



## BC2600 Hydro-Drive Series Brush Cutter Owner's Manual

Beginning Serial #: 100515001

### Original Instructions

IMPORTANT- READ CAREFULLY BEFORE USE AND KEEP FOR FUTURE REFERENCE



## BC26 HYDRO-DRIVE Owner's Manual

---

### CONTENTS

SPECIFICATIONS AND SOUND/VIBRATION	3
INSTRUCTION LABELS	4
ASSEMBLY INSTRUCTIONS	5-6
OPERATION	7-8
MAINTENANCE AND BATTERY MAINTENANCE	10-13
TROUBLESHOOTING	14
ILLUSTRATED PARTS LIST	15-22
DECLARATION OF CONFORMITY	23-25

Go to <http://www.billygoat.com> for French-Canadian translations of the product manuals.

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



# BC26 HYDRO-DRIVE Owner's Manual

## SPECIFICATIONS

	BC2600HHFT	BC2600HH	BC2600HEBH
Engine Type	Honda GXV390	Honda GXV390	Honda GXV390
Model Number	GX390UT2 DABG	GX390UT2 DABG	V390UTDE33
Displacement	390 cc	390 cc	390 cc
Fuel Capacity	3.0 qt (2.80 L)	3.0 qt (2.80 L)	2.3 qt (2.18L)
Oil Capacity	1.2 qt (1.1L)	1.2 qt (1.1L)	1.2 qt (1.1L)
Unit Weight	367 lb (167 kg)	325 lb (147.4 kg)	335 lb (152 kg)
Overall Length	72 in (1.83 m)		
Overall Width	31 in (0.78 m)		
Overall Height	48 in (1.21 m)		
Maximum Operating Slope	20°	20°	20°

## SOUND DATA



112 dB

SOUND LEVEL 91.6 Dba at Operator's position

Sound tests were conducted in accordance with 2000/14/EEC and were performed on 11/30/11 under the conditions listed below.

*NOTE:* 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:	47°F (8.3°C)
Wind Speed:	9 mph (14.5 kph)
Wind Direction:	South
Humidity:	25%
Barometric Pressure:	30.07" Hg (101.83 kPa)

## VIBRATION DATA

VIBRATION LEVEL .3g (3.13 m/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 11/30/11 under the conditions listed below.

General Conditions:	Sunny
Temperature:	47°F (8.3°C)
Wind Speed:	9 mph (14.5 kph)
Wind Direction:	South
Humidity:	25%
Barometric Pressure:	30.07" Hg (101.83 kPa)



# BC26 HYDRO-DRIVE Owner's Manual

## INSTRUCTION LABELS

The labels shown below were installed on your BILLY GOAT® Hydro-Drive Brush Cutter. 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.

<p>PN 100261 (Item 61)</p>	<p>PN 100346 (Item 134)</p>	<p>PN 501502 (Item 85)</p>	<p>PN 400424 (Item 5)</p>
<p>PN 810736 (Item 136)</p>	<p>PN 100256 (Item 62)</p>	<p>PN 900327 (Item 20)</p>	<p>PN 500177 (Item 135)</p>
<p>PN 501504 (Item 139)</p>	<p>PN 500168 (Item 140)</p>		

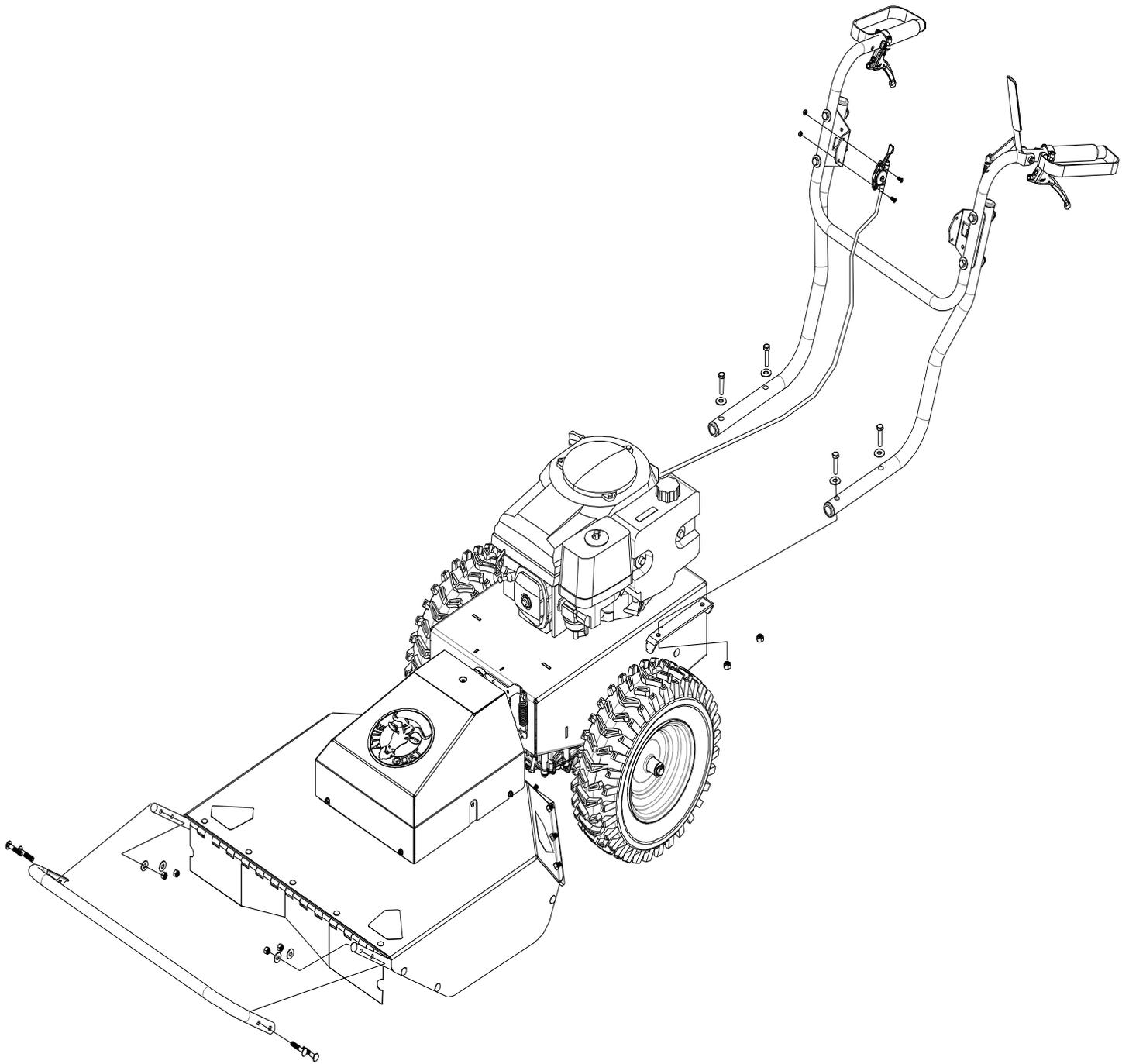
## ENGINE LABELS

<p>Honda</p>	<p>Briggs and Stratton</p>	



# BC26 HYDRO-DRIVE Owner's Manual

---



Brush Cutter Assembly Drawing



## BC26 HYDRO-DRIVE Owner's Manual

### PACKING CHECKLIST

Your BILLY GOAT® BC Self-Propelled Hydro-Drive Brush Cutter was shipped in one carton, completely assembled except for the upper handle assembly and the front guard bar. Mounting hardware for the handle and guard bar is temporarily installed on the lower handle and the front of the deck assembly. The throttle cable hardware is located on the bracket on the right side of the handle **NOTE:** BC2600HHFT models are shipped completely assembled and will need to have the blade cable attached before gas and oil is added to the machine. A CB18, C50, SC50 or MCB50 series dry or wet battery with a 17.2 Ah rating is required when replacing the battery.



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

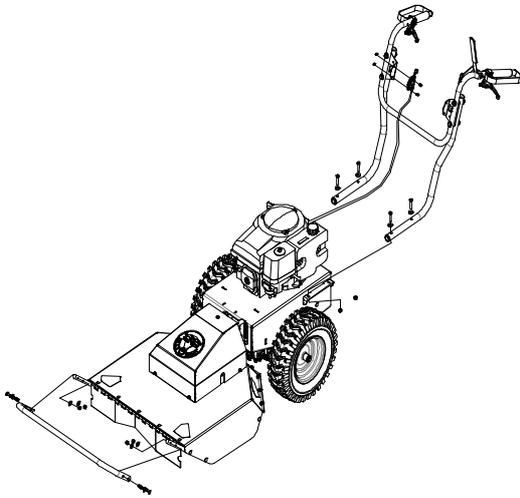


**WARNING:**

**DISCONNECT** spark plug wire before assembling unit.

### PARTS BAG & LITERATURE ASSY

Warranty card P/N- 400972, Owner's Manual P/N-501505, General Safety and Warranty Manual P/N- 100296, Declaration of conformity P/N 501506



#### Boxing Parts Checklist

- Owner's Manual 501505
- Upper Handle Assembly, P/N 501010, Electric model P/N 501009
- Guard Bar, P/N 501403
- Ty-Wraps P/N 900402 (qty 4)
- Screwcap 3/8" – 16 X 2" P/N 8041054 (qty 4)
- Washer 3/8" flat P/N 8171004 (qty 4)
- Nut Lock 3/8"-16 P/N 8160003 (qty 4)
- Nut lock #10-24 hex P/N 8164005 (qty 2)
- Screw machine flat HD Phil P/N 830514 (qty 2)
- Washer 5/16" flat P/N 8171003 (qty 4)
- Bolt carriage 5/16"-18 x 1 3/4" P/N 8024043 (qty 4)
- Nut Lock 5/18"-18 hex ZP P/N 8160002 (qty 4)
- Starter switch P/N 501286 (Electric start only)

#### Engine Manual Per Model

- Honda
- Briggs

### ASSEMBLY

**NOTE:** Items in ( ) can be referenced in the Parts Illustrations and Parts Lists on pages 15-22.

1. **REMOVE** unit from carton and check the contents of the parts bag with the list above.
2. **REMOVE** mounting hardware from the hardware bag.
3. **ATTACH** the handle to the engine base with items 72, 73, and 48.
4. **TIGHTEN** mounting hardware on handle braces (items 5 and 6).
5. **ATTACH** guard bar (item 16) to Skid bar by installing the side bolts into the top two holes on the skids with items 12, 9 and 8.
6. **ATTACH** the throttle (item 82) to the right hand bracket (item 70) using the hardware items 83 and 84. Tighten securely and make sure the cable isn't binding. **FOR ELECTRIC START MODELS,** Attach the throttle to the bracket then remove the starter switch (item 144) from the parts bag. Feed the wire harness (item 153) for the start switch into the box (item 143) through the bottom and attach the starter switch to it. Then press the switch into hole on the top of the box, making sure it is seated properly. (See parts illustration pg. 23 for assembly)
7. **ATTACH** the Blade drive cable to the lever and seat the plastic insert into the bracket on the left side of the handle.
8. **SECURE** the drive and blade cables with the ty-wraps provided.
9. **(ELECTRIC START ONLY)** For electric start models secure the battery in the battery plate (item 141), hook one side of the strap (item 147) into the hole then stretch the strap across the top of the battery and hook the opposite side into the opposing hole on the plate. Make sure the battery will not move then connect terminals. Replacement hardware to attach the cables to the battery can be found at a local hardware store.
10. **RECONNECT** spark plug wire.

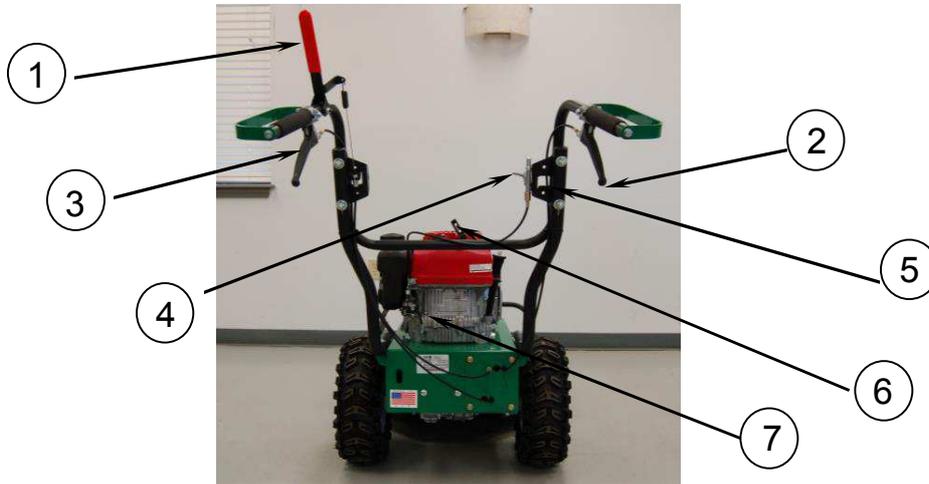


# BC26 HYDRO-DRIVE Owner's Manual

## OPERATION

### OPERATOR CONTROLS

The operator's station is at the rear of the machine between the handlebars. The operator should STAND in a position to allow both handlebars to be grasped firmly and which allows sufficient leverage to steer the machine. Operator's controls are shown below.



Operator Control Locations

- |   |                    |   |                              |
|---|--------------------|---|------------------------------|
| 1 | Blade Clutch Lever | 5 | Start Switch (Electric only) |
| 2 | Forward Lever      | 6 | Pull Starter                 |
| 3 | Reverse Lever      | 7 | Choke                        |
| 4 | Throttle           |   |                              |

### STARTING ENGINE



**CHECK** engine oil level before operating machine.



**WARNING: DO NOT START** equipment with drive or blade clutch engaged.

1. Place equipment on a level, firm surface that is free of rocks or other debris.
2. Place throttle in "fast" position. (See Fig. 1)
3. Pull choke out (See Fig. 3, Honda engine only).
4. Units equipped with electric starters: Turn the switch right until engine starts, only cranking over the engine for 10 seconds at a time if it does not immediately start. (See Fig. 2)
5. Units equipped with manual starters: Pull starter rope to start engine. (See Fig. 4)  
**NOTE: PULL STARTER CORD** slowly until resistance is felt. Then pull cord rapidly to avoid kickback.
6. Push choke in (Honda engine only).
7. Pull throttle control back to and allow engine to reach correct operating speed.

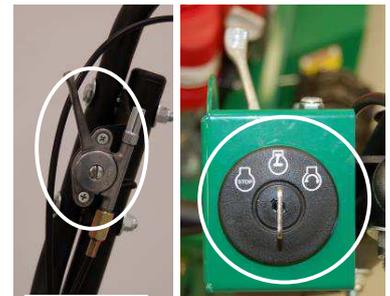


Fig. 1

Fig. 2



Fig. 3



Fig. 4



### CUTTING OPERATION

1. Press blade clutch handle down (See Fig. 5) to engage blade. Allow blade to spin up to normal operating speed.
2. Pull Forward (See Fig. 6) or Reverse Drive lever (See Fig. 7) up to engage transaxle in desired direction.

### CLEARING A CLOGGED DECK



**WARNING:** DISCONNECT spark plug wire before servicing unit.

1. Shut engine off and wait for blade to stop completely.
2. Disconnect spark plug wire.
3. Remove clog from cutting deck.



**WEAR** durable gloves. Clog may contain sharp materials.

4. Reconnect spark plug wire.

### SHUT DOWN

1. Release drive lever (Fig. 6/7) to disengage transaxle.
2. Release blade clutch handle (Fig. 5) to disengage blade.
3. (Non-Electric) Move the throttle to the slowest possible position on the throttle control.
4. (Electric start models) Turn the key to the OFF position.

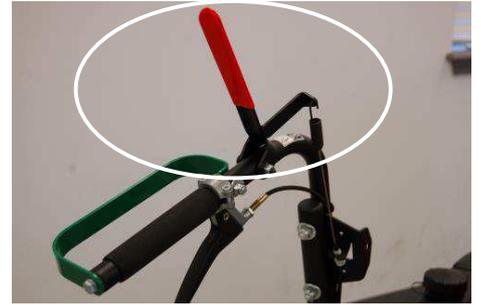


Fig. 5 Left Handle

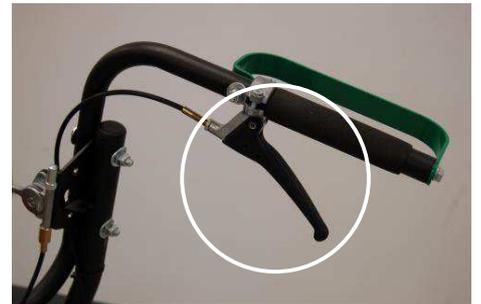


Fig. 6 Right Handle



Fig. 7 Left Handle

### \*\*\*\*\*TIPS\*\*\*\*\*

The best performance is achieved when cutting in dry conditions. The quality of the cut is directly related to ground speed during cutting. Under most conditions cutting should be done at a slower ground speed. Fast speeds should be reserved for conditions where weeds and brush are thinned out or not very tall. If the quality of the cut is not satisfactory, attempt at slower speeds.



## BC26 HYDRO-DRIVE Owner's Manual

### MAINTENANCE

#### PERIODIC MAINTENANCE

Periodic maintenance should be performed at the following intervals:

Maintenance Operation	Every Use	Daily or Every 5 Hours	Every 25 Hours	Every 50 Hours	Every 100-150 Hours
Inspect for worn or damaged parts	●				
Check for excessive vibration		●			
Inspect for loose parts		●			
Sharpen blade. Note: nut will need to be replaced when blade is removed			●		
Inspect belts for wear			●		
Lubricate throttle control cable and linkage			●		
Check blade clutch cable tension				●	
Inspect battery for corrosion, damage or leaks (electric start units only)				●	
Apply anti-seize compound to rear axles				●	
Check battery strap for excessive wear or rips	●				
Replace blade drive and transaxle drive belts					●

### COMMON REPLACEMENT PARTS

- Blade. P/N 501224. Original equipment replacement blade.
- Transaxle Drive Belt. P/N 501268. Original equipment replacement drive belt.
- Blade Drive Belt. P/N 501220. Original equipment replacement drive belt.
- Skid. P/N 501407. Side deck skid.
- Throttle Control Assembly. Throttle control including cable.

#### CLEANING

Your BILLY GOAT® Brush Cutter should be cleaned periodically to ensure optimum performance and service life. Clogs and debris should be removed from the blade area and debris should be removed from the engine cooling fins. A garden hose or pressure washer may be used for cleaning.



CAUTION:



**DO NOT SPRAY WATER DIRECTLY ON THE BLADE CLUTCH WHEN USING A POWER WASHER. SEE FIG. 8.**



Fig. 8



## BC26 HYDRO-DRIVE Owner's Manual

*NOTE:* Items in ( ) can be referenced in the Parts Illustrations and Parts Lists on pages 15-22.

### BLADE SHARPENING AND REMOVAL (See pages 15 and 16 for Parts Illustration and Parts List)



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



**WARNING:**

**DISCONNECT** spark plug wire before servicing unit.

1. Disconnect spark plug wire.
2. Lift and support front of unit to allow access to underside.



**WARNING:**

**UNIT IS HEAVY.** Make sure support is adequate to support weight of machine.

3. Block blade to prevent it from rotating during removal.
4. Remove blade bolt (item 23), and friction washer (item 39).
5. Remove blade (item 2) and install replacement blade. When replacing the blade use BILLY GOAT Industries PN 501224 only. *NOTE:* When sharpening blade make sure to sharpen all cutting edges. If the lock nut is removed and replaced more than once, it should be replaced with a new lock nut (P/N 8160009).
6. Attach new blade with new blade bolt (item 23), and new friction washer (item 39) removed earlier included with your new blade. *NOTE:* Inspect fasteners for wear and replace if necessary.
7. Torque blade lock nut to 40 ft-lbs.
8. Reconnect spark plug wire.

### BLADE DRIVE AND TENSION (See pages 15 and 16 for Parts Illustration and Parts List)

*NOTE:* The Blade Drive belt is under constant tension by the idler arm on the deck



**WARNING:**

**DISCONNECT** spark plug wire before servicing unit.

1. Disconnect spark plug wire.
2. Loosen four screws (item 27) holding belt deck cover (item 29) and remove the cover.
3. Examine condition of belt and amount of tension on belt.
4. If the idler is not providing enough tension inspect the spring (item 50) attaching it to the spindle base. If not enough tension is being put on the arm, replace the spring.
5. Replace engine base door (item 29) and secure with screws removed earlier.
6. Reconnect spark plug wire.
7. Check belt tension by operating unit under conditions that caused belt slippage. If belt continues to slip it may require replacement before operation can be continued.

### BLADE CLUTCH ADJUSTMENT (See pages 17 and 18 for Parts Illustration and Parts List)



**WARNING:**

**DISCONNECT** spark plug wire before servicing unit.

1. Disconnect spark plug wire.
2. As the clutch/brake wears or begins slipping or squealing, adjustment may be required to maintain proper cable tension and clutch engagement. A properly adjusted blade clutch should require 10 lbs. of force to depress the end of the clutch lever. The blade clutch cable spring should stretch 1/4" to 3/8" (6.4-9.5 mm).
3. Adjust cable tension by tightening or loosening cable adjustment nut on rear of engine base (See Fig. 9). Be sure to leave enough slack in cable to allow blade brake to engage.
4. Reconnect spark plug wire.

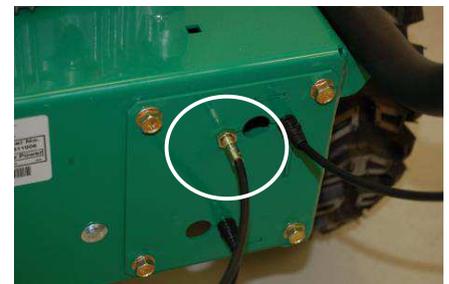


Fig. 9



**CAUTION:**

If clutch continues to slip or squeal, do not operate equipment until adequate adjustment or repair has been performed. Improper adjustment can cause clutch to overheat and slip, greatly reducing performance and clutch life.



# BC26 HYDRO-DRIVE Owner's Manual

NOTE: See Fig 12 for proper belt routing.

## TRANSAXLE DRIVE BELT REMOVAL AND REPLACEMENT (See pages 21 and 22 for Parts Illustration and Parts List)



**WARNING:** DISCONNECT spark plug wire before servicing unit.

1. Disconnect spark plug wire.
2. Lift and support the rear of the unit to allow access to the underside
3. Unattach the spring (item 50) from the bracket (item 98) that is keeping tension on the drive belt. (See Fig. 10)
4. Walk the belt (item 121) off of the clutch (item 54) by slowly pulling the engine over. **WARNING:** use caution not to pinch fingers between the belt and clutch.
5. Slip the belt off of the transaxle pulley.
6. Replace the belt in reverse order. **NOTE:** make sure the belt is seated properly in the clutch and transaxle and make sure that it does not bend over the fan blades on the transaxle.



Fig. 10

## BLADE DRIVE BELT REMOVAL AND REPLACEMENT (See page 15 and 16 for Parts Illustration and Parts list)



**WARNING:** DISCONNECT spark plug wire before servicing unit.

1. Disconnect spark plug wire.
2. Lift and support rear of unit to allow access to underside.



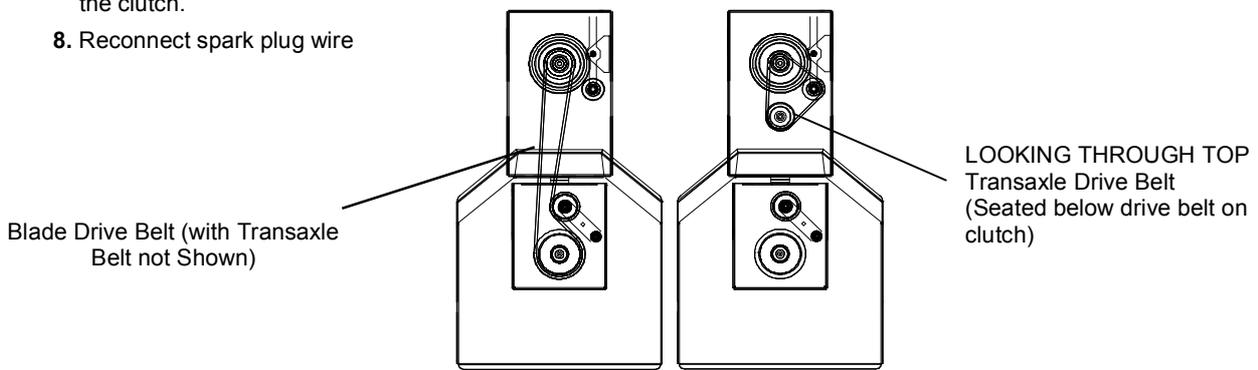
**WARNING:**

**UNIT IS HEAVY.** Make sure support is adequate to support weight of machine.

3. Loosen the four screws (item 27) holding deck belt cover (item 29) and remove cover.
4. Follow the steps 3 and 4 in the Transaxle drive belt removal section to remove the Transaxle drive belt. **NOTE:** It may be necessary to pry idler pulley (item 35) away from its original position to release belt, using a ratchet with an extension in the square hole on the idler arm should allow the proper leverage to pull it off the belt. (See Fig. 11)
5. Relieve the tension on the blade belt by pulling the deck idler arm off of the belt. Then walk the belt off of the deck pulley.
6. Feed the belt back to the engine base then slip the belt off of the clutch.
7. Install the new belt in reverse order making sure the belt is seated properly in the clutch.
8. Reconnect spark plug wire



Fig. 11



Belt Routing Diagram (Top View of Machine)

Fig. 12



# BC26 HYDRO-DRIVE Owner's Manual

## TRANSAXLE DRIVE ADJUSTMENT



**WARNING:** DISCONNECT spark plug wire before servicing unit.

1. Disconnect spark plug wire.
2. Adjustments to cable tension are made at the barrel entering the Drive Control Levers. (See Fig. 13)
3. Adjust cable tension by tightening or loosening cable adjustment barrel on rear of engine base (see below).

**NOTE:** Moving the cable adjustment barrel OUT increases tension. Moving the barrel IN decreases tension. Increasing the tension too much will cause the drive to stay engaged whereas not enough will cause it not to engage when the lever is pulled.

4. Reconnect spark plug wire.

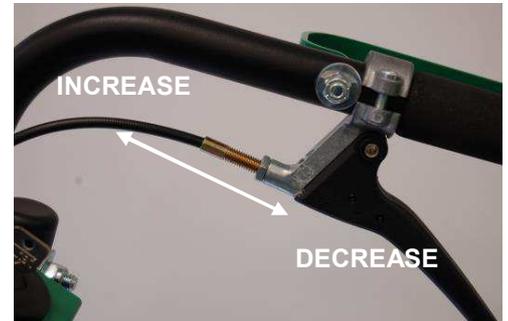
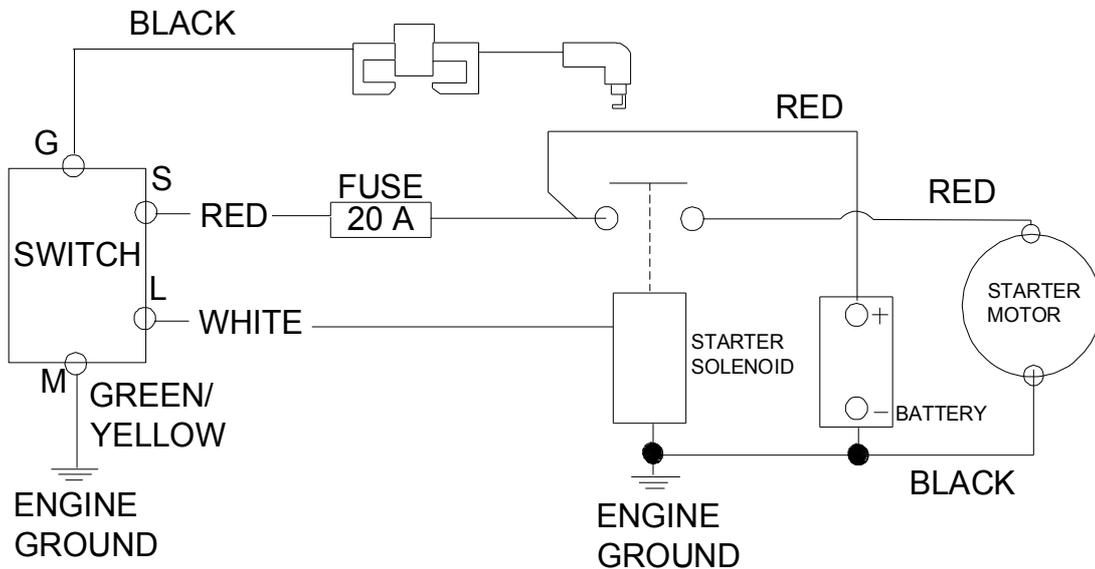
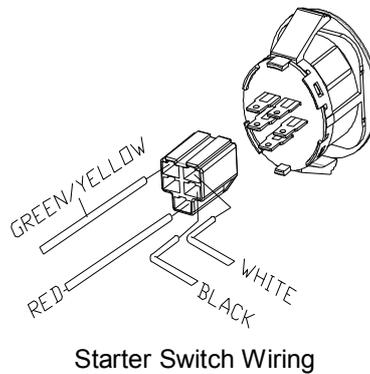


Fig. 13

## WIRING DIAGRAMS





## BC26 HYDRO-DRIVE Owner's Manual

---

### Battery Care (For Electric-Starting Models)

Proper care can extend the life of a battery. Follow these recommendations to ensure your battery's best performance and long life:

- Do not allow the battery charge to get too low. If the machine is not used, charge the battery every 4 – 6 weeks. Operate the engine for at least 45 minutes to maintain proper battery charge.
- Store an unused battery in a dry area that does not freeze.
- Do not charge an already charged battery. In theory, you cannot overcharge our battery with a trickle charger; however, when a battery is fully charged and the charger is still on, it generates heat that could be harmful to the battery. A fully charged battery will read 12V-13.2V with a voltmeter.
- Do not continue to crank your engine when the battery charge is low.

### Charging the Battery

Operate the engine for at least 45 minutes to maintain proper battery charge. If the battery loses its charge, you will need to use a trickle charger to recharge it. **Caution:** The charger should have an output of 12 volts at no more than 2 amps. Using a charger with higher amps will cause significant damage to the battery.

- At 1 amp, the battery may need charging for as long as 48 hours.
- At 2 amps, the battery may need charging for as long as 24 hours.

*NOTE:* Using the Recoil Starter and then running the engine will not recharge a dead or significantly discharged battery.

*NOTE:* WHEN YOU ARE FINISHED CHARGING THE BATTERY, disconnect the charger from the outlet first, then disconnect the battery charger wires from the battery. If you leave the battery charger wires connected to the battery, the battery will discharge itself back into the charger.



## BC26 HYDRO-DRIVE Owner's Manual

### TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
Engine will not start	Throttle is set to Slow/Stop position.	Move throttle to fast position.
	Out of gasoline.	Fill gas tank.
	Old or contaminated gasoline.	Drain gas tank and fill with fresh gasoline.
	Spark plug wire disconnected.	Connect spark plug wire.
	Dirty air cleaner.	Clean or replace air cleaner.
Starter does not turn (Electric start only)	Battery low or dead.	Charge or replace battery.
	Battery cable disconnected or corroded.	Clean and secure battery terminals.
	Defective starter switch or wiring harness.	Replace starter switch or wiring harness.
	Defective starter.	Replace starter.
Will not cut or cutting performance is poor	Blade drive cable tension incorrect.	Adjust blade drive cable tension.
	Dull blade.	Sharpen or replace blade. <i>NOTE:</i> a new bolt will need to be installed if blade is removed.
	Clogged deck.	Unclog deck.
	Excessive debris built up on or blocking blade.	Clear debris from blade area.
	Engine RPM set too low.	Check engine RPM.
Abnormal vibrations	Blade loose or out of balance.	Check blade for tightness. Rebalance if necessary.
	Engine loose.	Check engine mounting bolts.
	Blade drive belt worn.	Replace blade drive belt.
Belt slips or smokes	Belt tension too low.	Adjust belt tension.
	Belt worn or stretched.	Replace belt.
	Pulleys worn or damaged.	Replace pulleys.
Clutch slips or squeals	Clutch cable tension too low.	Replace spring on idler arm.
	Clutch worn or damaged.	Replace worn or defective clutch assembly parts.
Blade brake will not engage	Inadequate slack in clutch cable.	Adjust clutch cable.
	Clutch worn or damaged.	Replace clutch/brake assembly.
Transaxle will not engage	Clutch lever not engaging clutch.	Adjust clutch cable.
	Clutch cable defective.	Replace cable.
	Belt worn or broken.	Replace belt.
Transaxle will not disengage	Clutch cable out of adjustment.	Adjust clutch cable.
Engine will not turn over	Defective blade clutch.	Replace clutch.
	Engine problem.	Contact an authorized servicing dealer for your engine.