



# BILLY GOAT VQ VACUUM

## Owner's Manual

VQ902SPH, VQ1002SP

### Accessories

VACUUM HOSE KIT	HOSE COUPLER KIT	RIDE ON CHARIOT KIT
5" (127mm) x 8' (2.4m) For vacuuming in hard-to-reach areas	5" (127mm) For coupling multiple hoses together to increase vacuuming distance.	Reduces operator fatigue. Operator stands while riding behind vacuum. Maximum load 300 lbs.(136 kg)
<b>P/N 830255</b>	<b>P/N 800334</b>	<b>P/N 830257</b>

### Optional Debris bags

STANDARD DEBRIS BAG	DEBRIS BAG COVER	TURF DEBRIS BAG
Standard on VQ models. For dusty conditions.	Directs dust downward away from operator.	For use in leaves and grass in non-dusty conditions.
<b>P/N 830301</b>	<b>P/N 830284</b>	<b>P/N 830313</b>



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**Specifications**

**VQ1002SP      VQ902SPH**

Engine: HP	10 (7.45 kW)	9.0 (6.6 kW)
Engine: Type	205432-0141	GX270K1QA2
Engine: Fuel Capacity	4 qt. (3.8 L)	6.3 qt. (6.0 L)
Engine: Oil Capacity	0.875 qt. (0.8 L)	1.16 qt. (1.1 L)
Total Unit Weight:	282# (127.9 kg)	287.3# (130.3 kg)
Overall Length	66" (1.68m)	66" (1.68m)
Overall Width	32.75" (0.83m)	32.75" (0.83m)
Overall Height	43.5" (1.10 m)	43.5" (1.10 m)
Max. operating slope	20 <sup>0</sup>	20 <sup>0</sup>
Sound at operators ear	88 dBA	88 dBA
In accordance with 2000/14/EEC	108 dBA	108 dBA
Vibration at operator position	0.83g (8.16m/s <sup>2</sup> )	0.92g (9.07m/s <sup>2</sup> )

**SOUND**



SOUND LEVEL 88 dB(a) at Operator Position

Sound tests were conducted in accordance with 2000/14/EEC, and were performed on 2-14-2002 under the conditions listed below.

Sound power level listed is the highest value for any model covered in this manual. Please refer to serial plate on the unit for the sound power level for your model.

General Conditions:	Sunny
Temperature:	50°F (10°C)
Wind Speed:	15 mph (24.1 kmh)
Wind Direction:	North
Humidity:	32%
Barometric Pressure:	30.06"Hg (764 mm Hg)

**VIBRATION DATA**

VIBRATION LEVEL 0.92g (9.07m/s<sup>2</sup>)

Vibration levels at the operator's handles were measured in the vertical, lateral and longitudinal directions using calibrated vibration test equipment. Tests were performed on 5-25-2006 under the conditions listed below.

General Conditions:	Sunny
Temperature:	75°F (24.1°C)
Wind Speed:	6.7 mph (10.8kph)
Wind Direction:	West
Humidity:	52.5%
Barometric Pressure:	29.9Hg (101.3kpa)



## VQ Owner's Manual

### INSTRUCTION LABELS

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



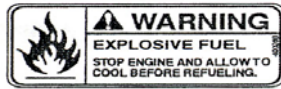
**LABEL DANGER KEEP HANDS AND FEET AWAY**  
ITEM #100 P/N 400424



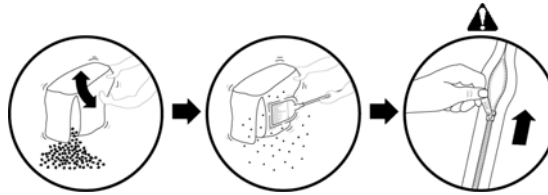
**DANGER FLYING DEBRIS**  
ITEM #101 P/N 810736



**LABEL CAUTION**  
ITEM #159 P/N 830138



**LABEL EXPLOSIVE FUEL**  
ITEM # 130 P/N 400268



**DEBRIS BAG LABEL**



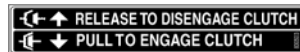
**LABEL DANGER GUARDS**  
ITEM #111 P/N 900327



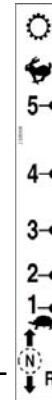
**LABEL OIL CHAIN**  
ITEM #111 P/N 830502



**LABEL DIVERTOR INSTRUCTIONS**  
ITEM #99 P/N 830196



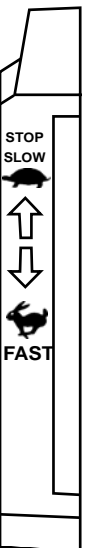
**LABEL CLUTCH VQ**  
ITEM #106 P/N 830503



**LABEL SPEED CONTROL**  
ITEM #150 P/N 830237

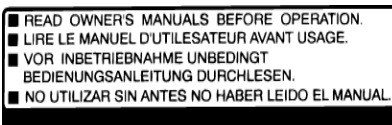
#### Throttle Control

Briggs and HONDA engines have a choke type carburetor that is operated using choke lever on side of engine.



### ENGINE LABELS

#### HONDA



#### BRIGGS & STRATTON





**PACKING CHECKLIST**

Your Billy Goat is shipped from the factory in one carton, completely assembled except for the debris bag, deflector assy, upper handle assembly, rod nozzle door, and elbow assy.



**READ** all safety instructions before assembling unit.

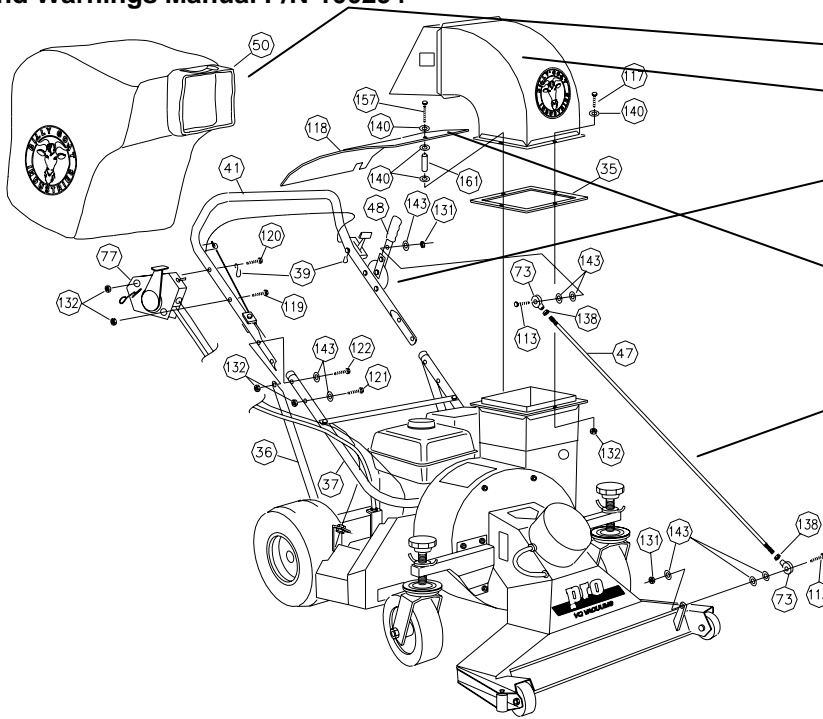
**TAKE CAUTION** when removing the unit from the box the Handle Assembly is attached by cables and folded over



**PUT OIL IN ENGINE BEFORE STARTING**

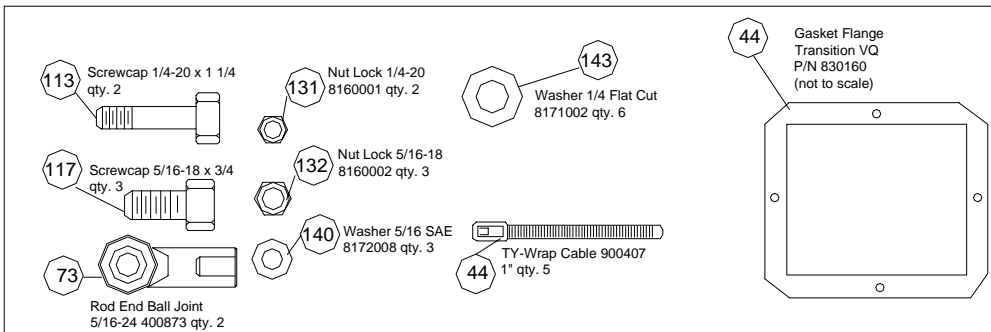
**PARTS BAG & LITERATURE ASSY**

Warranty card P/N- 400972, Owner's Manual P/N-830547, Declaration of Conformity P/N-830321. General Safety and Warnings Manual P/N-100294



- Boxing Parts Checklist**
- Debris Bag P/N-890301
  - Elbow Assy P/N-830159
- Upper Handle Assy Per model**
- Briggs models P/N-830011
  - Honda models 830012
- Deflector Assy P/N-830280
  - Rod Door Nozzle P/N-830286
  - Literature Assy P/N-830531
  - Honda 9 HP GX270
  - Briggs & Stratton 10 HP Intek

**Parts Bag Assembly Checklist P/N 830204**



**ASSEMBLY**

1. **UPPER HANDLE (item 41).** Assemble securely to lower handle stubs (item 37) and handle brace (item 36), using screws (item 120 & 121), so that screw heads are on inside of handle. Otherwise, premature bag wear could result.
2. **NOZZLE DOOR CONTROLS.** Assemble ball joints (item 73), jam nuts (item 138), to both ends of rod (item 47). *Do not fully tighten jam nuts.*  
Using screw (item 113), washer (item 143) and lock nut (item 131), connect one end of rod (item 47) to nozzle door mounting. (See Figure 5). Using rod, pull nozzle door open horizontal to ground and hold opposite end of rod next to mounting hole on remote lever (item 48), already assembled onto upper handle. (See Figure 1). If necessary, adjust rod length using threads provided on rod. Adjust rod length to give a minimum of 1.0" (25.4 mm) hand clearance between lever & maximum forward throttle position when door is open. Assemble upper end of rod to lever on handle using same hardware item numbers as shown above. (See figure 1 & 2). Tighten jam nuts.
3. **EXHAUST ASSY.** Place flange gasket (item 35) onto housing of main unit and assemble **exhaust elbow** to housing using screws (item 117), washers (item 140) and lock nuts (item 132), provided in parts bag. The rear hole mounts deflector (item 118), using screw assembly (already attached to deflector) and lock nut (item 132). Bend opposite end of deflector down until notch in rear of deflector catches onto handle brace (item 36) (see figure 3).
4. **DEBRIS BAG (Item 50)** (see figure 4).
  - 4.1 Unfold and place mouth of bag over exhaust elbow, completely covering the discharge opening with bag neck straps, placing one on each side of elbow flange.

**COMPLETELY TIGHTEN BAG NECK STRAPS**

  - 4.2 Attach rear hanger straps of bag to the hanger loops located one on each side of the upper handle.
5. **CABLES AND WIRES.** Attach to the handle using cable clamps (item 44).
6. Secure engine starter rope into starter rope guide (Item 177) using hardware that is preassembled to the lower handle.
7. **INSPECT ALL PARTS & MECHANICAL FASTENERS** for security and integrity.
8. **Note:** See debris bag conditioning under operation section on page 11).

**SELF PROPELLED ONLY (before starting unit).**

9. **CONTROL ASSY (item 77).**  
Before starting engine, check for neutral by placing the control into neutral and engaging the bail, the unit has been adjusted at the factory and should free wheel. If not, adjust as needed by placing the control (item 77) and transmission offset link (item 68) into neutral and adjust nuts on control cable (item 75).
10. Check tire pressure and lubricate all grease and oil points (see MAINTENANCE).
11. Connect spark plug wire.

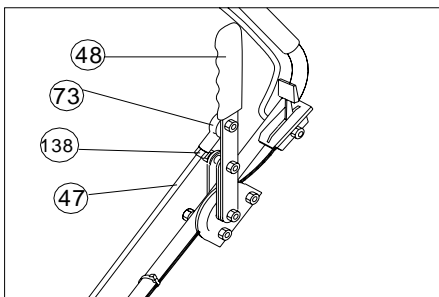


Fig. 1

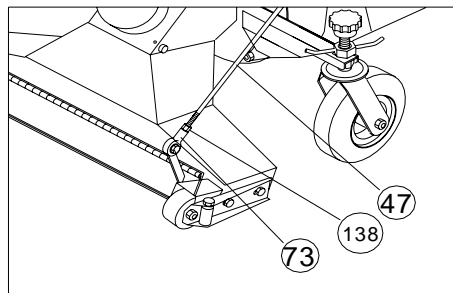


Fig. 2

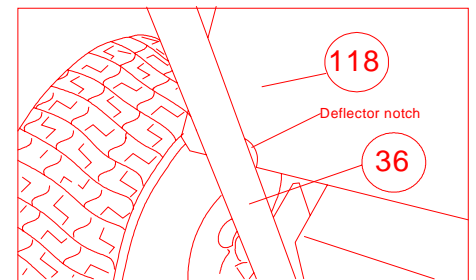


Fig. 3

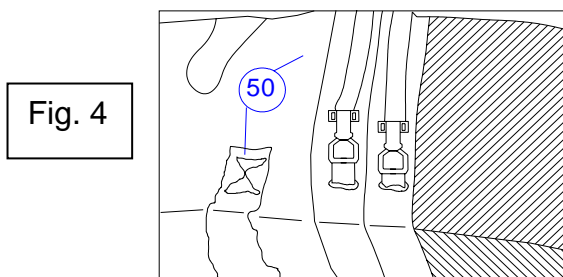


Fig. 4

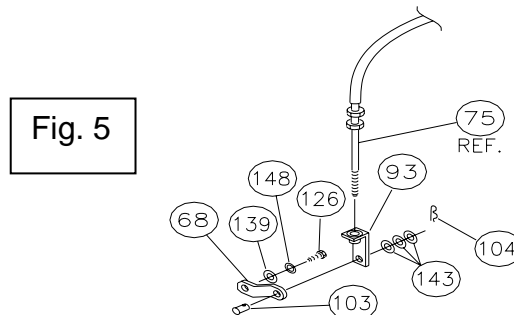


Fig. 5



OPERATION

VACUUMING OPERATION

VACUUM NOZZLE HEIGHT ADJUSTMENT: Is adjusted by unlocking wing nut (item 32) and turning caster knob. Turning the knob clockwise increases height. Be sure the nozzle height is level (left to right) before tightening caster wing nuts. Adjust nozzle height according to surface conditions and debris size; For vacuuming on flat surfaces, set nozzle 1/2" (12.7 mm) to 5/8" (15.8 mm) above ground; Higher for uneven terrain and turf. Note: The nozzle side bogie wheels should be at least 1/8" (3.2mm) above the ground, or maneuverability will be reduced.

FOR MAXIMUM PICKUP: Adjust nozzle close to debris, but without blocking airflow into the nozzle.

NOTE: Never bury nozzle into debris.

CLEARING A CLOGGED NOZZLE & EXHAUST: Turn engine off and wait for impeller to stop completely and disconnect spark plug wire. Wearing durable gloves, remove clog. Danger, the clog may contain sharp materials. Reconnect spark plug wire.

NOZZLE GOBBLER DOOR. Large debris can be vacuumed without readjusting nozzle height by temporarily opening the remote Nozzle Gobbler Door. For maximum pickup of small debris, the gobbler door must be down, flush with front face of nozzle.

DEBRIS BAG

Debris bags are normal replaceable wear items.

Note: Frequently empty debris to prevent bag overloading with more weight than you can lift.

An optional bag and dust cover is available for use where debris will be vacuumed in dusty conditions (See Optional Accessories shown on page 1.)

DO NOT place bag on or near hot surface, such as engine. Run engine at 1/2 throttle for first 1/2 hour to condition new bag. Your new bag requires a break-in period to condition the pores of the material against premature blockage. The entire bag surface serves as a filter, and must be able to breath to have good vacuum performance. Be sure engine has come to a complete stop before removing or emptying bag.

This vacuum is designed for picking up trash, organic material and other similar debris.

However, many vacuums are used where dust is mixed with trash. Your unit can intermittently vacuum in dusty areas. Dust is the greatest cause of lost vacuum performance. However, following these rules will help maintain your machine's ability to vacuum in dusty conditions:

- Run machine at idle to quarter throttle.
•The debris bag must be cleaned more frequently. A vacuum with a clean, pillow soft bag will have good pickup performance. One with a dirty, tight bag will have poor pickup performance. If dirty, empty debris and vigorously shake bag free of dust.
•Machine or pressure-wash debris bag if normal cleaning does not fully clean bag. Bag should be thoroughly dry before use. Having one or more spare debris bags is a good way to reduce down time while dirty bags are being cleaned.
•DO NOT leave debris in bag while in storage.

PROPULSION

PROPULSION: VQ self-propelled vacuums are equipped with 5 forward gears, neutral and reverse. With the engine running, the bail in released position and brake in on position, select desired drive gear. Pull bail against handle to engage drive (see figure 7). Smoothly engage the bail. Parking brake engages when the bail is released. To freewheel, set transmission control in neutral and pull back on bail. Use good judgment when operating the self-propelled drive. Fifth gear is faster than walking speed and should normally be used only for moving quickly from place-to-place. Using neutral, on level terrain is advisable when maneuvering in tight areas. This increases operator control, and can prevent bumping into nearby objects. Do not force-shift gears of transmission. To assist gear meshing, it may be necessary to partially engage bail while shifting. To stop machine, release operator's bail (this engages the parking brake). Do not shift the transmission while unit is moving. Internal damage to transmission can result

For reverse - Set Throttle to Idle

With operator's bail released, pull shift lever back and depress wire stop (item 90) to continue to the reverse position. Then smoothly pull operator's bail against handle. Release bail to stop (see fig 7).

Table with 8 columns: Position, Rev., N, 1, 2, 3, 4, 5. Rows for MPH and KPH speeds at 3400 RPM.

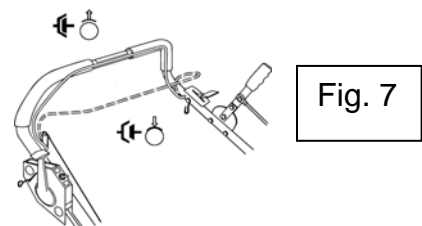


Fig. 7



## PERIODIC MAINTENANCE

Periodic maintenance should be performed at the following intervals:

Maintenance Operation	Every Use (daily)	Every 5 hrs (daily)	Every 10 Hrs	Every 25 Hrs	Every 50 Hrs
Inspect for loose, worn or damaged parts.		●			
Clean Debris bag and check strap tightness	●				
Check Tire pressure	●			●	
Engine (See Engine Manual)					
Check for excessive vibration		●			
Check belt adjustment (pg. 15)					●
Grease wheel zerks					●
Lubricate Drive chain and oil control pivot points			●		

## IMPELLER REMOVAL

1. Disconnect spark plug wire.
2. Disconnect remote control rod from nozzle gobbler door.
3. Elevate front of machine using stable support blocks between housing and ground so that front caster wheels are not touching ground.
4. Remove nozzle and caster wheel brackets from the housing.
5. Remove both the top and side belt guards between housing and transmission.
6. Loosen wire belt guide located on front face of engine on left side of unit between housing and engine.
7. Slide belt toward engine, out of belt groove in impeller hub drive pulley.
8. Remove impeller bolt and lock washer.
9. If impeller slides off freely, proceed to (step 12). **(Do not drop impeller).**
10. If impeller does not slide off crankshaft, place two crowbars between impeller and housing on opposite sides. Pry impeller away from engine until it loosens. *Using a penetrating oil can help loosen a stuck impeller.*
11. If the impeller cannot be loosened, obtain a 1" (25.4mm) longer bolt of the same diameter and thread type as the impeller bolt. Invert engine and impeller and support engine above ground to prevent recoil damage. Thread longer bolt by hand into the crankshaft until bolt bottoms. Using a suitable gear or wheel puller against the bolt head and the impeller back-plate (near the blades), remove impeller from shaft.
12. Slide impeller off of crank shaft and remove impeller from housing.
13. Reinstall new impeller and all applicable spacers, new impeller bolt and lockwasher in reverse order of removal. *(See the parts drawing on pages 16 and 17 for parts break-down and parts list on page 18 for proper impeller bolt torque specifications and proper spacer for Honda engine only.)*
14. When impeller is installed, slide belt into drive pulley and adjust wire belt guide as shown on page 9 see fig. 10 & 11).
15. Reattach nozzle and both caster brackets in reverse order of removal.
16. Check operator's bail to ensure that it operates properly. (If not, see drive adjustments on page 9). *Note: Drive must completely disengage with bail released and must engage when bail is depressed within 1.0" (25.4mm) of the operator's handle.*
17. Reinstall all belt guards.
18. Reconnect spark plug wire.



**Chain Lubrication:** Using S.A.E. 30 weight oil or equivalent. See maintenance schedule.

**Grease:** Wheels, Casters, and Rear Axle Bearings.

**Tire air pressure:** Check at regular intervals & maintain: Rear SP 13" tires at **14 psi.** (9.8 kPa).

## DRIVE

**Chains and Belts are normal replaceable wear items. A new chain should not be used on worn sprockets. Sprockets should be replaced when replacing chains.**

## MAINTENANCE

**Brake Adjustment:** As parking brake wears, the brake discs may eventually require adjustment. To adjust belt, remove brake guard and tighten mounting nut that connects brake arm onto transmission. Adjust cable as required. Unit must freewheel with brake off. **DO NOT OVER ADJUST.**

## CHAIN ADJUSTMENTS (see pg. 9)

1. Remove guards and place a support underneath the back end of the machine to raise the back wheels off of the ground.
2. Inspect chain and sprockets for wear, lubrication and tension. Replace if badly worn or damaged.



**CHAIN TENSION AND ALIGNMENT** (see pg. 17)

3. To install a new chain, locate and remove the keeper clip of chain connecting link on inboard side of chain. Along with the master link and remove the chain. Replace chain, master link and keeper clip. Make sure the open end of the clip is facing away from the chain travel and that the clip is on the inboard side of the unit.
4. Check the alignment of the chain to ensure that the chain will not jump off of the sprockets by rotating the wheels while they are off the ground. If the chain is aligned properly proceed to step 8.
5. Alignment is made by loosening the nuts on the rear wheel bearings, do not remove bearing carriage bolts, nuts or wheels.
6. With the bearings pressed fully outward against wheels, keeping axle square with engine base, align and tension chain for proper travel in as straight a line as possible. When the desired position is reached, slightly tighten front bearing bolts and nuts first. Then slightly tighten rear bearings. (Note: Tightening the front bearing carriage bolts and nuts first, helps keep chain tight.)
7. Recheck chain alignment, tension and axle squareness. If ok, fully tighten front and then rear bearing screws. Repeat adjustment steps if necessary.
8. Check chain tension and roll wheels to be sure there are no excessively tight areas in the chain. Readjust if necessary.
9. Reinstall chain guard and differential guard.
10. Reinstall spark plug wire.

**Belt Adjustment:** As V-belt wears, adjustments may be required. Adjust by tightening or by loosening clutch cable nut as required. When replacing the belt, the impeller must be removed. See instructions on page 12. See parts list for impeller bolt torque specifications. See figure 10 & 11 for proper belt tension adjustment. If cable cannot be adjusted to provide proper belt tension then belt must be replaced. **DO NOT OVER ADJUST.**

**Chain Lubrication:** With machine not running, oil chain using general S.A.E. 30 weight oil or chain lube every 10 hours or as needed. Chain oiling hole is located in rear axle cover. Note: Be sure that entire length of chain is properly oiled. Oiling only a few positions in the chain rotation will not properly oil the chain.

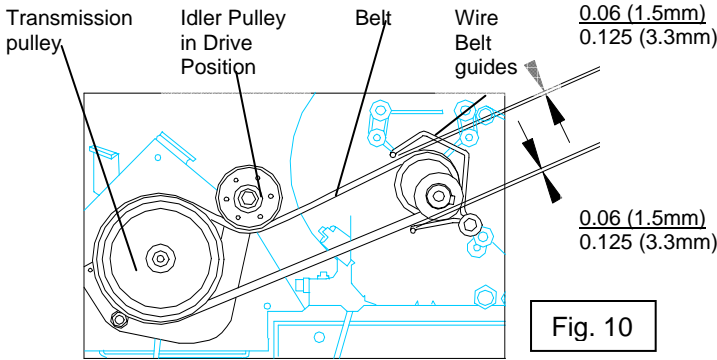


Fig. 10

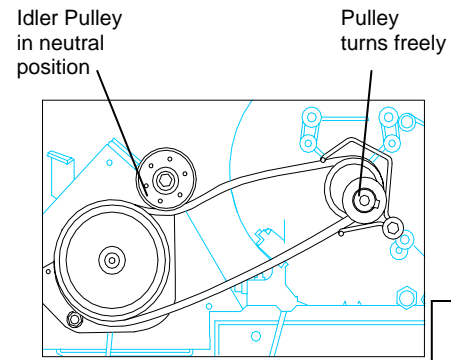


Fig. 11

**Engaged drive position:** Wire belt guides should clear belt by 0.06" - 0.125"(1.5mm – 3.3mm)

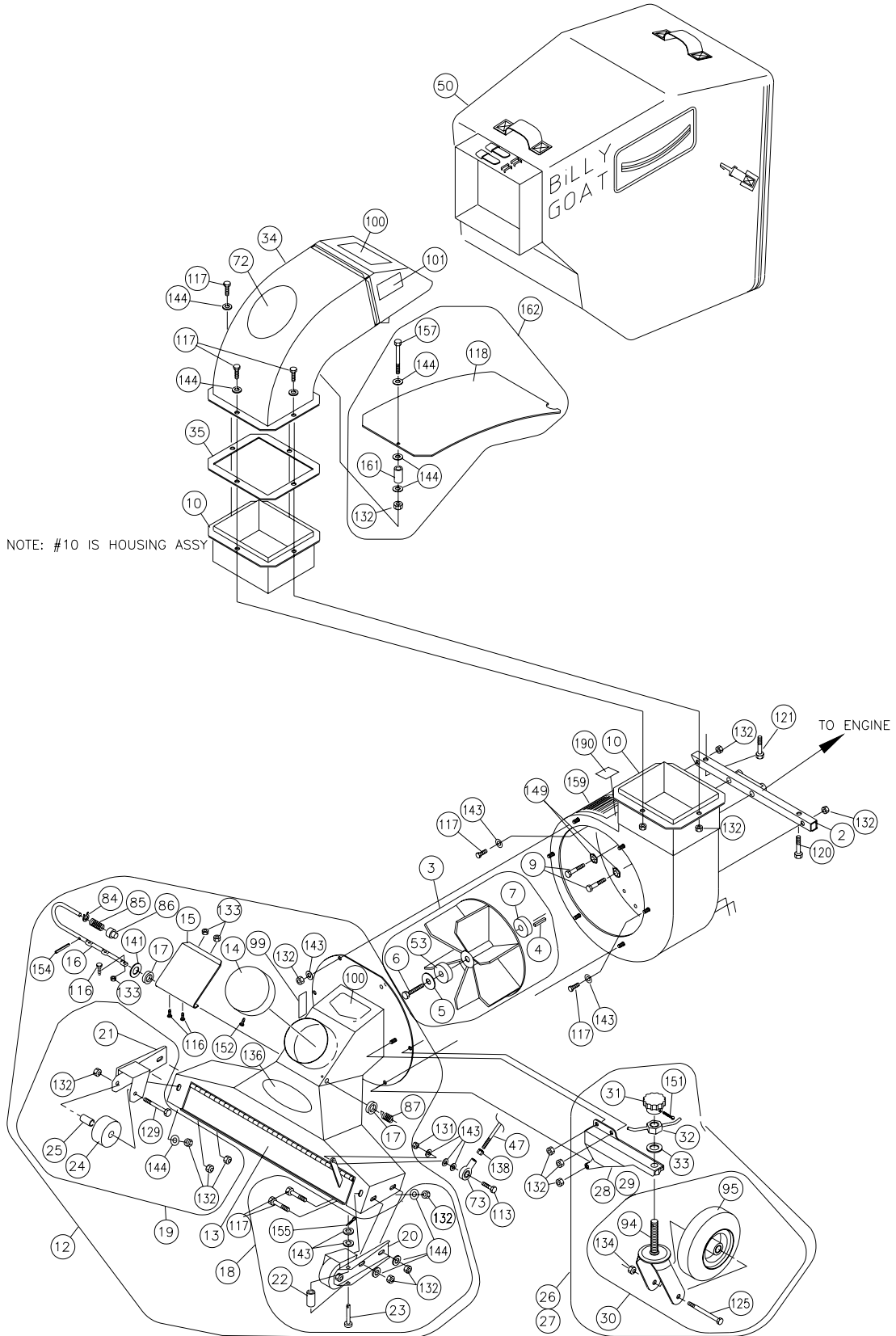
**Neutral position**

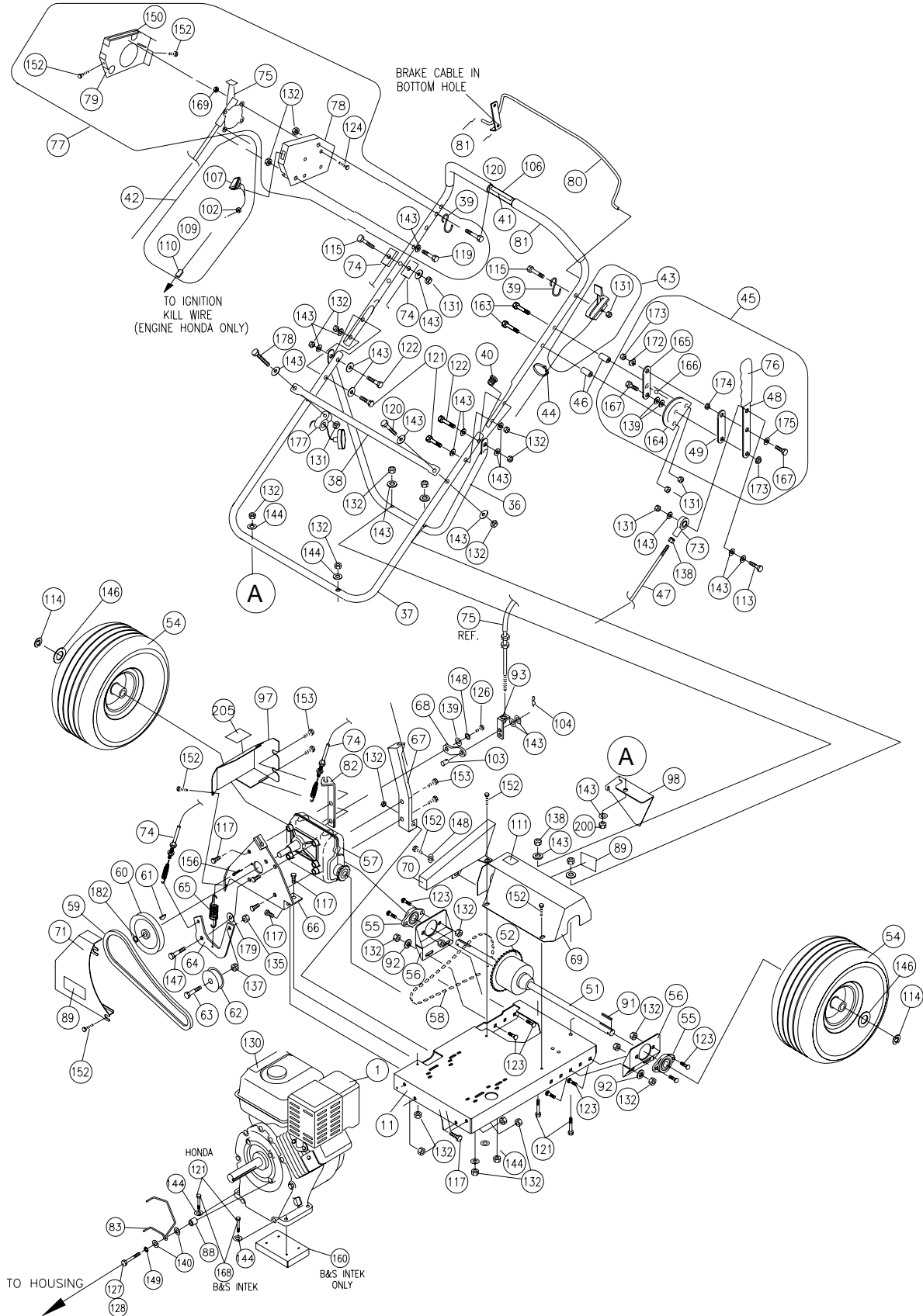
**Troubleshooting**

Problem	Possible Cause	Solution
Abnormal vibration.	- Loose or out of balance impeller or loose engine	- Check impeller and replace if required. Check engine
Will not vacuum or has poor vacuum performance	- dirty debris bag. Nozzle height set too high or low. Hose kit cap missing. Clogged nozzle or exhaust. Excessive quantity of debris.	- Clean debris bag. Shake bag clean or wash. Adjust nozzle height. Check for hose kit cap. Unclog nozzle or exhaust. Allow air to feed with debris
Engine will not start.	- Stop switch off. Throttle in off position. Engine not in full choke position. Out of gasoline. Bad or old gasoline. Sparkplug wire disconnected. Dirty air cleaner. Low oil (honda only)	- Check stop switches, throttle, choke position and gasoline. Connect spark plug wire. Clean or replace air filter. Or contact a qualified service person.
Engine is locked, will not pull over.	- Debris locked in impeller. Engine problem.	- See page 10. Contact a engine service dealer for engine problems
Nozzle scrapes ground in lowest height setting.	Nozzle height out of adjustment	Adjust nozzle height (See Nozzle height fine adjustment for hard surfaces on page 10
No self propelling	Transmission not in gear. Operator's bail not engaging belt or out of adjustment. Worn out, broken, or mispositioned belt.	Check transmission gear selection. Check bail cable adjustment and belt and chain (see pg. 13
Self propelled drive will not release	Sticking belt idler arm. Belt fingers out of adjustment, bent or broken. Parking brake adjusted too tight	Check idler. Idler arm mounting screw may be too tight or loose. Check wire belt guide adjustment. Replace if broken. (see fig 10 & 11 adjustment on pg 13.
Noisy or broken chain	No chain lubrication. Chain out of alignment or over tensioned.	See Chain adjustment on pg. 13.



PARTS DRAWING VQ







## VQ Owner's Manual

### PARTS LIST

ITEM	DESCRIPTION	VQ1002SP	QTY	VQ902SPH	QTY
		PART NO.		PART NO.	
1	ENGINE 10 HP INTEK B&S	430352	1	-	-
	ENGINE 9 HP HONDA	-	-	430287	1
2	ANGLE MOUNT HDLE WA	830126	1	830126	1
3	IMPELLER ASSY VQ (INCLUDES ITEM 4,5,6,7)	830244	1	830244	1
4	KEY 0.25 SQ. X 2.75"	9201125	1	9201125	1
5	WASHER LOCK 7/16 S/T MED	8177013	1	8177013	1
6	SCREW CAP 7/16 NF x 2 1/4 GR8 TORQ 55-60 FT LBS (75-81 N.m)	830114	1	830114	1
7	SPACER ENGINE	830113	1	830113	1
8	WASHER LOCK 5/16 S/T MED	800183	2	800183	2
9	SCREW CAP 5/16 NF x 2 1/2 GRD. 8	830136	2	830136	2
10	HOUSING ASSEMBLY W/LABELS VQ	830153	1	830153	1
11	FRAME WA VQ	830171	1	830171	1
12	NOZZLE ASSEMBLY VQ	830010	1	830010	1
13	NOZZLE ASSY W/LABELS	830181	1	830181	1
14	HOSE TUBE PLUG VQ	800183	1	800183	1
15	PLATE DOOR NOZZLE HOSE	830193	1	830193	1
16	ROD DIVERTER VQ	830194	1	830194	1
17	GROMMET FLG. 1/2 MOLDED	830176	2	830176	2
18	BRKT BOGIE ASSY LH	830197	1	830197	1
19	BRKT BOGIE ASSY RH	830198	1	830198	1
20	BRKT BOGIE WA LH	830199	1	830199	1
21	BRKT BOGIE WA RH	830200	1	830200	1
22	ROLLER GUIDE	850204	2	850204	2
23	PIN ROLLER	850205	2	850205	2
24	WHEEL BOGIE 3"	850149	2	850149	2
25	SPACER 5/16 X 1 5/8	850150-03	2	850150-03	2
26	CASTER & BRKT LH ASSY SEMI-PNEU VQ	830540	1	830540	1
27	CASTER & BRKT RH ASSY SEMI-PNEUVQ	830541	1	830541	1
28	BRKT LH WA 8" CASTER	830147	1	830147	1
29	BRKT RH WA 8" CASTER	830148	1	830148	1
30	CASTER ASSY 8" SEMI-PNEU 3/4 NC (INCL ITEM 33 (4), 94, 95, 125, 134)	830539-S	2	830539-S	2
31	KNOB HAND	850154	2	850154	2
32	NUT WING WA	800227	2	800227	2
33	WASHER 3/4 NYLON	800109	2	800109	2
34	ELBOW ASSY W/LABELS VQ	830159	1	830159	1
35	GASKET FLANGE TRANSITION VQ	830160	1	830160	1
36	HANDLE BRACE REAR	830162	1	830162	1
37	HANDLE LOWER VQ	830161	1	830161	1
38	TUBE HANDLE BAG SUPPORT	830163	1	830163	1
39	ROD BAG LOOP	800178	2	800178	2
40	PLUG TUBE INSERT 1" OD	890132	2	890132	2
41	HANDLE ASSY UPPER W/GRIP (39, 45, 46, 81, 114, 115, 131, 163)	890295-S	1	890295-S	1
42	SWITCH & WIRE ASSY (ITEMS 107,109,110)	-	-	830242	1
43	CONTROL THROTTLE ASSY VQ SERVICE	900514-00	1	830132	1
44	TY WRAP	900407	5	900407	5
45	DOOR NOZZLE FRICTION ASSY	830288	1	830288	1
46	SPACER	850198	2	850198	2
47	ROD DOOR NOZZLE	830286	1	830286	1
48	BAR LEVER DOOR	850189	1	850189	1
49	PLATE FRICTION LIFT	850191	1	850191	1
50	BAG ASSY VQ / TURF BAG 830313	830285	1	830285	1
51	DIFFERENTIAL ASSY	830014	1	830014	1
52	SPROCKET 35 TOOTH #41	830021	1	830021	1
53	WASHER 1.5 OD X .453 ID X .25 THK	440153	1	440153	1
54	WHEEL 13" x 6.5" PNEU. SP	830177	2	830177	2
55	BRG ASSY VQSP	850232	2	850232	2
56	BRKT MOUNT BEARING	830530	2	830530	2
57	TRANSMISSION 5 SPEED 1 REV W/BRAKE (TECUMSEH)	830179	1	830179	1
58	CHAIN #41 x 68P VQSP	830020	1	830020	1
59	BELT "V" 4L x 34" OUTSIDE LG.	830223	1	830223	1
60	PULLEY 5.0 DIA. A SEC 0.625 ID	830180	1	830180	1
61	KEY HIPRO 3/16 X 3/4	850234	1	850234	1
62	PULLEY IDLER	800260	1	800260	1
63	BOLT IDLER	800888	1	800888	1
64	ARM IDLER WA VQ	830527	1	830527	1
65	SPRING	400217	1	400217	1



## VQ Owner's Manual

ITEM	DESCRIPTION	VQ1002SP		VQ902SPH	
		PART NO.	QTY	PART NO.	QTY
66	BRKT TRANSMISSION WA VQ	830222	1	830222	1
67	BRKT TRANSMISSION REAR WELD LONG	830520	1	830520	1
68	BAR LINK SHIFT OFFSET VQ	830508	1	830508	1
69	GUARD DIFFERENTIAL VQ WELD	830253	1	830253	1
70	GUARD CHAIN VQ WELD	830231	1	830231	1
71	GUARD PULLEY W/LABEL	830252	1	830252	1
72	LABEL PRODUCT DECAL LG CIRCLE	430303	1	430303	1
73	ROD END BALL JOINT 5/16 NF	400873	2	400873	2
74	CABLE CLUTCH ASSY	830210	2	830210	2
75	CONTROL SHIFT VQSP	830315	1	830315	1
76	GRIP	840191	1	840191	1
77	CONTROL ASSY VQSP	830518	1	830519	1
78	BRACKET CONTROL SHIFT	830505	1	830505	1
79	COVER CONTROL SHIFT VQ	830314	1	830314	1
80	ROD BAIL CLUTCH	830235	1	830235	1
81	GRIP HANDLE 1" x 13"	400570	2	400570	2
82	BAR BRAKE CABLE MOUNT	830225	1	830225	1
83	WIRE BELT GUIDE VQ	830133	1	830133	1
84	GRIP RING	400340	1	400340	1
85	SPRING COMPRESSION	400332	1	400332	1
86	SPACER	400330	1	400330	1
87	SPRING DOOR	890142	1	890142	1
88	SPACER			830134	1
89	LABEL DANGER GUARDS	900327	2	900327	2
90					
91	KEY SQ 3/16 X 1 3/4	9201084	2	9201084	2
92	WASHER 5/16 TWISTED TOOTH	800177	4	800177	4
93	CLIP ASSY GEAR SELECTOR	830512	1	830512	1
94	FORK CASTER 8" 3/4 NC	830545-1	2	830545-1	2
95	WHEEL & TIRE ASSY 8",3/4" BRG. (SEMI- PNEU)	830545-2	2	830545-2	2
96					
97	GUARD BRAKE VQ	830227	1	830227	1
98	GUARD BELT VQ	830544	1	830228	1
99	LABEL DIVERTER INSTRUCTIONS	830196	1	830196	1
100	LABEL DANGER	400424	2	400424	2
101	LABEL DANGER FLYING MATERIAL	810736	2	810736	2
102	GROMMETT	-	-	830515	1
103	PIN CLEVIS	830513	1	830513	1
104	PIN HAIR	900471	1	900471	1
105					
106	LABEL CLUTCH VQ	830503	1	830503	1
107	SWITCH ROCKER	-	-	500281	1
108					
109	HARNESS ENGINE KILL 33"	-	-	890442	1
110	CONNECTOR TAP	-	-	810673	1
111	LABEL OIL	830502	1	830502	1
112					
113	SCREW CAP 1/4-20 x 1 1/4"	*8041007	2	*8041007	2
114	RING RETAINING "E" 3/4	850230	2	850230	2
115	SCREW CAP 1/4-20 x 2"	*8041010	2	*8041010	2
116	SCREW CAP MACH 10-18X3/4 WF ZP	*8059136	3	*8059136	3
117	SCREW CAP 5/16-18 x 3/4"	*8041026	19	*8041026	19
118	PLATE DEBRIS DEFLECTOR	830279	1	830279	1
119	SCREW CAP 5/16-18 x 1 1/4"	*8041029	1	*8041029	1
120	SCREW CAP 5/16-18 x 1 1/2"	*8041030	2	*8041030	2
121	SCREW CAP 5/16-18 x 1 3/4"	*8041031	5	*8041031	5
122	SCREWCAP 5/16-18 X2 1/4"	8041032	2	8041032	2
123	BOLT CARRIAGE 5/16-18 X3/4	*8024039	8	*8024039	8
124	SCREW #10-24NC X5/8 HEX	*8059135	4	*8059135	4
125	SCREW CAP 1/2-10 x 4 1/2"	830546	2	830546	2
126	SCREW CAP 1/4 NF x 1/2 GR. 5"	850408	1	850408	1
127	SCREW CAP 5/16 NF x 1 3/4"	-	-	430412	1
128	SCREWCAP 5/16 NF X 1 1/2"	8042030	1	-	-
129	SCREWCAP 5/16-18 X2 1/4"	8041033	2	8041033	2
130	LABEL WARNING FUEL EN/SP	100261	1	-	-
131	NUT LOCK 1/4 NC	*8160001	7	*8160001	7
132	NUT LOCK 5/16 NC	*8160002	52	*8160002	52
133	NUT LOCK 10-24	8155007	3	8155007	3
134	NUT LOCK 1/2"-13 LT WT TH ZP	610305	2	610305	2
135	NUT LOCK 3/8 NC THIN HT	*8161042	1	*8161042	1
136	LABEL PRODUCT DECAL VQ	890576	1	890576	1
137	NUT REG. 3/8 NC	*8142003	1	*8142003	1



## VQ Owner's Manual

ITEM	DESCRIPTION	VQ1002SP		VQ902SPH	
		PART NO.	QTY	PART NO.	QTY
138	NUT REG. 5/16 NF	*8149002	4	*8149002	4
139	WASHER SAE 1/4	*8172007	3	*8172007	3
140	WASHER SAE 5/16	8172008	5	8172008	5
141	WASHER SAE 3/8	*8172009	1	*8172009	1
142					
143	WASHER FLAT CUT 1/4	*8171002	43	*8171002	43
144	WASHER FLAT CUT 5/16	*8171003	17	*8171003	17
145					
146	WASHER 3/4 (0.765 x 1.25 x 0.06)	850238	2	850238	2
147	BOLT SHOULDER 3/8 X 3/4"	360184	1	360184	1
148	WASHER LOCK 1/4	*8177010	2	*8177010	2
149	WASHER LOCK 5/16	*8177011	3	*8177011	3
150	LABEL SPEED CONTROL	830237	1	830237	1
151	SCREW MACH #10-24 x 2"	*8059143	2	*8059143	2
152	SCREW SHT. MTL 1/4 AB x 3/4	*8122082	10	*8122082	10
153	SCREW SELF-TAP 5/16 NC x 3/4 HEX	*8123128	4	*8123128	4
154	PIN ROLL 1/8 x 3/4	*8195100	1	*8195100	1
155	PIN COTTER 3/32 x 3/4	*8197016	2	*8197016	2
156	PIN COTTER 1/8 x 1"	*8197031	1	*8197031	1
157	SCREW CAP 5/16-18 x 2 3/4	*8041035	1	*8041035	1
158	LOOSE PARTS BAG ASSY VQ	830204	1	830204	1
159	LABEL DANGER INSTRUCTIONS	830138	1	830138	1
160	SPACER ENGINE INTEK	430355	1	-	-
161	SPACER	900724	1	900724	1
162	DEFLECTOR DEBRIS ASSY	830280	1	830280	1
163	SCREW CAP 1/4-20 x 2"	8041009	2	8041009	2
164	PLATE QUAD LIFT	850192	1	850192	1
165	PLATE CLAMP LIFT	850193	1	850193	1
166	BALL 1/4"	850194	1	850194	1
167	SCREW CAP 1/4-20 x 1"	8041006	2	8041006	2
168	SCREWCAP 5/16-18 X 2 1/2"	8041034	4	8041034	4
169	NUT LOCK #10-24 NC LT	*8164005	4	*8164005	4
170					
171					
172	WASHER - BELVILLE 1/4"	850207	1	850207	1
173	NUT LOCK 1/4-20	8160001	2	8160001	2
174	NUT JAM 1/4-28 HEX ZP	8150001	1	8150001	1
175	WASHER LOCK - EXT 1/4	*8181007	1	*8181007	1
176					
177	GUIDE STARTER ROPE	830297-S	2	830297-S	2
178	SCREW CAP 1/4 - 20 x 2 1/4	*8041011	1	*8041011	1
179	WASHER SHIM 0.020"	890131	1	890131	1
180					
181					
182	SNAP RING	850233	1	850233	1
190	LABEL SPARK ARRESTOR EN/SP	-	-	100256	1
200	NUT 5/116" - 18 HEX ZP	8142002	1	8162002	1
205	LABEL MADE IN U.S.A.	520116	1	520116	1

### SWITCH AND WIRE ASSEMBLY PARTS LIST

(HONDA SP ONLY)

<b>107</b>	<b>SWITCH TOGGLE 6A/125V</b>	<b>500281</b>	<b>1</b>
<b>109</b>	<b>HARNES ENGINE KILL 33"</b>	<b>890442</b>	<b>1</b>
<b>110</b>	<b>CONNECTOR TAP IN SQUEEZE</b>	<b>810673</b>	<b>1</b>
<b>E-1</b>	<b>WIRE TO ENGINE STOP SWITCH</b>	<b>-----</b>	<b>-</b>

<b>BL</b>	<b>BLACK</b>
<b>Y</b>	<b>YELLOW</b>
<b>G</b>	<b>GREEN</b>

