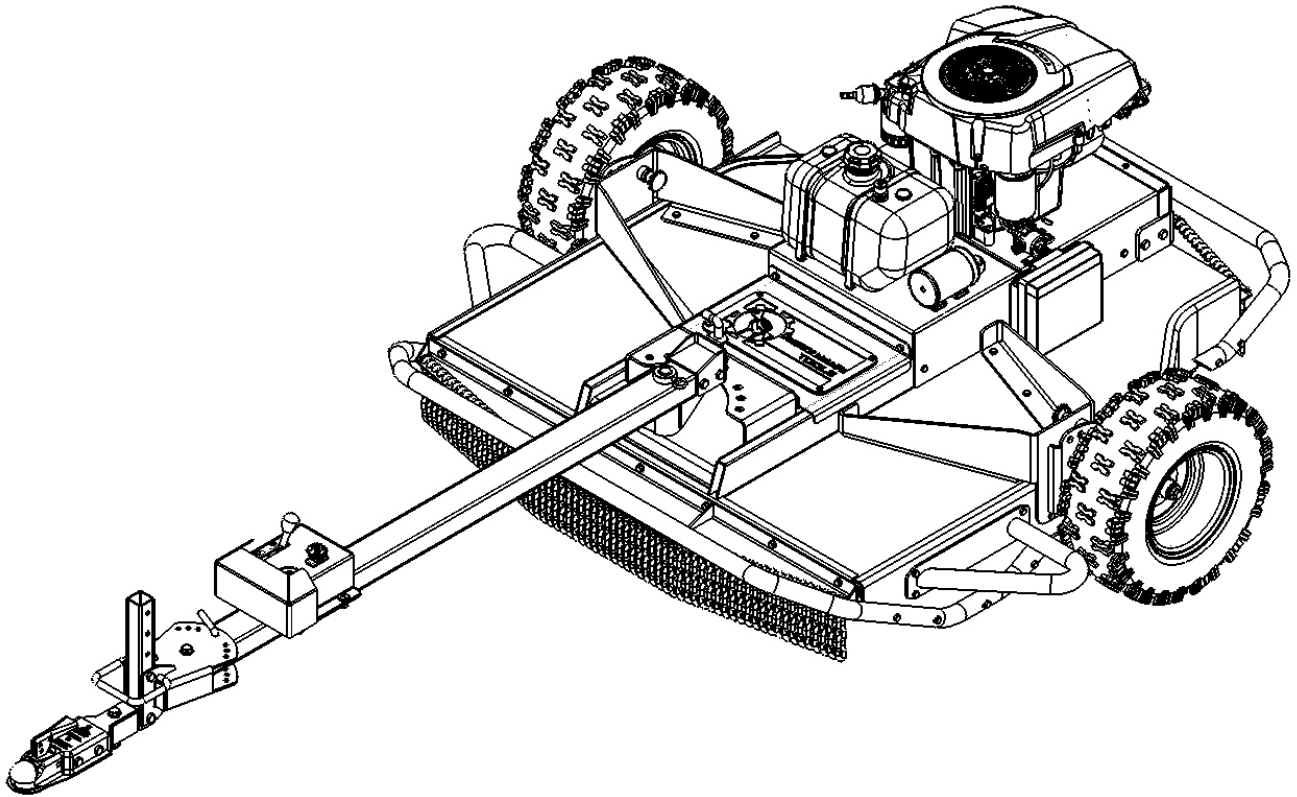




DIRTY HAND[®]
TOOLS

46" Rough Cut Brush Mower



MODEL # 106717

Operation Manual



This safety alert symbol identifies important safety messages in this manual. Failure to follow this important safety information may result in serious injury or death.

Part # 104992 Rev B



For Service or Questions

Call 1-877-487-8275

720-287-5182

www.dirtyhandtools.com

Dirty Hand Tools® is a brand of



FrictionlessWorld

1100 W 120th Ave, Suite 600
Westminster, CO 80234 • 720-287-5182

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Important Safety Information



WARNING

WARNING: Read and thoroughly understand all instructions and safety information before assembling or operating this brush mower. Failure to do so may cause serious injury or death. Do not allow anyone to operate this brush mower who has not read this manual. As with all power equipment, a brush mower can be dangerous if assembled or used improperly. Do not operate this brush mower if you have doubts or questions concerning safe operation.

Call our customer service department at **720-287-5182**, **1-877-487-8275**, or visit www.dirtyhandtools.com if you have any questions or concerns about the safe operation of this equipment.



DANGER

Intended Use

Do Not Use the brush mower for any purpose other than for which it was designed. Any other use is unauthorized and may result in serious injury or death.

Personal Protective Equipment

When operating this brush mower it is essential that you wear safety gear including goggles or safety glasses, adequate clothing and tight fitting gloves (no loose cuffs or draw strings). Always wear ear plugs or sound deafening headphones to protect against hearing loss when operating this brush mower. Always wear sturdy footwear. Never wear sandals, sneakers or open shoes, and never operate the brush mower with bare feet. Do not wear loose clothing that might get caught in moving parts.



CAUTION

Whenever you leave the operating position to make adjustments or if you have to remove grass or debris from the underside of the mower deck, always shut off the engine and wait five (5) minutes to allow parts to cool. Remove the key or disconnect the spark plug wire and keep the wire away from the spark plug to prevent accidental starting.



Important Safety Information

General Safety

Failure to follow warnings, cautions, assembly and operation instructions in the Operation Manual may result in serious injury or death.



DANGER

READ THE OPERATION MANUAL BEFORE OPERATION.

- **Do not** permit children to operate this equipment at any time. Do not permit others that have not read and understood the complete Operation Manual to operate this equipment.
- Keep all people and pets a minimum of 100 feet away from the work area when operating this brush mower.
- **Do not** operate the brush mower when under the influence of alcohol, drugs or medication.
- **Do not** allow a person who is tired or otherwise impaired or not completely alert to operate the brush mower.
- **Do not** tow the brush mower on public roads or highways.
- **The maximum towing speed is 10mph.**



DANGER

CAREFULLY INSPECT THE AREA TO BE TRIMMED AND REMOVE ALL FOREIGN OBJECTS.

- Stop the brush mower from operating when crossing gravel or loose pebbles.
- Never operate your unit on a slippery, wet, or muddy surface.
- Always operate the mower from the control panel. Never stand on the machine when the engine is running or blades are spinning!
- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the brush mower.
- If the cutting blades strike a foreign object or if your machine should start making an unusual noise or vibration, stop the engine and wait five (5) minutes for all moving parts to come to a complete stop and cool, before troubleshooting.
- Be cautious when using your brush mower around fencing, wires, ropes, and hoses.
- Do not operate on slopes greater than 20 degrees.

Important Safety Information

- Never run the engine in an enclosed area or without proper ventilation as the exhaust from the engine contains carbon monoxide, which is an odorless, tasteless, and deadly poisonous gas.
- Fill the gasoline tank outdoors with the engine off and allow the engine to cool completely.
- Do not operate the engine with the air cleaner or cover over the carburetor air-intake removed, except for adjustment. Removal of such parts could create a fire hazard.
- The muffler and engine become very hot with use and can cause a severe burn; do not touch. Allow the engine to cool before refueling, doing maintenance, or making adjustments.

Safety Decals

Safety labels on the brush mower are to remind you of important information while you are operating the unit. Make sure all safety warning decals are attached and in readable condition. Replace missing or defaced decals. Contact Dirty Hand Tools at **1-877-487-8275** for replacement decals.



BEFORE STARTING

- Read Operation Manual
- Check Gas & Oil Levels
- Push in Blade Control Knob
- Move throttle to **CHOKE** (Cold Start) or **RUN** (warm start)

TO START ENGINE

- Turn **START** key and hold
- Release key (stops at **RUN**)
- Move throttle to **RUN**

TO STOP ENGINE

- Push in Blade Control Knob
- Move throttle to **IDLE**
- Turn key to **OFF**



WARNING

**AVOID SERIOUS INJURY
OR DEATH**

**KEEP HANDS & FEET AWAY
FROM MOVING PARTS**

- Read Operator's Manual
- Remove obstacles in path
- Keep people away 100 feet
- Disengage blade and stop engine when leaving mower
- Do not ride on mower



**READ MANUAL
BEFORE
OPERATING**



**WEAR
PROTECTIVE
FOOTWEAR**



**WEAR
PROTECTIVE
CLOTHING**



**WEAR
GOGGLES OR
EYEWARE**



**WEAR NOISE
REDUCTION
HEADPHONES**



**STAY CLEAR
OF ROTATING
PARTS**



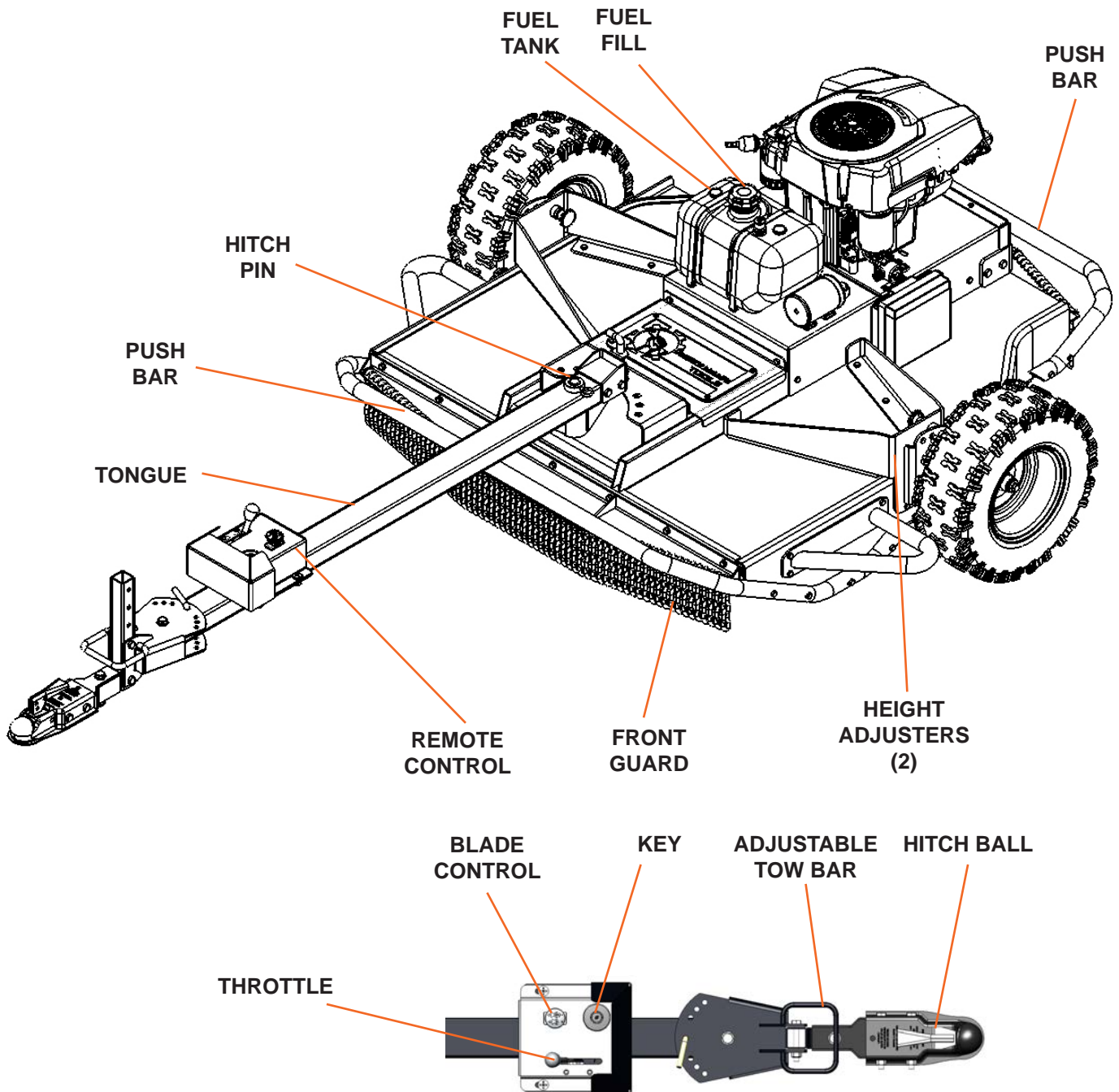
**KEEP HANDS
& FEET
AWAY**



**STOP ENGINE &
DETACH SPARK PLUG
BEFORE SERVICING**

Brush Mower Overview

Familiarize yourself with the controls and features of your brush mower before operating. The brush mower is partially assembled at the factory with the exception of the tongue, remote control, push bar, height adjusters and cable. The remote control can be mounted on the tongue of the mower or on the towing vehicle within the reach of the 5 foot cable length.



Unpacking and Assembly



WARNING

Wear gloves and use caution when cutting and removing any banding materials which may have sharp edges.

Unpacking and assembling the brush mower, which weighs 560 lbs., requires at least two people.

- Position the shipping container on level ground before unpacking.
- Wear eye protection when uncrating.
- Use caution when cutting the container's banding.
- Use caution with exposed nails and screws when uncrating.

List of tools needed for assembly:

- Pry Bar
- Metal Shears
- Hammer
- Screw Driver
- 17mm Wrench or Socket Wrench
- 13mm Wrenches
- Gloves and Eye Protection

Whats in the container:

- Brush Mower
- Tongue
- Remote Control and Cable
- Operation Manual
- Engine Operation Manual
- Hardware Kit



WARNING

Wear gloves and use caution when handling the deck. The blades are extremely sharp and may move as you maneuver the deck.

Unpacking

1. Remove the top of the crate.
2. Remove the sides of the crate.
3. Cut the bands that secure the brush mower to the shipping container. Cut the banding that secures the remote control and cable to the tongue.
4. Attach height adjustment brackets with attached wheels using hardware supplied (see Figure 1).
5. Raise the brush mower using the deck height adjusters approximately 8 inches to clear the shipping block underneath the machine and roll the mower off of the container base.

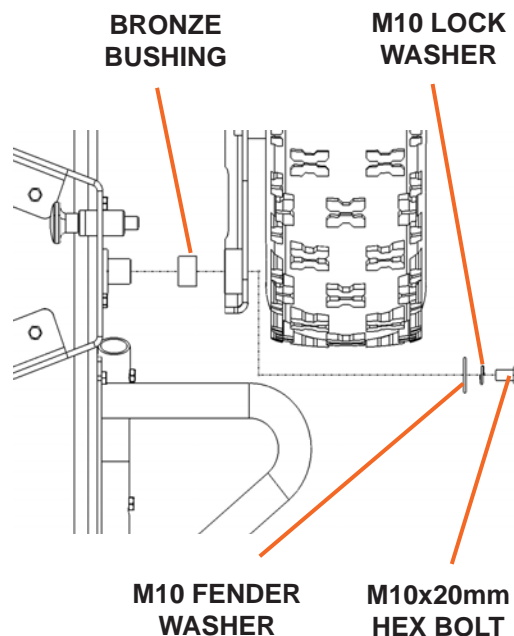


Figure 1

Attaching the Tongue



WARNING

Wear gloves and use caution when handling the deck. The blades are extremely sharp and may move as you maneuver the deck.

Attaching the Tongue to the Mower Deck

Attaching the tongue to the brush mower's deck with hardware included in the hardware kit will require two persons.

1. Locate and remove the tow bar retaining pin and collar from the pivot pin on the front of the mower deck (see Figure 2).
2. Pull the handle of the tow bar locking pin up so its spring pins are above the tongue and then twist the handle 90° so the bottom spring pin rests on top of the tongue (see Figure 3).
3. Place the tongue over the pivot pin and install the collar and the tongue retaining pin.

NOTE: The remote control throttle cable and wire harness are routed inside the tongue housing. Use care not to pinch them when attaching the tongue over the pivot pin!

5. Pull the tongue locking pin handle up, turn it 90°, and release the locking pin into the center hole in the tongue mounting plate.

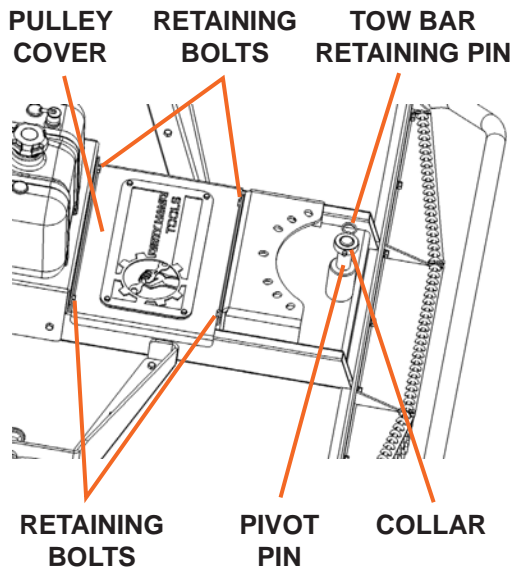


Figure 2

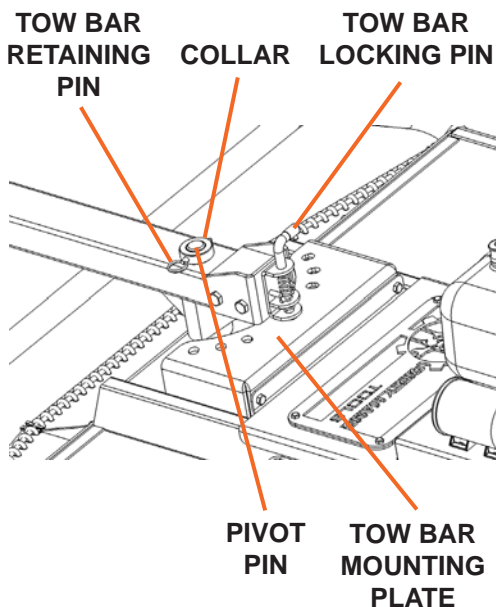


Figure 3

Attaching the Remote Control to an ATV



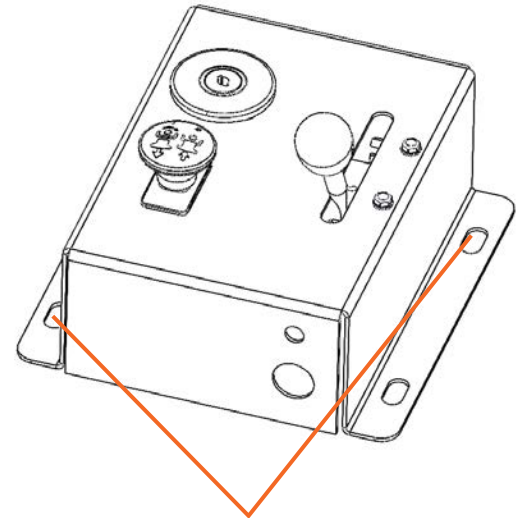
WARNING

**Wear gloves and use caution when handling the deck.
The blades are extremely sharp and may move
as you maneuver the deck.**

Attaching the Remote Control to an ATV or other vehicle

1. Using a 13mm wrench or socket, loosen and remove the four bolts, washers and nuts that secure the remote control unit to the tongue (see Figure 4).
2. Using a 13mm wrench or socket, remove the four (4) bolts, and washers that retain the pulley cover, remove and set aside (see Figure 2).
3. Carefully pull the throttle and remote control cables through the tongue to the desired length. There is approximately four feet of extra cable length beyond the end of the tongue which permits attachment to an ATV, small tractor or similar vehicle.
4. For a permanent mounting, drill four holes to align with the mounting brackets on the remote control. Secure the remote control unit to a solid surface with bolts, washers and nuts in four places. For a temporary mounting secure the remote control with tiedowns.
5. Replace the belt cover and secure with the four bolts and washers.

Note: Always mount the remote control within easy reach of the operator's position. It is not recommended to place the remote control unit on a pickup bed or an unstable surface.



**REMOTE CONTROL
MOUNTING
BRACKETS**

Figure 4

Connecting the Battery

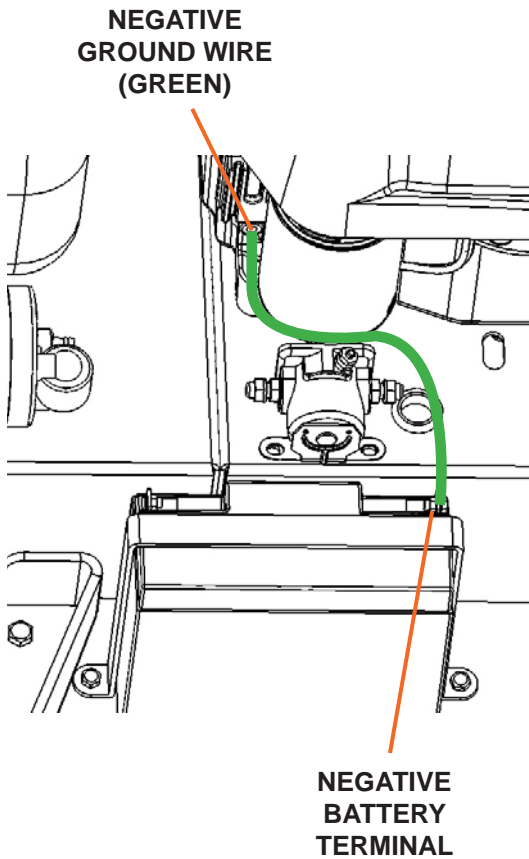


Figure 5



WARNING

Using the wrong type of battery or charger could cause a fire or explosion, resulting in serious injury.

When attaching the negative (ground) wire, avoid contact with the muffler. Heat from the muffler may melt the wiring creating a fire hazard.

Never modify the brush mower's electrical system. Modifications could ruin the electrical system and cause a fire. Never lift or carry the battery by the cables or terminals. This can damage the battery and possibly start a fire, resulting in serious injury. Lift and carry the battery only by its case.

Connecting the Battery

The brush mower battery is shipped from the factory with the negative ground wire detached.

1. Connect the negative wire to the negative terminal with the nut and bolt on the battery with two 5/16" wrenches (see Figure 5).

Connecting to a Tow Vehicle



WARNING

For the machine to work properly, it is important to use the hitch height setting that positions the tongue parallel to the ground.

1. Move your tow vehicle to a level area within connection distance of the brush mower and set the parking brake. Lift the hitch and position it onto the center of the tow vehicle hitch plate and secure with the clevis pin and hitch clip pin or using the 2" ball hitch (see Figure 6).
2. There are 4 different height positions on the hitch bar to help ensure the tongue remains level with the ground. Adjustment can also be made to correspond with the cutting height. Remove the two hex bolts, washers and nuts on the hitch bar and reposition to the desired height, then replace the hex bolts, washers and nuts, tighten securely (see Figure 7). The hitch bar and clevis can be inverted for tractors with higher hitches.
3. If using the ball coupler, adjust the height of the hitch to ensure the tongue is parallel to the ground. Position the ball hitch coupler on the brush mower over the ball on the tow vehicle, snap into position and depress the clamp lever to secure.

Recommended Tow Vehicles

- ATV
- Riding Lawn Mower
- Utility Vehicle
- Sub-Compact or Compact Tractor

Riding lawn mowers with engines under 17HP and weighing less than 500 pounds are not suitable for use on slopes greater than 5 degrees. Never operate on slopes greater than 20 degrees.

DO NOT use a jeep, truck or vehicle other than those mentioned above to pull the brush mower.

A recommended speed for operation is 5mph on level ground and not more than 4mph on rough terrain. Never tow the brush mower on public roads or highways.

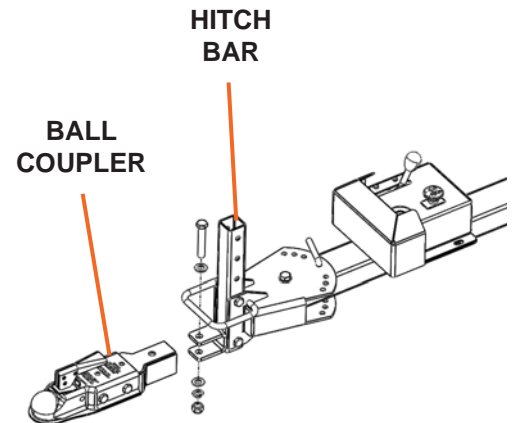


Figure 6

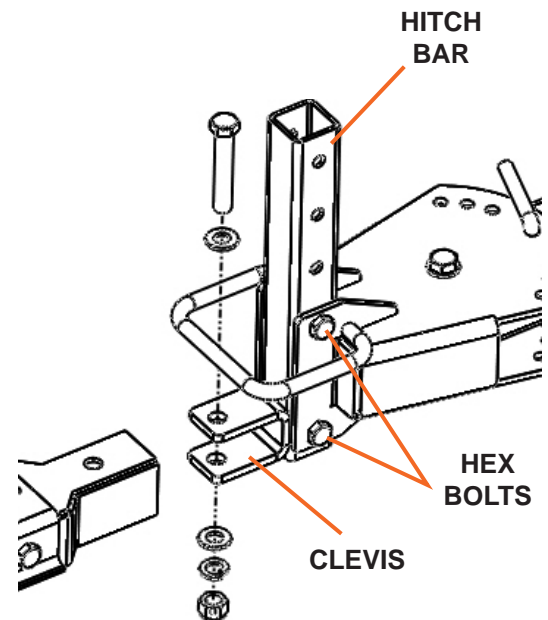


Figure 7

Filling with Gasoline and Oil

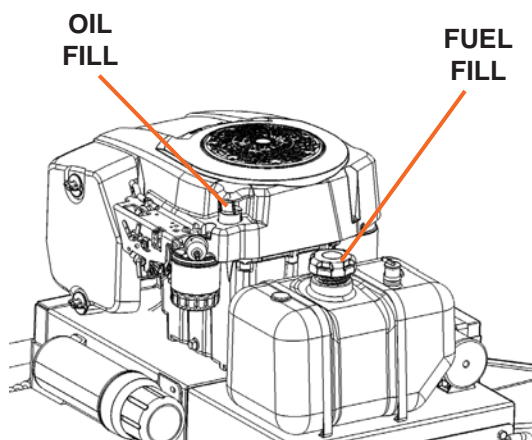


Figure 8



WARNING

ADD OIL BEFORE STARTING THE ENGINE
The brush mower is shipped without fluids installed.

Keep the caps on the fuel and oil fills until you are ready to pour either gasoline or oil into the correct fill.

Requires approximately 1.6 quarts (1.5L) of SAE 30 engine oil.

Please refer to your Engine Owner's Manual for detailed information on oil quantity and cold temperature oil specifications.

1. Place the machine on a level surface and initially add 1/2 of the SAE 30 high detergent oil into the oil fill (see Figure 8) and wait one (1) minute for the oil to settle.
2. Check the dipstick and continue adding a few ounces of oil at a time, rechecking the dipstick until the oil reaches the fill mark. Be careful not to overfill.
3. Fill the fuel tank with fresh, unleaded gas (min. 85 Octane), to 1/4" from the top of the fill neck to allow for expansion. Be careful not to overfill and reinstall the cap before starting the engine.



WARNING

ALWAYS FILL THE TANK WITH
ENGINE OFF AND COOL.

ALWAYS CHECK THE OIL LEVEL
BEFORE OPERATING.

Allow the engine to cool for at least two minutes before removing the fuel cap.

Before performing any adjustments, maintenance or inspection, stop the engine, wait five minutes to allow parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug. Contact with internal rotating parts will cause serious personal injury. Never put hands, face, feet, or clothing under the mower deck or discharge opening at any time.

Operation



WARNING

**Contact with internal rotating parts may cause serious injury.
DO NOT put hands, face, feet, or objects under the deck
or near the discharge area with the engine running.**

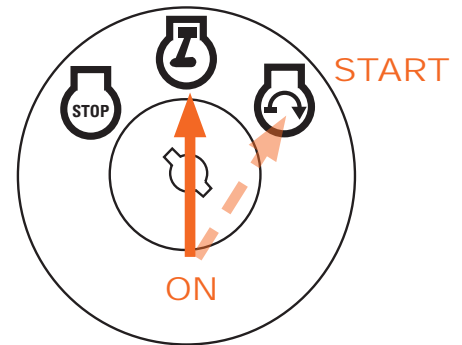
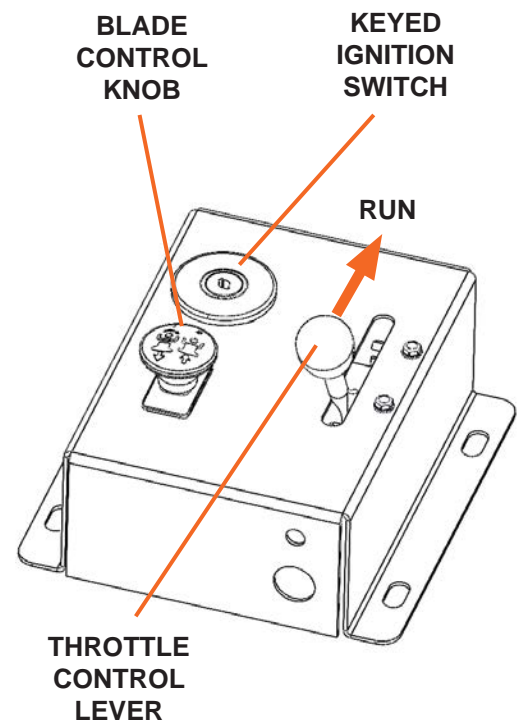
Inspect the area where you will be working. The site must be free of potentially hazardous obstacles such as glass, large stones, sticks, wire, rope, and string-like materials. Make sure there are no people or animals in the area.

1. Check the oil level every time you use the machine.
2. Check the gasoline level.
3. Open the fuel shut-off valve located on the fuel tank mount.
4. Make sure the blade control knob (see Figure 9) is pushed down to the disengaged position.

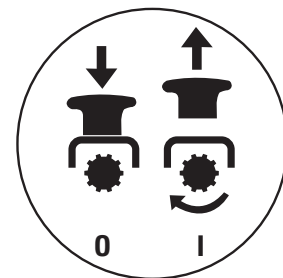
Starting the Engine

Electric Starting

1. Push the blade control knob down to disengage the blades.
2. When starting a cold engine, push the throttle control lever up to the RUN position. When starting a warm engine, push the throttle lever down to the IDLE position.
3. Turn the key switch to the center position (ON), and then to the START position until the engine starts, then release. The key will snap back to the center position (ON) and the engine will continue to run.
4. As the engine warms up, slowly adjust the throttle to the RUN position. Wait until the engine runs smoothly before each throttle adjustment. For maximum performance, operate throttle in the RUN position.



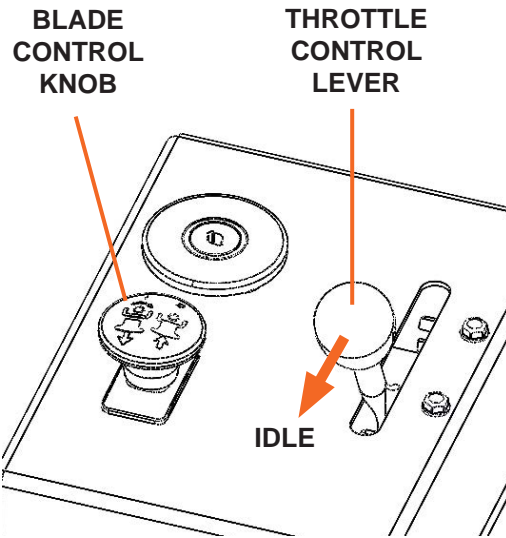
IGNITION SWITCH



BLADE CONTROL KNOB

Figure 9

Operation

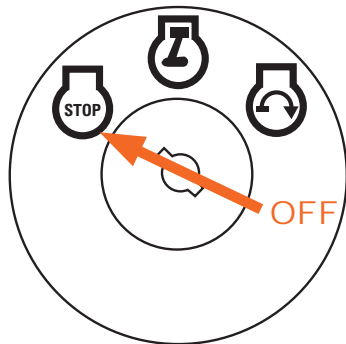


Stopping the Engine

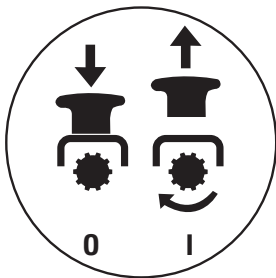
1. Disengage the blades by pushing the blade control knob down.
2. Move the throttle control lever all the way down to the IDLE position and turn the key to STOP (see Figure 10).
3. Remove the key for safety. The key has a pressure lock that prevents it from vibrating loose during operation. To remove the key, push it in and then quickly and firmly pull it out. If the key becomes difficult to remove, apply a non-conductive lubricant into the keyhole.

Engaging the Blades

1. Engage the blades by pulling up on the blade control knob.
2. Pushing down on the blade control knob disengages the blades.



IGNITION SWITCH



BLADE CONTROL KNOB

Figure 10

Operation



WARNING

**Shut off the engine before adjusting the deck height.
The blades could sever your foot if accidentally placed
under the deck with the engine running.**

**Never get off the tow vehicle without first stopping the blades
and shutting off the tow vehicle and brush mower engines.**

Adjusting the Mower Deck Height

1. To change the cutting height, disengage blades and turn off engine, apply pressure to the height adjustment while pulling the spring-loaded adjustment knob out. Then re-position and release the knob to the desired height in one of the four adjustment notches (see Figure 11). Repeat for the opposite side at the same height level.

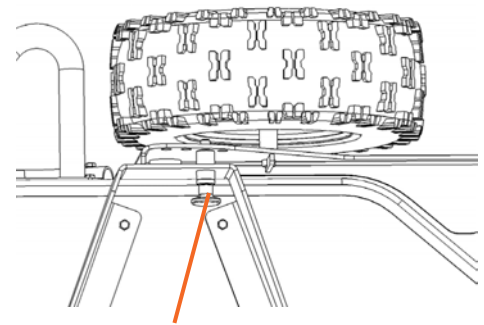
NOTE: Make sure that the left and right side adjustment knobs are at the same notch for both sides.

When the cutting height is adjusted, the hitch height may require adjustment also, to keep the brush mower parallel with the ground.

Offset Mowing

1. Remove the tongue locking pin (see Figure 12) and align pin holes to desired degree of offset, then replace pin.
2. Lift the spring pin at the opposite end of the tow bar and turn it 90° to lock it "open".
3. Rotate the machine/tow bar until the desired offset is achieved, then rotate the spring pin 90° to lock it into place.

NOTE: If the tongue alignment is correct and the locking pin is properly positioned, the upper spring pin will not be showing. If the upper spring pin is still visible, adjust the tongue angle by moving the mower until the locking pin can be pushed down into place and the upper spring pin is no longer visible.



HEIGHT
ADJUSTMENT KNOB

Figure 11

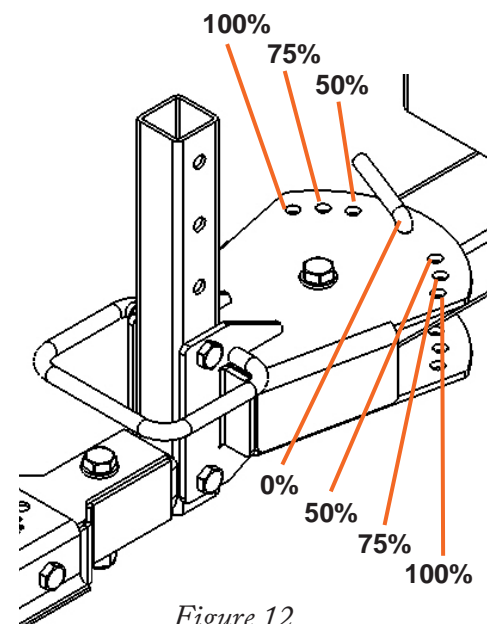
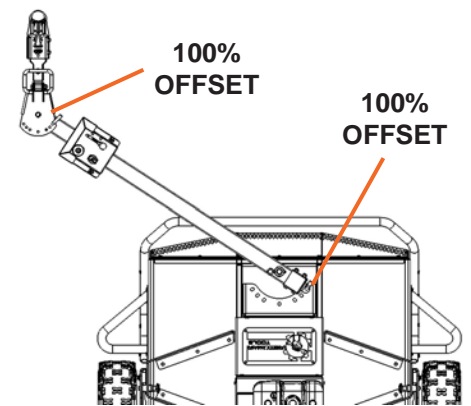


Figure 12

Maintenance



WARNING

**BEFORE PERFORMING ANY MAINTENANCE
PROCEDURE STOP THE ENGINE, WAIT FIVE (5)
MINUTES TO ALLOW ALL PARTS TO COOL.**

**Disconnect the spark plug wire,
keeping it away from the spark plug.**

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this manual and the engine manufacturer's owner's manual for maintenance procedures.

Maintenance Checklist

Maintenance Procedure	Before Each Use	Every 20 Hours of Use	Every 100 Hours of Use
Check engine oil level	X		
Clean engine exterior, cooling fins and remove debris. <i>Cleaning the engine top during use is critical for proper air flow.</i>	X		
Check general equipment condition including nuts, bolts, welds, etc.	X		
Check swing blades for sharpness	X		
Inspect the debris guard, remote control cable and throttle cable	X		
Check tire pressure	X		
Check the belt for stretching, cracking or other wear	The first time after 2 hours of use	X	
Lubricate throttle cable and remote control cable with penetrating lubricant		X	
Change the engine oil		X	
Replace the engine air filter cartridge and foam pre-filter if equipped.			X
Replace spark plug			X

Maintenance

Replacing the Engine Oil

Note: Drain the oil when the engine is warm. Warm oil drains quickly and completely. Be sure to use environmentally safe disposal procedures in the disposing of the used oil. The use of an extractor makes oil removal clean and easy.

1. Remove the oil fill cap and position a suitable oil drain container under the mower near the oil drain plug on the side of the engine (see Figure 13).
2. Turn the oil drain plug counterclockwise then pull it out for draining. An appropriate diameter sized tube can be inserted for draining into a container.
3. When the oil is completely drained, rethread the oil drain plug in and turn clockwise until it is tight.
5. Push the oil fill cap fully into position to secure.
6. Replace the oil by following the instructions in *Filling with Gasoline and Oil*, on page 13.

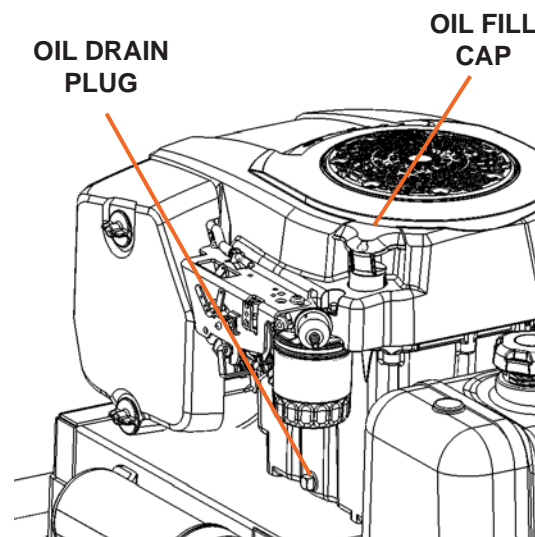


Figure 13

Changing /Cleaning the Air Filter

1. Wipe off the air cleaner cover. Loosen the knob at the bottom and top of the air cleaner cover (see Figure 14).
2. Remove the air cleaner filter.
3. Wash the air filter in warm water and mild detergent several times. Rinse. Squeeze out excess water and allow it to dry completely. Soak the filter in lightweight oil briefly, then squeeze out the excess oil.
4. Install a new air filter or reinstall the cleaned air filter. Secure the air cleaner cover before use.

AIR
CLEANER
COVER

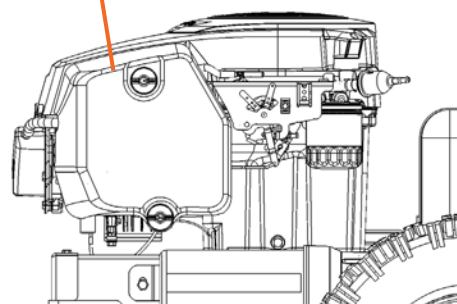


Figure 14

Spark Plug Maintenance:

1. Disconnect spark plug wire from end of plug. Clean out debris from around the spark plug.
2. Using a spark plug wrench, remove the spark plug. Inspect the spark plug. If the electrode is oily, clean it using a clean, dry rag. If the electrode has deposits on it, polish it using emery paper. If the white insulator is cracked or chipped, replace the spark plug.
3. When installing a new spark plug, adjust the plug's gap to the specification on the technical specification chart. Do not pry against the electrode or the insulator, the spark plug can be damaged (see Figure 15).
4. Install the new spark plug or the cleaned spark plug into the engine. Gasket style spark plugs should be finger-tightened until the gasket contacts the cylinder head, then turned about 1/2 to 2/3 more rotation. Non-gasket-style spark plugs should be finger-tightened until the plug contacts the head, then about 1/16 turn more.

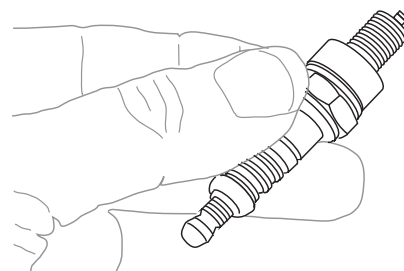


Figure 15

Maintenance

Replacing the Drive Belt

Belt type: Gates Hi-Power B52

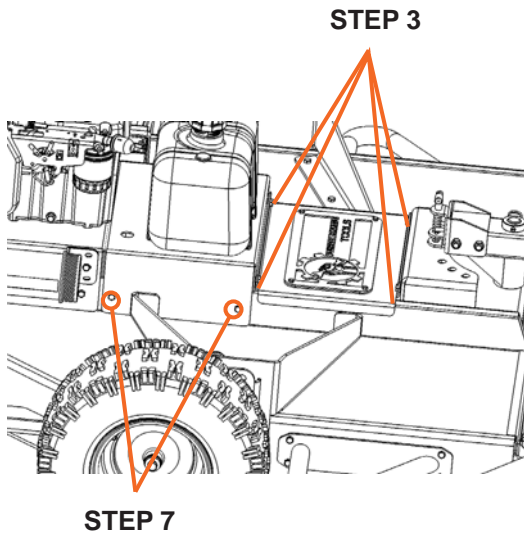


Figure 16

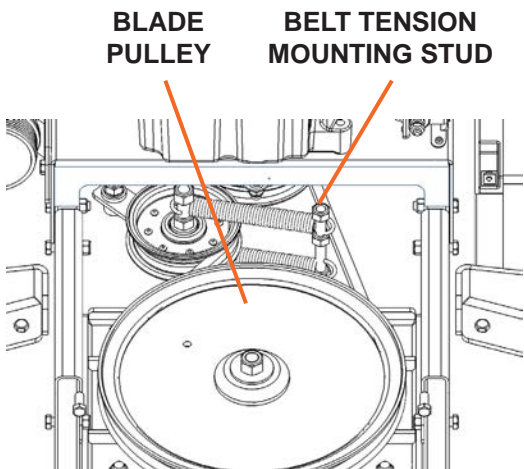


Figure 17

1. Using a 13mm wrench or socket, remove the four bolts, lock washers and flat washers that retain the pulley cover.
2. Remove the pulley cover (see Figure 16).
3. Using a 10mm wrench or socket, remove the 2 bolts attaching the top rear cover at the back of the machine just under the engine.
4. Using 17mm wrenches remove the 4 bolts holding on the second rear cover, just below the first.
5. Using 10mm wrenches, loosen/remove the battery to gain access to the bolts holding on the fuel tank mount.
6. Using 13mm wrenches remove the 4 bolts holding on the fuel tank mount. The first two are best accessed through the opening of the removed pulley cover. The second two are best accessed from the rear of the machine through the opening made by taking off the two rear covers.
7. Using a 13mm wrench, remove the top nut from the belt tension spring mounting stud (see Figure 17).
8. Using a hooked-end pulling tool, remove the top belt tension spring from the mounting stud by hooking the tool in the spring end and pulling the spring up and over the stud.
9. Slip the old drive belt from the blade pulley first, followed by the clutch pulley, and remove the belt through the access point at the rear of the machine.
10. To install the new belt, follow the above procedure in the reverse order making sure that the belt is on the inside of the tension pulley.

Note: If the replacement belt cannot be worked on, you may need to remove the 4 bolts securing the engine mount as well and slide the engine slightly toward the blade pulley.



WARNING

Wear gloves and use caution when handling and removing the swing blades which have sharp edges.

Replacing the Swing Blades

1. Using two 22mm wrenches, remove the top lock nut (right-hand, regular thread) and the jam nut followed by the swing blade.
2. Reinstall the sharpened or a new swing blade in the orientation shown (see Figure 18).
3. Install the jam nut until it just touches the blade carrier using two 22mm wrenches to allow for the blade swing action, then install the locknut on top.
4. Repeat steps 1 through 3 for the other swing blade side.

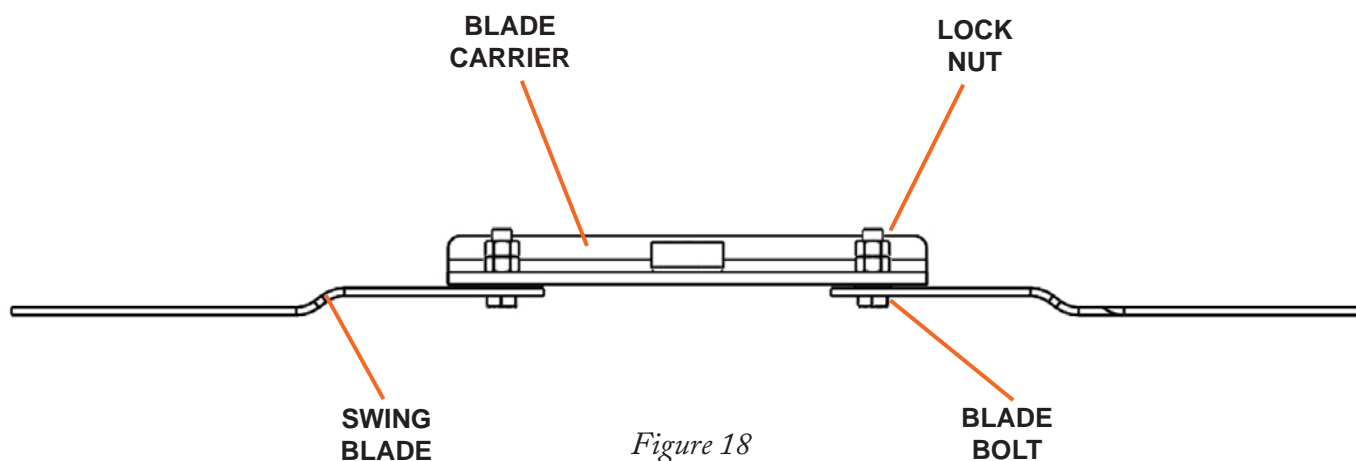
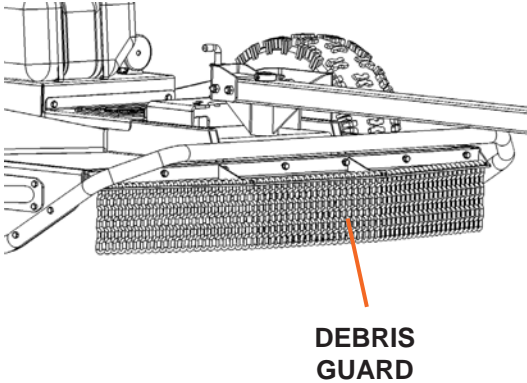


Figure 18

Maintenance



WARNING



DEBRIS
GUARD

Figure 19

The brush mower's debris guard should be inspected before each use and any debris removed from the chains.

Debris Guards

The debris guards are constructed of heavy link chain and should never require replacement. Make sure that the chain links in the debris guard provide adequate coverage in the front and back of the brush mower. Dislodge any material that collects in the debris guards on a regular basis **only when the engine is stopped** and the brush mower is on level ground.

Battery Care

Proper care can extend the life of a battery. Follow the recommendations listed to ensure your battery's best performance.

1. 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.
2. Store an unused battery in a dry area that does not freeze.
3. 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.
4. Do not continue to crank the engine when the battery charge is low. Damage to the engine may result.

Troubleshooting

PROBLEM	SOLUTION
Engine will not start.	<ul style="list-style-type: none"> • Check that the blade control knob is in the DOWN, disengaged position. • Make sure the spark plug wire is attached. • If the engine is cold, make sure the throttle is in the CHOKE position. • The gas must be fresh and clean. If the gas is old, change it. Use a fuel stabilizer if you keep gas longer than one month. • Check the throttle adjustment and travel. • The spark plug may be dirty or cracked, change it. • If the spark plug is oily, hold a rag over the plug hole and crank the engine over a couple of times to blow out any oil in the cylinder, then wipe off the plug and replace. • The air filter may be dirty, change it following the procedure in the engine owner's manual. • Check two fuses in the wiring harness and replace if needed. • Check the ground wire connection, the large green wire coming from the battery, where it connects to the engine. • The battery may not be charged. Check the voltage. If it is low, charge with a 12-volt, 1 to 2-amp trickle charger. If you do not use your machine for at least 45 minutes at a time, the battery may need to be periodically charged. See the "Battery Care" section for instructions. • If the engine still will not start, visit our web site at www.dirtyhandtools.com or call 1-877-487-8275 for assistance.
Engine lacks power or isn't running smooth.	<ul style="list-style-type: none"> • Check that the throttle is in the RUN position (when the engine is warm), not in the choke position. • Check that the air filter is clean. If it is dirty, change it following the procedure in the engine Owner's Manual. • The spark plug may be dirty or cracked, change it. If it's oily, leave it out, hold a rag over the spark plug hole and turn the engine over by turning ignition key on to blow out any oil in the cylinder, then wipe off the spark plug and reinsert it. • You should be using fresh, clean, unleaded gas. If it is old, change it. Use a fuel stabilizer if you keep gas longer than one month. • Check that the engine has the right amount of clean oil. If it is dirty, change it following the procedure on page 18. • If your engine still lacks power, visit our web site at www.dirtyhandtools.com or call 1-877-487-8275 for assistance.

Troubleshooting

PROBLEM	SOLUTION
Engine smokes.	<ul style="list-style-type: none"> • Check the oil level and adjust as needed. • You may be operating the machine on too great an incline. • Check the air filter and clean or replace if needed. • The oil may be light for the temperature. Replace as needed. • Clean the cooling fins and the carburetor housing.
The belt frays or rolls over the pulley.	<ul style="list-style-type: none"> • There may be a nick in a pulley groove. Check the belt for wear and hard spots. File off any nicks on the pulley. • The belt may be stretched; replace it as needed.
Blades vibrate when engaged.	<ul style="list-style-type: none"> • The blade mounting bolt may not be tight. Tighten the Bolt as tight as possible by hand with a 24mm wrench. • A swing blade may be loose on the blade mount. Turn OFF the engine and remove the spark plug wire. Tighten the swing blade mounting hardware. • Replace a swing blade if it is chipped, bent, or broken. • The spindle bearing may be damaged or the spindle shaft is bent.
The blades are not cutting or are loose.	<ul style="list-style-type: none"> • A swing blade may be loose on the blade carrier. Turn the engine off, remove the key and detach the spark plug wire from the spark plug. Tighten all of the swing blade mounting hardware. Use caution when handling the swing blades which have sharp edges. • Sharpen the swing blades if dull or nicked.
Blades will not engage/disengage.	<ul style="list-style-type: none"> • Faulty blade control switch. Remove and replace the switch on the remote control panel. • Faulty electric clutch. Call for assistance. • Low or weak battery may cause electric clutch to not engage. Check battery for sufficient voltage.
Uneven cut.	<ul style="list-style-type: none"> • The height adjustment and hitch position are out of sync. Adjust the cutting height or hitch position so that the tongue is level with the ground. • Left and right mow height adjustments are not at the same setting.
Clogging at discharge.	<ul style="list-style-type: none"> • The height adjustment and hitch position are out of sync. Adjust the cutting height or hitch position so that the tongue is level with the ground.
Excessive Engine stalling.	<ul style="list-style-type: none"> • The brush or grass is too heavy at the current cutting height or at the current speed of the towing vehicle. Raise the cutting height and drive slower when cutting.

Warranty & Specifications

IMPORTANT NOTICE

We, the manufacturer, reserve the right to change the product and/or specifications in this manual without notification. The manual is for information usage only and the pictures and drawings depicted herein are for reference only.

Warranty Repair and Service

Do not return this product to the store for warranty issues or repair. Call our customer service department at **720-287-5182, 1-877-487-8275**, or visit www.dirtyhandtools.com for the location of the nearest service center.

Record the information below for future reference.

Model No. _____

Serial No. _____

Date of Purchase _____

Place of Purchase _____

Specifications

SKU/Part No.	106717
Description	46" Rough Cut Brush Mower
Engine	19 HP Kohler SV591 Engine*
	EPA/CARB Approved
Engine Fuel Capacity**	2 gallons (2.84 liters)
Remote Control	Key, throttle, blade control with 5 ft cord
Cutting Width	46"
Cutting Height	4", 5", 6.25" and 7.5" adjustable
Cutting Capacity	4 - 8 foot high grass, weeds and brush, 2" thick saplings
Tires	18 x 6.50-8, all terrain
Blades	Breakaway design, 1.25" x 11"L, pair
Belt	Type B52
Dimensions	64"W x 110"L (fully extended) x 28.5"H
Shipping Weight	560 Lbs.
Warranty	2 Year / 2 Year Limited Warranty

*As rated by engine manufacturer

** Not included, shipped without engine oil

Dirty Hand Tools® is a brand of
 **FrictionlessWorld®**
1100 W 120th Ave., Suite 600
Westminster, CO 80234 • 720-287-5182

For Service or Questions
Call 1-877-487-8275
720-287-5182
www.dirtyhandtools.com