removed in step 2.

CHANGING BELT

NOTE: Use only factory original belts for maximum service life. BGI #610420 Inspect the pulleys when replacing the belt and replace if worn or damaged.

1. Wait for engine to cool and disconnect spark plug.
2. Using two 1/2" wrenches, remove the bolt (item 45) and nut (item 52), one on each side, that secures the brush guard (item 27) and the front pulley guard (item 31). Set the two guards aside.
3. Using a 3/8" wrench, remove the three bolts (item 4) that secure the rear pulley guard in place. Set the guard aside.
4. Slide the belt off the engine pulley and over the end of the crankshaft, and discard the old belt.
5. Install the new belt in the reverse order of removal.
6. Replace the guards and secure in place with using the hardware you removed.

CHANGING PULLEYS

NOTE: Pulleys should be replaced in pairs and not individually to obtain the maximum service life from you unit.

1. Wait for engine to cool and disconnect spark plug.
2. Remove the belt by following the Belt Replacement procedure on the preceding page.
3. Using a 5/32" allen wrench loosen the set screws, two per pulley that secure the pulleys in place.
4. Slide the pulleys off the shafts and slide the new pulleys in place.
5. Use a long straight edge to align the pulleys before tightening the set screws in place.
6. Torque the set screws to15 ft. lbs. to secure them.
7. Replace the belt and all guard by referring to the Belt Replacement procedure on the preceding page. *NOTE*: Use only factory original pulleys as replacement parts. Inspect the belt when replacing the pulleys and replace if worn or damaged.

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TIRE AIR PRESSURE

Check at regular intervals and maintain. Rear Tires - 24 Psi (17 kPa).

TROUBLESHOOTING

Problem	Possible Cause	Solution
Engine will not start	Stop switch off. Throttle in off position. Engine not in full choke position. Out of gasoline. Bad or old gasoline. Spark plug wire disconnected. Dirty air cleaner.	Check stop switches, throttle, choke position and gasoline. Connect spark plug wire. Clean or replace air cleaner. Or contact a qualified service person.
Abnormal vibration	Loose or out of balance brush or loose engine.	Replace brush. Check engine hardware.
Brush stalls	Worn belt or pulleys or both.	Replace belt and or pulleys.
Belt comes off	Pulleys not aligned. Bent belt guard.	Align pulleys. Replace bent guards.
Engine is locked, will not pull over	Engine problem.	Contact and engine servicing dealer for engine problems.

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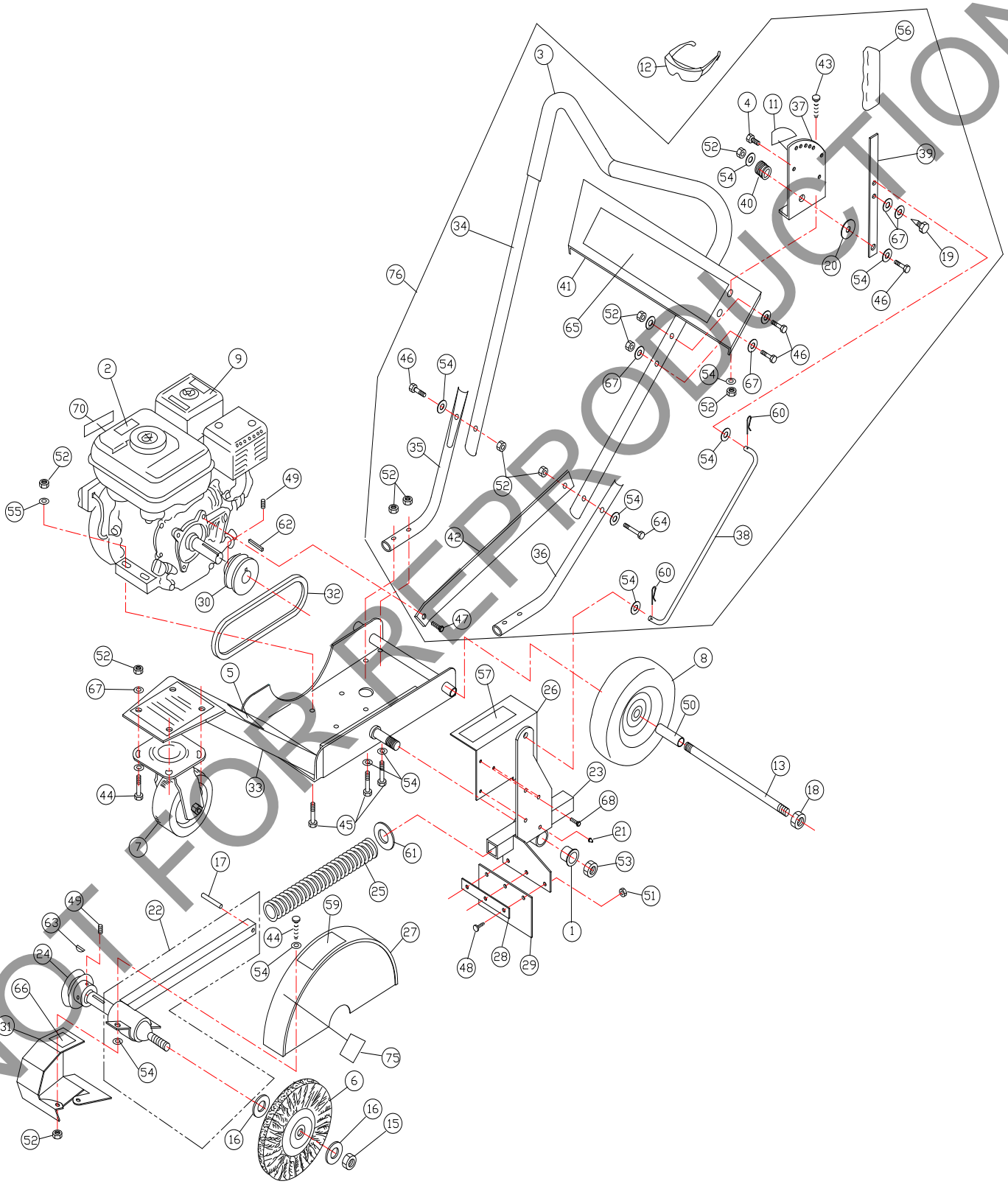
GZ PARTS DRAWING



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GZ PARTS LIST

item no.	PARTS LIST	GZ550H Part No.	QTY
1	Bushing Pivot Frame	360183	2
2	Label Hot Engine EN/SP	-	-
3	Grip Handle 1" X 13"	400570	2
4	Screw self tap 1/4-20 x 5/8 type F	890359	2
5	Label Danger	600117	1
6	Brush 8" Wire Heavy Duty Premium*	600172	1
7	Caster 5" Dia. X 2"	610101	1
8	Wheel 8" x 2.25" w/ 0.625 Bearing	610375	2
9	HONDA 5.5HP GX160UT2 QA2	610376	1
11	Label Height Adjust GZ	610113	1
12	Glasses Safety	610129	1
13	Axle Grazor	610131	1
15	Nut Jam 1/2-20 w/Lock	610305	1
16	Washer 1/2" X 2"	610308-P	2
17	Pin Roll 1/4" X 1 3/4"	610319	1
18	Nut Lock 1/2-13 Thin Ht.	8161044	2
19	Pin Screw	610347	1
20	Washer Fibre	610348	1
21	Fitting Grease	610363	1
22	Mandrel GZ W/ BEARING	610370-S	1
23	Arm Pivot WA GZ	610402	1
24	Pulley 3" OD X 5/8" Bore	610403	1
25	Spring Brush Arm	610404	1
26	Guard Rear Pulley	610405	1
27	Guard Brush WA GZ	610406	1
28	Plate Dirt Deflector	610413	1
29	Flap Rubber Dirt Deflector	610414	1
30	Pulley 3.25" OD X 3/4" Bore	610417	1
31	Guard Belt Brush WA	610418	1
32	Belt Gates #6831	610420	1
33	Base Engine WA GZ	610421	1
34	Handle Upper GZ	610422	1
35	Handle Lower RH GZ	610423	1
36	Handle Lower LH GZ	610424	1
37	Plate Quad GZ	610425	1
38	Rod Lift Arm GZ	610426	1
39	Arm Lift GZ	610427	1
40	Spring Lever GZ	610429	1
41	Plate Height Adjust Mount	610431	1
42	Brace Handle GZ	610442	1
43	Screwcap 5/16-18 X 3/4"	8041026	2
44	Screwcap 5/16-18 X 1"	8041028	6
45	Screwcap 5/16-18 X 1 1/2"	8041030	8
46	Screwcap 5/16-18 X 1 3/4"	8041031	7
47	Screwcap 5/16-24 X 5/8"	8042026	1
48	Screwcap #10-24 X 5/8"	8059135	3
49	Screw Set 5/16-18 X 5/16"	8084106	4
50	Spacer 5/8" X 2 1/4"	350130	2
51	Nut Lock #10-24 Lt. Hex	8164005	3
52	Nut Lock 5/16-18	8160002	23
53	Nut Lock 5/8-11	8160007	1
54	Washer 5/16" Flat	8171003	14
55	Washer 5/16" SAE	8172008	4
56	Grip Lever Lift	840191	1
57	Label Safety Protect Read Manual	100346	1
59	Label Danger	900327	1
60	Pin Hair 1/4"	900471	2
61	Washer Flat 1.75 OD X 1.06 ID X 0.100	8172021	1
62	Key 3/16" X 1"	9201078	1
63	Key Woodruff 3/16 X 3/4	850234	1
64	Screwcap 5/16-18 X 2"	8041032	1
65	Label Badging GZ	610446	1
66	Label Danger Flying Debris	810736	1
67	Washer 1/4 Flat ZP	8171002	18
68	Screw sm 1/4" x 1" drill pt.	430208	3
70	Label Spark Arrestor EN/SP	100256	1
75	Label Made in U.S.A.	520116	1
76	Handle Assy GZ Service	610438-S	1

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