Husqvarna

Workshop Manual

SC18 Sod Cutter

Removing Turf
Has Never Been Easier

Husqvarna Turf Care
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Husqvarna Sod Cutter Workshop Manual P/N : 109869

Rev 1, 10/01/03

Service Manual
Sod Cutter SC-18

Contents

SOD CUTTING

Sod cutting cuts out existing sod by slicing a layer of soil with the grass and roots so it can be rolled up and removed. Some applications could be for replacing a type of grass, turf removal, adding a sidewalk or pathway, installing swimming pools or laying pipes or sprinklers. The usual cutting depth is about 1 1*/2* inches but can be used as deep as 2 1*/2* inches. This application is ideal for brick laying. The advantage in using a sod cutter is that it does not disturb the soil beneath the cut.

PRODUCT FEATURES

Husgvarna's Sod Cutter has a four-speed transmission (two for cutting) with power reverse. The cutting path is 18 inches wide. Low speed will cut 175 ft /min while second gear will cut 250 ft/min. The construction is of 7-gauge steel with l0-inch tractor tires and four-wheel drive.

The unit comes fully assembled except for the handle.

HANDLE ASSEMBLY INSTRUCTIONS

- Insert one side of the handle into the tube located in front of the large black rubber handle mount. Make sure to keep the rubber sleeve on the standoff located on the handle.
- Spread the handle apart so that you can insert the other side of the handle in the same manner as stated in step number one.
- Using the four 8 mm x 18 mm (Grd. 8) bolts, lockwashers and flat washers (flat washers against the handle and lockwasher on top). Bolt the handle into the large black rubber handle mount and tighten securely with Loctite.
- DO NOT CROSS THREAD THE BOLTS!
- Place the depth handle into the "U" brackets on the main handle and secure with the *5/16"* clevis pins and "C" clips.
- Attach the throttle cable to the clutch handle using the fasteners located on the cable assembly as illustrated in Figure 1, making sure that the cable pivots freely after you have tightened the bolts.
- The throttle cable needs to be hooked up to the throttle control handle, make sure the cable pivots after tightening. Adjust tension if necessary.

*See Throttle Assembly in the Power Train Section for complete installation instructions.

OPERATOR TIPS

- Soil conditions will affect the cutting depth. The ground may need pre-watering. Watering the day before should be sufficient.
- The grass should be dry to provide adequate traction.
- There are 4 transport speeds, only 2 cutting speeds. Always use 1 cutting speed until the operator is familiar with the unit.
- Terminate cuts by disengaging the engagement handle and driving out of the ground by holding the throttle open.
- Cut downhill on unleveled soil. Do not operate on hills exceeding 35% grade.
- Do not attempt sharp turns with the sod cutter. Do not attempt turns while on a hill.
- Run the unit while in transport, utilizing the reverse, to prevent premature tire wear on cement and concrete.

BEFORE STARTING

- Make sure engine oil is at the manufacturer's recommended level.
- The reduction gearbox connected to the engine must be filled with oil per Honda owner's manual. Both take lOw 30 oil.
- Place shift lever in neutral and raise blade before starting engine.
- Mark sprinkler heads and remove unwanted debris before using.

LOADING THE SOD CUTTER

DO NOT ATTEMPT TO LIFT THE SOD CUTTER (320 pounds). The rental rate includes 2 ramps to load the unit into a truck or trailer. The unit can be driven on and off the truck by use of the low gears, forward and reverse. Secure unit in truck or trailer.

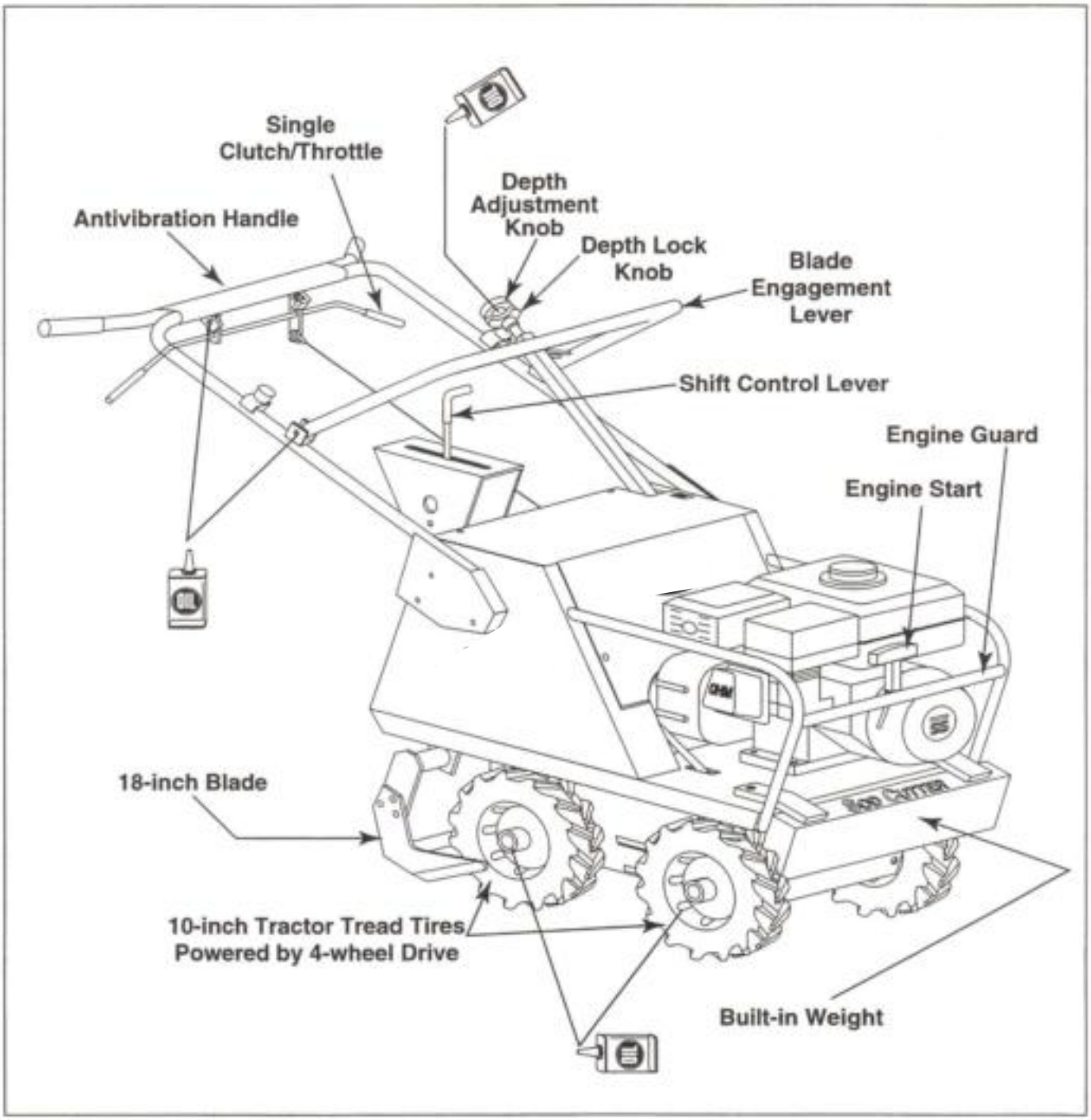
SOD CUTTER OPERATION

- With engine running, put sod cutter in gear and lower blade by pulling back on engagement handle.
- Only cut in the lowest two speeds as indicated by the scissors icon on the machine.
- Stop before shifting gears.
- The unit has a centrifugal clutch so the machine will not move until the throttle is increased to above 1800 rpm. The maximum engine rpm is 3000.
- After cutting a few feet, stop unit to check depth of cut.
- Cut only deep enough to keep the sod intact and not damage the roots.
- The depth can be adjusted by turning the depth control knob clockwise for thin and counterclockwise for thicker cut.

MAINTENANCE

- Normal engine maintenance is required, check with owner's manual for specifics.
- Blade arm mounting and drive shaft must be properly tightened.
- Husgvarna-supplied belt allows for belt slippage.
- Inspect shaft, pulleys and keys for damage. Note: some pulleys have double set screws Use blue Loctite on the set screws.
- The chains should be checked and adjusted after each use for the first fifty hours, every 20 hours after that.
- The chain can be adjusted from the rear without having to remove the skidpan.
- The chain must be lubricated with a dry chain lubricant to increase life.
- The depth adjustment knob and threaded screw must be lubricated frequently to prevent rust and locking.
- Lubricate at all threads every 20 hours. Prevent direct water pressure in to the depth adjustment assembly.
- The chain tension should be set with 1/4 -3/8" inch deflection between axle sprockets.
- Throttle cable and clutch cable should be checked before each use but should rarely need attention once set properly.
- Belt tension can be increased by adjusting the cable.
- All pulleys should be checked for alignment and set screws for tightness. The lower drive pulley has four setscrews.

Features and Controls



Oil used in the engine (gray cap)	1. Refer to your engine manual for oil type, viscosity, weight and capacity.
Oil used in the Clutch/Gear Box	1. Refer to your engine manual for oil type, viscosity, weight and capacity. Reducer (yellow cap)
Transmission grease used	1. You should not need to service the transmission. Call your Tecumseh (Yellow Pages) or your servicing dealer if needed. 2. Transmission is located directly behind the front axle underneath the engine. 3. There is no dipstick for transmission. 4. Tecumseh Bentonite Grease part #788067B or equivalent

GENERAL INFORMATION

This information will assist you in the safe operation and proper maintenance of your Husqvarna equipment. Read it thoroughly before attempting to operate the machine. Do not hesitate to call your dealer or Husqvarna if additional information is required.

This equipment should not be modified without the manufacturer's prior written authorization. Doing so without our written permission may not only affect the equipment's performance and durability, but also create safety hazards for the operator and the surroundings. Warranty will be void if changes are made to the equipment without the manufacturer's prior written authorization.

SAFETY PROCEDURES

DO:

- Only start with shift lever in neutral.
- Read all maintenance and service instructions before attempting work.
- Follow engine manufacturer operating and maintenance instructions.
- Inspect area to be cut and remove rocks, wire, string and other objects that might present hazard before starting.
- Identify and mark all in ground objects to be avoided, such as sprinkler heads, stakes, water valves, clothesline anchors, etc.
- This machine was designed for sod cutting only. It is not intended for any other use.

DO NOT:

- Do not start in gear.
- Do not cut at high transport speeds.
- Do not use on any surface other than grass.
- Do not operate on slopes exceeding 35% grade.
- Do not place hands or feet near moving or rotating parts.
- Do not run engine in an unventilated area.
- Do not shift with throttle engaged.
- Do not run engine while servicing. Remove spark plug wire before servicing.
- Do not remove guards when operating.
- Do not lift this 330-lb. machine

OPERATOR'S TIPS

- To engage reverse gear you may have to push the machine back and forth while pulling the shift lever.
- Stop before shifting gears.
- Cut going down hill on ground that is not level.
- End cuts by pushing the blade engagement lever forward while still holding the throttle to cut the end of the sod strip as the blade rises.
- Soil conditions will effect cutting depth. Readjusting the blade depth may be required as you move from hard soil to soft or moist soil conditions.
- Do not attempt sharp turns while cutting.
- Should I water before cutting?

It is usually not necessary to water before cutting. In extreme conditions, such as clay soil that is very compacted, a simple test as follows will determine if you need to water before cutting. Use a garden hand spade, weed tool, or even a large screwdriver to test the ground's hardness. You should be able to push the tool into the ground 2 to 3 inches with little effort.

If you are unable to do so, then watering may be advisable. Watering the day before should give sufficient time for the soil to absorb the moisture. Use your hand tool to gauge the effectiveness of your watering. Allow the grass to dry before cutting to provide adequate traction for sod cutting.

OPERATING ON HILLS

WARNING – DO NOT operate on hills exceeding 35% grade to prevent machine from rolling over. Please be aware that when operating on hills, you may experience:

- The need to exert greater effort to steer and maintain the balance of the machine.
- Uneven cutting depth, when operating across a hill. The shifted center of gravity may cause the downhill side of the blade to penetrate to the maximum depth, while the uphill side may not.

With these factors in mind, you may find it more effective to:

- Operate the machine cutting down rather than across hills. You will achieve even cutting depth and enhance stability.
- Avoid hillside turns. Back up hills in reverse gear, then cut, going down.

BEFORE YOU START

- Read and understand this manual.
- Be sure engine oil is at engine manufacturer's recommended level. (Refer to engine Manufacturer's manual.)
- Put the sod cutter into neutral before starting.
- Place blade in transport position before starting.

TRANSPORTING

- Push the blade engagement lever forward to raise the blade.
- Select the desired gear (slow - fast - reverse).
- Pull the throttle while maintaining a firm grip on the handlebar.
- To make turns, push down on the handlebar to do "a wheelie," then turn.
- Load into truck or trailer by driving up ramps in low gear. DO NOT LIFT! This 330-lb. machine is not intended to be lifted by hand.

SOD CUTTING (See Figure - Page 3)

1) Position the sod cutter at your starting point with the blade out of the ground.

2) Pull the blade engagement lever toward you with one hand while lifting the handlebar with the other hand.

3) Place the shift lever in slow gear (turtle icon).

4) Pull the throttle while maintaining a slight down pressure on the handlebar and cut a short distance, then stop. Put shift lever in neutral.

5) Lift the edge of the sod to check the cut depth.

6) To change the depth, push the blade engagement lever forward, unlock the depth lock knob (red knob), and turn the depth adjustment knob clockwise for less depth, or counterclockwise for more depth; then lock the depth lock knob.

7) Repeat steps 2 through 6 as necessary to set depth of cut.

End cuts by pushing the blade engagement lever forward while holding the throttle to cut the end of the sod strip as the blade exits the ground.

CAUTION

*Any modifications or additions to this equipment without written authorization from the manufacturer will void all manufacturers' warranties.

*Do not operate this machine without first reading owner's manual.

*Husqvarna parts have been designed and specified to meet commercial operating standards for strength and durability. For reliability and preservation of design safety standards, replacements should only be made with genuine Husqvarna parts or material of equivalent type and strength.

TWO MINUTE WARNING

Sod Cutters may be tipped on their engine guard for cleaning and access for no more than 2 minutes. Engine damage may result from gasoline draining into the crankcase if prolonged. See engine manufacturer's operating and maintenance instructions.

ENGINE SERVICE AND WARRANTY

Contact your nearest engine manufacturers authorized servicing dealer for engine service and warranty questions. Follow the engine manufacturers' maintenance instructions. Should any mal-function occur with the engine during the warranty period, take it to an Authorized Service Dealer.

- **DO NOT** tear down the engine, as this may void the Engine Manufacturer's Warranty.

PREVENTATIVE MAINTENANCE SCHEDULE

A) INSPECTION SCHEDULE

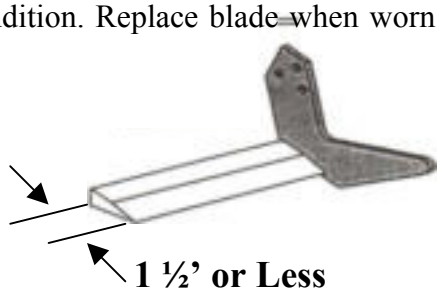
Item	Each Use	Every 20 hours
Engine Oil (see engine manual)	♦	
Clutch Tension	♦	
Chain Tension	♦	
Decals and Warnings	♦	
Fasteners and fittings	♦	
Throttle cable		♦
Blade condition and wear	♦	
Frame condition (rust, cracks, etc.)		♦
Clutch and cable		♦
Excessive vibration	♦	
Engine air cleaner (see engine manual)	♦	
Depth adjuster	♦	

B) LUBRICATION SCHEDULE

Item	Lubricant	Every 20 hours	Every 60 hours	As Required	Storage
Engine Oil	Oil - See Owners Manual		♦	♦	♦
Chain	30 W Motor oil or Chain Lubricant	♦	♦	♦	♦
Linkage	30W oil	♦			
Grease depth adjust screw		♦		♦	

BLADE WEAR

Sod Cutter blades may wear quickly depending on soil condition. Replace blade when worn to 1½" (3.8 cm) or less. Maintain lower blade surface.



1 ½' or Less
Maintain Lower Surface

CLEANING AND WASHING

Regular cleaning and washing will prolong the service of your machine.

Note: Use care with power washers to avoid damage to Warning Decals, Operator Instruction Labels, Bearing, Chain and Engine. Avoid direct spray on these items,
*DO NOT EXCEED 1000 PSI WATER PRESSURE FOR CLEANING.

ADJUSTING CHAIN TENSION

UPPER CHAIN

- No adjustment is required.

LOWER CHAIN

- Remove chain guard.
- Tilt the Sod Cutter forward onto the front weight.
- Tighten the ½" lock nut on the chain idler until the #40 chain flexes approximately ¼" (6mm) at mid span.
- Install chain guard.
- Set Sod Cutter back to level.

STORAGE

1) Refer to engine manufacturer's instructions for engine storage information.
2) Clean machine.
3) Cover all scratches with touch up paint.
4) Lubricate according to Lubrication Schedule on previous page.
5) Lightly oil or mil board paint blade to inhibit rust.
6) Covered or indoor storage is recommended.

SPECIFICATIONS

	U.S.	Metric
Engine – Honda:	5.5 hp	3.8 kw
Net Weight:	328 lbs.	149 kg
Shipping Weight:	360 lbs.	164 kg
Width:	24 in	61 cm
Height:	36 in	91 cm
Length:	54 in	137 cm
Cutting Depth (max):	2.5 in	6.3 cm
Cutting Width:	18 in	46 cm

TOOLS NEEDED FOR SERVICING THE SC18 SOD CUTTER

REQUIRED TOOLS

The following tools are required to repair the sod cutter:

- Assorted open and box end Wrenches, Ratchet and Sockets plus Extensions
  3/8" 7/16" 1/2" 9/16" 5/8" 3/4" 1 1/8"
- Hex head Wrenches
- Metric Sockets
  10mm through 15mm
  (for engine cover removal)
- Long Nose Pliers
- Penetrating Oil
- Grease or Anti Seize Compound
- 5/32 Hex head in a 3/8" Socket

ADVISED TOOLS

The following tools are very helpful:

- Air Ratchet with Sockets
- ½" Impact Wrench
- 1 1/8" Socket

HANDLE ATTACHMENT

** Important **

* *Use the following steps to install the handle assembly on your new Husgvarna Sod Cutter*

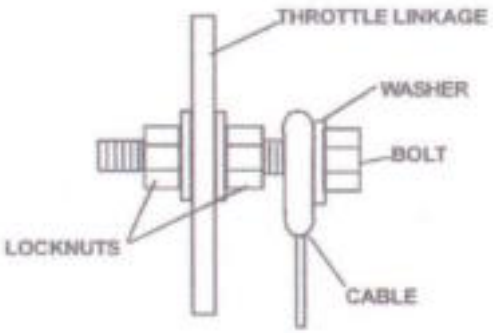
1. Insert one side of the handle into the tube located in front of the large black rubber handle mount. Make sure to keep the rubber sleeve on the standoff located on the handle.

2. Spread the handle apart so that you can insert the other side of the handle in the same manner as stated in step number one.

3. Using the four 8 mm x 18 mm (gr. 8) bolts, lockwashers and flat washers (flat washers against the handle and lockwashers on top), bolt the handle into the large black rubber handle mount and tighten securely with loctite. DO NOT CROSS THREAD THE BOLTS!

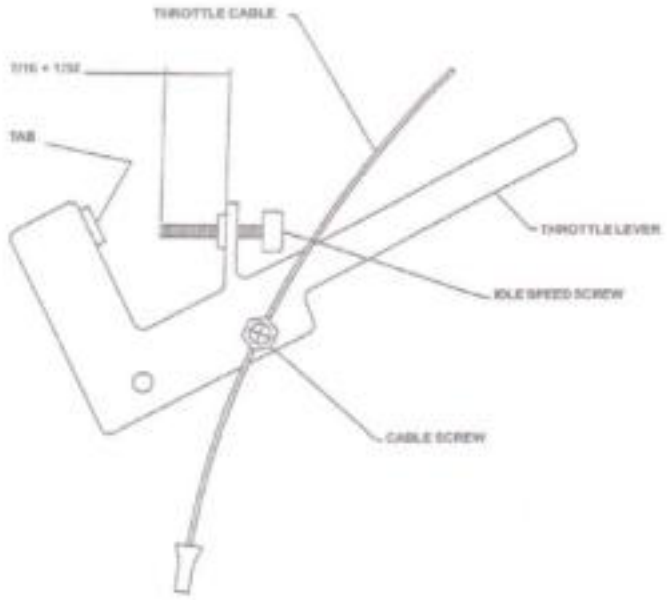
4. Place the depth handle into the “U” brackets on the main handle and secure with the 5/16” clevis pins and “C: clips.

5. Attach the throttle cable to the clutch handle using the fasteners located on the cable assembly as illustrated in Figure 1, making sure that the cable pivots freely after you have tightened the bolts.



THROTTLE CABLE ADJUSTMENT

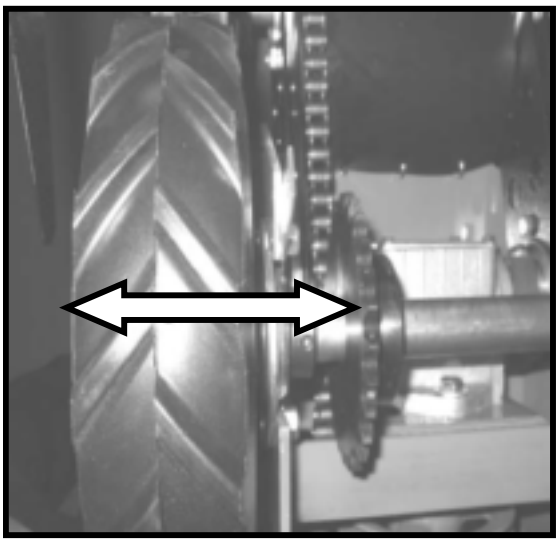
1. Identify and remove wing nut and air filter cover.
2. Remove wing nut and air cleaner element.
3. Loosen cable screw to allow throttle cable free movement through cable screw.
4. Engage throttle/clutch handle at operator handle. You may need an assistant or a rubber band to hold handle in position.
5. Rotate throttle lever until tab on throttle lever contacts idle speed screw, remove slack from throttle cable and tighten cable screw.
6. Release throttle/clutch handle and check that idle speed screw contacts tab on throttle lever when throttle/clutch is engaged at operator handle.
7. Readjust throttle cable in necessary.
8. Re-install air cleaner element, wing nut, air filter cover and wing nut.



Located on Carburetor under Air Cleaner Element

AXLE SPROCKET LOCATION

The axle sprocket is located 4 and ½ inches from the flush end of the axle to the flat side of the sprocket. This is a very critical measurement. Both front and rear sprockets use the same spacing.
See picture at right.

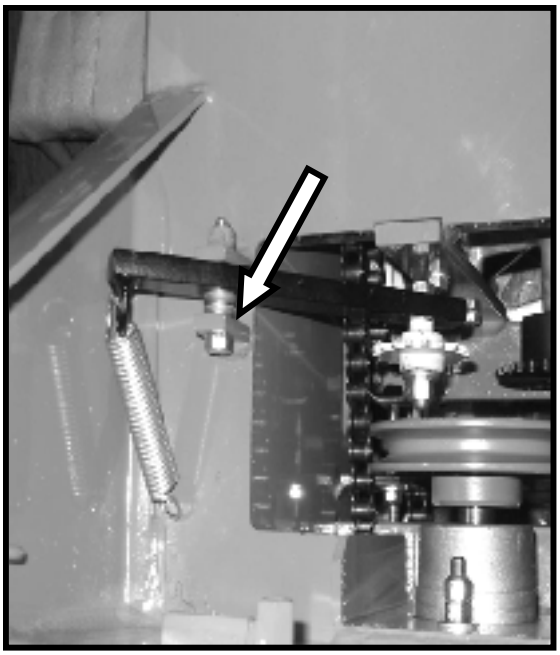


BELT KEEPER

The belt keeper prevents the belt from coming off during operation. Proper adjustment is necessary to prevent wear and insure correct performance. The correct position touches the belt on the right side (from the operator's position) during blade disengagement but does not touch during blade engagement.

CHAIN IDLER REMOVAL

Remove spring and remove the bolt holding idler with 9/16 wrench. Please note the location of the two spacers for re-installation later.



CHAIN IDLER INSTALLATION

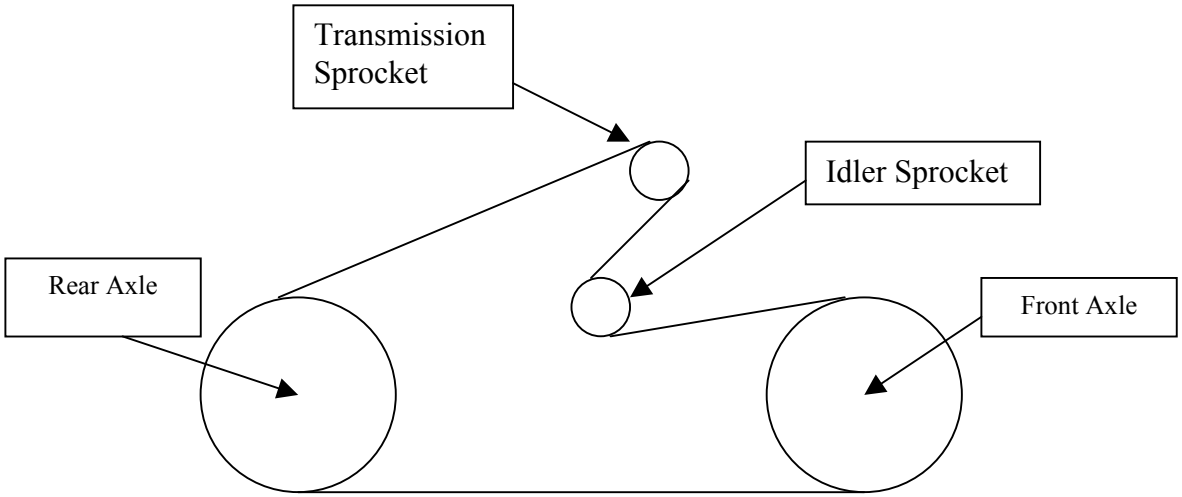
When installing the idler arm the sprocket faces rear and is inside of the chain. The two spacers must be together on the rear side of the idler arm. When installing the bolt, tighten enough to allow movement of arm. Attach spring to frame.

CHAIN ROUTING

The chain can be replaced by disconnecting the master link on the old chain and hooking up the new chain to the old one. Pull the free end of the old chain until the new chain is pulled through.

Re-connect the chain with the new master link.

To replace a broken chain the skid pan will have to be removed and the unit turned upside down. Refer to the routing guide below for assistance.



ADJUSTING CHAIN TENSION

- The chain adjuster is in front of the left rear tire.

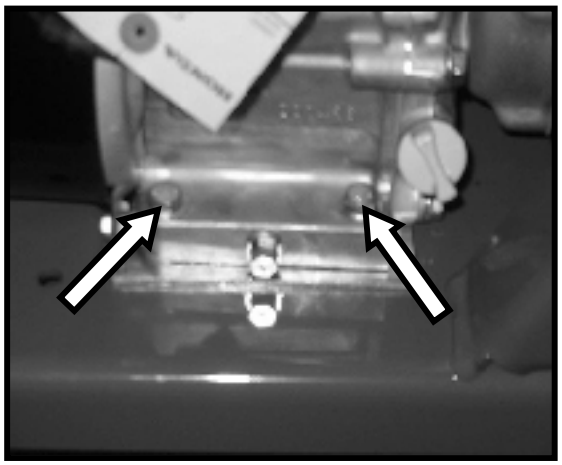
Using a stubby 1/2” wrench tighten the lock nut on the chain idler until the #40 chain flexes approximately 1/2” (12mm) at mid span.

ENGINE REMOVAL

1. Disconnect the throttle cable at the handle; remove the spring that connects the two throttle cables from the upright.

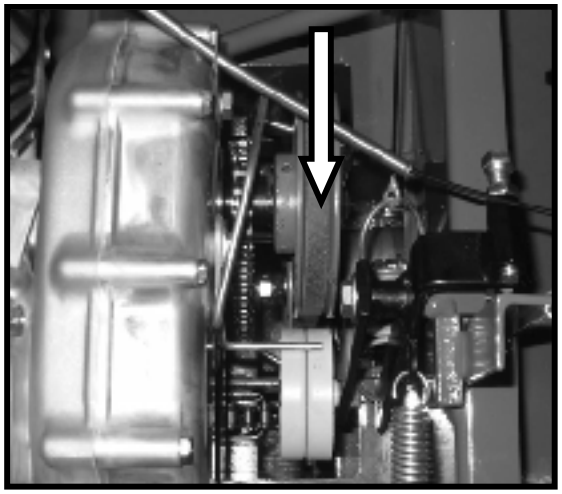
2. Do not disconnect the cable at the engine.

3. Undo the engine bolts and tilt the engine rearward to remove the chain and belt.



UPPER PULLEY LOCATION

The top pulley is located next to the sprocket with the hub facing the hub on the sprocket. The pulley will be off the shaft by about 3/16".
When re-installing, a 3/16" spacer and two washers will hold the pulley tight to the shaft.

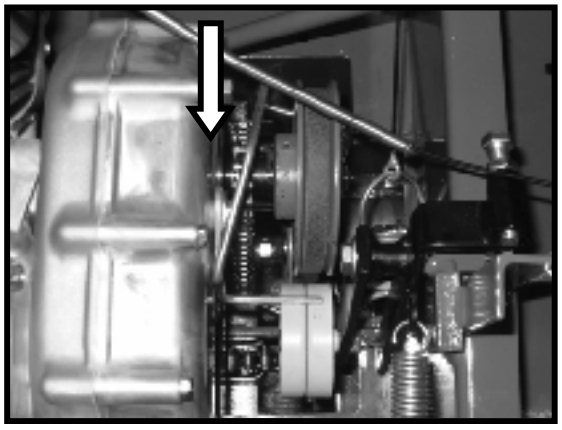


SPROCKET LOCATIONS

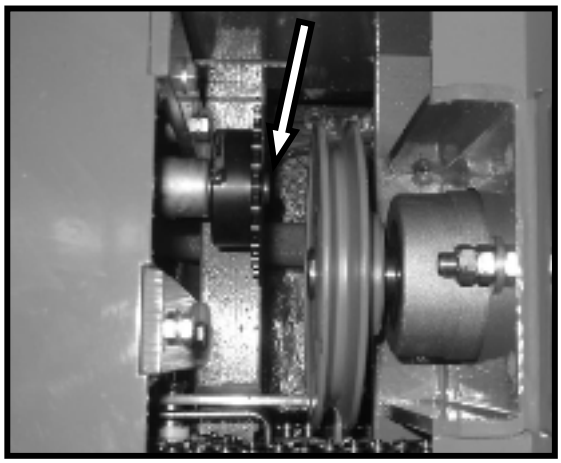
The top sprocket (p/n 3109) on the engine is located 1/2 inch from the engine case.

This measurement is with the chain off.

The sprocket has the hub facing outward, away from the engine.



The sprocket on the lower drive transmission is up against the snap ring.

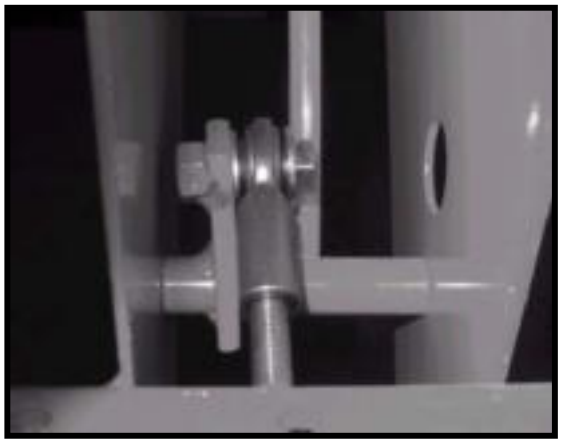


TRANSMISSION SHIFTER ADJUSTMENT

Inspect the linkage for tightness before making any adjustments. The unit very seldom requires adjustment.

To adjust the linkage, undo the bolt holding transmission shifter in place.

The rod end can now be turned to give you more or less travel. You should be able to go into reverse before bottoming out the lever. If reverse is correct the other gears will be correct. The rod end at the bottom of the linkage can also be adjusted to give more adjustment potential.



TRANSMISSION LINKAGE

TRANSMISSION REPLACEMENT

The transmission has to come out through the bottom.

The engine should be removed to facilitate the operation. Engine removal is covered in the "T" drive replacement section.

The front weight has to be removed.
With the engine and weight removed turn unit upside down to access the transmission.

Remove the skidpan.

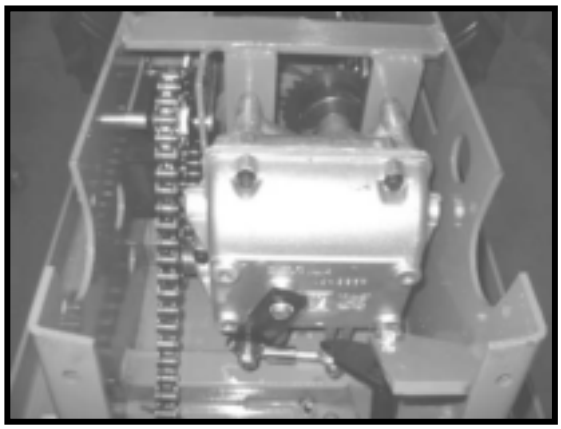
Access the input sprocket, which has to be removed. The sprocket has a "C" clip and set screws.

Remove the four bolts from the transmission. The front axle assembly has to be removed to remove the transmission. Lift out without disconnecting the chain to facilitate replacement.

Disconnect the linkage as it attaches to the transmission. The transmission can now be removed.

Installation is in the reverse order of disassembly.

TRANSMISSION MOUNTING BOLTS & SPROCKET

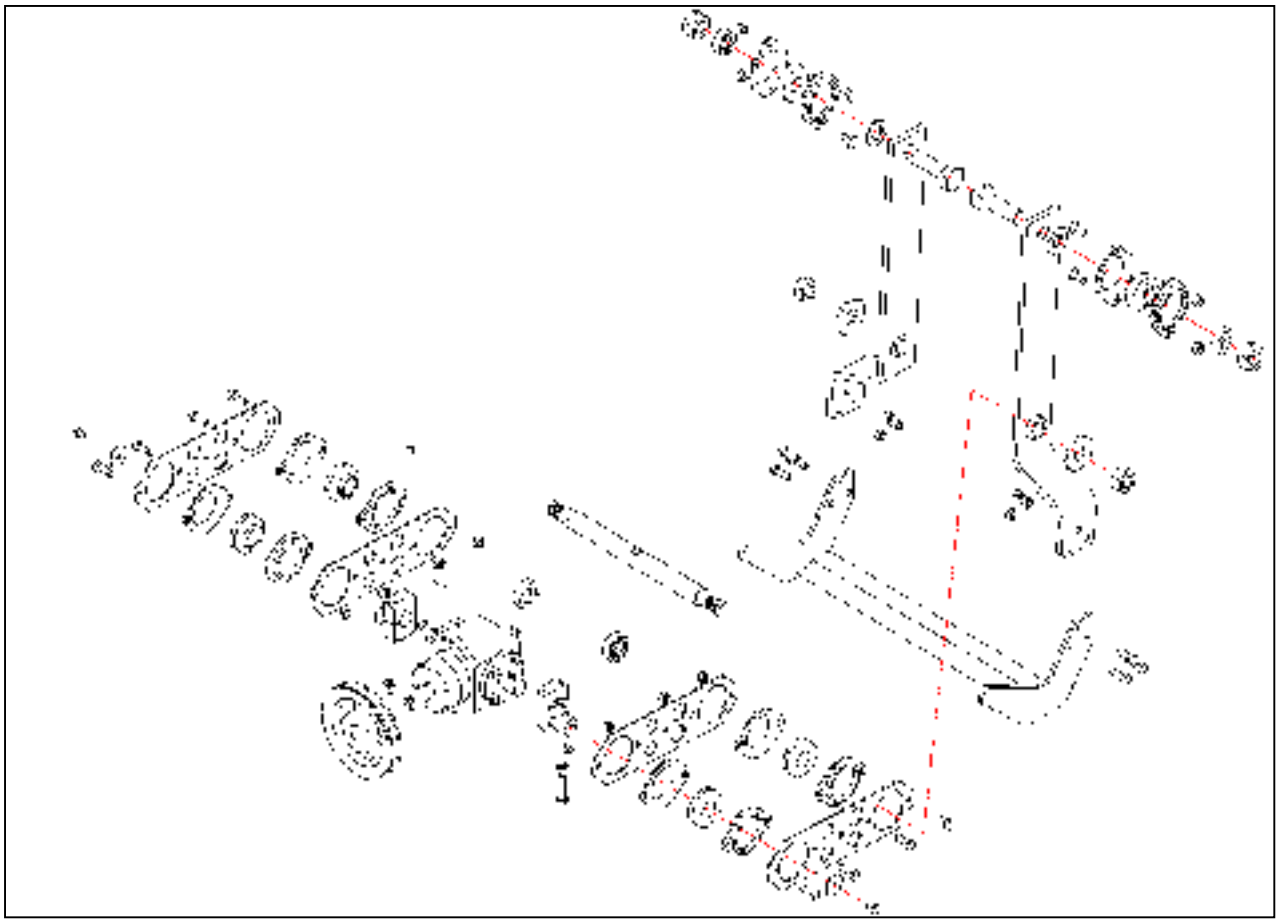


TRANSMISSION

BLADE DRIVE DRAWING

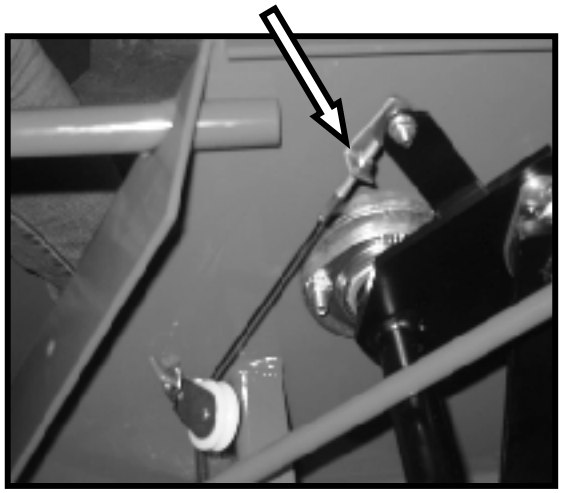
This is for models with serial numbers higher than 02100001. This also applies to models where the “T” drive has been replaced after March of 2002.

This is for assembly orientation only. Refer to illustrated parts list in back of manual for part numbers.



BELT TENSION ADJUSTMENT

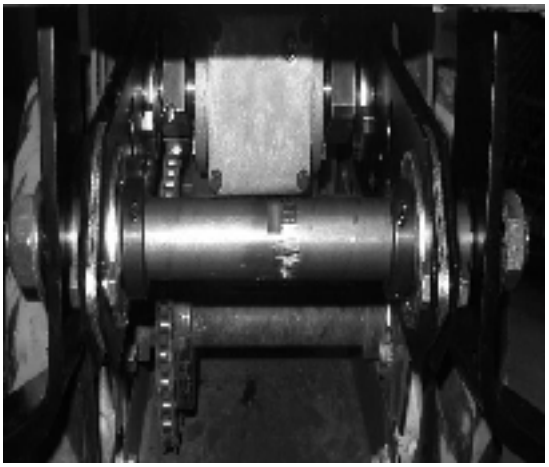
The proper tension is established when the belt disengages completely and engages without slipping.
After installing a new belt it is essential to check tension after the belt has been used at least ½ hour. The preliminary setting should be about in the middle of the threads of the adjusting cable. The belt may engage slightly when new and cause the blade to move, but this condition will disappear after a few feet of cutting. It is more important for this condition to exist rather than not enough tension.



BLADE ARM REMOVAL

Remove cutting blade from blade arms. (A)

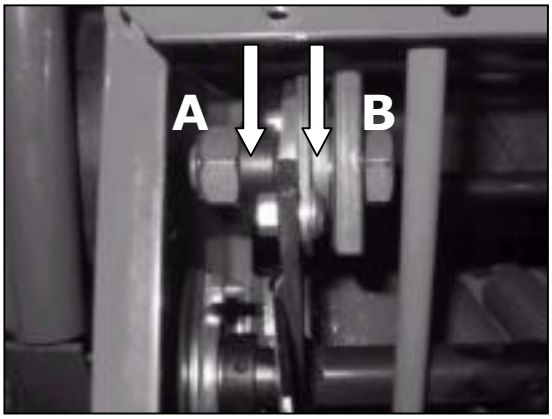
Undo the nuts on the rod and disconnect the arms at the top. (B)



LOWER BLADE ARM

BLADE ARM REPLACEMENT

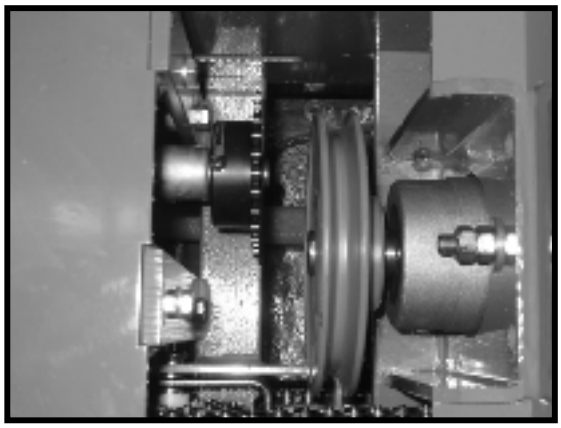
1. Install blade arms using 3/4 inch bolt with washer (B) between blade and bearing.
2. Use collar (A) as spacer (do not use set screw)
3. Start nut but do not tighten yet
4. Put nut and washer on rod end of lower blade arm and tighten.
5. Tighten bolts on upper blade arm.
6. Align blade with holes and attach blade with fine thread bolts and locknuts.



UPPER BLADE ARM

LOWER PULLEY

The lower pulley is centered on the shaft of the "T" drive. There will be about ¼ inch of shaft on each side of the pulley. The pulley requires two setscrews in each hole. The first needs to be tightened and the other on top tightened with Loctite.



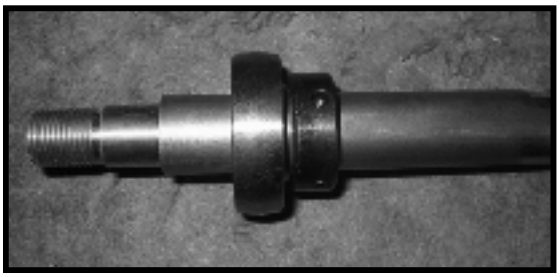
LOWER PULLEY

BEARING & LOCKING COLLAR

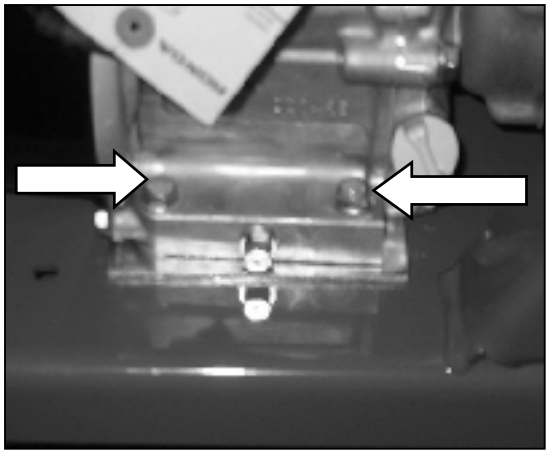
The bearing and locking collar are important parts to blade drive assembly.

The bearing is an eccentric design, which can lock to the shaft if properly installed. This is critical to a vibration free assembly.

Locate the bearing at the proper spacing and rotate the locking collar until it is tight. Drive with punch an additional 1/8" turn. The bearing is now locked in place.
Tighten set screw with Loctite to secure.



"T" DRIVE REPLACEMENT

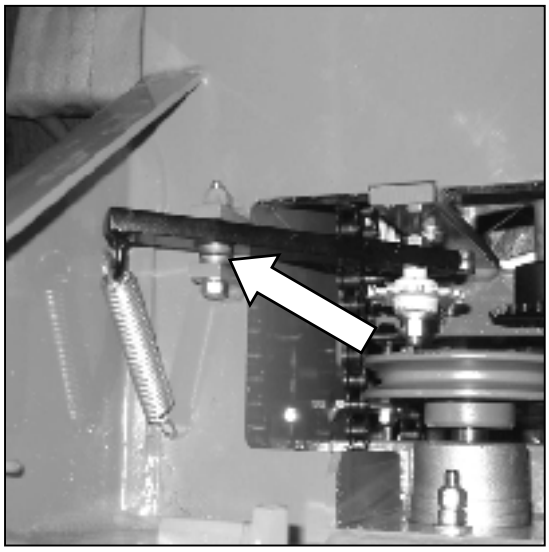


ENGINE REMOVAL

Disconnect throttle

Undo engine bolts and remove engine.

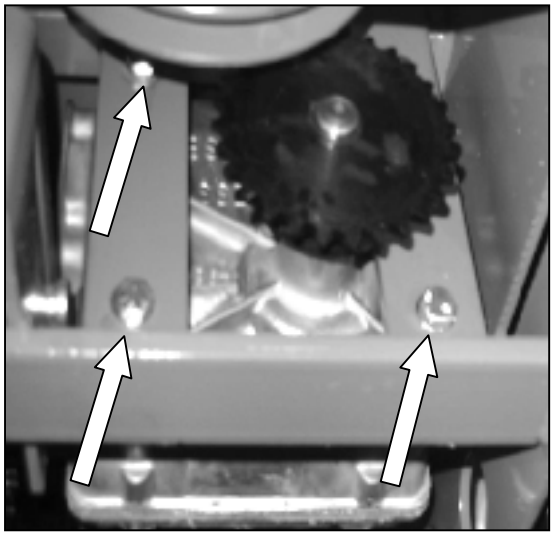
Tilt engine to remove chain and belt.



IDLER REMOVAL

Remove spring and chain idler, paying attention to spacer location.

Remove spring and belt idler.



PULLEY REMOVAL

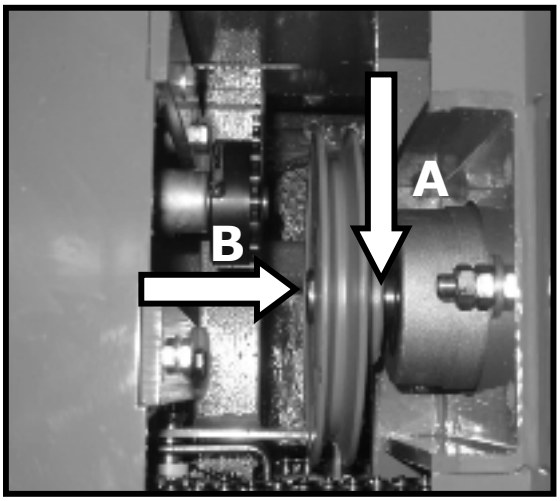
Loosen the four bolts about ½ inch holding the chain driven transmission in place.
(3 are shown by the arrows at right)

PULLEY REMOVAL (cont.)

Loosen the set screws in the pulley. (there should be four.) A arrow.

Remove bolt at end of "T" drive holding pulley on. (not all units have this bolt.) B arrow.

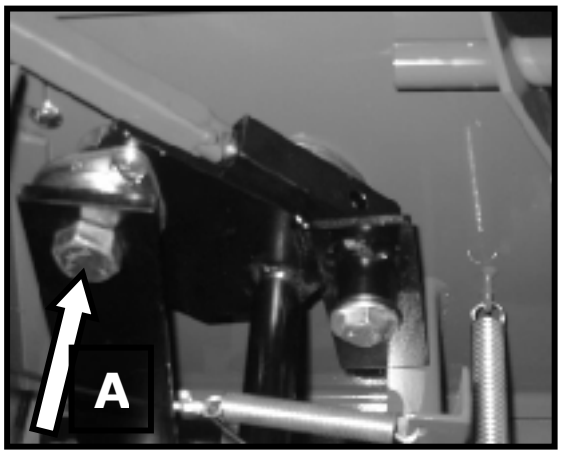
Tilt Sod Cutter forward to allow the transmission to move forward. This will provide clearance to allow the pulley to come off shaft.



BLADE ARM REMOVAL

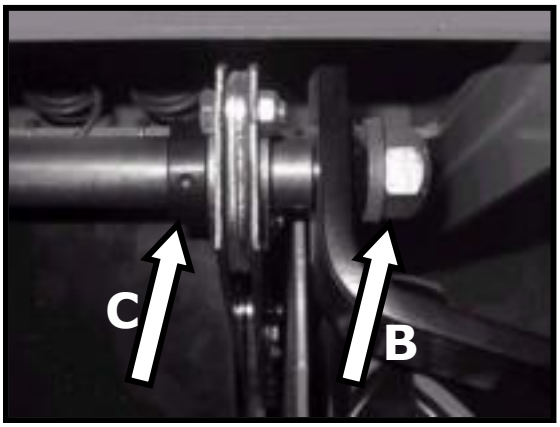
Remove bolts holding blade to blade arm. Remove top bolts holding blade arm and remove nuts holding blade arm to rod. Shown by arrows A & B

Remove blade arms.



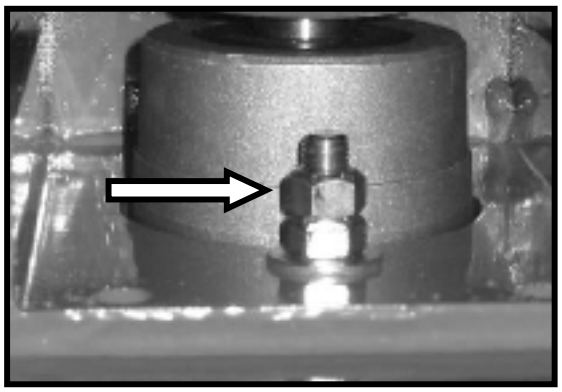
Unlock locking collars to loosen bearings on shaft.
Shown by arrow C

After sanding the exposed part of rod, hammer rod out of bearings.



“T” DRIVE REMOVAL

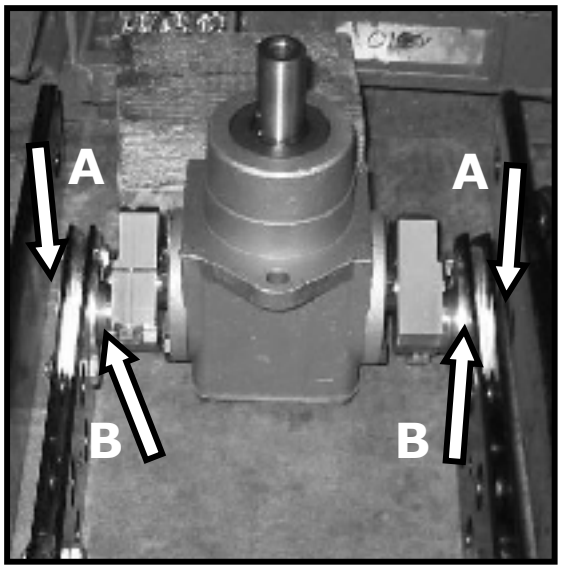
Remove nuts holding “T” drive in place (note - there are jam nuts on each bolt).



“T” DRIVE DISASSEMBLY

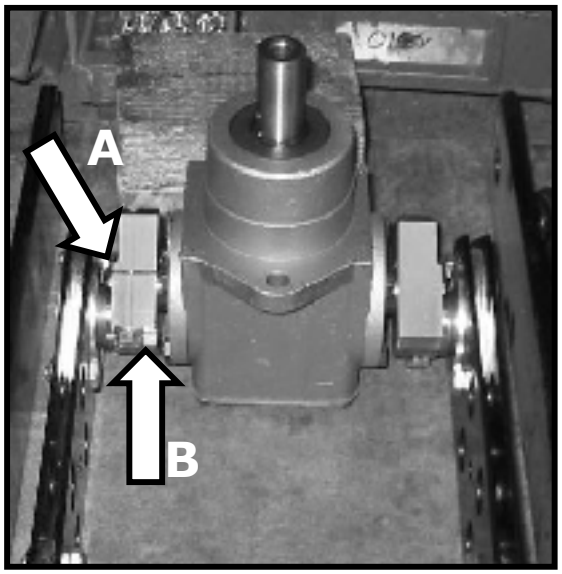
Remove “T” drive to bench and remove the 1/4 inch retaining bolts on each side of unit. (A)

Remove bearing (B) from eccentric (a bearing puller may be necessary).



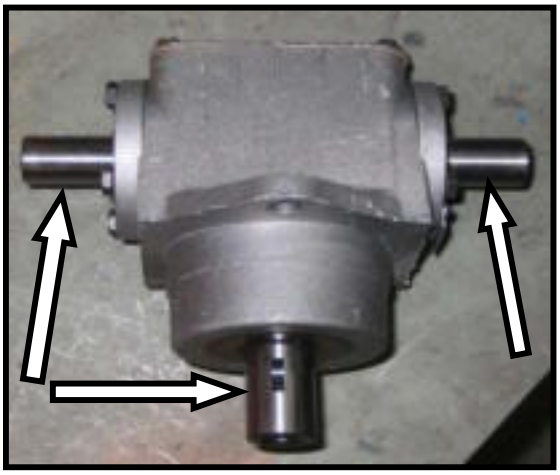
Loosen bolt on eccentric.. (B)

Use a screwdriver to spread the eccentric apart to remove. (A)



“T” DRIVE REASSEMBLY

Insert keys in keyways.



Install eccentric and tighten bolts.

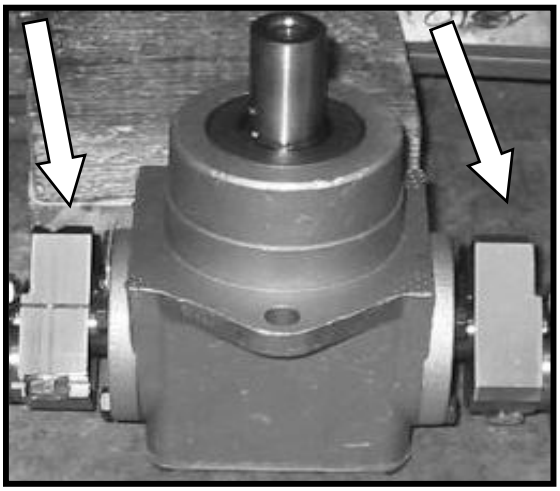
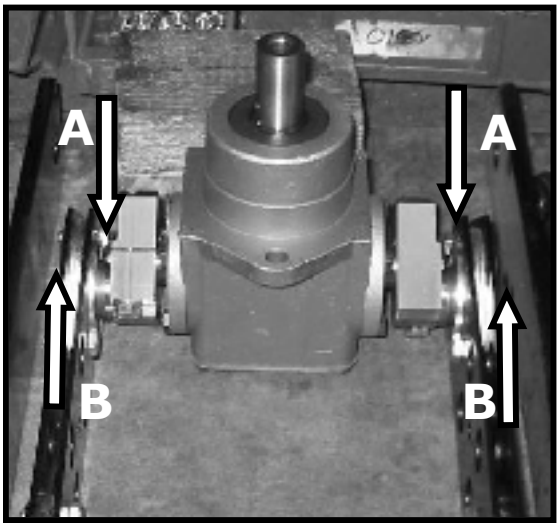


PLATE ARM ASSEMBLY

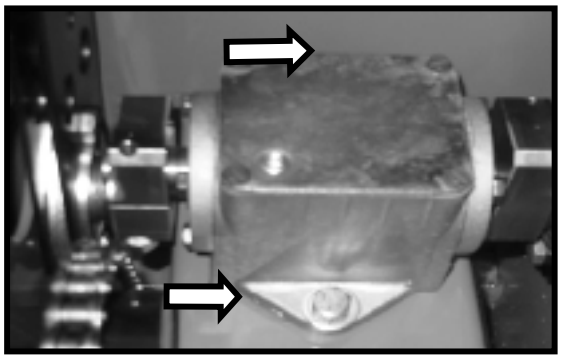
Installing a new “T” drive requires the collars on the bearings to face inward. (A)

Install bearings on eccentrics and tighten bolts on eccentric end of plate arm, make sure the plate arms are parallel. Leave the others hand tight.
Install washers and 1/4 inch bolt (with Loctite) to secure bearing. (B)

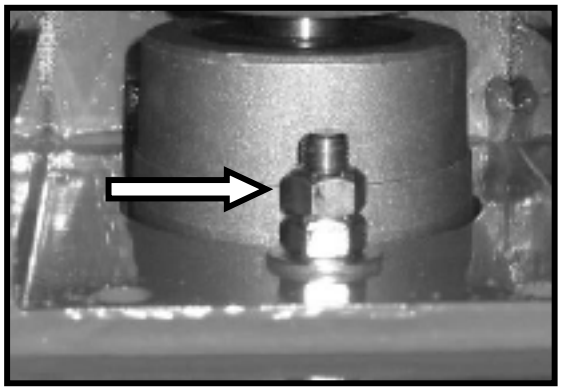


INSTALLING "T" DRIVE

Install "T" drive in frame with 3/8" grade 8 fine thread bolt.



Tighten with locknut and follow with jam nut.

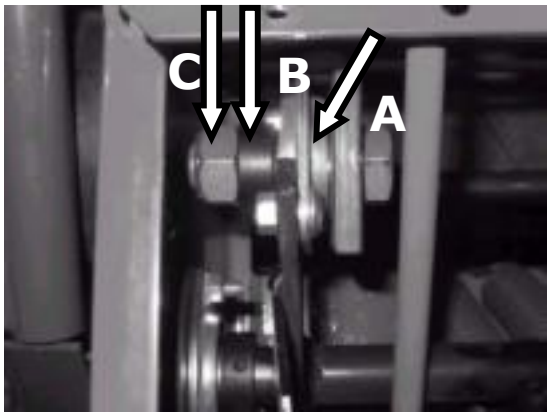


INSTALLING BLADE ARMS

Install blade arms using ¾ inch bolt with washer between blade and bearing. (A)

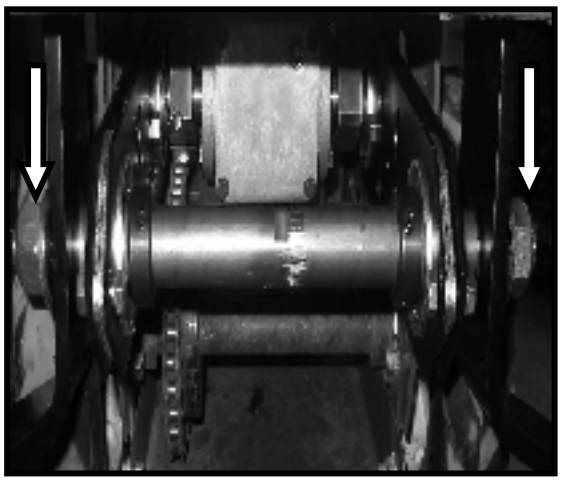
Use collar as spacer. (Do not use set screw) (B)

Start nut but do not tighten yet. (C)



INSTALL ROD & BLADE

Install rod through bearings and attach blade arms. Put nut and washer on rod end and tighten.
Tighten bolts on upper blade arm.
Align blade with holes and attach with fine thread bolts and locknuts.
Tighten lock collars, see bearing section for instructions

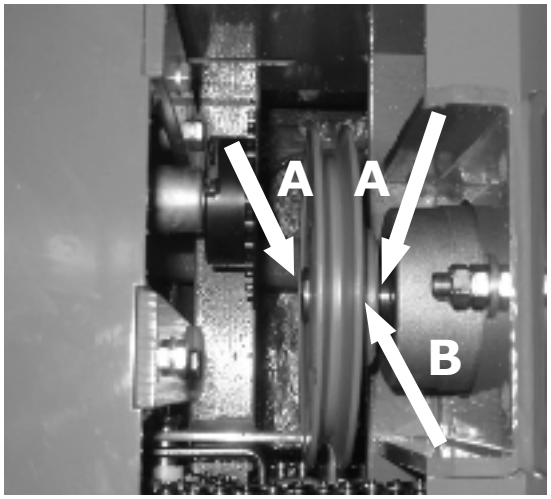


RE-INSTALL PULLEY

Place key in shaft and slide pulley in place.

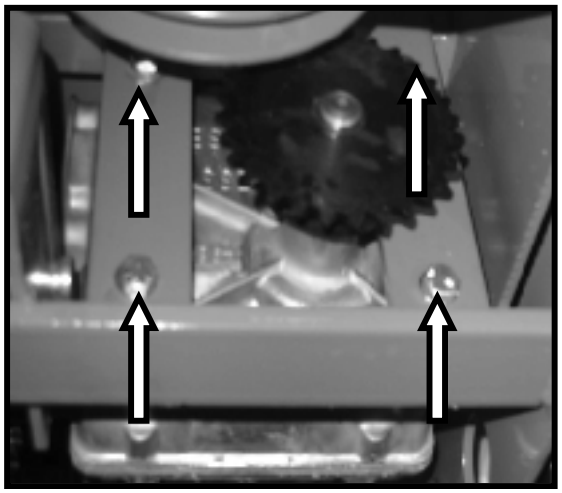
The pulley will be centered on the shaft. (a)

Use blue Loctite to set two set screws in each hole. (b)



RETIGHTEN TRANSMISSION

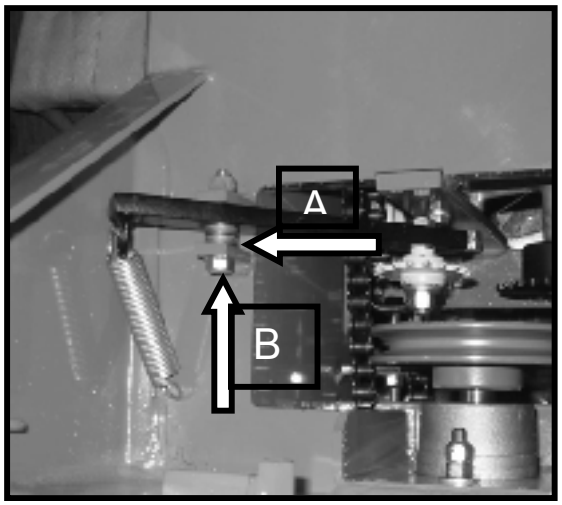
The four bolts holding the transmission should be tightened at this time (use of an extension through the back will facilitate the process).



CHAIN IDLER INSTALLATION

Install chain idler with the two spacers together and behind the idler arm to the operators' side. (A)

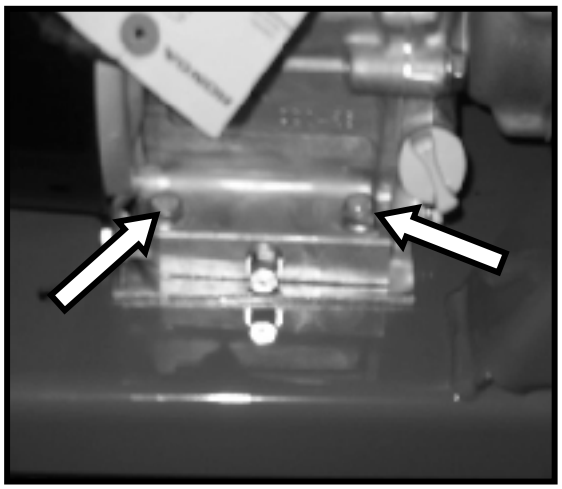
Tighten and back off a little to provide freedom of movement. (B)



ENGINE INSTALLATION

Install the engine.

Routing the starter cord through the loop on the frame.

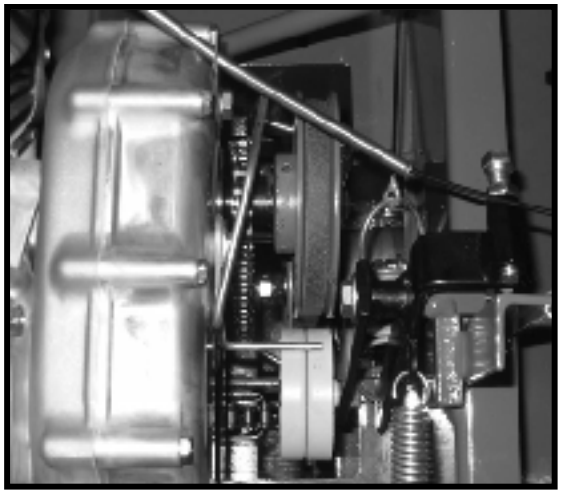


BELT & CHAIN INSTALLATION

Install chain with idler on the inside of chain.

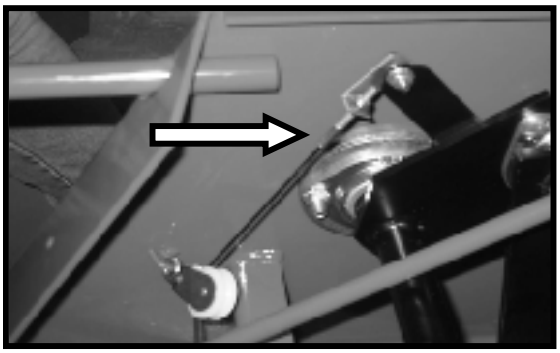
Put chain on engine sprocket and idler and walk chain on bottom sprocket.

Put belt on bottom pulley and walk on top pulley.



FINAL ASSEMBLY

Attach clutch cable to idler arm.

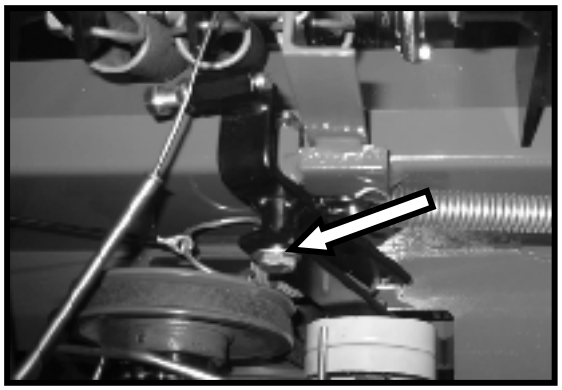


Install idler pulley leaving loose enough for movement.

Attach all springs to idler arms.

Attach throttle cable.

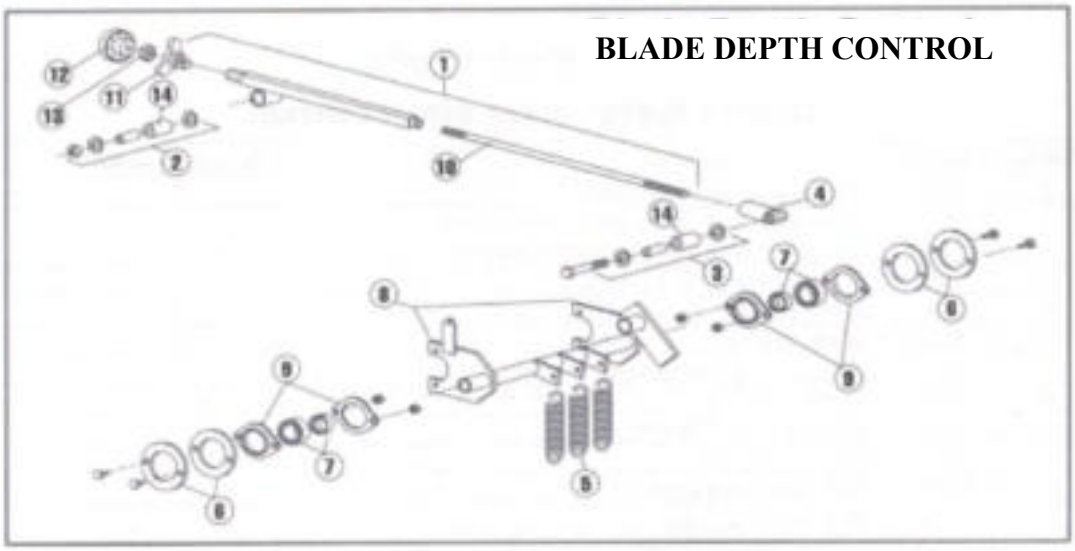
Reattach cover.



ASSEMBLY OF DEPTH CONTROL

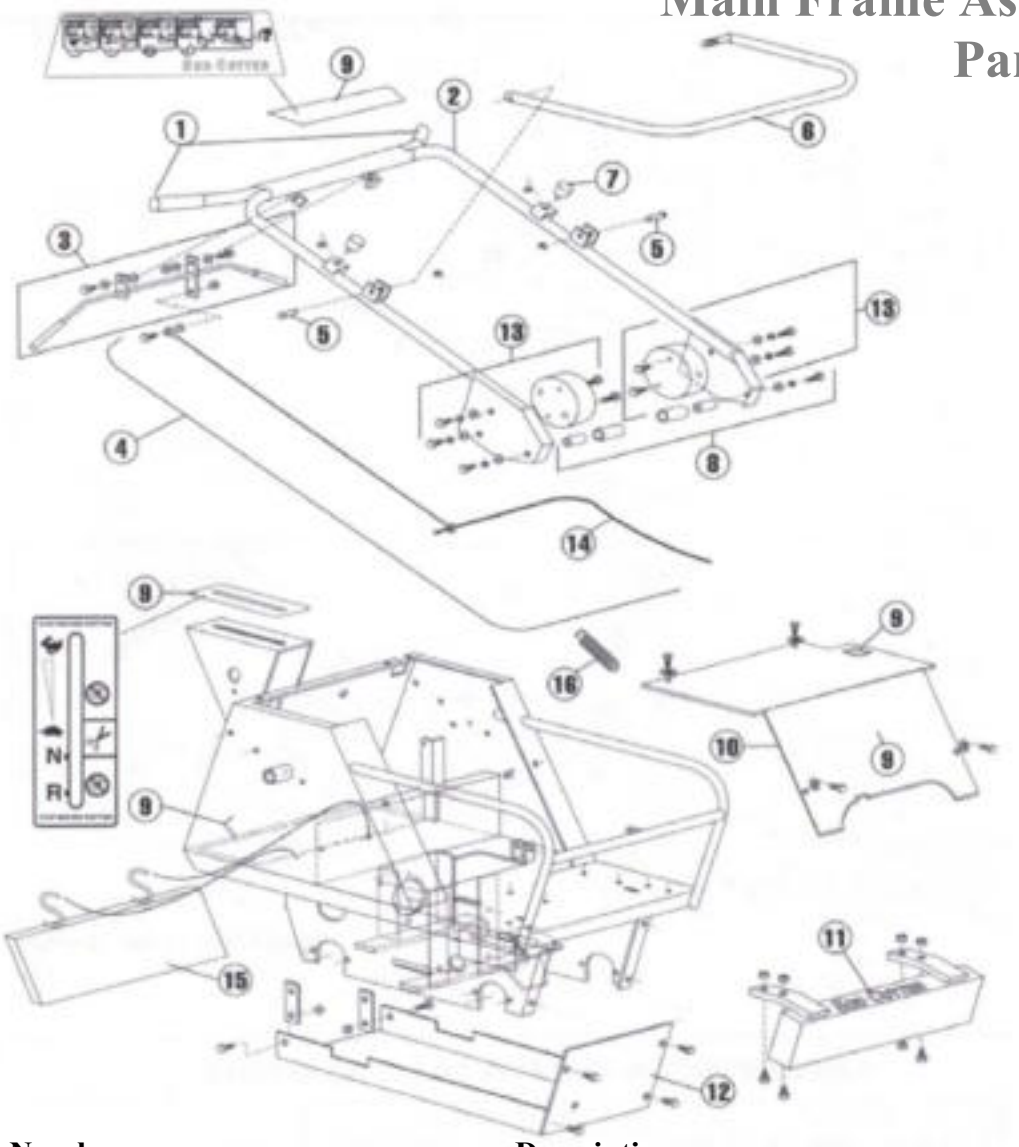
NOTE: The depth control must be out of machine to assemble properly.

1) Locate the depth adjustment screw (item 10) and rod end coupler (item 4) shown in illustration below.
2) With a pair of vise grips or similar type tool, grip the adjustment screw, making sure you do not touch the threads. **NOTE: The lower ends of the adjustment screw and rod end coupler have left hand threads.**
3) Apply anti-seize to the threads on the end with the shortest threads (the lower end). Thread the rod end coupler onto the lower end of the adjustment screw until it bottoms out.
4) Insert the depth adjustment screw (end with the longest threads) into the bottom of the depth control housing.
5) Thread the rod into the housing until approximately 3" (76mm) of threads are exposed at the top of the housing.
6) Thread the red locking nut first then the jam nut and black depth knob onto the upper part of the adjustment screw.
7) Once the black knob is all the way on, tighten the jam nut against the black knob.
8) Hold onto the black depth knob and rotate the depth control housing down to within ¼" (6.3mm) of the rod end coupler.
9) The assembly is now ready to be installed on the machine. BE SURE the pipe that slides onto the engagement lever is positioned on the bottom of the depth control housing as shown in the illustration below.
10) After installing the assembly, tighten the hardware on the handle and the bolt securing the rod end coupler in place and then back both off ¼ turn to prevent binding.



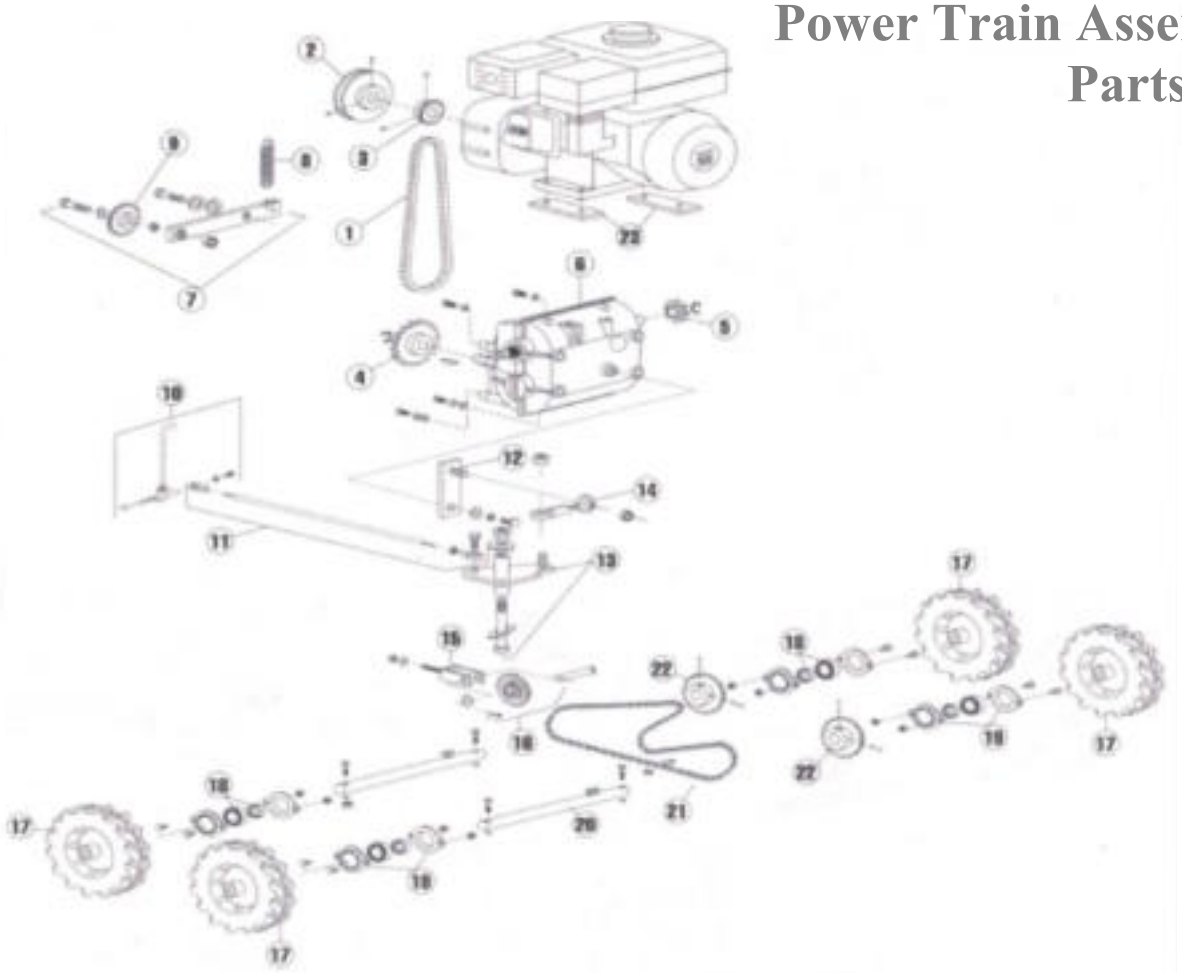
SC18 Sod Cutter

Main Frame Assembly Parts List



Item	Part Number	Description
1	540007191	Grips pair
2	540003142	Handle kit, complete with grips and hardware
3	540007149	Clutch/throttle control kit, with grips and hardware
4	540003139	Cable, throttle cable kit (less item 16)
5	540003140	Pins, depth handle with clip
6	540003141	Blade engagement lever
7	540003143	Bumpers, handle (complete)
8	540003145	Stand off kit
9	540003172	Decal kit, SC18
10	540003155	Shield cover kit, upper housing with hardware
11	540002154	Weight weldment with hardware
12	540003159	Skid pan, complete w/brackets and mounting hardware, deflector
13	540003144	Handle attachment hardware kit complete
14	540003161	Throttle cable, carb
15	540003162	Deflector with “S” links
16	540003173	Spring

SC18 Sod Cutter
Power Train Assembly
Parts List

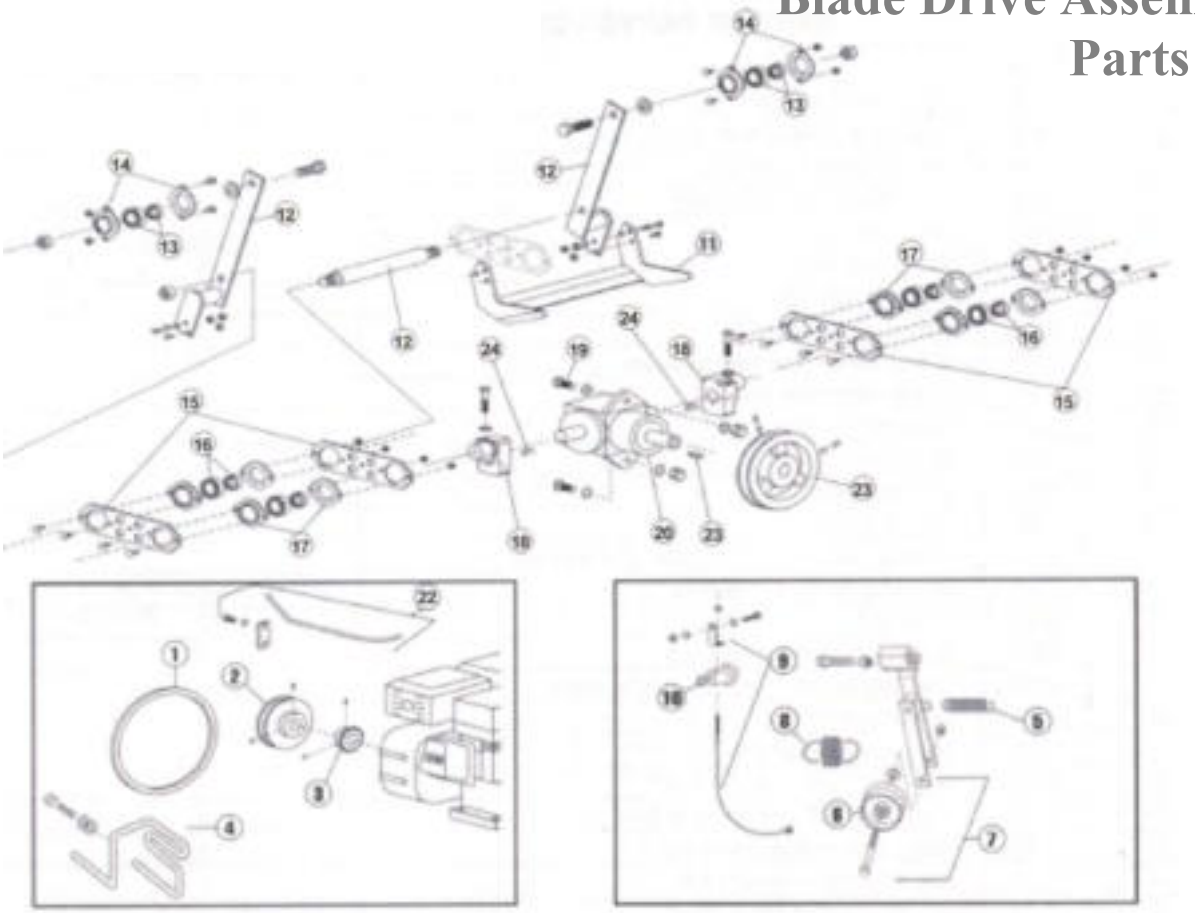


Item	Part Number	Description
1	540003107	Chain, transmission 26 5/8” length
2	540003108	V-pulley 4” special, with key
3	540003109	Sprocket with key
4	540003148	Sprocket with key and ring
5	540003149	Sprocket, transmission, 8 tooth
6	540003150	Transmission with hardware
7	540003171	Chain idler arm assembly
8	540007195	Spring, 3 ¾”
9	540003127	Sprocket, idler arm
10	540003146	Lever, shift kit
11	540003147	Linkage, shift
12	540003135	Arm, transmission shift with hardware
13	540003136	Bell crank shift kit
14	540003137	Rod end, linkage bell crank
15	540003133	Tensioner assembly, drive train
16	540003134	Sprocket, drive train tensioner
17	540003123	Wheel, 10” with hardware
18	540000317	Bearing, 1” with locking collar
19	540005786	Stamping kit, with fasteners (1” bearing)
20	540003153	Axle, wheel, with hardware
21	540003151	Chain, 55”, drive
22	540000303	Sprocket, with key, color
23	540003170	Motor space plate kit with hardware

SC18 Sod Cutter

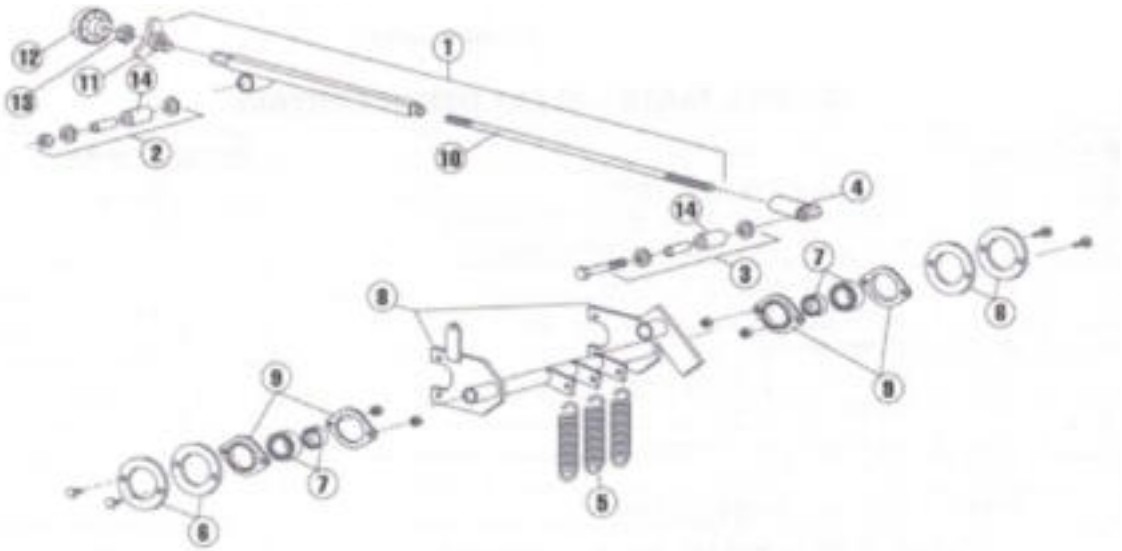
Blade Drive Assembly

Parts List



Item	Part Number	Description
1	540003106	V-belt, A-26” special
2	540003108	V-pulley 4” special with key
3	540003109	Sprocket with key, engine
4	540003166	Belt keeper kit with hardware
5	540007195	Spring, 3 ¾”
6	540000343	Pulley, idler 2 ¾”
7	540003111	Belt idler assembly
8	540003112	Spring, 4”, blade/clutch
9	540003133	Cable, blade/clutch with hardware
10	540003114	Pulley, swivel eye, clutch
11	540003167	Blade with hardware
12	540030219	Blade arms and shaft
13	540000315	Bearing, ¾” with locking collar with fasteners
14	540003122	Stamping kit, for ¾” bearing
15	540003125	Plate, rod
16	540000317	Bearing, 1” with locking collar
17	540003124	Stamping kit, with fasteners (1” bearing)
18	540003129	Crank, eccentric kit
19	540003132	Hardware kit, gear box
20	540003131	Gear box, right angle “T” drive
21	540003130	Pulley 5 ¼” OD, with key, gear box
22	540003152	Tube, throttle cable, assembly
23	540003175	Key, #6 woodruff (5/32 x 5/8)
24	540003176	Key, #9 woodruff (3/16 x ¾)

SC18 Sod Cutter
Depth Control Assembly
Parts List



Item	P art Number	Description
1	540003100	Depth adjuster assembly control
2	540003101	Fastener kit, upper depth, adjustment assembly
3	540003102	Fastener kit, lower depth, adjustment assembly
4	540003105	Rod end, coupler, depth control
5	540003115	Spring, blade lift
6	540003116	Spacer, bearing
7	540000317	Bearing, 1” with locking collar
8	540003118	Trunnion assembly
9	540000318	Stamping kit for 1” bearing
10	540003163	Depth adjust screw
11	540003164	Knob, three prong (depth lock)
12	540003166	Knob, depth
13	540003174	Nut, hex, jam, 1/2 -13
14	540003117	Bushing, polyurethane

DANGER: Before servicing unit, engine must be off!

PROBLEM	ANSWER/COMMENT
Belt coming off	1. RPM may be too high. Set to 3000 RPM. See Technical Bulletin "Throttle Cable Adjustment." 2. Replace the Belt Idler Pulley Arm (540003111) if it is bent.
Belt glazed or slipping	1. Limit maximum depth of cut to 2 ½". 2. If the Blade Lift Springs are worn they will allow the blade to cut too deeply, which causes the belt to slip. Replace if necessary. 3. Be sure the maximum RPM is set at 3000. See page 13 "Throttle Cable Adjustment." 4. Be sure the correct Husgvarna belt is being used. If not, replace with a Husgvarna belt (540003106). 5. Check to see if the Tension Cable (540003113) is out of pulley. Install cable in pulley and squeeze bracket sides to minimize the gap to pulley. 6. If the GearBox Pulley (540003130) or the Engine Pulley (540003108) is wet oily, or damaged, clean or replace. 7. Belt tension can be increased by tightening the Cable Tension nut (540003113).
Blade doesn't move or stops cutting	1. If the operator tries to cut deeper than 2 ½'. Pivoting the machine back on its rear wheels while cutting can cause machine to cut too deeply. 2. Make sure the blade is sharp. 3. Moisture, oil or grease on the belt will cause it to slip. Replace with a Husgvarna belt (540003106). 4. Tension can be increase by tightening the Cable Tension Nut (540003113).
Blade not cutting full depth or inconsistent depth	1. Replace the depth control bushing (540003117) when worn. 2. Be sure the depth control rod (540003100) is installed properly (see page 30). 3. If blade is dull or improperly sharpened, sharpen it from top only (see page 12) or replace. 4. Check to see if the cutting surface is uneven. 5. Replace the Blade Lift Springs (540000115) when worn or broken. 6. Check handle assembly to make sure it is tight and not bent or damaged.

DANGER: Before servicing unit, engine must be off!

PROBLEM	ANSWER/COMMENT
Blade not disengaging	**New Unit or New Belt:** 1. Run the machine with the blade engaged until the belt stretches. **Used Unit or Old Belt:** 1. Adjust the Belt Keeper (540003166) so each leg touches when idler pulley is not engaged and so idler pulley clears Belt Keeper when engaged. 2. Be sure the correct Husgvarna belt is being used. If not, replace with a Husgvarna belt (540003106). 3. Belt Idler Pivot Bolt (540003111) may be too tight or need lubrication. 4. Belt Idler Return Spring (540007195) may be broken or came off anchors. Reattach or replace as necessary. 5. Check to see if the Tension Cable (540003113) is out of pulley, install cable in pulley and squeeze bracket sides to minimize the gap to pulley.
Blade Replacement	1. Replace when worn to 1 ½" from the cutting edge to the back edge. 2. Sharpen blade from top only. Maintain a flat lower surface. 3. Sharpen sides of blades from outside only.
Bolts breaking	1. The vibration of the machine may cause bolts to come loose. Check and tighten all bolts periodically. 2. Use Grade 8 bolts with lock nuts to bolt wheels to axle.
Bushing "ooze out" when installed	1. This is normal. Trim with knife if desired.
Bushing on depth control assembly are wearing quickly	1. The bushings are wearable items. 2. Grease (polyurethane compatible) ID and OD of bushing before installing. 3. Be sure the maximum RPM is set correctly at 3000. See Technical Bulletin "Throttle Cable Adjustment."
Chain (Drive) (540003151) is coming off, drive sprocket wearing	**The Transmission Output Sprocket (540003149) is a fixed (non-adjustable) sprocket, which is keyed and snap-ringed in place.** 1. Align the Axle Sprockets (double set screws) (540000303) to the Transmission Output Sprocket (540003149). Position the Axle Sprockets the same distance from the chassis wall. 2. Replace the Tensioner Sprocket (540003134) if it has a bent or twisted bracket or bent teeth. 3. Check chain tension between Axle Sprockets (540000303) (1/4' – 3/8" deflection at mid-span).

DANGER: Before servicing unit, engine must be off!

PROBLEM	ANSWER/COMMENT
Chain (Transmission) (540003107) wearing prematurely or coming off	**The Transmission Input Sprocket (540003148) is keyed and snap-ringed in place.** 1. Align the Engine Sprocket (540003109) and Chain Idler Sprocket (540003127) to the Transmission Input Sprocket (540003148) (fixed). 2. The Engine Sprocket (540003109) is adjusted by sliding it o the engine output shaft. The back of sprocket is ½ inch from engine case.
Depth Control Rod (540003100) will not turn (frozen)	1. Steam cleaning machines without lubricating threads afterwards will cause rust resulting in locked threads. 2. Note that the Rod End (540003105) is a left-handed thread. 3. Flood frozen joints with penetrating oil.
Drive wheels won't engage	1. Ensure the Drive Chain (540003151) is on all sprockets (540003149, 540000303, 540003134). 2. Ensure the Transmission Chain (540003107) is on all sprockets (540003109, 540003148, 540003127). 3. Ensure the Chain Idler Spring (540007195) is attached. 4. Check for side play in the Transmission Output Drive Sprocket (540003149) (If there is side play, the transmission could be damaged). 5. Verify the Shift Linkage (540003147) is attached at the Shift Lever (540003146) and at the Bell Crank (540003136) and Rod End (540003137) is attached at Bell Crank (540003136) and Transmission Arm (540003135). 6. Check sprockets for proper alignment.
Handle Stand Off Kit (540003144) – How to tighten bolts	1. Remove rubber-bushing (540003145). 2. Remove bolt. 3. Apply blue Loctite. 4. Hold stand off (540003144) with pliers, vice-grips, etc., and tighten bolt.
Pulleys not staying tight or coming off	1. Inspect shaft, pulleys (540003130 and 540003108) and keys for damage. Note: 540003130 has double set screws and 540003108 has single set screws. 2. Replace any damaged parts. 3. Use blue Loctite on the setscrews.

DANGER: Before servicing unit, engine must be off!

PROBLEM	ANSWER/COMMENT
Right Angle T-drive leaking	1. Contact you local Tecumseh dealer (Yellow Pages) or servicing dealer.
Tires wearing too quickly	1. **ONLY** cut in first or second gear. 2. Tire wear is normal and to be expected. Running the machine on excessively hard or abrasive surfaces can increase wear.
Transmission shaft broke	1. Ensure debris is not caught in the Transmission Chain (540003107) or wrapped around the transmission output shaft. 2. Ensure the unit has a Skid Pan (540003159) installed. 3. Contact your servicing dealer.
Unit is creeping	**The transmission (540003105) contains a centrifugal clutch and may creep if left in gear. Some creeping is normal because of the lubricant resistance between the clutch plates. Also, too heavy a lubricant in Gear Reducer can cause creeping.** 1. Put in neutral – unit will not creep. 2. PRM at idle should be 1,400 (+200/-150). Clutch will engage at 1,800 RPM's. a high idle RPM may cause creeping. 3. If unit continues to creep, contact your local Honda dealer (Yellow Pages) or servicing dealer.
Unit jumps out of gear	1. Adjust Shift linkage (540003147). Tighten Shift Lever Pivot Bolt (540003146) to hold shift lever in place.
What RPM should my engine be set to?	1. 3000-RPM maximum. See engine section "Throttle Cable Adjustment."