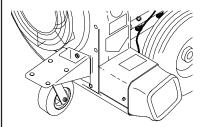
2 OPTIONAL ACCESSORIES

CASTER KIT

P/N 430291

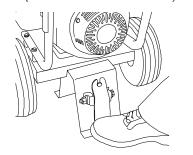
To improve maneuverability on hard paved surfaces.

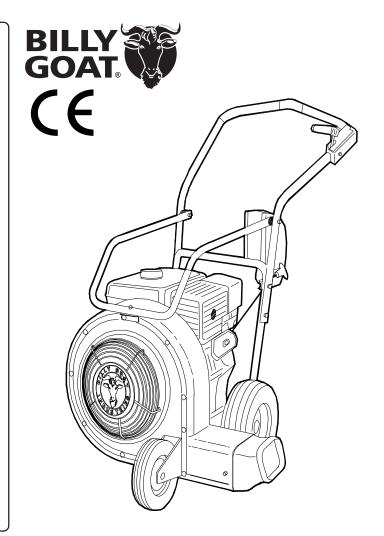


HOLD DOWN KIT

P/N 430299

For use on truck or trailer to provide quick hold down for your QB. (not available for QB554HC)





Thank You for Selecting

The Powerful *QUIET BLOW*® BLOWER

Patent No. 6253416

Operator Owner's Manual

For Models:

QB554HC, QB884H, QB994S, QB1004, QB1304H

3	3 Specifications						
	QB554HC	QB884H	QB994S	QB1004	QB1304H		
Engine: HP	5.0 HP (3.73 kW)	8.0 HP (5.97 kW)	9.0 HP (6.7 kW)	10.0HP (7.45kW)	13.0HP (9.69kW)		
Engine:Type	HONDA OHC	HONDA OHV	SUBARU OHV	B & S INTEK I/C	HONDA OHV		
Engine: Fuel cap.	2.1 qt. (2.0 L)	6.4 qt. (6.1 L)	6.4 qt. (6.1 L)	4.0 qt. (3.8 L)	7.4 qt. (7.0 L)		
Engine: Oil Cap.	0.63 qt. (0.6 L)	1.16 qt. (1.1 L)	1.05 qt. (1.0 L)	0.875 qt.(0.8L)	1.2 qt.(1.13L)		
Weight: Unit	98 # (44.5 Kg)	136 # (61.7 Kg)	134 # (60.9 Kg)	136 # (61.7 Kg)	152 # (68.9 Kg)		
Weight: Shipping	120 # (54.5 Kq)	155 # (70.3 Kq)	145 # (65.9 Kq)	154 # (70.0 Kq)	170 # (77.3 Kg)		
UNIT SIZE: OVERAL	UNIT SIZE: OVERALL LENGTH: 51.75"(1.31m) OVERALL WIDTH 28.5" (0.72m) OVERALL HEIGHT 39" (0.99m)						

IN THE INTEREST OF SAFETY



BEFORE STARTING ENGINE, READ AND UNDERSTAND THE "ENTIRE OPERATOR'S MANUAL & **ENGINE MANUAL.**"



THIS SYMBOL MEANS WARNING OR CAUTION. DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE MAY OCCUR UNLESS INSTRUCTIONS ARE FOLLOWED CAREFULLY.



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

WARNING: DO NOT

- 1. DO NOT run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odorless and deadly poison.
- 2. **DO NOT** place hands or feet near moving or rotating parts.
- 3. **DO NOT** store, spill or use gasoline near an open flame, or devices such as a stove, furnace, or water heater which use a pilot light or devices which can create a spark.
- 4. DO NOT refuel indoors where area is not well ventilated. Outdoor refueling is recommended.
- 5. DO NOT fill fuel tank while engine is running. Allow engine to cool for 2 minutes before refueling. Store fuel in approved safety containers.
- 6. DO NOT remove fuel tank cap while engine is running.
- 7. DO NOT operate engine when smell of gasoline is present or other explosive conditions exist.
- 8. DO NOT operate engine if gasoline is spilled. Move machine away from the spill and avoid creating any ignition until the gasoline has evaporated.
- 9. DO NOT transport unit with fuel in tank.
- 10. **DO NOT** smoke when filling fuel tank.
- DO NOT choke carburetor to stop engine. Whenever possible, gradually reduce engine speed before stopping.

- 13. **DO NOT** tamper with governor springs, governor links or other parts which may change the governed engine speed.
- 14. DO NOT tamper with the engine speed selected by the engine manufacturer.
- 15. DO NOT check for spark with spark plug or spark plug wire removed. Use an approved tester.
- 16. DO NOT crank engine with spark plug removed. If engine is flooded, place throttle in "FAST" position and crank until engine starts.
- 17. **DO NO**T strike flywheel with a hard object or metal tool as this may cause flywheel to shatter in operation. Use proper tools to service engine.
- 18. DO NOT operate engine without a muffler. Inspect periodically and replace, if necessary. If engine is equipped with muffler deflector, inspect periodically and replace, if necessary, with correct deflector.
- 19. DO NOT operate engine with an accumulation of grass, leaves, dirt or other combustible material in the muffler area.
- 20. DO NOT use this engine on any forest covered, brush covered, or grass covered unimproved land unless a spark arrester is installed on the muffler. The arrester must be maintained in effective working order by the 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.

- 21. DO NOT touch hot muffler, cylinder, or fins because contact may cause burns.
- 22. DO NOT run engine without air cleaner or air cleaner cover.
- 23. DO NOT operate during excessive vibration!
- 24. DO NOT leave machine unattended while in operation.
- 25. DO NOT park machine on a steep grade or slope.

WARNING: DO



- 1. ALWAYS DO remove the wire from the spark plug when servicing the engine or equipment TO PREVENT ACCIDENTAL STARTING.
- 2. **DO** keep cylinder fins and governor parts free of grass and other debris which can affect engine speed.
- 3. DO pull starter cord slowly until resistance is felt. Then pull cord rapidly to avoid kickback and prevent hand or arm injury.
- 4. DO examine muffler periodically to be sure it is functioning effectively. A worn or leaking muffler should be repaired or replaced as necessary.
- 5. **DO** use fresh gasoline. Stale fuel can gum carburetor and cause leakage.
- 6. **DO** check fuel lines and fittings frequently for cracks or leaks. Replace if necessary
- 7. Follow engine manufacturer operating and maintenance instructions.
- 8. Inspect machine and work area before starting unit.

DO NOT run engine at excessive speeds. This may result in injury & /or damage 7

5-6

to unit.

6 **TABLE OF CONTENTS SAFETY INSTRUCTIONS** 2 **GENERAL SAFETY** 3 **ASSEMBLY** 3 LABELS 4 **PARTS BAG & CONTROLS** 4

MAINTENANCE 7-9 **PARTS DRAWING & LIST** 10-11 **TROUBLESHOOTING** 12 WARRANTY PROCEDURE 12

OPERATION

SOUND

Sound tests conducted were in accordance with 2000/14/EEC and were performed on 2/16/2002 under the conditions listed:

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

Sound level of 97 dBA at operator position

GENERAL CONDITION: Sunnv TEMPERATURE: 60° F (15.6° C) 10 MPH (16.1 kmh) WIND SPEED: 112 dB North WIND DIRECTION: (QB1304 MODEL) 32 % HUMIDITY: 29.95" Hg (761mm Hg) BAROMETRIC PRESSURE:

VIBRATION 8

VIBRATION LEVELS 3.2 g

Vibration levels at the operators handles were measured in the vertical, lateral, and longitudinal directions using calibrated vibration test equipment. Tests were performed on 04/10/2000 under the conditions listed:

GENERAL CONDITION: Sunny 60° F (15.6° C) TEMPERATURE: 9 MPH (14.5 kmh) WIND SPEED: South East WIND DIRECTION: 49 % HUMIDITY: 29.94" Hg (760mm Hg) BAROMETRIC PRESSURE:

GENERAL SAFETY

For your safety and the safety of others, these directions should be followed:



Do not operate this machine without first reading owner's manual and engine manufacturer's manual.



Use of Ear Protection is recommended while operating this machine.



Use of Eye and breathing protection is recommended when using this machine, especially in dry and dusty conditions.

- DO NOT place hands or feet inside air intake opening, near exhaust outlet or near any moving parts.
- -DO NOT start engine without deflector attached to exhaust outlet.
- -DO NOT direct exhaust outlet toward any bystanders.
- DO NOT operate this equipment without first inspecting work area.
- **-DO NOT** operate this equipment during excessive vibration.
- **-DO NOT** start engine without housing front plate attached.
- **-DO NOT** operate this machine on slopes greater than 20%.
- -DO NOT blow any hot or burning debris, or any toxic or explosive material.
- -DO NOT allow children to operate this equipment.

10

ASSEMBLY



Read all safety and operating instructions before assembling or starting this unit.



PUT OIL IN ENGINE BEFORE STARTING

Your Billy Goat is shipped from the factory in one carton, completely assembled except for the upper handle assembly, handle brace, plate deflector and throttle control.

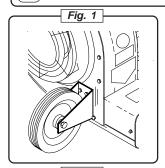
1. The hardware for attaching the upper handle to the lower is preinstalled in the proper location in the lower handle. Before the upper handle can be installed you must remove the hardware from the handle and reuse it in the same locations. Install upper handle (Item 28), to preassembled lower handle (item 29) by sliding the upper over and down the outside of the lower handle. Pull recoil handle from the engine and place it between rope guides (Item 13). Using screw & lock nut to install upper handle to lower handle. *NOTE:* Install rope guide on the left hand side for the Honda unit and right hand side for the Briggs & Stratton unit

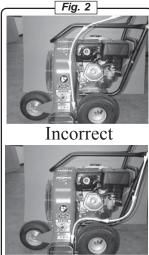
(See fig below for the pictorial example). Finish installing the other side of the upper handle assembly using screw and lock nut provided.

- 2. Install front of handle brace (Item 30), to blower housing using one screw(Item 17), one washer (Item 58) and one lock nut (item 32) located in the hardware bag. Install rear of handle brace (item 30) to upper handle vibration mounts using two lock nuts (item 32) also located in the hardware bag. Hand tighten only. NOTE: 13 hp Honda models will have an offset bracket (item 65) installed at the front of the housing. Connect the handle brace (Item 30) to the bracket (Item 65) on 13 hp models.
- 3. Securely tighten all hardware listed above in steps 1 thru 2.
- 4. Remove four lock nuts from the front plate and use them to attach the front wheel bracket (Item 27). Using spacer (Item 18), washer (Item 19), and Lock Nut (Item 16) to attach Front wheel (Item 23) onto the front wheel bracket. NOTE: Front wheel bracket (Item 27) should be mounted with the offset portion of the bracket twoard the ground. This will place the blower exhaust parallell to the ground. See Fig. 1. The bracket can be mounted in the opposite configuration to move the blower exhaust closer to the ground.
- **5.** When ty-wrapping the diverter cable in place please be sure to follow the correct routing of the cable as shown in Fig. 2.
- 6.Connect spark plug wire.

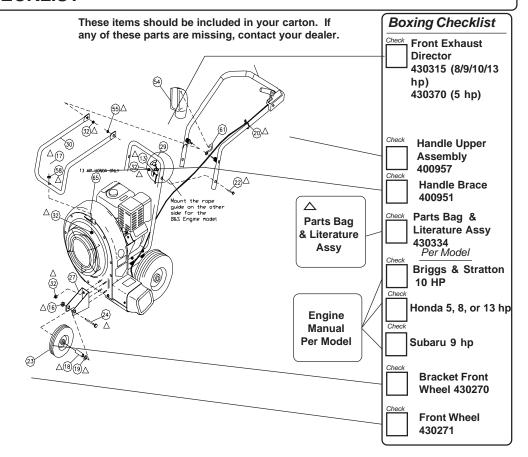
11

PACKING CHECKLIST





Correct



12 PARTS BAG & LITERATURE ASSY 13 **CONTROLS** △ PARTS BAG ASSEMBLY CHECKLIST Throttle Control / Screw Cap Literature Checklist 19 **Gust Control** (**14**) 5/16-18 x 1 1/4 8041029 Qty. 1 Owner's Manual Washer 1/2 SAE 430316 8172011 Qty. 1 (24) Start Stop Quiet Blow Æ (58) Screw Cap 3/8-16 x 3 3/4 8041061 Qty. 1 Literature Washer 5/16 FLAT CUT (18) Parts Bag 8171003 Qty. 1 430341 430268 Qty. 1 (32) (20) Cable Ty 1" Nut Lock 5/16-18 900407 Qty. 5 8160002 Qty. 3 Warranty Card SQUEEZE THE LEVER TO UNIO 400972 Nut Lock 3/8-16 Briggs & 8161042 Qty. 1 Honda Honda **EU Declaration** Stratton of Conformity & 5 HP 8 & 13. **EU Distributor** Subaru List 430189

14 INSTRUCTION LABELS

These labels should be included on your Blower. If any of these labels are damaged, replace them before putting this equipment into operation. Item and part numbers are given to help in ordering replacement labels.



Label Do Not Fill While Engine Is Hot Item 11 Part No.400268



Label Read Owner's Manual Item No. 59 Part No. 890301



Label Danger Flying Material Item No. 44 Part No. 810736



Label Danger Keep Hands and Feet Away Item 41 Part No.400424



Label Ear Eye Breathing Item No. 63 Part No. 890254

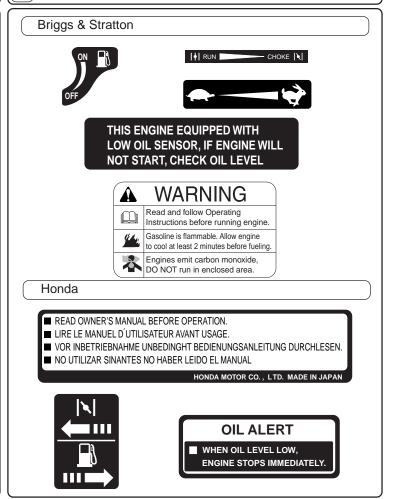
> US PATENT NO: 6253416

Label Patent QB Air Director Part No. 430400

PULL THEN SLIDE TO LOCK

Label Lever QB Item No. 46 Part No. 430363

15 ENGINE LABELS



9 HP

OPERATION



Like all mechanical tools, reasonable care must be used when operating machine.

Inspect machine work area and machine before operating. Make sure that all operators of this equipment are trained in general machine use and safety.

INTENDED USE: This machine is designed for cleaning outdoor surfaces, where the debris can be effectively blown into a consolidated area for convenient pickup and removal.

Do not operate if excessive vibration occurs. If excessive vibration occurs, shut engine off immediately and check for damaged or worn impeller, loose impeller bolt, loose impeller key, loose engine or lodged foreign objects. Note: See parts list for proper impeller bolt torque specifications. (See trouble shooting section on page 12).



PUT OIL IN ENGINE BEFORE STARTING

16.1 **STARTING**



gasoline.

ENGINE: See engine manufacturer's instructions for type and amount of oil and gasoline used. Engine must be level when checking and filling oil and

FUEL VALVE: Move fuel valve to "ON" position (when provided on engine).

STOP SWITCH: Located on the engine. "ON" position. CHOKE: Operated with choke lever on side of engine. THROTTLE: Controlled by throttle lever on the handle. Move

remote throttle control to fast position. Pull starting rope to start engine.

ENGINE SPEED: Under normal conditions, operate at minimum throttle to accomplish your current cleaning task.

IF YOUR UNIT FAILS TO START:

See Troubleshooting on page 12.

HANDLING & TRANSPORTING: 16.2

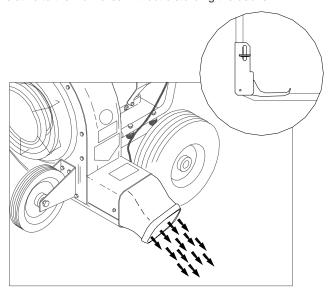
Using two people to lift machine is recommended. Lift holding the handle and handle brace. Secure in place during transport.

16.3 **BLOWING OPERATION**

Your Billy Goat blower is equipped with a remote exhaust director to allow the operator to direct the air stream up or down as required to assist in moving debris. This feature is extremely useful when debris has piled up to the point that it cannot be blown any farther. The air stream can be directed upward to blow the top of the debris pile over and allow the operator to continue moving more debris farther.

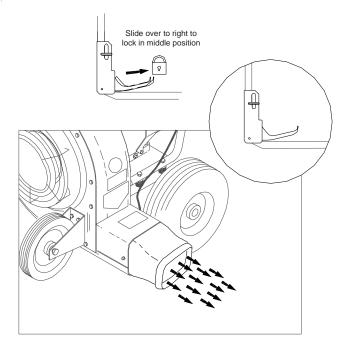
Side Discharge Up Position

This position allows air to be directed upward during use to avoid blowing debris into cars or other structures, or to avoid blowing landscaped areas that would be damaged by the high speed air. This position also allows operator to maneuver the machine relative to the work area without disturbing the debris.



Side Discharge Straight Position

This position directs the air parallel to the ground for the majority of blowing operations. The hand control allows the operator to lock the air stream in this straight out position. To **LOCK** the air in position simply pull back on the lever and pull the lever sideways to the right until the lock engages. See instruction label on the control.

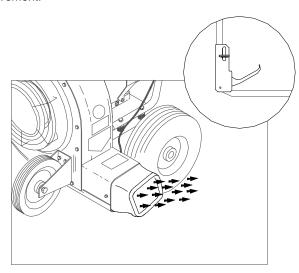


OPERATION

continued

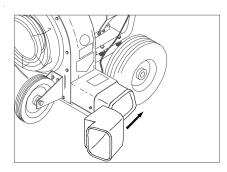
Side Discharge Down Position

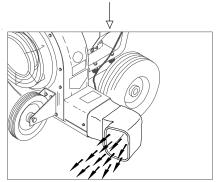
This position directs the air stream down at the ground to allow the operator to deliver the maximum power to debris that is stuck or difficult to remove. This position is also very useful for cleaning out cracks and expansion joints in pavement.



Front Discharge Position

The removable front discharge adapter can be slipped on to direct the air stream forward. This option is extremely useful for cleaning out long cracks in pavement or for cleaning under bushes or building overhangs.





16.4 ADJUSTING AIR DIRECTOR

When you lock the lever, the default position of air director is in the middle or straight out. If you want to raise or lower air director lock position you must adjust the threaded fitting on the cable.

Note: You will not get full range of motion of air director If you raise or lower default locking postion.

Raise Lock Position



- 1. Lock the air director in place at the handle by pulling on the lever then slide it over to right.
- 2. Loosen the top nut on the threaded cable fitting until the air director position is satisfactory.
- 3. Tighten the bottom nut.

Lower Lock Position



- 1. Lock the lever at the handle by pulling on the lever then slide it over to right.
- 2. Loosen the bottom nut on the threaded cable fitting and back it off 1/4 inch.3. Pull the threaded cable fitting up while pushing down on the air director then check for air director

position.

- 4. Loosen or tighten the same bottom nut then repeat step 3 until the air director position is satisfactory.
- 5. Tighten the top nut.

16.5 STORAGE

Never store engine indoors or in enclosed poorly ventilated areas with fuel in tank, where fuel fumes may reach an open flame, spark or pilot light, as on a furnace, water heater, clothes dryer or other gas appliance.

If engine is to be unused for 30 days or more, prepare as follows:

Remove all gasoline from carburetor and fuel tank to prevent gum deposits from forming on these parts and causing possible malfunction of engine. Drain fuel outdoors, into an approved container, away from open flame. Be sure engine is cool. Do not smoke. Run engine until fuel tank is empty and engine runs out of gasoline.

NOTE: Fuel stabilizer (such as Sta-Bil) is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow mix ratio found on stabilizer container. Run engine at least 10 min. after adding stabilizer to allow it to reach the carburetor.

MAINTENANCE



Use only a qualified mechanic for any adjustments, disassembly or any kind of repair.



WARNING: TO AVOID PERSONAL INJURY, ALWAYS TURN MACHINE OFF, MAKE SURE ALL MOVING PARTS COME TO A COMPLETE STOP.



DISCONNECT SPARK PLUG WIRE BEFORE SERVICING UNIT.



ENGINE: See engine manufacturer operator's instructions.



RECONNECT SPARK PLUG WIRE AND GUARDS BEFORE STARTING ENGINE.

(17.1) MAINTENANCE SCHEDULE

Follow these hourly maintenance intervals.					
Maintenance Operation	Every Use	Every 5 hrs. or (Daily)	Every 25 hrs.		
Engine (See Engine Manual)					
Check for excessive vibration	•				
Inspect for loose parts		•			
Inspect for worn or damaged parts		•			
Lubricate wheels			•		

[17.2] ENGINE

When servicing engine refer to specific manufacturers engine owner's manual. All engine warranty is covered by the specific engine manufacturer. If your engine requires warranty or other repair work contact your local servicing engine dealer. When contacting a dealer for service it is a good idea to have your engine model number available for reference(See table page 11). If you can not locate a servicing dealer in your area you can contact the manufacturers national service organization.

To reach:

Briggs & Stratton: 800-233-3723 **American Honda**: 800-426-7701 **Subaru America**: 800-277-6246

[17.3]

IMPELLER REMOVAL

- 1. Wait for engine to cool and disconnect spark plug.
- 2. Remove front wheel (item 23), and front wheel bracket (item 27).
- **3.** Remove housing front plate (item 4), by removing nine (9) screws (item 12), around outside of front plate.
- 4. Remove impeller bolt and lock washer.

Note: DO NOT pull or pry on impeller blades. Also, **DO NOT** remove the 3 nuts securing the impeller to the hub. The complete impeller assembly must be removed as a unit.

- **5.** Pull on center hub backplate area only of impeller. If impeller slides off freely, proceed to (step 8).
- **6.** Place two crowbars between center hub backplate area of impeller and housing on opposite sides. Carefully pry impeller away from engine until it loosens. *Using a penetrating oil can help loosen a stuck impeller.*
- 7. If the impeller does not loosen, obtain a 1" (25.4mm) longer bolt of the same diameter and thread type as the impeller bolt. 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.
- 8. Reinstall new impeller in reverse order of removal.
- **9.** Tighten impeller bolt. Torque impeller bolt (see parts list on page 7 for proper impeller bolt torque specifications).

17.4

TIRE AIR PRESSURE

Check at regular intervals and maintain.

Rear Tires - 24 Psi (17 kPa). Front Tire - 50 Psi (35 kPa).

AIR FILTER COVER REMOVAL INSTRUCTION (BRIGGS AND STRATTON)

Removing the air filter cover (for air filter change and throttle control installation)

- 1. Disconnect spark plug wire.
- 2. Remove the locknut and the screwcap holding the front part of the handle brace.
- 3. Remove the screw from the front of the air filter cover (fig 1).
- 4. Remove the air filter cover by leaning the top of the cover back towards the lower handle and lifting it up (fig 2).

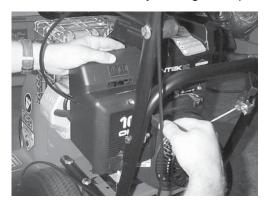




Figure 1 Figure 2

Installing the air filter cover

- 1. Install air filter on the engine. (fig 3).
- 2. Slide the bottom of the air filter cover in place and tilt the cover towards the engine (fig 4 & 5)

 Note: You must line up the tabs on bottom of the cover to the slots on the air filter housing.
- 3. Attach the screw (fig 6)
- 4. Reconnect the front part of the handle brace.
- 5. Reconnect spark plug wire.



Figure 3



Figure 5



Figure 4

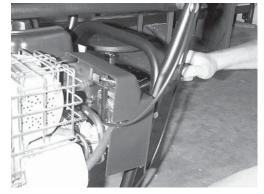


Figure 6

Part No. 430316 Page 8 of 12 Form No. F030706A

AIR FILTER COVER REMOVAL INSTRUCTION (HONDA 8 and 13 H.P.)

Removing the air filter cover (for air filter change and throttle control installation)

- 1. Disconnect spark plug wire.
- 2. Remove the wingnut on the top of the air cleaner cover (fig. 1).
- 3. Remove the air filter cover by leaning the air cleaner cover towards the left side of the machine then remove (fig 2).



Figure 1



Figure 2

THROTTLE CONTROL CABLE INSTALLATION

Briggs & Stratton Engine

- 1. Remove clamp screw and cable clamp from front of engine (clamp must be on the left side on engine control lever. if clamp is on the right side, change to the left).
- 2. Insert "z" end of throttle cable into hole in engine lever, then secure cable with clamp screw and cable clamp on the left side of the engine control lever (DO not tighten the screw) (Fig 3).
- 3. Route throttle cable behind cover through the slots provided(Fig 4).
- 4. Put throttle lever in the "fast" position at the handle.
- 6. Pull throttle control wire and casing back then tighten clamp screw. DO not over tighten (Fig 5).



Figure 4



Figure 3

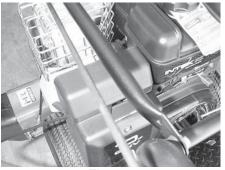


Figure 5

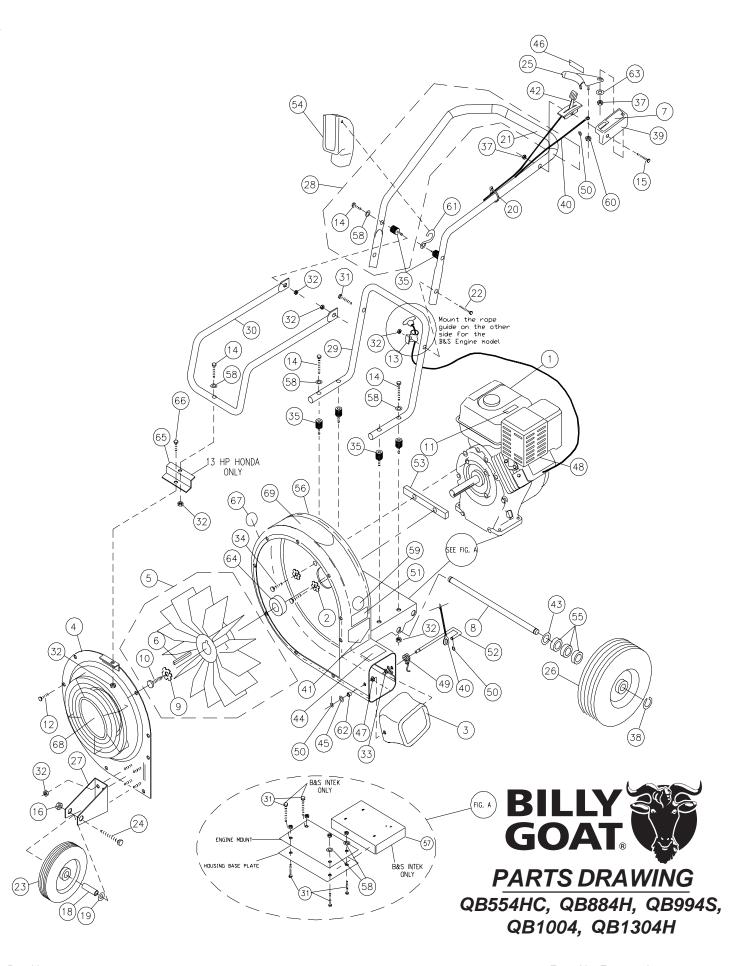
Honda Engine

- 1. Remove air cleaner cover by removing wing nut at the top of cover.
- 2. Remove cable clamp and screw from engine control lever.
- 3. Attach "z" end of throttle cable through hole in engine control lever.
- 4. Replace cable clamp and screw but do not tighten.
- 5. Put throttle lever in "stop" position at the handle.
- 6. Pull throttle control wire and casing back then tighten clamp screw. DO not over tighten.

NOTE: If throttle control seems stiff, it may be necessary to loosen the 10mm locknut on the engine control lever about 1/2 turn

7. Replace air cleaner and wing nut.







PARTS LIST

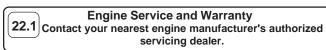
Γ	TE 14	DESCRIPTION	QB554H	С	QB884	Н	QB994	s	QB1004	ı	QB1304	4H
L	ITEM	DESCRIPTION	PART NO	QTY	PART NO	QTY	PART NO	QTY	PART NO	QTY	PART NO	QTY
	1	ENGINE - 13HP HONDA ENGINE - 10 HP BRIGGS & STRATTON INTEK		-	-	-		-	430352	1	430366	1 -
		ENGINE - 8 HP HONDA	-	-	400937	1	-	-	430332	-	-	-
Г		ENGINE - 5.0 HP HONDA	430272	1	-	-	-	-	-	-	-	-
		ENGINE - 9.0 HP SUBARU OHV	-	-		-	430413	1	-	-	-	-
L	2	WASHER LOCK 5/16 TWISTED TOOTH	800177	2	800177	2	800177	2	800177	2	800177	2
H		GUST DIRECTOR QB PLATE FRONT & GRILL ASSY	430369 430182	1	430314 430182	1	430314 430182	1	430314 430182	1	430314 430182	1
	5	IMPELLER ASS'Y	430276	1	400965	1	400965	1	400965	1	400965	1
	6	KEY SQUARE 1/4 X 2 1/4	-	-	*9201123	1	*9201123	1	*9201123	1	*9201123	1
L		KEY SQUARE 3/16 x 1 3/4"	9201084	1	-	-	-			-	-	-
	7	LABEL CONTROL QB HONDA LABEL CONTROL QB B&S	430388	1	430333	1 -	430333	1	430351	1	430333	1
H	8	AXLE	430181	1	430181	1	430181	1	430351	1	430181	1
F	9	WASHER LOCK 7/16 TWISTED TOOTH	850132	1	850132	1	850132	1	850132	1	-	-
		WASHER LOCK 3/8 TWISTED TOOTH)	-	-	-	-	-	-	-	-	400502	1
L	10	SCREW CAP 7/16-20 x 1-1/4 HEX. HD GR. 5 (TORQUE 58 FT LBS)(78 N.m)		-	800554	1	800554	1	800554	1	-	-
		SCREW CAP 3/8 -24 x 2-3/4 HEX. HD GR. 8 (TORQUE 50 FT LBS)(68 N.m)	400300	- 1		-	•	-	-	-	790167	1
		SCREW CAP 5/16-24 x 1-1/4 GR. 8 (TORQUE 31 FT LBS)(42 N.m) SCREWCAP 3/8-24 x 1" GR. 8 (TORQUE 50 FT LBS)(68 N.m)	400389	1		-		-	-	-	-	-
F	11	LABEL DO NOT FILL WHEN ENGINE IS HOT	400268	1	400268	1	400268	1	400268	1	400268	1
	12	SHEET METAL SCREW 1/4 x 3/4 DRILL POINT	430208	9	430208	9	430208	9	430208	9	430208	9
L	13	GUIDE ROPE	-		830533	2	830533	2	830533	2	830533	2
F	14	SCREW CAP 5/16-18 x 1 - 1/4 SCREW CAP 1/4 20 x 2	*8041029	7	*8041029	7	*8041029 *8041010	7	*8041029	7	*8041029	7
-	15 16	SCREW CAP 1/4 -20 x 2 NUT LOCK 3/8 -16 THN HEIGHT	*8041010 *8161042	1	*8041010 *8161042	1	*8041010 *8161042	1	*8041010 *8161042	1	*8041010 *8161042	1
f	17		0.01012		0.01012		0.01012		0.01012		0.01012	
		SPACER 1/2 OD x 3.062"	430268	1	430268	1	430268	1	430268	1	430268	1
		WASHER 1/2 SAE	8172011	1	8172011	2	8172011	1	8172011	1	8172011	1
		CABLE TY	900407	3	900407	5	900407	3	900407	3	900407	3
Н	21	GRIP SCREW CAP 5/16-18 X 2½	430342 *8041034	2	430342 *8041034	2	430342 *8041034	2	430342 *8041034	2	430342 *8041034	2
r	23	WHEEL &TIRE ASSY 8" PNEU	430271	1	430271	1	430271	1	430271	1	430271	1
	24	SCREW CAP, (FRONT AXLE) 3/8-16 x 3 3/4"	*8041061	1	*8041061	1	*8041061	1	*8041061	1	*8041061	1
L		CONTROL LEVER QB	430332	1	430332	1	430332	1	430332	1	430332	1
		WHEEL, REAR	400295	2	400295	2	400295	2	400295	2	400295	2
Н		BRACKET (FRONT WHEEL) HANDLE UPPER ASS'Y (incl. items 14(2), 25, 35(2), 46, 58(2)	430270 430335	1	430270 430335	1	430270 430335	1	430270 430335	1	430270 430335	1
r		HANDLE LOWER	400950	1	400950	1	400950	1	400950	1	400950	1
	30	HANDLE- BRACE	400951	1	400951	1	400951	1	400951	1	400951	1
	31	SCREW CAP 5/16 -18 x 1¾	*8041031	5	*8041031	5	*8041031	5			*8041031	5
		SCREW CAP 5/16 -18 x 2 1/2	-	-	-	-	-	-	*8041034	4	-	-
Н	32	NUT LOCK , 5/16-18 HEX BUSHING PIVOT BACK	*8160002 430323	15 1	*8160002 430323	15 1	*8160002 430323	15 1	*8160002 430323	15	*8160002 430323	15 1
r	34	SCREW CAP 5/16 -24 NF x 3/4" GR. 5	*8042026	2	-	-	-	-	-	-	-	-
		SCREW CAP 5/16 -24 NF x 1-3/4" GR. 8	-	-	*430412	2	*430412	2	*430412	2	-	-
		SCREW CAP 5/16 -24 NF x 2 ¾ GR. 8	-	-	-	-		-	-	-	*430411	2
L	35 36	VIBRATION MOUNT PARTS BAG ASS'Y (INCL ITEMS 32(5), 58 (1), 15(1), 37(1), 20(3), 17(3)	400173 430255	6	400173 430255	6	400173 430255	6	400173 430255	6	400173 430255	6
H		NUT LOCK 1/4 - 20 HEX	*8160001	2	*8160001	2	*8160001	2	*8160001	2	*8160001	2
		RING RETAINING ¾	850230	2	850230	2	850230	2	850230	2	850230	2
		BRACKET CONTROL BOX WA QB	430328	1	430328	1	430328	1	430328	1	430328	1
	40	CABLE GUST CONTROL QB	430418	1	430418	1	430418	1	430418	1	430418	1
	41	LABEL DANGER HANDS & FEET THROTTLE CONTROL	400424	1	400424 430200	1	400424 430200	1	400424 430200	1	400424 430200	1
F	42	WASHER - FLAT 3/4 S.A.E. (3/16 x 1-1/2 x 1/8)	*8172015	2	*8172015	2	*8172015	2	*8172015	2	*8172015	2
	44	LABEL DANGER FLYING MATERIAL	810736	1	810736	1	810736	1	810736	1	810736	1
	45	WASHER 1/4 SAE	*8171002	1	*8171002	4	*8171002	4	*8171002	4	*8171002	4
	46	LABEL LEVER QB	430363	1	430363	1	430363	1	430363	1	430363	1
		BUSHING PIVOT FRONT GUARD MUFFLER (COMES W/ITEM 1)	430349 YES	1 -	430349 YES	1 -	430349 YES	1	430349 YES	1	430349 YES	1
F		SPRING PIVOT EXHAUST	430326	1	430326	1	430326	1	430326	1	430326	1
	50	RING RETAINER 5/16"	430327	3	430327	3	430327	3	430327	3	430327	3
L		LABEL EAR EYE BREATING	890254	1	890254	1	890254	1	890254	1	890254	1
H	52	WIRE PIVOT QB EXHAUST	430396	1	430396	1	430396	1	430396	1	430396	1
H	53 54	SPACER ENGINE QB DEFLECTOR FRONT EXHAUST QB	430370	1	430405 430315	1	430405 430315	1	430405 430315	1	430406 430315	1
r	55	SPACER 0.75 x 0.50	-	-	-	-	-	-	-	-	-	-
	56	FRAME ASS'Y (INCLUDES 41, 44, 51, 59)	430374	1	430410	1	430410	1	430410	1	430410	1
Ĺ	57	SPACER ENGINE INTEK		-	-	-	-	-	430355	1	-	-
F	58 59	WASHER FLAT CUT 5/16 (3/8 ID x 7/8 OD x1/16)	*8171003	12	*8171003	9	*8171003	12	*8171003 890301	11	*8171003	12
H	_	LABEL READ OWNER'S MANUAL NUT PAL 1/4	890301 430409	1	890301 430409	1	890301 430409	1	430409	1	890301 430409	1
F		WIRE MOUNT DIRECTOR	430409	1	430409	1	430409	1	430409	1	430409	1
	62	SPACER PIVOT WIRE	430390	1	-	-	-	-	-	-	-	-
F		WASHER FLAT FENDER 5/16"	8172020	1	8172020	1	8172020	1	8172020	1	8172020	1
F		SPACER ENGINE QB BRACKET WISHBONE QB13	-	-	830113	-	830113	1 -	830113 430416	1	830543	1
	66	SCREW CAP 5/16-18 x 3/4	-	-	-	-	-	-	8041026	1		
		STEELMARK LABEL BILLY GOAT LABEL CIRCLE	830113 430303	1	830113 430303	1	830113 430303	1	830113 430303	1	830113 430303	1
		BILLY GOAT LABEL OVAL	430304	1	430304	1	430304	1	430304	1	430304	1

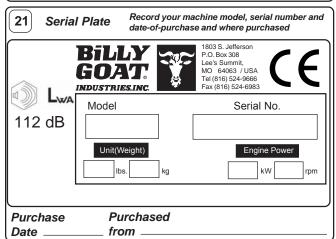


TROUBLESHOOTING

Before Requesting Service Review These Suggestions

Problem	Possible Cause	Solution				
Poor air performance	Air intake or exhaust clogged.	Clear clog.				
Abnormal vibration.	Loose or out of balance impeller or loose engine.	Check impeller and replace if required. Check Engine.				
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. Connec spark plug wire. Clean or replace air cleaner. Or contact a qualified service person.				
Engine is locked, will not pull over.	Engine problem.	Contact an engine servicing dealer for engine problems.				
Control Lever will not lock in middle position	Nut to secure lever is overtightened.	Loosen nut to allow play in control lever.				





WARRANTY PROCEDURE

Should a Billy Goat Machine fail due to a defect in material and / or workmanship, the owner should make a warranty claim as follows:

- -The Machine must be taken to the dealer from whom it was purchased or to an authorized Servicing Billy Goat $\underline{\text{Dealer}}.$
- or to an authorized Servicing Billy Goat <u>Dealer</u>.

 -The owner must present the remaining half of the Warranty
- Registration Card, or, if this is not available, the invoice or receipt. -The Warranty Claim will be completed by the authorized Billy Goat Dealer and submitted to their respective Billy Goat Distributor for their territory. Attention: Service Manager. Any parts replaced under warranty must be tagged and retained for 90 days.
- -The distributor service manager will sign off on the claim and submit it to Billy Goat for consideration.
- -The Technical Service Department at Billy Goat will study the claim and may request parts to be returned for examination. Billy Goat will notify their conclusions to the distributor service manager from whom the claim was received.
- -The decision by the Quality / Service department at Billy Goat to approve or reject a Warranty claim is final and binding.

Note: To process a Warranty Claim, it is necessary to quote the Model & Serial Number which are printed on the Billy Goat Serial Plate (See owner's manual).



BILLY GOAT INDUSTRIES INC.

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