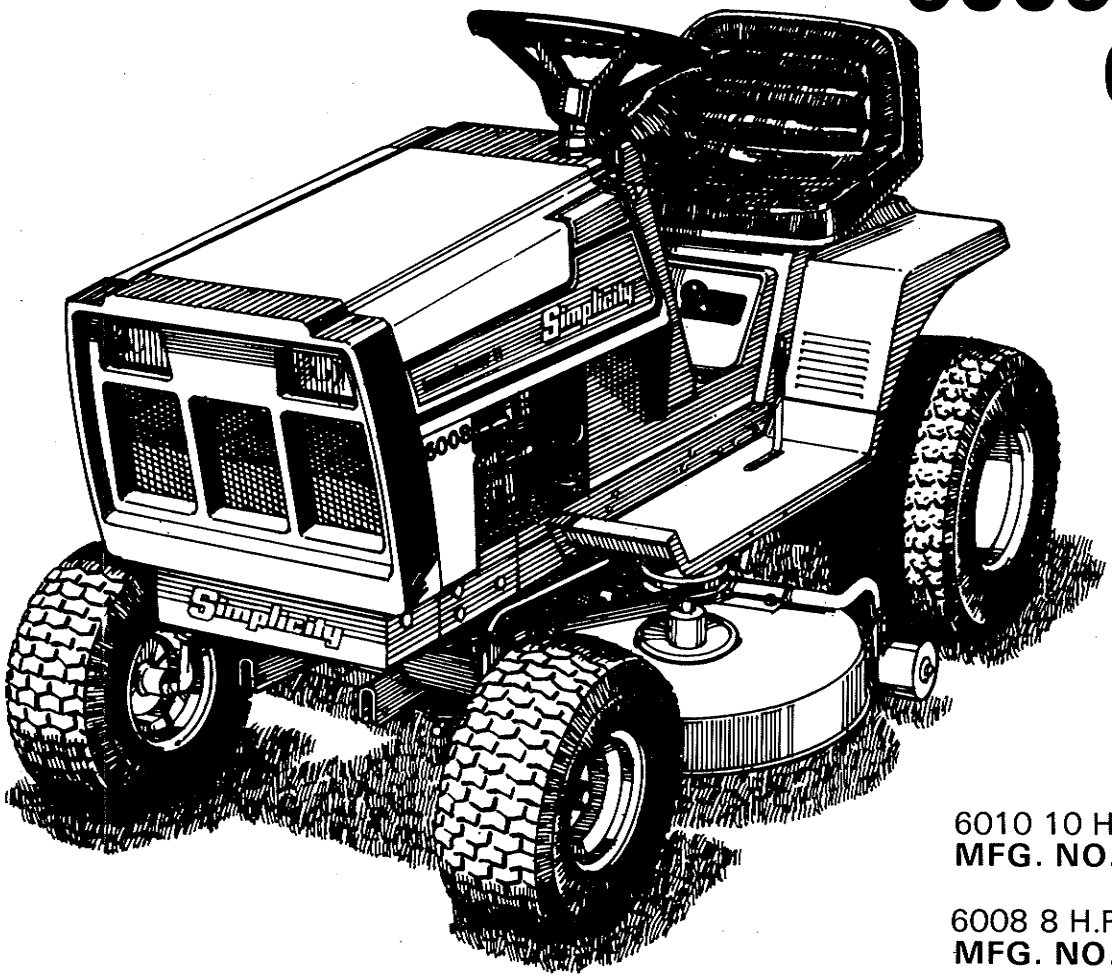
Simplicity®

OPERATOR'S MANUAL

MODELS 6008 and 6010



6010 10 H.P. TRACTOR
MFG. NO. 1690192

6008 8 H.P. TRACTOR
MFG. NO. 1690193

36" MOWER
MFG. NO. 1690269

42" MOWER
MFG. NO. 1690210

CAUTION: READ MANUAL THOROUGHLY BEFORE OPERATING TRACTOR

FORM – 1655741
PRINTED IN U.S.A.
767

Dear Simplicity Customer:

Congratulations on your purchase of this Simplicity tractor. Your tractor has been carefully designed and built to give you years of dependable service. The tractor and mower have been built to meet or exceed current O.P.E.I. certification requirements, according to ANSI Safety Specifications B71.1-1972, B71.1a-1974, and have been certified by an independent testing laboratory. With proper care, it will help you do your most important jobs efficiently.

To make sure you get the utmost value from your purchase, study this manual carefully. Also study all other enclosed literature before operating or performing any adjustments on your machine. Have anyone else who plans to run the tractor read this information also.

For the safety of you and others, study the safety information on page 2. Review this information often. It is there for your benefit and is important.

We have provided you with other information which will enable you to service, operate, and adjust your tractor. Should you need help with any of these procedures, your Simplicity dealer will be happy to help you with any service or repair work.

Measurements are given in this manual with metric equivalents in parentheses. For example, behind the measurement of ⅛ inch would appear (3 mm). So, the metric equivalent of ⅛ inch is 3 millimeters.

Those metric measurements are provided for your convenience as an aid in converting to the metric system. A list of metric terms and abbreviations used in this manual is provided below.

LIST OF ABBREVIATIONS OF METRIC TERMS

1.	cc =	cubic centimetre
2.	kg =	kilogram
3.	kPa =	kiloPascal
4.	km/h =	kilometres per hour
5.	kw =	kilowatt
6.	l =	litre
7.	mm =	millimetre
8.	N · m =	newton · metre

6000 Series

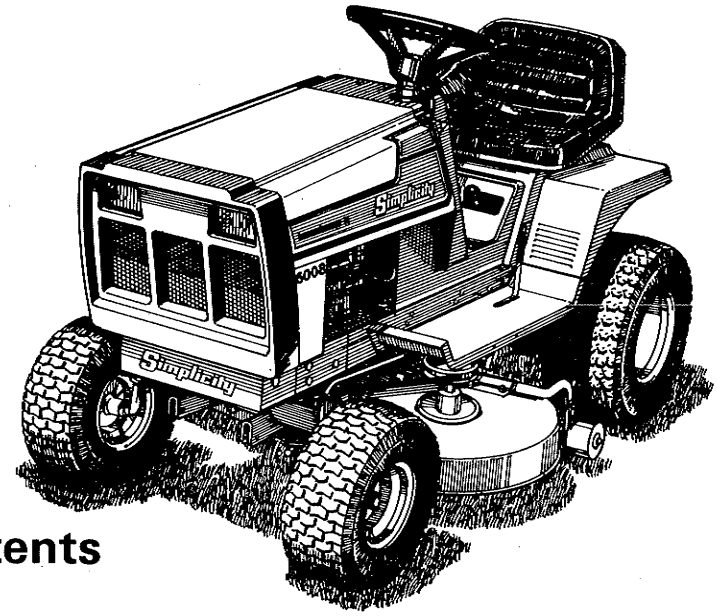


Table of Contents

WARNING

Read these safety rules and follow them closely. Failure to obey these rules could result in loss of control of vehicle, severe personal injury to yourself or bystanders, or damage to property or equipment affecting your safety.

Safety Rules

This notation preceding Cautions and Warnings in the text signifies important precautionary steps which, if not properly followed, could result in personal injury or damage to your equipment affecting your safety.

General

- Read the Operating and Service Instructions carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
- Never allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- Do not carry passengers.
- Keep the area of operation clear of all persons, particularly small children, and pets.
- When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the vehicle while in operation.
- Make Sure:
  a. tractor and attachments are in good operating condition,
  b. all safety devices and shields are in place
  c. and in good working condition, and
  d. all adjustments (cutting height, etc.), have been made.

Preparation

- Handle gasoline with care—it is highly flammable.
  a. Use approved gasoline container.
  b. Never remove the cap of the fuel tank or add gasoline to a running or hot engine, or fill the fuel tank indoors. Wipe up spilled gasoline.
- Do not run the engine indoors. Exhaust fumes are dangerous. I
- Clear the work area of objects which might be picked up and thrown.
- Disengage all attachment clutches and shift into neutral before attempting to start the engine.
- Wear heavy footwear. Do not operate tractor when barefoot or when wearing open sandals or canvas shoes.

Operation

- Disengage power to attachment(s) and stop the engine before leaving the operator's position.
- Disengage power to attachment(s) and stop the engine before making any repairs or adjustments.
- Shut the engine off when unclogging chute.
- Stay alert for holes in the terrain and other hidden hazards. Be extra careful when operating on wet or slippery surfaces.
- The vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.

- Disengage power to attachment(s) when transporting or not in use.

- When using the vehicle with mower, proceed as follows:
  a. Mow only in daylight or in good artificial light.
  b. Never operate the tractor without the mower clutch safety interlock switch properly attached and working.
  c. Check the blade mounting bolts for proper tightness at frequent intervals.

- Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes; never across the face.

- Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Use extreme caution when changing direction on slopes.

- Watch out for traffic when crossing or near roadways.

- If equipment begins to vibrate abnormally—disengage power to attachments and stop engine at once. Inspect for damage and correct before starting up tractor.

- Use care when pulling loads or using heavy equipment.
  a. Use only drawbar hitch point.
  b. Limit loads to those you can safely control.
  c. Do not turn sharply. Use care when backing.
  d. Use counterweight(s) or wheel weights when suggested in the operator's manual.

- Take all possible precautions when leaving the vehicle unattended, such as disengaging the power take off, lowering the attachment (s), shifting into neutral, setting the parking brake, stopping the engine, and removing the key.

- Keep the vehicle and attachments in good operating condition, and keep safety devices in place.

Maintenance and Storage

- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.

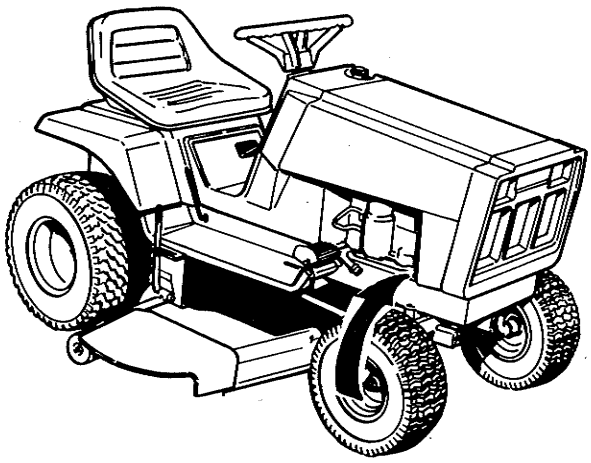
- Do not change the engine governor settings or overspeed engine.

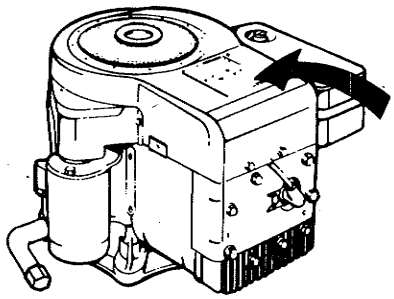
- To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.

- Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

Tractor Identification

When ordering replacement parts for your Simplicity tractor, be prepared to give your dealer the identification numbers found on the tractor and engine identification plates shown below. The identification plate for the tractor is located on the right frame in front of the engine. The engine ID plate is located on the top of the engine blower housing. We suggest that you locate the numbers and record them below for easy reference.





Tractor I D _____

Mower I D _____

Engine I D _____

Accessories

There are many optional accessories available for your Simplicity tractor through your Simplicity dealer. They will make your tractor perform better or make it easier to operate when using various attachments. See your Simplicity dealer if you wish to purchase any of the following:

WHEEL WEIGHTS — REAR

FRONT WEIGHT

LIFT LEVER

TIRE CHAINS

HOUR METER

HUB CAPS

Attachments

To make your Simplicity tractor most useful to you, a complete line of attachments is available through your Simplicity dealer. Contact him if you wish to purchase any of the following:

DUMP CARTS (400 & 1000 L.b. Capacity)

36" ROTARY SNOW THROWER

30" TILLER

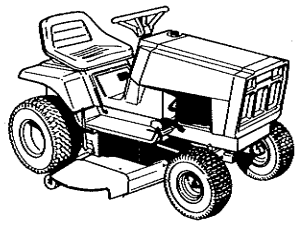
42" SNOW PLOW AND DOZER BLADE

VACUUM COLLECTOR (6010 and 6008)

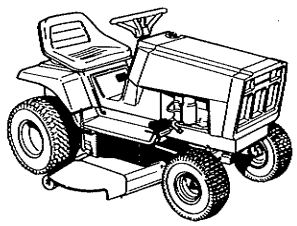
GRASS CATCHER (6008)

Models illustrated in this manual may vary slightly from the model you have.

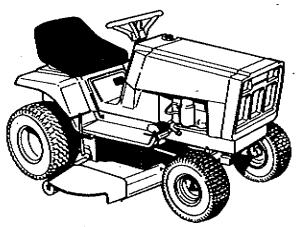
Owner Benefits



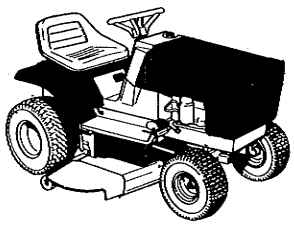
Dependable, rugged engines — The 6008 has an 8 horsepower synchro-balanced engine, and the 6010 has a 10 horsepower, synchro-balanced engine. Both engines have mechanical governors to assure smooth engine performance under varying load conditions.



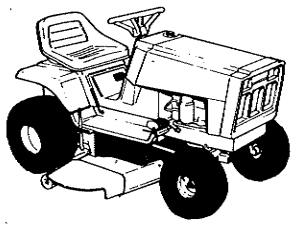
Combined clutch and brake pedal insures safe starting and stopping with easy rocker action. Parking brake is easily engaged by just pressing and tilting pedal.



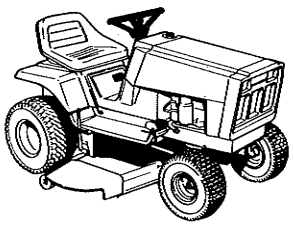
Comfortable padded bucket seat is vinyl covered, and is adjustable to suit different size operators.



Tilt-up hood and seat deck make maintenance areas accessible.

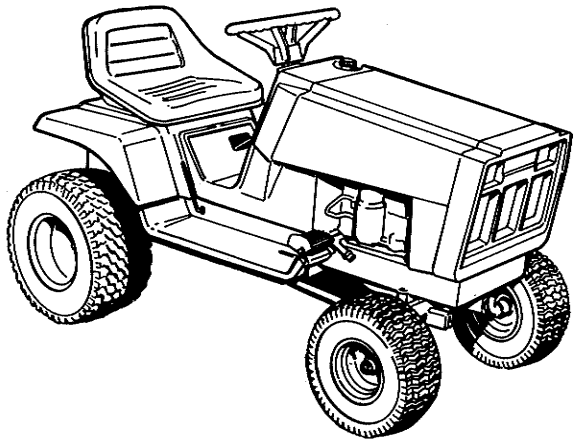


Large wide tires give comfortable ride and help protect your lawn.

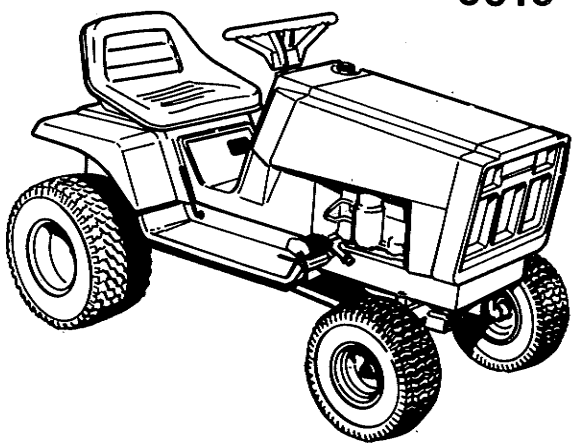


Steering is easy with all-gear system, designed to give excellent maneuverability and trouble-free long life. The short turning radius allows working around tight corners and in confined areas.

6008



6010



Safety interlock lights tell operator at a glance if tractor is ready to start.

Full length footrests increase operator's comfort and safety.

Wide rollers help the mower follow the contour of your lawn, giving smooth, neat mowing.

Tool box lets you carry tools with you on the tractor, safely and without fear of loss or damage.

Free-floating mower design allows mower to pivot with front axle to follow ground contours and give smooth, even cut.

Useful attachments designed to fit on your tractor without modification. Installation and removal is easy with Simplicity's pin mounting.

Dependable all-gear transaxle has three forward speeds, one reverse. Gears are fully enclosed, sealed and lubricated.

Fast starting under all weather conditions is easier with a heavy duty 12-volt electric starter and battery.

Dash-mounted operating controls are easily accessible and provide quick finger-tip control.

Mower Installation

CONTENT OF SECTION

This section tells you how to install and remove your mower. Instructions are given first on how to install the 36 inch (914 mm) mower, followed by instructions on how to install the 42 inch (1067 mm) mower. Instructions on how to remove your mower are last.

INSTALLING 36 INCH MOWER

1. Place your tractor and mower on a smooth, hard surface, such as concrete, with the mower on the right side of the tractor.
2. Turn the front wheels of the tractor as far as they go to the left. Place mower in lowest cutting position.
3. Slide the mower under the tractor (see figure 1).
4. Slip the lift link into the lift lever arm and attach the lift chain to the lift link (figure 2).
5. Attach the mower hitch to the rear holes in the front axle mounting points (figure 3), using the two pins and safety clips provided.

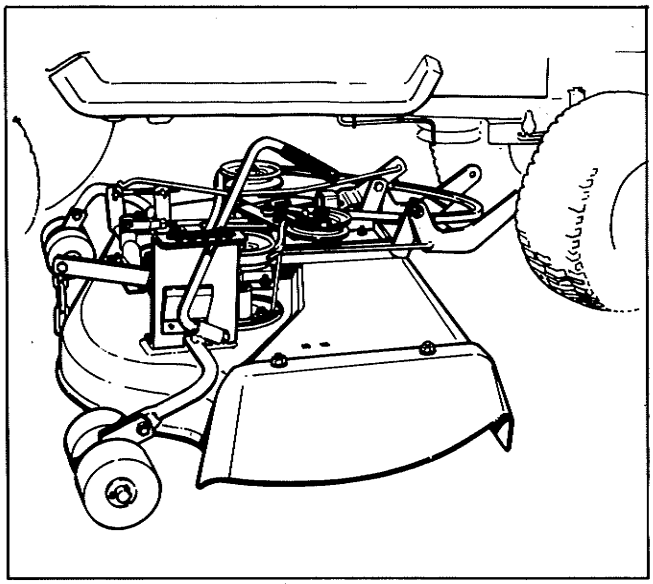


Figure 1. Installing 36" Mower

6. Slip the mower drive belt on the engine PTO pulley (figure 3).
7. Install the PTO rod onto the mower PTO arm and the PTO lever (use front hole in PTO lever, as shown in figure 4).
8. Adjust PTO rod guide tension and belt stops as necessary as outlined in the Adjustments section of this manual.

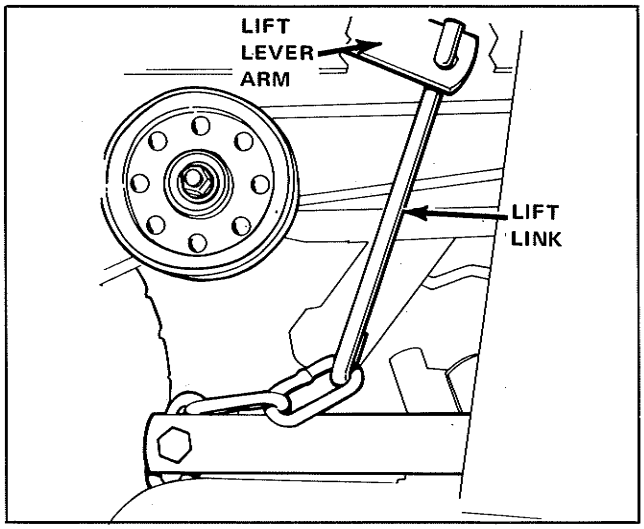


Figure 2. Installing Lift Link

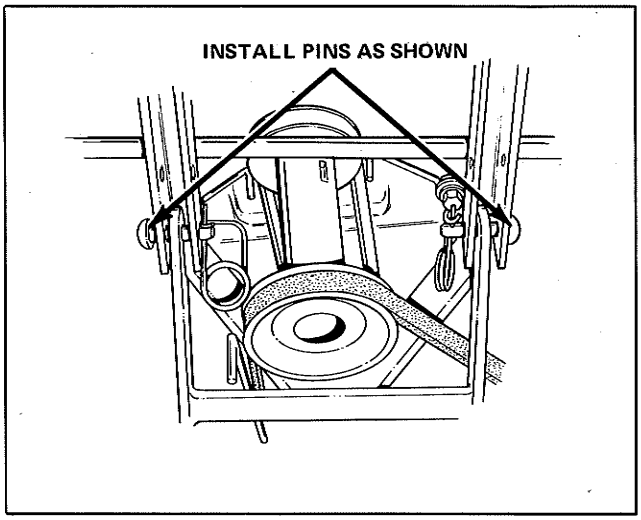


Figure 3. Attaching Mower

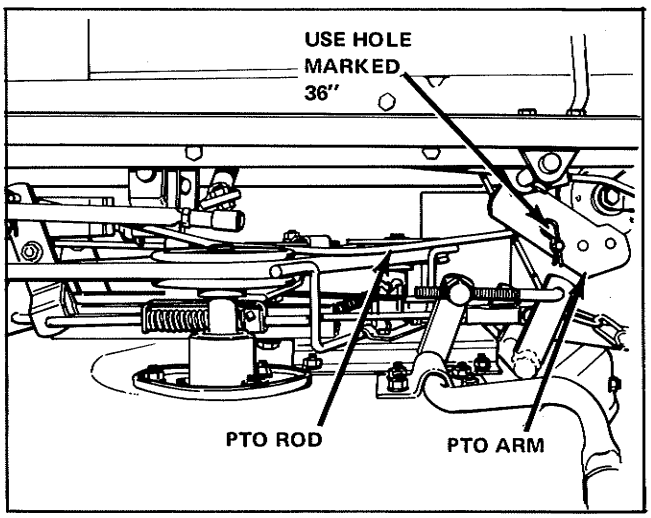


Figure 4. Installing PTO Rod

INSTALLING 42 INCH MOWER

To install the 42 inch mower on your tractor, perform the following steps:

1. Place tractors and mower on a smooth hard surface such as concrete, with the mower on the right side of the tractor.
2. Turn the front wheels of the tractor as far to the left as they go. Place mower in lowest cutting position.
3. Slide the front of the mower hitch between the front wheels, then slide the left side of the mower housing underneath the tractor (see figure 5).

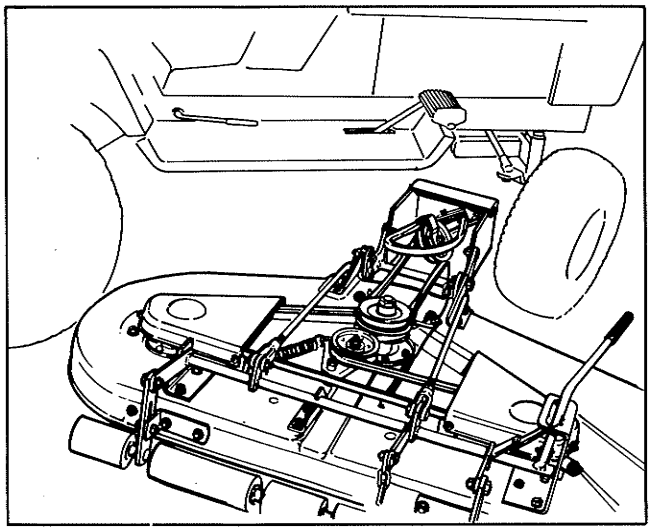


Figure 5. Installing 42" Mower

4. Slip the lift link into the lift lever arm and attach the lift chain to the lift link (see figure 6).

CAUTION

Take special care when working near the engine muffler. It might be hot from recent operation, and could cause serious burns if you touch it.

5. Install two pins and spring clips through the front holes in the front axle mounting points (see figure 7).
6. Grasp the bottom of the mower hitch. Lift the front of the hitch and hook the mower hitch over the two pins just installed in the front axle mounting points (see figure 7).

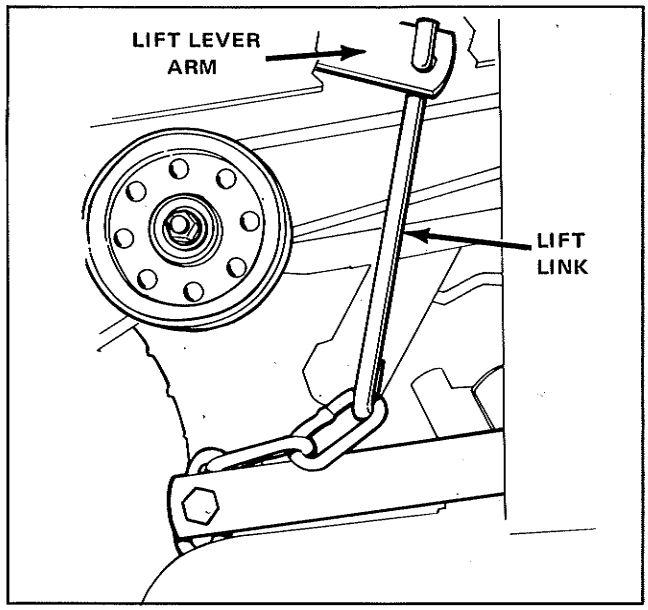


Figure 6. Installing Lift Link

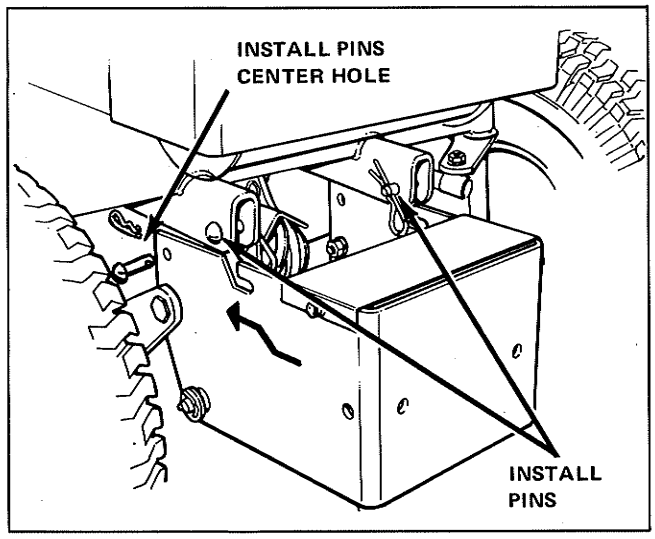


Figure 7. Attaching 42" Mower

7. Press down on the front of the mower hitch and rotate the rear of the hitch upward so that the holes in the hitch line up with the center holes in the front axle mounting points. Install two pins and spring clips through the center holes (see figure 7).
8. Slip the mower drive belt on the engine PTO pulley.
9. Attach the front of the mower PTO rod to the mower pivot arm with a spring clip (see figure 8).
10. Attach the PTO rod guide to the PTO lever arm, using the center hole of the arm, as shown in figure 9.

11. Adjust the PTO rod guide tension and belt stops as necessary as outlined in the Adjustments section of this manual.

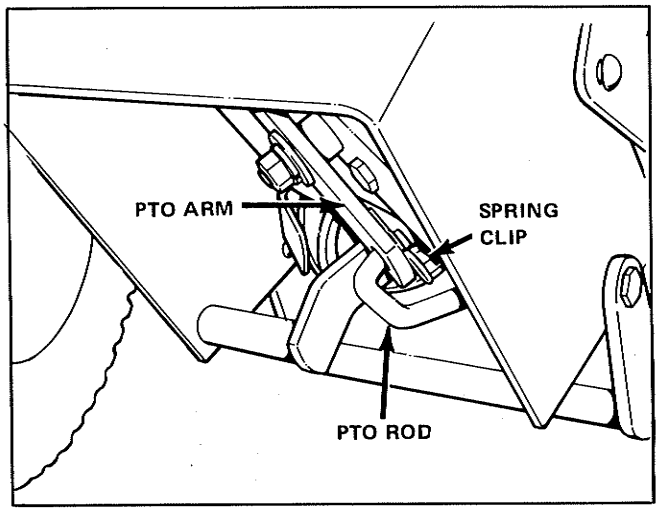


Figure 8. Attaching PTO Rod

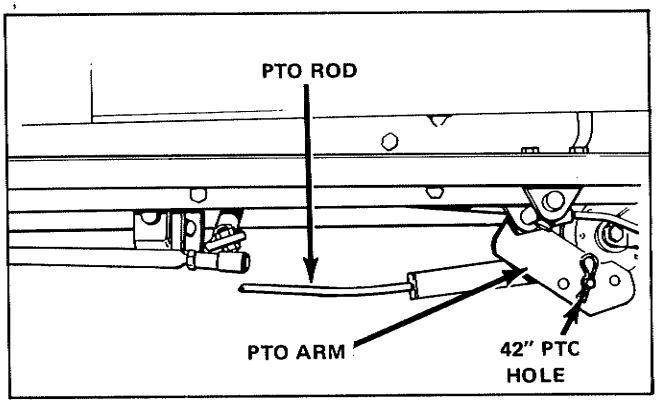


Figure 9. Attaching PTO Rod

REMOVING MOWER FROM TRACTOR

To remove the mower from your tractor, perform the following steps:

1. With the PTO disengaged, remove the mower drive belt from the engine PTO pulley.

⚠ CAUTION

On 10 horsepower tractors, take special care when working near the engine exhaust muffler. It may be hot from recent operation, and could cause serious burns if you touch it.

Make sure the front of the mower hitch is not too hot to touch. Allow the mower hitch and engine muffler to cool for at least 5 minutes before removing mower.

2. Remove the PTO rod from the tractor PTO lever arm. Replace the spring clip in the PTO rod for storage.

For easier mower removal, the 42 inch mower PTO rod should be removed from the mower completely. To remove the PTO rod, pull out the spring clip holding the PTO rod to the mower PTO arm and remove rod.

3. Place the mower in the lowest cutting position and lower the mower lift lever.
4. Unhook the lift chain from the lift link and remove the lift link from the tractor lift arm.
5. Remove the pins attaching the mower to the tractor. Replace the pins and spring clips in the mower hitch for storage.

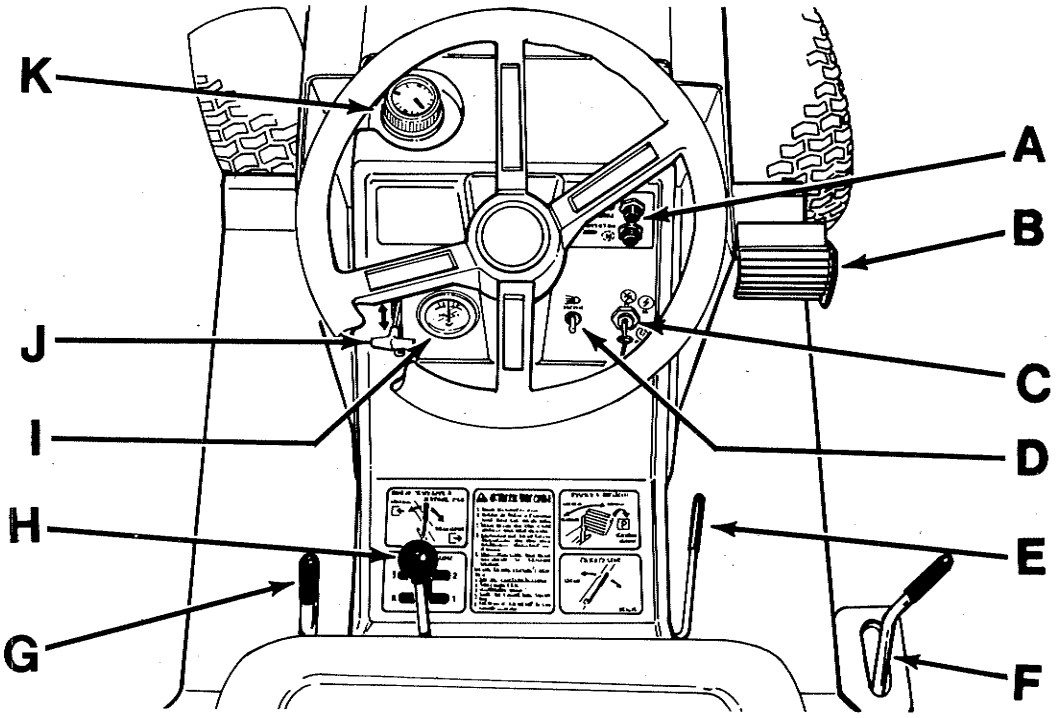
   Remember that the 42 inch mower hitch can be removed by pulling the hitch forward after removing the two rear pins and spring clips.
6. Turn the tractor wheels as far as they go to the left.
7. Slide the mower out from under the tractor from the right side.

OPERATION

CONTENT OF SECTION

A brief description of tractor controls, followed by the basic tractor operating procedures, is given in this section to help you get to know your tractor and how to operate it safely and efficiently.

Figure 10 shows the location, name, and function of each of the tractor controls. The control names given in figure 10 are used throughout the manual.



Item	Name	Function
A	**Safety Interlock Lights**	Show when PTO and transaxle are in disengaged (neutral) position.
B	**Clutch-Brake Pedal**	Controls both main clutch and brake. Disengages clutch when pressed down at least half-way Applies brake when fully depressed. Locks brake to hold tractor in parked position.
C	**Ignition Switch**	Operates with key to start, run, or turn off engine.
D	**Light Switch**	Switches tractor headlights on or off.
E	**Lift Lever**	Lifts and locks the rotary mower in transport position.
F	**Mower Height Control**	Adjusts mower cutting height.

Item	Name	Function
G	**PTO (Power Take-Off) Clutch Lever**	Operates clutch for power driven attachments. Used to turn attachments on and off.
H	**Gear Shift Lever**	Shifts transmission gears to control ground speed and direction of travel.
I	**Ammeter**	Shows when battery is being charged or discharged.
J	**Engine Speed Control**	Operates engine choke and throttle. Positioned at CHOKE to start cold engine. Positions from SLOW to FAST used to adjust engine speed.
K	**Fuel Gauge Cap**	Shows the amount of fuel in the tank and serves as fuel tank cap.

Figure 10. Locations and Functions of Controls

OPERATING PROCEDURES

The rest of this section tells you how to operate your tractor. The directions assume that the tractor is working properly. If your tractor does not work properly during operation, refer to the Troubleshooting section of this manual.

The directions in this section have been arranged so that you learn the basic operating procedures safely and efficiently. When operating the tractor for the first time study and be familiar with the following operating directions in the order given:

- Location and Function of Controls
- Checks Before Starting
- Stopping the Tractor
- Selecting and Shifting Gears
- Starting the Engine
- Starting Tractor into Motion
- Before Leaving the Tractor

NOTE

When driving the tractor for the first time, start off in first gear and drive only on level ground. Get the feel of starting, stopping, and starting again. Then increase speed by adjusting the engine speed control and by selecting second and third gears.

Before starting any operation it is essential that you review and become completely familiar with the Safety Rules on page 2.

After you have become familiar with all of the above procedures you should be ready to operate the tractor and attachments. Refer to the paragraph in this section titled "Operating with Attachments" and the appropriate manual for the attachment.

Checks Before Starting

The checks below should be performed before starting the engine for the first time. Repeat these checks each time you use the tractor to insure that it is ready for use.

1. Refer to Normal Care section of this manual to determine and perform needed care.
2. Seat yourself on the tractor. Try operating some of the controls to see if the seat position fits you. If not, see the seat adjustment procedure in the Adjustments section of this manual.
3. Check your fuel supply. Be sure that you have enough fuel for the job you intend to perform. If more fuel is needed, fill the tank as follows:

WARNING

Gasoline is highly flammable and must be handled with care. Never fill the tank when the engine is still hot from recent operation. Do not allow open flame, smoking or matches in the area. Avoid overfilling and wipe up any spills.

a. Remove fuel cap as shown in figure 11.
b. Fill fuel tank completely with clean, fresh, leaded or nonleaded regular grade gasoline.
c. Install and hand tighten fuel cap.

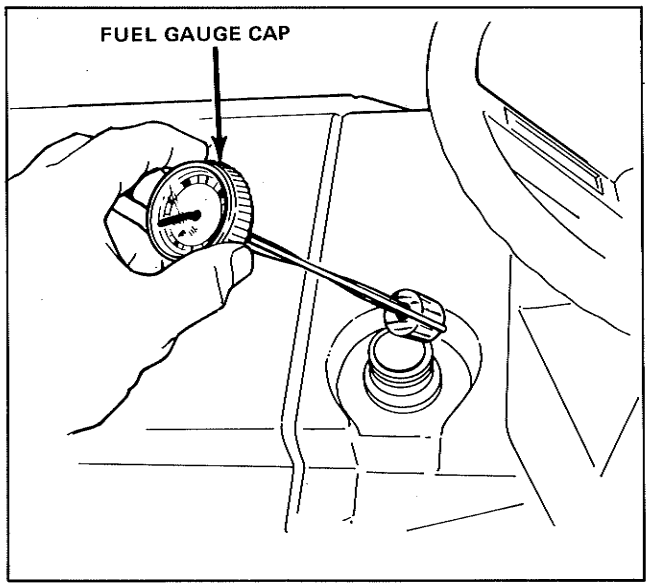


Figure 11. Removing Fuel Cap

Stopping the Tractor

The clutch-brake pedal is used to produce either gradual or rapid stops. For a gradual stop on level ground, press the pedal down only far enough to disengage the clutch. For a more rapid stop, press the pedal down further to also apply the brake.

Try to avoid sudden stops on hills. Also avoid using the brake to control downhill speed. Select a low gear and a slow engine speed before starting downhill.

Selecting and Shifting Gears

The transmission gears are shifted by moving the gear shift lever. The gear shift lever has five positions. These positions are for neutral, reverse, and the three forward speeds. Shift gears as follows:

1. Determine the gear best suited for the desired tractor speed. Use guides below:

NOTE

When using an attachment, consult attachment manual for proper gear and speed and the Recommended Operating Speeds guide, at the end of this section.

- Neutral gear position disengages engine from rear drive wheels. Select neutral to enable engine starting.
- Reverse gear drives the tractor backwards. Select this gear to back up.
- First gear produces slow tractor speeds in the forward direction. The fastest possible speed in this gear is just under 1 mile per hour (1.6 kph). Use this gear to travel up or down hills or over rough ground.
- Second gear produces medium tractor speeds of over 2 miles per hour (3.2 kph) in the forward direction. Use this gear for travel on slight slopes or where the ground is fairly smooth.
- Third gear produces a maximum tractor speed of under 4 miles per hour (6.4 kph) in a forward direction. Use this gear to travel longer distances over ground or pavement that is smooth and level.

2. Press down on clutch-brake pedal to disengage clutch.
3. Bring tractor to a complete stop.

NOTE

A decal on the tractor below the gear shift lever shows the shift pattern. Remember the actual neutral position is up and down rather than forward and backward as shown on the drawing.

4. Move the gear shift lever to the position for the desired gear. You are now ready to start or resume tractor motion.

WARNING

Do not start or run engine in an enclosed area. Open doors if in garage — exhaust fumes are dangerous.

Starting the Engine

Complete the "Checks Before Starting" procedures. Then proceed as follows:

1. Seat yourself on the tractor.
2. Set parking brake by depressing pedal and latching pedal clip over footrest edge.
3. Set the engine speed control to CHOKE position. When engine is warm, it may not be necessary to choke engine.
4. Lift PTO lever as far as it will go to the rear to disengage attachment.
5. Set gear shift lever to neutral position.

NOTE

For your safety the transmission gear shift lever has to be in neutral and the mower clutch lever in fully disengaged position before the engine will start.

6. Insert the key into the ignition switch and turn it clockwise to START. The engine should start. If it does not turn over, repeat steps 4 and 5.
7. When the engine starts, release the key. It will return to the ON position for normal running.
8. Move the engine speed control to SLOW. Warm up the engine by running it for at least a minute before engaging the mower clutch lever or driving the tractor.

Starting Tractor Into Motion

This procedure describes how to safely start the tractor into motion after starting the engine and selecting a gear.

1. Rotate steering wheel to turn front wheels in the direction you want to go.
2. Set engine control for 1/3 to 1/2 speed.

3. Release parking brake by pressing down on the clutch-brake pedal.
4. Make sure that the path in desired direction of movement is clear.
5. Slowly release clutch-brake pedal to engage clutch and set tractor into motion.
6. Adjust engine speed control for desired speed.

Operating With Attachments

This paragraph describes a general procedure for tractor operation with attachments.

1. Start engine after insuring that attachment is properly installed and ready for use. Refer to attachment manual for details.
2. Raise the attachment to its highest position.
3. Select and shift into gear best suited to travel to work site.
4. Start tractor into motion and proceed to work site.
5. At work site, bring tractor to complete stop.
6. Shift into neutral gear position.
7. Lower the attachment, shut off engine and remove key.
8. Clear work site of any objects that might be thrown by or get caught in attachment, such as sticks, stones, bones, wire, etc.
9. Be sure that the attachment discharge is not directed toward people or pets.
10. Start tractor and then start attachment slowly.
11. Adjust engine speed control (usually about 3/4 speed) and shift to gear best suited to attachment operation. (Refer to attachment manual or to guide at end of this section.)
12. Start tractor into motion.

NOTE

Complete remaining steps to return machine to storage site.

13. Disengage attachment, stop tractor motion, and shift to neutral.
14. Raise attachment to its highest position.
15. Shift into desired gear and resume tractor motion to return to storage site.

Before Leaving Tractor

To prevent accidents, perform steps below before leaving tractor seat.

1. Disengage attachment, stop tractor motion, and shift to neutral.
2. Bring tractor to a complete stop.
3. Set engine control to SLOW.

NOTE

Stopping a hot engine too suddenly can cause engine damage. Move engine control to SLOW and idle engine for about one minute before stopping engine.

4. Set parking brake by pressing clutch-brake pedal down fully and latching pedal clip over footrest edge.
5. Turn ignition key to OFF and remove key.
6. Shift into gear and lower attachments.

Operating With Mower

WARNING

To prevent serious personal injury, do not work around the mower housing area until you are certain that the mower blades have stopped rotating. Obey the Warnings on the mower housing and the Safety Rules at the front of this manual.

When operating the mower for the first time, begin by operating on level ground at a slow ground speed until you become familiar with the controls and handling of the tractor.

Before starting your mowing job, check the mower carefully to be sure it is properly installed and the mower blades are in good condition.

Determine the best method of mowing according to the shape, terrain, and obstructions of the lawn.

Be sure that the mower is properly leveled and adjusted as outlined in the Adjustments sections of the manual.

Engine Speed. Engine speed should normally be operated at 2/3 to full throttle when mowing. When grass is wet or over 3 inches (76 mm) high, engine should be run at full speed for best results.

Transmission Gear Selection. Second gear should only be used in smooth level lawns with moderate to light grass crop. It is necessary to depress clutch pedal and stop tractor before shifting. Always select a forward speed that is slow enough to assure that you can properly and safely control the tractor over the ground conditions encountered. On rough or hilly terrain, or when the grass crop is heavy, use first gear.

Mowing Pattern and Tips. For the first use of the mower choose a smooth level area. Cut long straight strips overlapping slightly.

The size and type of area to be mowed determine the best mowing pattern to use. Obstructions such as trees, fences, and buildings must also be considered. In most cases, making one or two passes in a clockwise direction around the outside of the area to be mowed is advisable to keep cut grass off fences, walks, etc. The remainder of the mowing should normally be done in a counterclockwise direction so the clippings are dispersed on the cut area.

Always keep the left side of the mower toward trees, posts, or other obstacles on the first pass around the obstacles to keep hand trimming to a minimum.

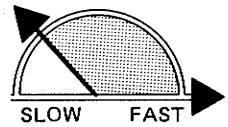
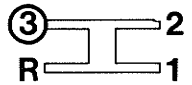
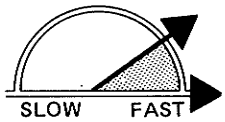
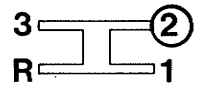
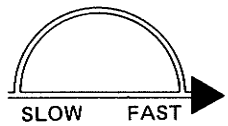
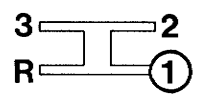
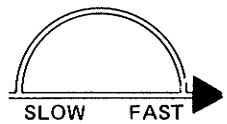
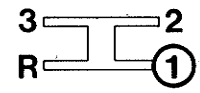
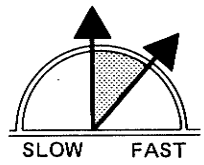
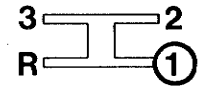
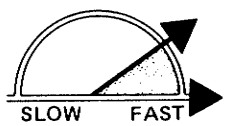
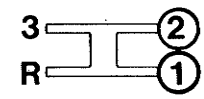
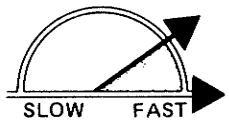
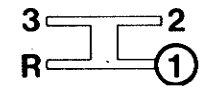
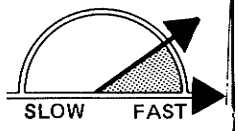
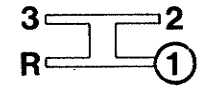
On moderate size, frequently mowed lawns where grass is light and dry, it is sometimes practical to mow in a clockwise direction so that clippings are thrown toward the center of the lawn and concentrated for easy pickup and removal.

Most lawns should be mowed to keep the grass approximately two or three inches high. Best results are obtained by cutting often and not too short. To keep a green lawn, never mow more than one third off the height of the grass or a maximum of one inch in one mowing. For extremely tall grass, set the cutting height at maximum for the first mowing, then reset to the desired height and mow again. Allow the grass to grow to three inches, then cut off only the top inch.

On thick or springy grass or soft ground, the mower rollers may sink into the ground giving too low a cut. Adjust the cutting height to get the desired height of cut.

For best appearance, grass should be cut in the afternoon or early evening (in daylight) when it is free of moisture.

Where possible, change patterns occasionally to eliminate matting, graining and a corrugated appearance.

Attachment	Engine Speed Control	Transmission Gear Selection	Approx. Ground Speed (MPH)	Required Accessories and Options	Recommended Accessories and Options
Transporting Tractor			3 - 4.5		
Rotary Mower (Smooth terrain - normal grass)			2 - 3		Use two rear wheel weights when mowing slopes over 15% (8.5°). Mowing on slopes greater than 30% (16.7°) not recommended.
Rotary Mower (rough terrain-heavy or wet grass)			1 - 1.5		Use two rear wheel weights when mowing slopes over 15% (8.5°). Mowing on slopes greater than 30% (16.7°) not recommended.
36" Snow Thrower			1 - 1.5	Front Lift	Tire chains 2 rear wheel weights
42" Snow Plow and Dozer Blade			1 - 1.5	Hitch Front Lift	Tire chains 2 rear wheel weights
Vacuum Collector			1 - 3	Mower Adapter	Use front weight when mowing slopes over 15% (8.5°). Mowing on slopes greater than 30% (16.7°)not recommended.
Rear Bagger (6008 only)			1-1.5	Mower Adapter	Use front weight when mowing slopes over 15% (8.5°). Mowing on slopes greater than 30% (16.7°) not recommended.
30" Tiller			1 - 1.5	Lift Lever	2 rear wheel weights

Recommended Operating Speed

Normal Care

CONTENT OF SECTION

Your Tractor and mower were designed and built to provide years of service with only minor care. Certain tasks however, must be performed to keep them in good operating condition and to avoid costly repair. This section shows you how to provide the necessary care for the tractor and mower. To service any other attachment, refer to the separate manual for that attachment.

TRACTOR SCHEDULED CARE

A schedule for routine care is provided in figure 12. Check the listed items before operating the tractor for the first time to insure that the tractor is ready for use. Performing the checks will also help you to become familiar with the care of the tractor.

All other scheduled care is performed after operating the tractor for a specific amount of time. See figure 13 through 19. Remember to perform the "every 25-hour check" when you perform the "every 100-hour check."

Because the schedule is based on operating time, it will be necessary to determine or estimate the actual operating time. This is easily accomplished if your tractor is equipped with an optional hour meter. If not, you can determine normal times for regular jobs such as cutting your lawn. Multiply these normal times by the number of times you perform the jobs to estimate total operating time. A Maintenance Record (at end of this section) is provided to help you keep a record of all operating hours and maintenance repair actions.

TRACTOR NORMAL STORAGE

To protect your tractor, store it in an enclosed dry area. Do not store it in an enclosure where fumes from the fuel tank could reach an open flame without first draining the fuel tank.

To store your tractor in a cold area between winter snow removal jobs, we suggest that you fill the fuel tank at the completion of each job to prevent water condensation in the fuel tank.

If you do not intend to use your tractor during the winter months, follow these off-season storage instructions.

TRACTOR OFF-SEASON STORAGE

When the tractor is to be stored for two months or longer, take precautions as follows:

NOTE

Fuel may be stored in the tank or in a container for longer periods if a gasoline stabilizer is used. This additive, available from your dealer, prevents formations of gum and varnish for up to one year.

1. Drain fuel tank if stabilizer is not used. This can be done by removing the fuel hose at the engine and draining the hose into a container.
2. After reconnecting fuel hose, run engine until it stops.

Care Required	See Figure	Schedule				
		Before First Use	Every 5 Hours	** Every 25 Hours	Every 100 Hours	** Spring and Fall
Check Tractor and Engine	13	•	•			
Clean Engine and Air Filter	14			•		
Change Engine Oil *	15			•		•
Lubricate Tractor	16	•		•		
Check Fluid Levels and Tire Pressure	17	•		•		
Clean Battery and Cables	18				•	
Clean or Replace Spark Plug	19				•	

*Change original engine oil after first 5 hours of operation.

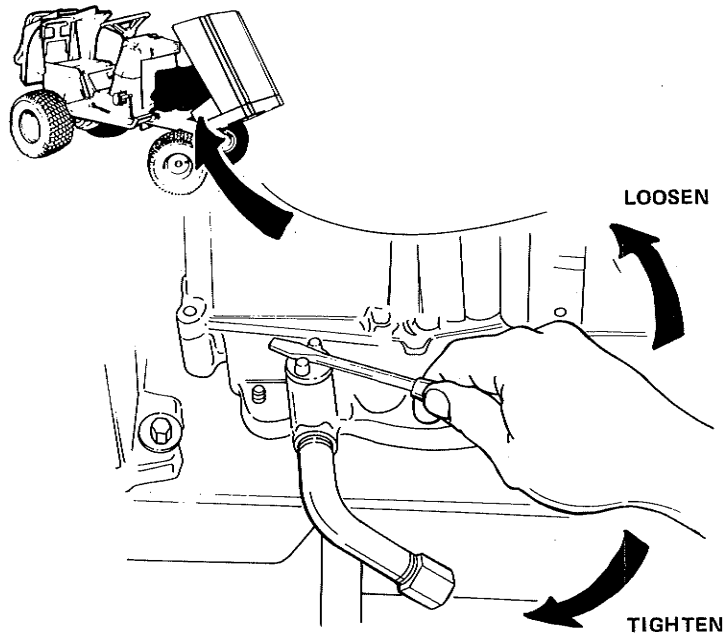
**More often in hot (over 70°F) weather or dusty operating conditions.

***only if tractor is used in both summer (over 40°f) and winter (under 40°f).

Figure 12. Summary of Scheduled Care

3. Change engine oil while the engine is still warm. (See figure 15). Make a note of the type and weight of oil put in crankcase.
4. Remove spark plug. Pour one ounce of SAE 30 oil into engine through spark plug hole. Crank engine a few times to distribute oil and then reinstall the spark plug.
5. Lubricate tractor. (See figure 16).
6. Be sure that the battery is filled to the proper level with water and is fully charged. Battery life will be extended if it is removed and stored in a cool, dry place, fully charged. (See figure 17).

1. Check tractor and engine for loose bolts, oil leaks, etc.



2. Check/add engine crankcase oil

NOTE
Tractor should be level.

A. Remove oil fill plug.

B. Add oil until full. Use same weight and grade of oil used at last change. If changing oil see figure 15 for proper grade and weight of oil recommended.

C. Install and tighten fill plug.

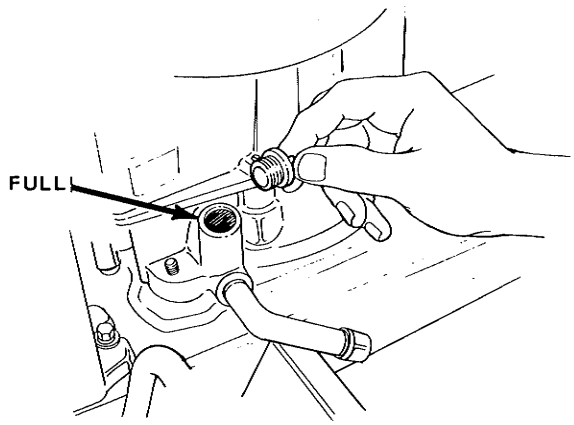
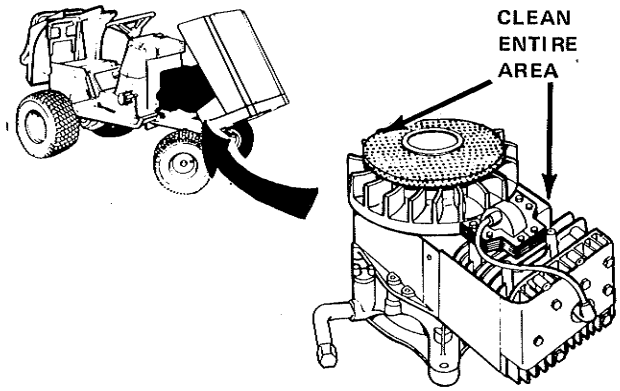
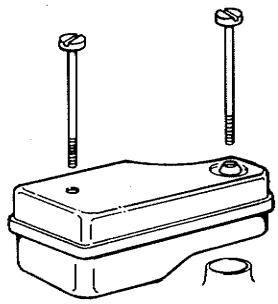


Figure 13. Check Tractor and Engine (5-Hour Care)

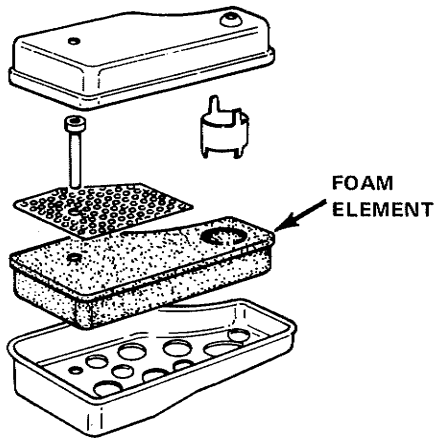
1. Clean all dirt and grass from engine fins. Remove cover as necessary.



2. Clean engine air filter
   - A. Remove two screws.
   - B. Lift air filter from engine.



   - C. Take apart air filter.
   - D. Wash foam with kerosene or soap and water.
   - E. Dry foam.
   - F. Soak foam with lightweight oil; squeeze several times to spread oil evenly and to remove excess.
   - G. Assemble air filter. Make sure foam extends over lip of bottom.
   - H. Install clean air filter on engine. Secure with the two screws.



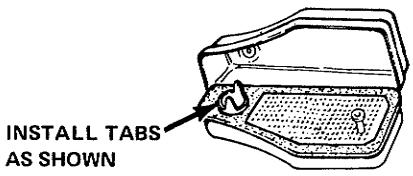


Figure 14. Clean Engine and Air Filter (25-Hour Care); or as required.

NOTE
Change oil while engine is still warm from operation.

1. Remove drain cap.
2. Drain old oil.
3. Install and tighten drain cap.

NOTE
DON'T POLLUTE: Dispose of drain oil properly.

4. Remove fill plug.

NOTE

To avoid engine damage, use only high quality detergent oil of the correct grade and weight. The grade (service) marking on the can may be MS, SC, or SD. The correct weight varies with the season as follows:

Summer

(Above 40°F)
Use SAE 30,
or SAE 10W-30.

Winter

(Between 0 & 40°F)
Use SAE 5W-20
or SAE 5W-30.

(Below 0°F)
Use SAE 10W or
SAE 10W-30 diluted
10% with kerosene.

5. Add new oil until pipe is full. Pour slowly. Capacity is about 2-1/4 pints in 6008 and 3 pints in 6010.
6. Install and tighten fill plug.

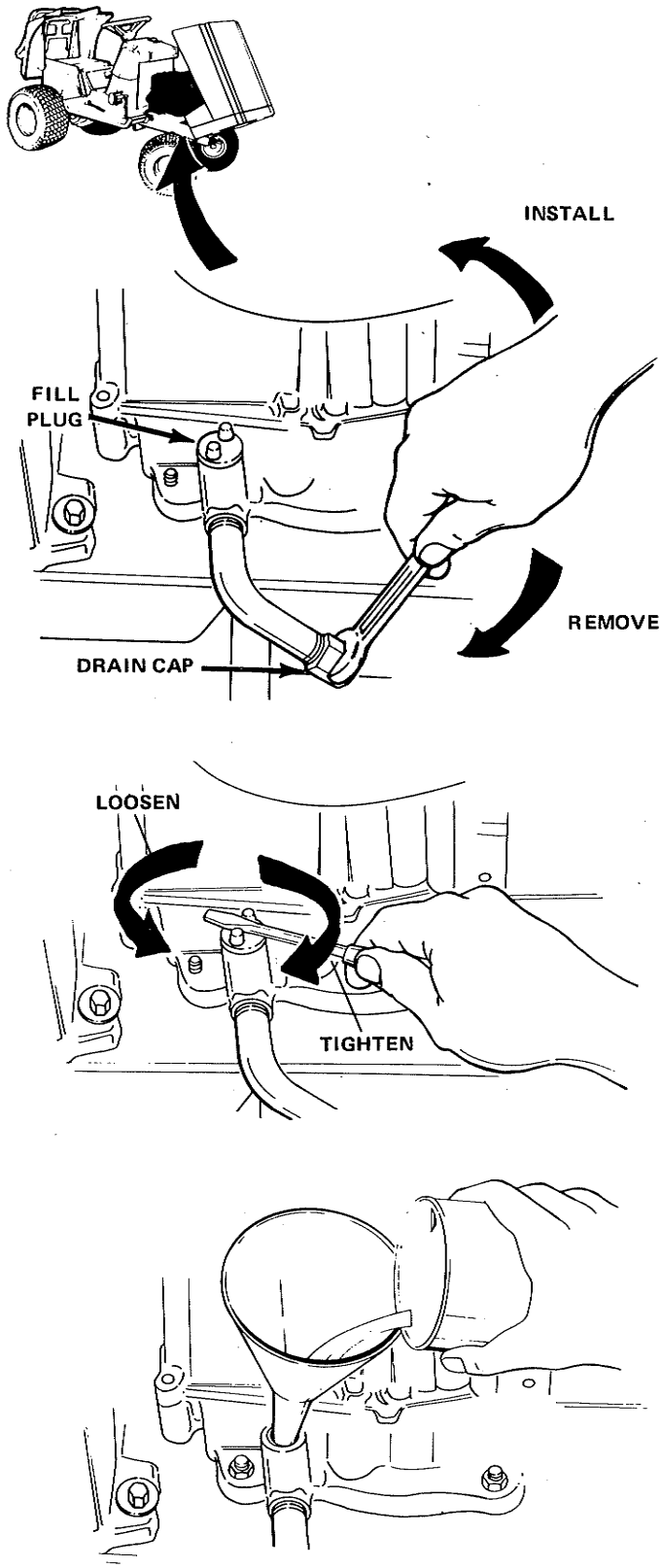
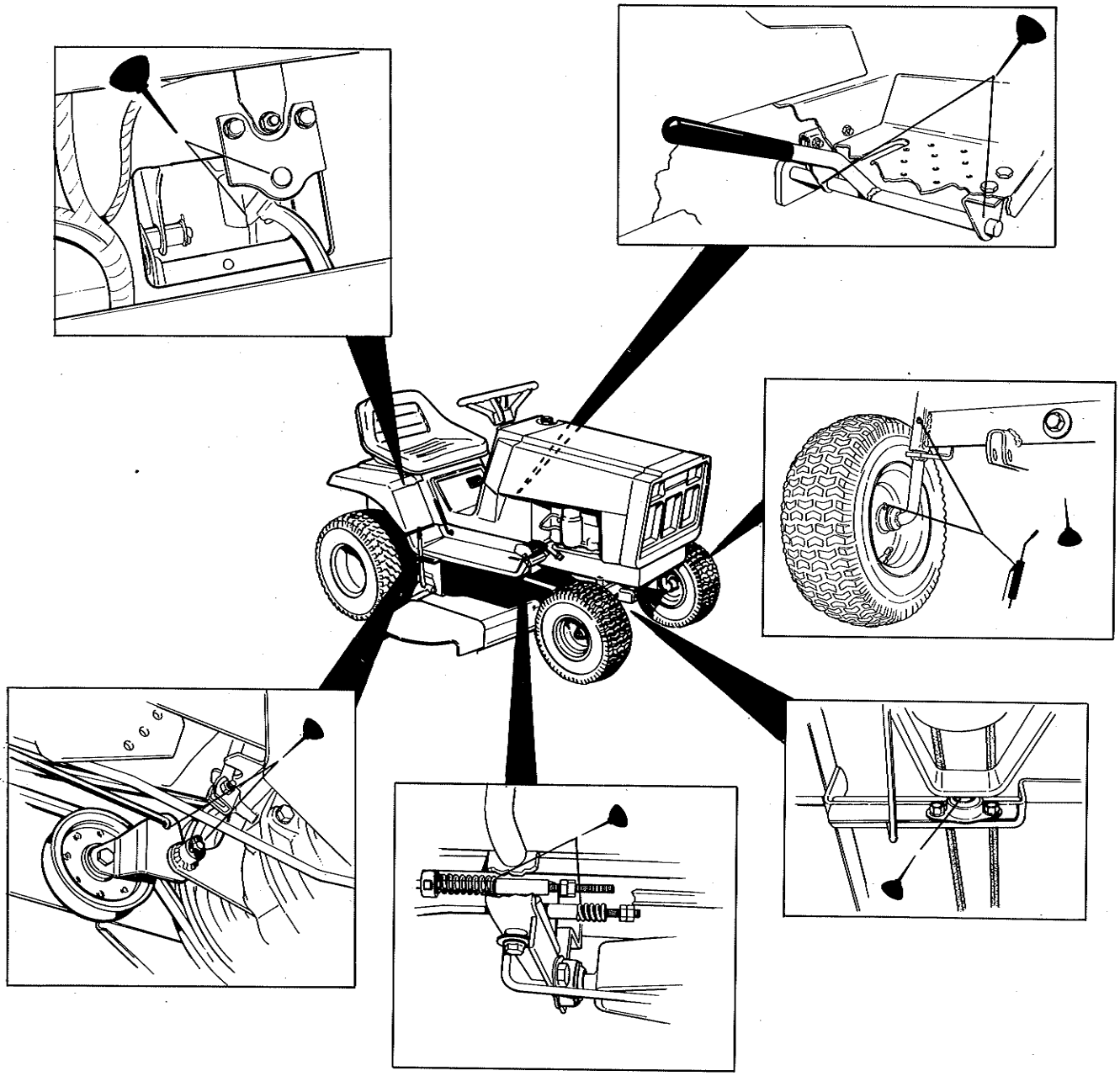


Figure 15. Change Engine Oil (25-Hour Care)



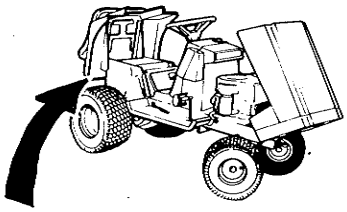
NOTE: Keep grease and oil off belts and pulleys.

Symbol	Use	Apply With	Procedure
	Lithium base automotive grease	Grease Gun	1. Wipe fitting clean with rag. 2. Apply 2 or 3 shots of grease. 3. Wipe up any excess grease.
	Medium weight (SAE 30) oil	Oil Can	1. Brush and wipe dirt and grass from area. 2. Apply a few drops of oil. 3. Wipe up any drips or spills.

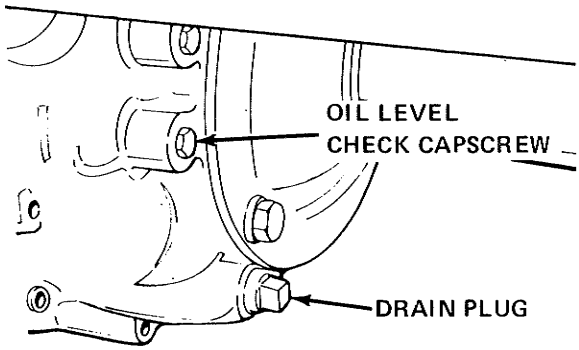
Figure 16. Lubricate Tractor (25-Hour Care)

NOTE

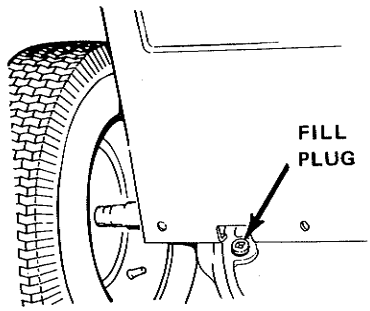
Allow 10 minutes after operation before checking transmission oil level.



1. Check transmission oil level.
   A. Remove transmission oil level check plug (checked at a capscrew at the rear of the transmission).
   B. Oil should be level with bottom of hole. If not, add SAE 90 transmission oil. Remove drawbar. Remove fill plug from transmission and add oil.
   C. When oil is level with check hole, replace and tighten capscrew and fill plug.



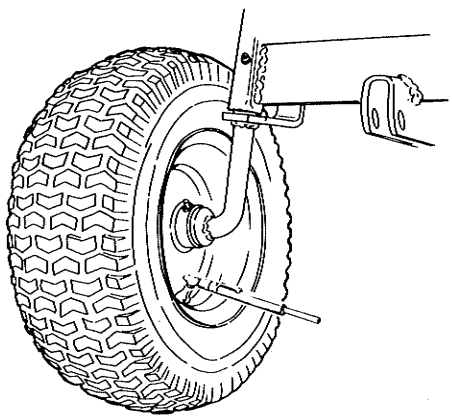
2. Check battery fluid level.
   A. Remove filler caps, one at a time.
   B. Fluid must be even with full mark at bottom ring. If not, add distilled water to refill.
   C. Install filler caps.



3. Check air pressure of all four tires.

FRONT TIRES
12-15 LBS.

REAR TIRES
6-8 LBS.



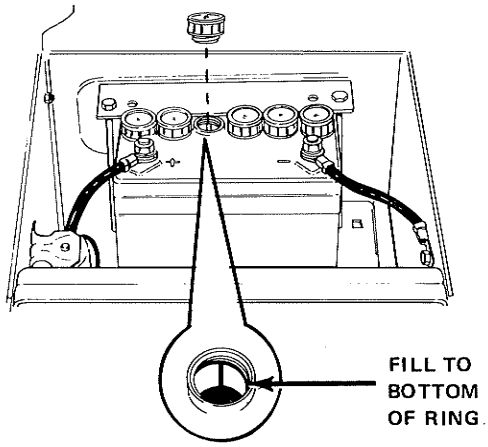
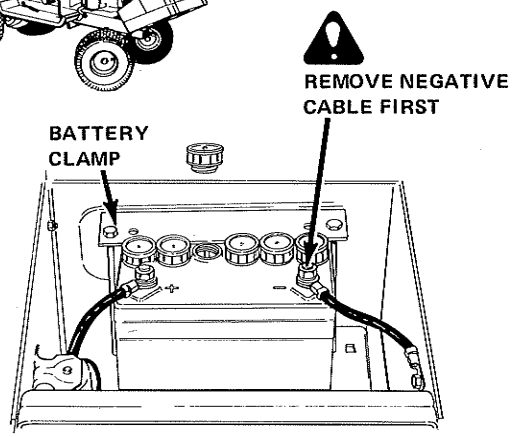


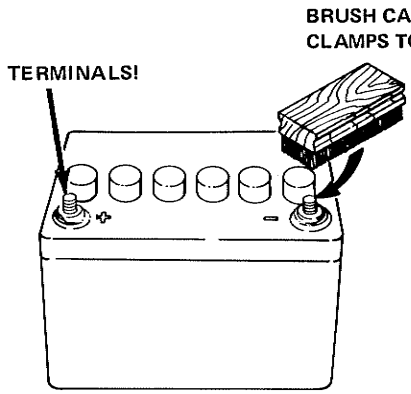
Figure 17. Check Fluid Levels and Tire Pressure

CAUTION

For your safety when removing or installing battery, always remove negative cable first, and replace it last.



1. Remove cables, negative cable first.
2. Remove clamp.
3. Remove battery.
4. Scrub battery, cables, and battery compartment. Use baking soda and water.
5. Clean battery posts and cable ends with wire brush.
6. Install battery and clamp.
7. Install cables, positive cable first.
8. Coat posts and cable ends with grease or petroleum jelly.



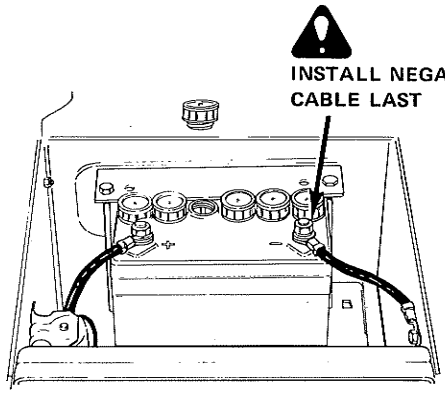
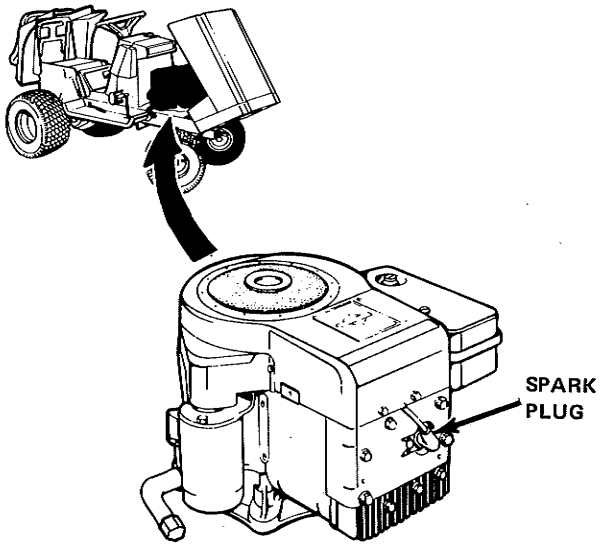


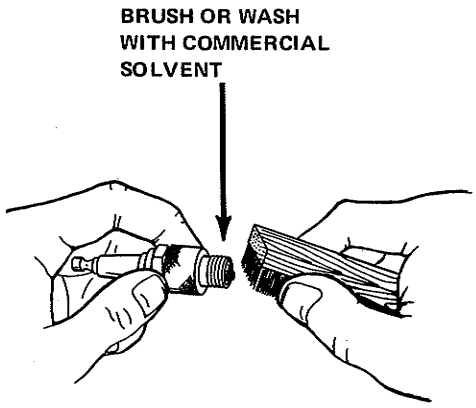
Figure 18. Clean Battery and Cables (100-Hour Care)



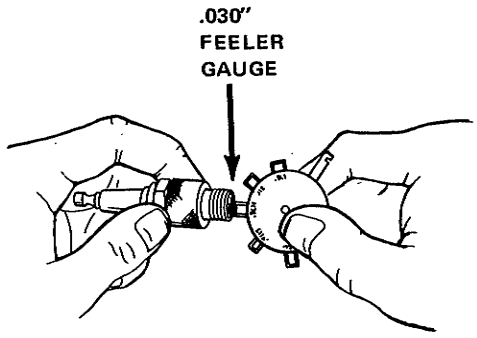
1. Remove spark plug.

NOTE

Do not clean spark plug by sand-blasting; sand or grit that remains on plug may damage engine.



2. Clean spark plug. If plug shows signs of defects, it should be replaced with a new plug.



3. Set gap at .030 inch (.76 mm).

4. Install spark plug in engine and reconnect wire.

Figure 19. Clean or Replace Spark Plug (100-Hour Care)

WARNING

Batteries contain a strong acid. Use care when handling or storing a battery to prevent an accidental spill of the battery acid. Battery fluid is a sulfuric acid solution which can cause serious personal injury or property damage. Do not allow battery fluid to contact skin, eyes, fabrics or painted surfaces.

7. Clean tractor thoroughly. Coat all exposed metal parts with a good quality paint (obtainable from your dealer) or a light film of grease or oil.
8. At end of storage period, follow instructions in the "Starting after Storage" paragraph which follows.

STARTING TRACTOR AFTER STORAGE

Before starting the tractor after a period of off-season storage, perform the following:

1. Remove spark plug and wipe dry. Crank engine a few times to blow excess oil out of plug hole. Then reinstall the plug.
2. Fill fuel tank with fresh gasoline (unless a fuel stabilizer was used).
3. **Clean engine fins and air filter. (See figure 14).**
4. Check fluid levels and tire pressure. (See figure 17).
5. Replace battery, if removed. Be sure terminals and clamps are clean when reassembling. (See figure 18).
6. Start the engine outdoors or in a well ventilated area. Do not run engine at high speeds immediately after starting.

Hot Weather Operation

When operating the tractor at temperatures above 70°F pay particular attention to the following items to prevent damage.

1. Keep the engine cooling fins and fan screen clean and free of obstruction which would decrease air flow through the engine. See figure 14 for cleaning instructions.
2. Be sure that you are using the proper grade and weight of oil in the engine for the temperature at which the tractor is being used. Check the oil level each time you fill the fuel tank. DO NOT OVERFILL THE CRANKCASE — ENGINE OVERHEATING MAY RESULT.
3. Check the battery water level more frequently than every 25 hours which is recommended under normal conditions. High temperatures cause faster evaporation of water from the battery.

Cold Weather Operation

When the tractor is being used in temperatures below 30°F, check the following items closely:

1. Use the correct grade and weight of oil for the temperature conditions. Change the oil only when the engine is warm. If an unexpected temperature drop occurs when the engine is filled with summer oil, before starting the engine, move the tractor to a warm location until the oil will flow freely.
2. Use fresh fuel. Fill the fuel tank after each day's use to protect against moisture condensation.
3. Disengage the clutch when starting the engine.

Dusty Operating Conditions

When the tractor is operated in dusty or dirty conditions check the following items closely:

1. Keep the engine fins and cooling fan screen clean and free of materials which will decrease air flow.
2. Service the air cleaner more frequently. Clean it as often as necessary to allow air to flow to the carburetor freely.
3. Change the engine oil more frequently. The oil should be changed more often than every 25 hours as is recommended under normal conditions. Change every 10 operating hours.

MOWER SCHEDULED CARE

A schedule for routine care of the mower is provided in figure 22. Some of the schedule requirements are based on operating hours. Total operating time for the mower can be determined in the same manner as tractor operating time, discussed earlier in this manual. Use the maintenance record at the end of this section to record operating hours, repairs, or servicing of the mower.

MOWER STORAGE

To protect your mower, store it in an enclosed dry area. To prepare the mower for off-season storage perform the following:

1. Remove mower from tractor. (Refer to procedure at front of manual).
2. Clean top and underside of mower to remove all grass and dirt.
3. Coat all bare metal surfaces with a good quality paint (available from your dealer) or a light coat of oil to prevent rusting.
4. Lubricate the mower. (See figure 20 or 21.)
5. Check, sharpen and balance the mower blades. (See figure 23.)

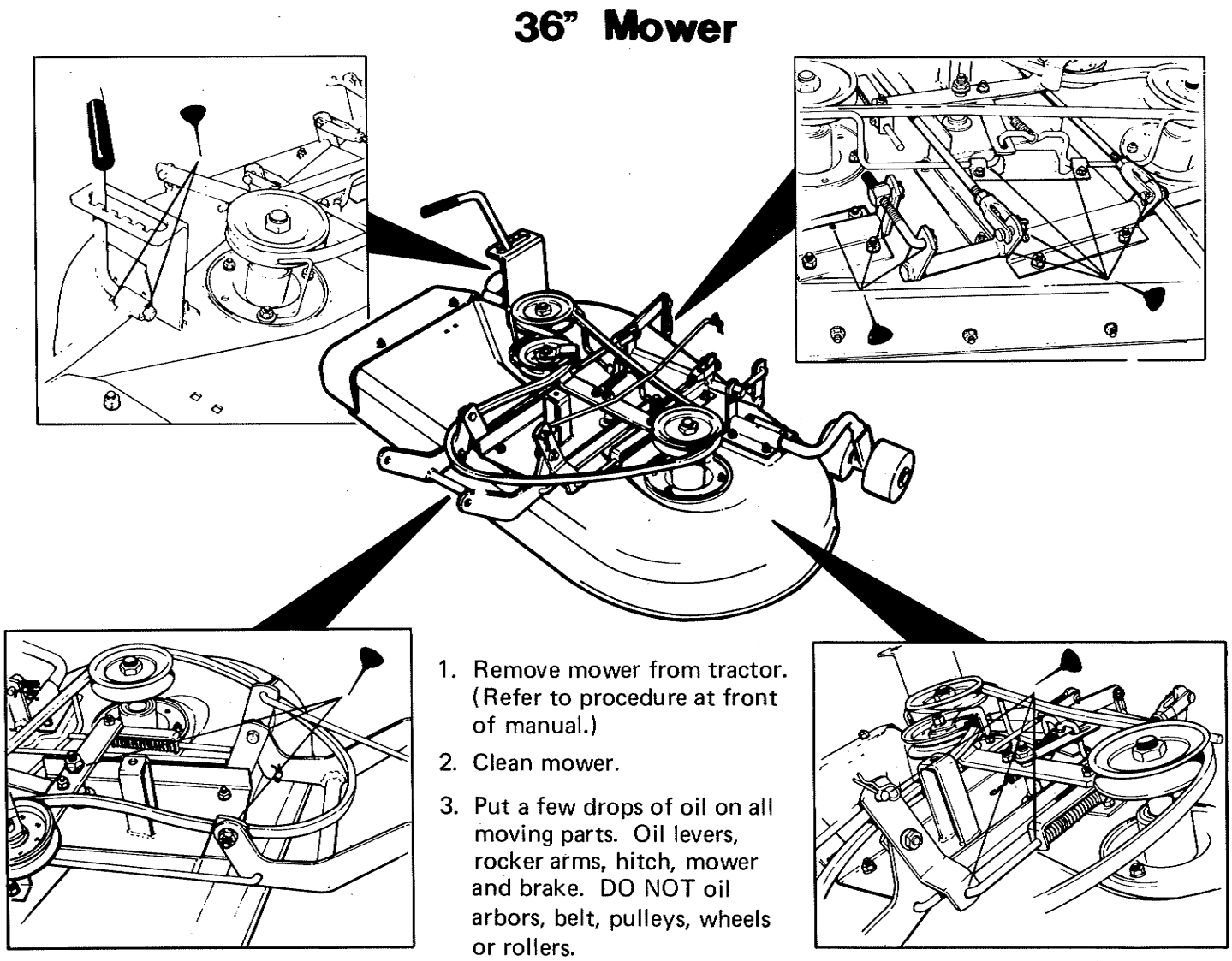
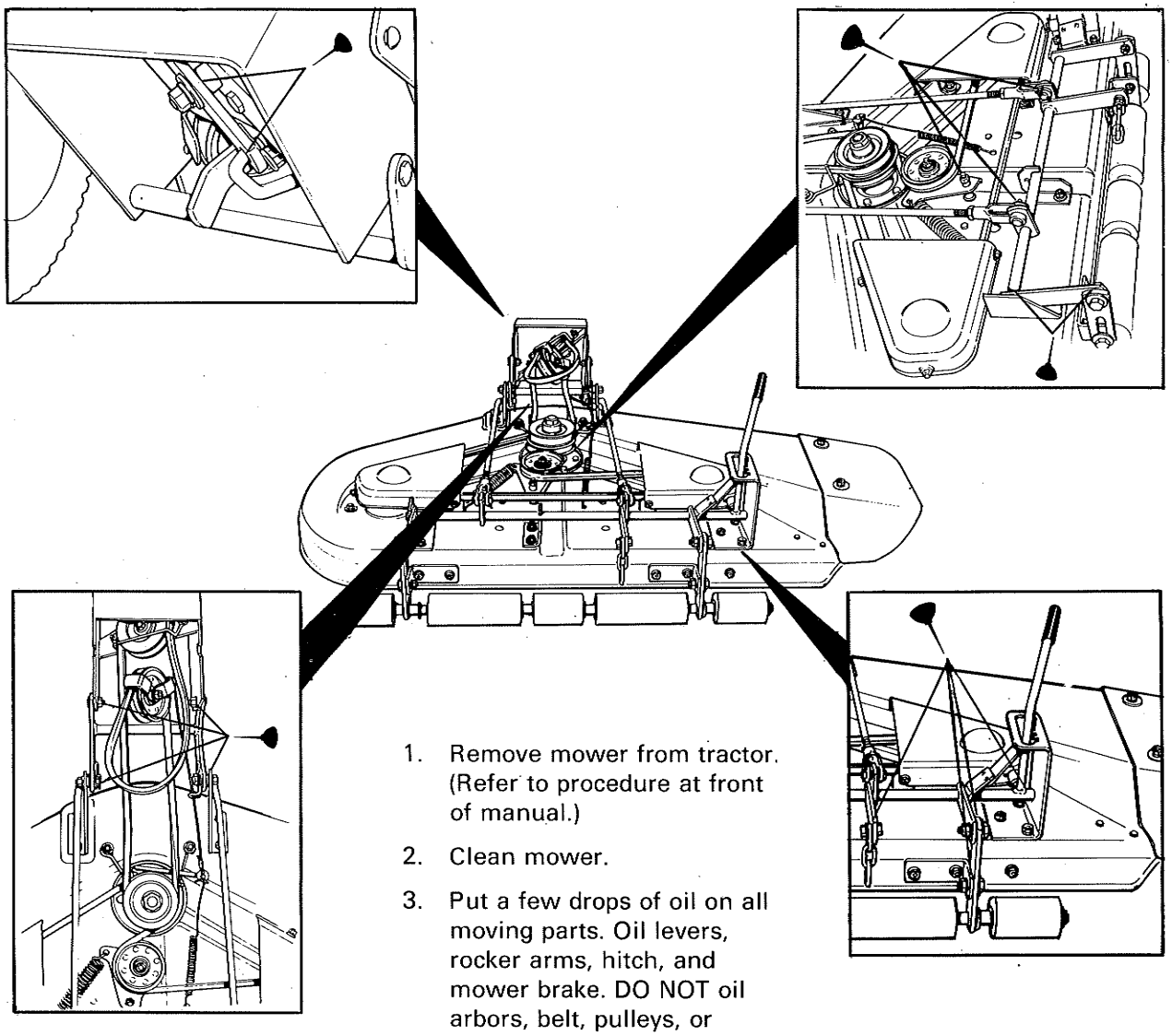


Figure 20. Lubricate Mower (25-Hour Care)

42" Mower



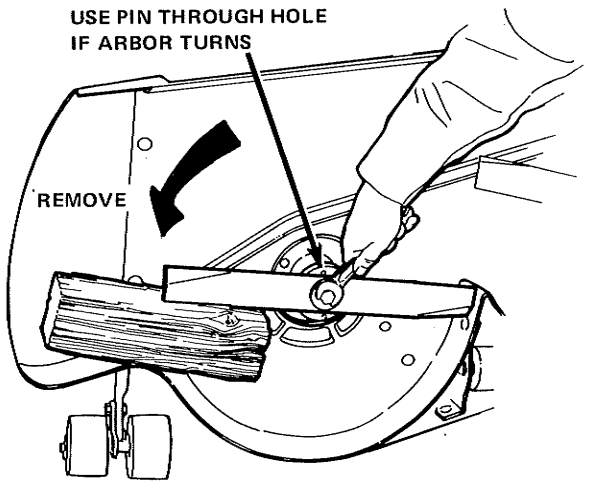
1. Remove mower from tractor. (Refer to procedure at front of manual.)
2. Clean mower.
3. Put a few drops of oil on all moving parts. Oil levers, rocker arms, hitch, and mower brake. DO NOT oil arbors, belt, pulleys, or rollers.

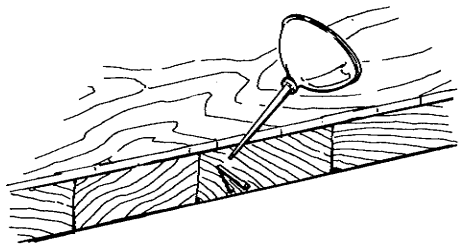
Figure 21. Lubricate Mower (25-Hour Care)

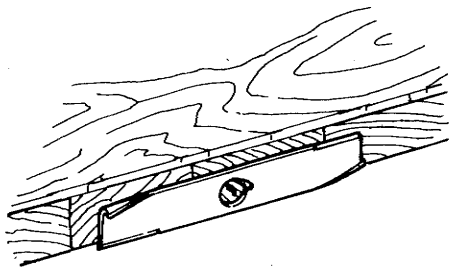
Care Required	See Figure	Schedule			
		Before Each Use	After Each Use	Every 25 Hours*	Yearly**
Check to be sure all exterior screws, nuts, bolts, and pins are present and secure.		•			
Clean top and underside of mower to remove grass and dirt accumulations.			•		
Lubricate mower.	20, 21			•	
Clean/sharpen blades.	23				•
*At least once a year. **More often under heavy use and immediately after striking any hard object.					

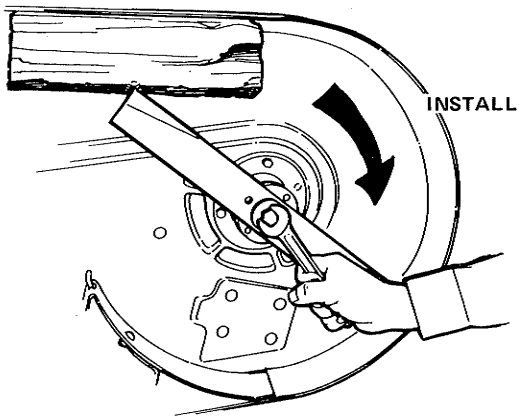
Figure 22. Summary of Scheduled Care

1. Remove mower from tractor (Refer to procedure in Mower Installation section).
2. Check each of the blades. Blades should be sharp and free of nicks and dents. If not, sharpen blades as described in remaining steps.
3. To remove blade for sharpening, use wooden block to hold blade while removing the holddown screw and washer(s).
4. Use a file to sharpen blade to fine edge. Remove all nicks and dents in blade edge. If blade is severely damaged, it should be replaced.
5. Check blade balance, either by using a blade balancing machine or by using the following method:
   A. To roughly check blade balance, hammer the point of a thin finishing nail into the edge of a work bench so that it is horizontal and able to hold the weight of the blade.
   B. Put a drop of oil on the nail to cut down friction and carefully place the blade on the nail so that the nail is on the centerline of the hole. Be sure the blade is not touching the work bench.
   C. If one side of the blade drops below the other, then the end that drops is too heavy.
   D. File or grind off a small amount of material from the heavy end, and recheck the blade for balance, being careful to position the blade so the nail is on the centerline of the hole.









CAUTION

Blade holddown screws must be installed with washers and securely tightened. Torque holddown screws to 50-60 foot pounds (68-81 N-M).

6. Install blade on arbor with tabs pointing up toward cover. Use wooden block to prevent blade rotation while installing and tightening blade holddown screw.

Figure 23. Check, Sharpen, and Balance Mower Blades

Troubleshooting

CONTENT OF SECTION

This section of the manual provides troubleshooting and repair instructions for the more common and easily corrected problems. For other problems, it is recommended that you contact your dealer.

WARNING

To avoid serious injury, perform maintenance on the tractor or mower only when the engine is stopped. Always remove the ignition key before beginning the maintenance to prevent accidental starting of the engine.

TROUBLESHOOTING PROCEDURES

Troubleshooting procedures are provided in figure 24. To use these procedures, first locate the problem description that best describes the trouble that you have encountered. Check the possible causes one at a time in the order that they are listed. Correct any problems that are found and try to operate the tractor or mower again to see if you have eliminated the trouble.

Problem	Cause/Remedy
1. Engine will not start.	A. Gear shift lever not in neutral position.
	B. PTO clutch lever not in disengaged position.
	C. Out of fuel. Refill fuel tank.
	D. Engine flooded. Set engine control to SLOW and attempt to start.
	E. Circuit breaker tripped. Wait one minute.
	F. Battery terminals are corroded and require cleaning.
	G. Battery discharged or dead. Recharge or replace as necessary.
	H. Wiring loose or broken. Visually check wiring and replace broken or frayed wires. Tighten loose connections.
	I. Solenoid or starter motor faulty. May need replacement.
	J. Safety interlock switch or relay faulty. Replace if needed.
	K. Spark plug or points faulty, fouled, or poorly gapped.
	L. Water in fuel. Drain fuel and refill with fresh fuel.
	M. Old stale gas. Drain fuel and replace with fresh fuel.
2. Engine starts hard or runs poorly.	A. Fuel mixture too rich. Move throttle control out of choke position. Clean air filter.
	B. Carburetor adjusted incorrectly.
	C. Spark plug or points faulty, fouled, or poorly gapped.

Figure 24. Troubleshooting Procedures

Problem		Cause/Remedy
3. Engine knocks.	A.	Low oil level. Check/add oil as required.
	B.	Using wrong grade of oil.
	C.	Engine worn, needs maintenance.
4. Excessive oil consumption.	A.	Engine running too hot. Clean engine fins, blower screen, air cleaner and breather valve.
	B.	Using wrong weight of oil.
	C.	Too much oil in crankcase.
	D.	Engine worn, needs maintenance.
5. Engine exhaust is black or smoky.	A.	Dirty air filter. Clean air filter.
	B.	Choke not fully open. Move throttle control out of choke position and be sure it opens fully; check carburetor adjustment.
6. Engine runs, but tractor will not drive or lacks power.	A.	Transmission not in gear.
	B.	Drive belt slips. (See problem and causes below.)
7. Drive belt slips.	A.	Clutch free-travel or belt tension is incorrectly adjusted.
	B.	Belt stretched or worn. Replace with correct belt.
	C.	Clutch rod binding in guide; oil clutch rod.
8. Brake will not hold.	A.	Brake is incorrectly adjusted. See Adjustments section.
	B.	Brake lining worn and requires replacement. See your dealer.
9. Tractor handles poorly.	A.	Steering linkage is loose. Tighten any loose connections.
	B.	Improper tire inflation. Check and correct.
	C.	Wheels are spinning and slipping. Use weights to provide additional stability and traction.
	D.	Moving too fast on slopes. Reduce speed.
TROUBLESHOOTING (MOWER)		
1. Mower will not raise.	**A.**	Lift chain not attached or broken.
2. Mower cut is uneven.	A.	Mower not leveled properly. Repeat leveling adjustment in mower adjustment section.
	B.	Tractor tires not inflated equally or properly.
3. Mower cut is rough looking.	A.	Engine speed too slow.
	B.	Tractor ground speed too fast.
	C.	Blades dull and require sharpening.
	D.	Mower drive belt slipping. Belt oily or worn. Clean or replace belt as necessary. Readjust belt tension.

Figure 24. Troubleshooting Procedures

Problem	Cause/Remedy
4. Engine stalls easily with mower engaged.	A. Tractor ground speed too fast.
	B. Engine speed too slow.
	C. Cutting height set too low when mowing tall grass. Cut tall grass at maximum cutting height during first pass.
	D. Discharge chute jamming with cut grass; cut grass with discharge pointing toward previously cut area.
5. Excessive mower vibration.	A. Blade mounting screws are loose; tighten to 50-60 foot-pounds of torque (68-81 N-m).
	B. Mower blades, arbors, or pulleys are bent and should be replaced.
	C. Mower blades are out of balance; remove, sharpen, and balance blades.
6. Excessive belt breakage occurs.	A. Belt tension too tight. Readjust belt tension.
	B. Bent or rough pulleys. Replace.
	C. Using incorrect belt.

Figure 24. Troubleshooting Procedures (Cont'd.)

Battery Replacement

A dead battery or one too weak to start the engine may not mean the battery needs to be replaced. It may, as an example, mean that the alternator is not charging the battery properly. If there is any doubt about the cause of the problem, see your dealer. If you need to replace the battery, proceed as shown in the battery cleaning procedure (figure 18).

Jump Starting With Auxiliary (Booster) Battery

Jump starting is not recommended. However, if it must be done, follow these directions. Both booster and discharged batteries should be treated carefully when using jumper cables. Follow exactly the procedure outlined below, being careful not to cause sparks:

WARNING

Never expose battery to open flame or electric spark — battery action generates hydrogen gas, which is flammable and explosive. Don't allow battery fluid to contact skin, eyes, fabrics, or painted surfaces — fluid is a sulfuric acid solution, which could cause serious personal injury or property damage when working with battery.

1. Set parking brake and place transmission in "NEUTRAL". Turn off lights and other electrical loads.

2. Remove vent caps from both the booster and the discharged batteries. Lay a cloth over the open vent wells of each battery. These two actions help reduce the explosion hazard always present in either battery when connecting "live" batteries to "dead" batteries.

3. Attach one end of one jumper cable to the positive terminal of the booster battery (identified by a red color, "+" or "P" on the battery case, post or clamp) and the other end of same cable to positive terminal of discharged battery. DO NOT permit vehicles to touch each other, as this could establish a ground connection and counteract the benefits of the procedure.

4. Attach one end of the remaining cable to the negative terminal (black color, "—" or "N") of the booster battery, and the other end to a bare metal surface on the frame of your tractor AWAY FROM the battery compartment (do not connect directly to negative post of dead battery). Take care that clamps from one cable do not inadvertently touch the clamps on the other cable. Do not lean over the battery when making this connection.

Reverse this sequence exactly when removing the jumper cables. Reinstall vent caps and throw cloths away as the cloth may have corrosive acid on it.

WARNING

Any procedure other than the above could result in: (1) personal injury caused by electrolyte squirting out the battery vents, (2) personal injury or property damage due to battery explosion, (3) damage to the charging system of the booster vehicle or of the immobilized vehicle.

Do not attempt to jump start a vehicle having a frozen battery because the battery may rupture or explode. If a frozen battery is suspected, examine all fill vents on the battery. If ice can be seen or if the electrolyte fluid cannot be seen, do not attempt to start with jumper cables as long as the battery remains frozen.

Drive Belt Replacement

The main drive belt may eventually require replacement. If it does, make sure the wear or breakage of the old belt is not due to pulley misalignment or burrs on the pulleys. Then replace the belt as follows:

1. Press the clutch-brake pedal down fully and engage the parking brake.
2. Loosen the belt stop from the frame idler pulley (figure 25). Remove the belt from the engine drive pulley.
3. Slip the belt off the transmission pulley and remove the belt from the tractor.
4. Replace the new belt on the tractor in the reverse order of the above steps, taking care to replace the idler pulley belt stop. The idler pulley belt stop should be positioned so that it is facing straight downward on the pulley (see figure 25).
5. Place tractor on level surface and run engine with clutch engaged and transmission in neutal for 5 minutes. Then check clutch-brake adjustment as outlined in the next section for proper adjustment.

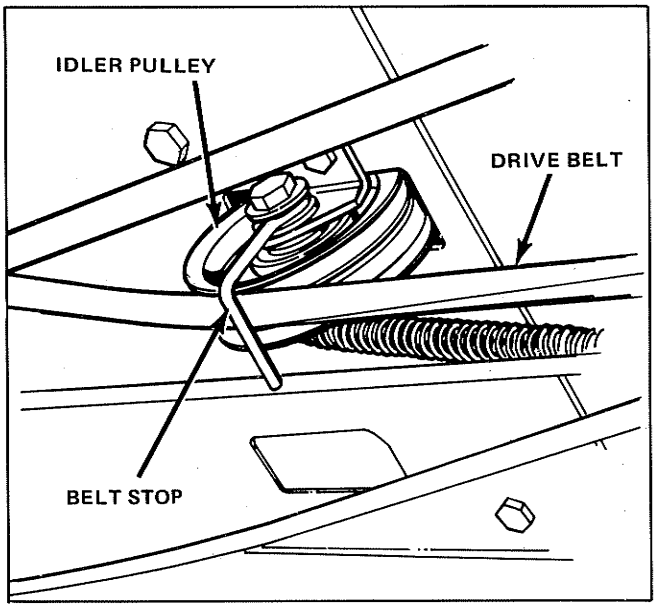


Figure 25. Drive Belt Replacement

36 Inch Mower Belt Replacement

To replace the 36 inch mower drive belt, proceed as follows:

1. Remove mower from tractor (see removal procedure in Mower Installation section of the manual).
2. Loosen the belt guide from the idler pulley on the PTO Idler Arm (see figure 26).
3. Remove belt from arbor pulleys. Replace with a new belt of the proper size and type, available from your dealer.

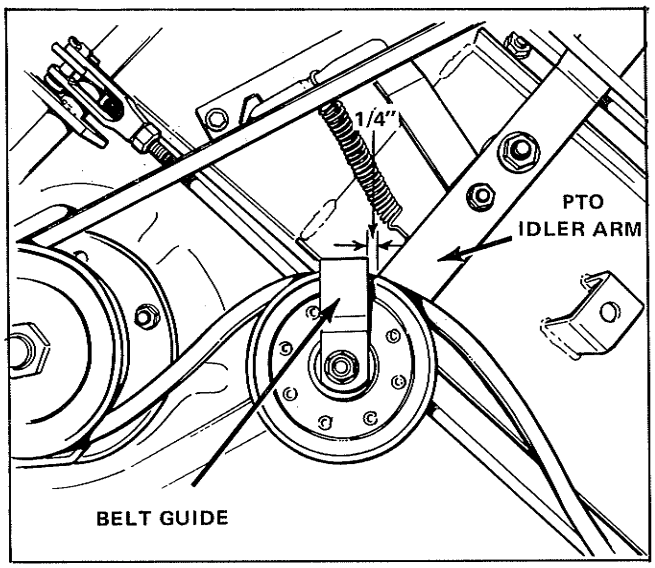


Figure 26. 36" Mower Belt Replacement

4. Place new belt on arbor pulleys and idler pulley, replacing belt stop on idler pulley. Before tightening nut on idler pulley belt guide, position the belt guide as shown in figure 26, so that it is 1/4 inch (6 mm) behind the idler arm when viewed from above.
5. Hold belt guide in the position shown while tightening nut to prevent belt guide from moving.
6. Replace mower on tractor (see Mower Installation section) and check PTO Tension Adjustment as outlined in the following section. Run the mower under no load conditions for about 5 minutes and recheck the PTO Tension Adjustment.

42 Inch Mower Drive Belt Replacement

To replace the main drive belt on the 42 inch mower, proceed as follows:

1. Remove mower from tractor (see Mower Installation section in this manual).
2. Loosen, but do not remove the two capscrews holding the front cover onto the mower hitch (Item A, figure 27). Remove front cover.

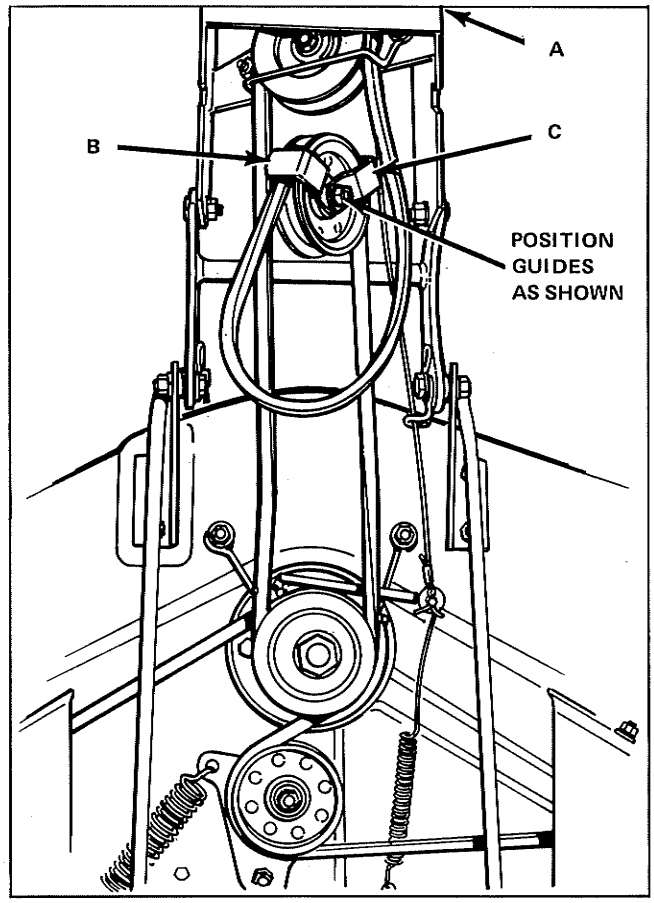


Figure 27. 42" Mower Belt Replacement

3. Remove the belt guides (items B and C).
4. Remove the old belt from center arbor pulley and the idlers. Replace with a new belt of proper size and type, available from your dealer. Make sure the belt is properly twisted, as shown in figure 27.
5. Replace belt guides (items B and C) on idler pulleys. Position belt guides as shown in figure 27.
6. Replace mower on tractor (see Mower Installation section) and check PTO Tension Adjustment as outlined in the following section. Run the mower under no load conditions for about 5 minutes and recheck the PTO Tension Adjustment.

42 Inch Mower Arbor Belt Replacement

To replace the arbor belt on the 42 inch mower, proceed as follows:

1. Remove mower from tractor (see Mower Installation section in this manual).
2. Remove the side arbor covers to gain access to the arbor pulleys (figure 28).
3. Slip the mower drive belt off the top groove in the center arbor pulley.
4. Pull the spring held idler pulley to release tension on the arbor belt, and remove the belt. Replace with a new belt of the proper size and type, available from your dealer.

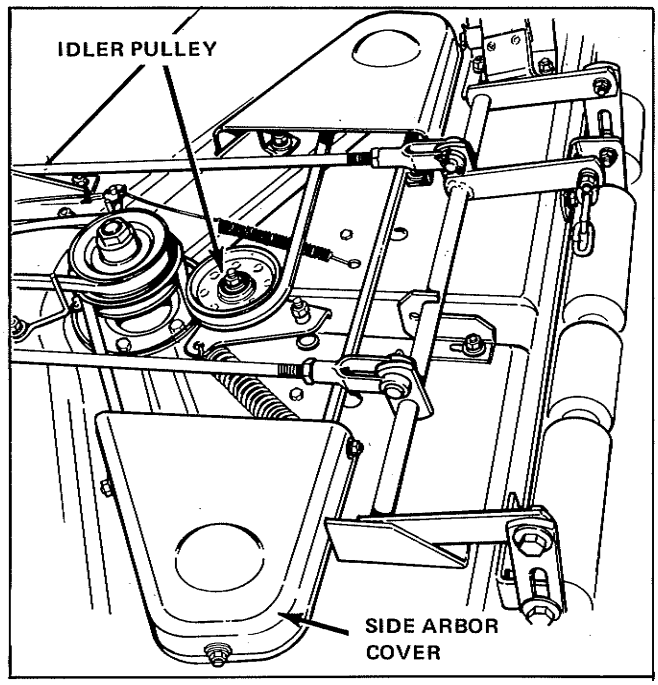


Figure 28. Arbor Belt Replacement

5. Replace the side arbor covers and the mower drive belt to the top groove in the center arbor pulley.
6. Check the positioning of the two front belt stops. Both belt stops should be 1/8 inch (3 mm) from the drive belt (figure 29).

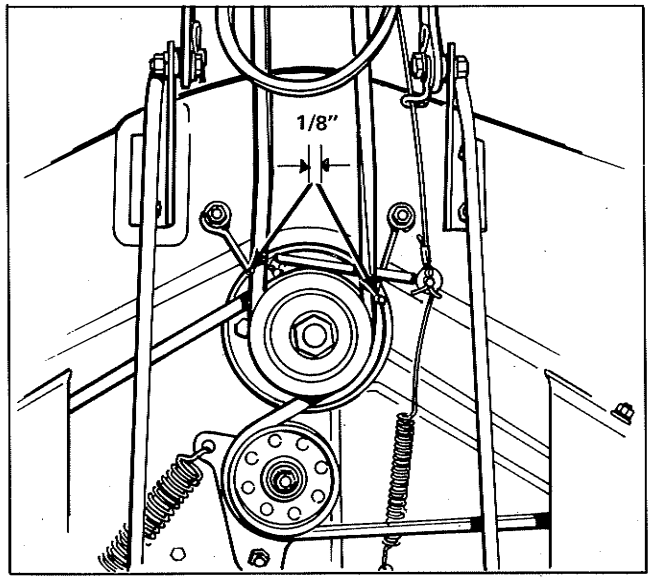


Figure 29. Arbor Belt Stop Position

Adjustments

CONTENT OF SECTION

This section of the manual contains adjustment procedures for the tractor, mower and engine. A simplified wiring diagram of the tractor (figure 44) is provided as an aid in locating electrical problems.

WARNING

To avoid serious injury, perform adjustment procedures on the tractor only when the engine is stopped. Always remove the ignition key before beginning the adjustment procedures to prevent accidental starting of the engine.

CLUTCH-BRAKE ADJUSTMENT

Correct adjustment of the clutch and brake mechanisms is vital to smooth machine motion and tractor braking. These adjustments also affect operation of the parking brake. The total adjustment procedure consists of three adjustments. These adjustments should be performed in the following order:

- Brake rod adjustment
- Clutch rod adjustment
- Clutch rod tension adjustment

Brake Rod Adjustment

1. With the tractor on a level surface, place the transmission in gear and release the parking brake. Grasp the brake rod (item A, figure 30) and push it firmly forward to seat the brake band on the drum.

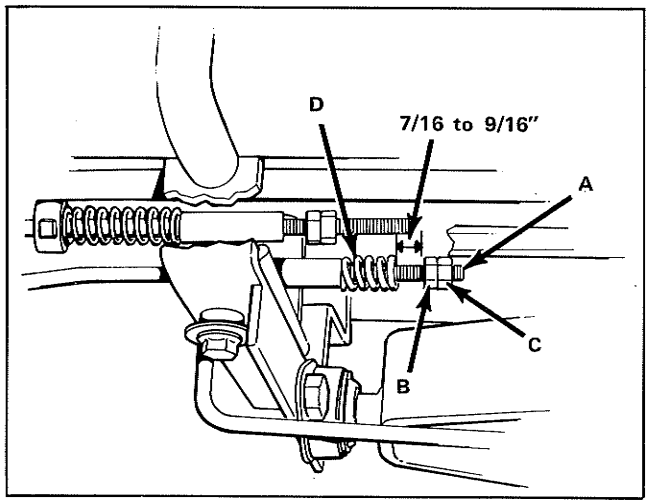


Figure 30. Brake Rod Adjustment

2. Measure the gap between the locking nuts (items B and C) and the spring (item D) on the brake rod. The gap should measure between 7/16 and 9/16 inch (11 to 14 mm).
3. If the gap is not between 7/16 and 9/16 inch, loosen the locking nuts (items B and C) on the end of the brake rod. Turn the nuts closer to or away from the spring to achieve the correct measurement.
4. Hold locking nut (item C) with a wrench while tightening the other locking nut (item B) to it when the correct measurement is reached.

Clutch Rod Adjustment

1. Make sure that the clutch-brake pedal remains released throughout the adjustment procedure.
2. Firmly press the clutch idler pulley (item A, figure 31) against the drive belt (item B) to take all slack out of the drive belt.

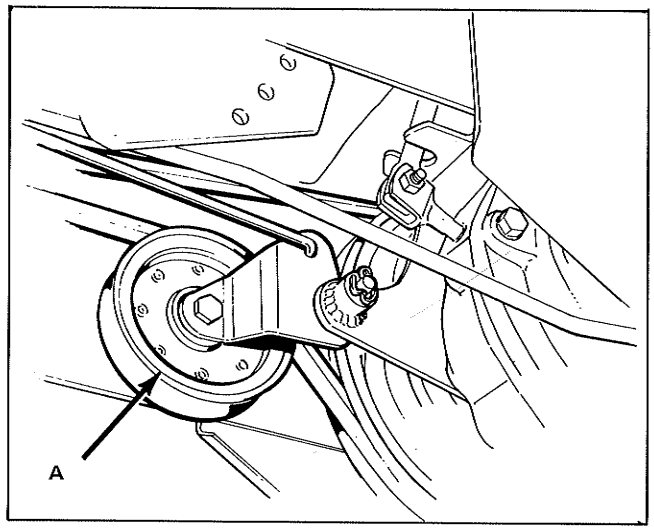


Figure 31. Clutch Rod Adjustment

3. Measure the gap between the adjusting nuts (items A and B, figure 32) and the rod guide (item C). The gap should be between 7/16 and 9/16 inch (11 to 14 mm) with the idler belt pressed firmly on the belt. If it is not, adjust as follows.
4. Loosen locking nut A from locking nut B. Turn locking nut B forward or back until the gap measurement is 7/16 to 9/16 inch. When the correct measurement is reached, hold locking nut B with a wrench while tightening locking nut A to it. Tighten locking nuts together, making sure locking nut B does not move.

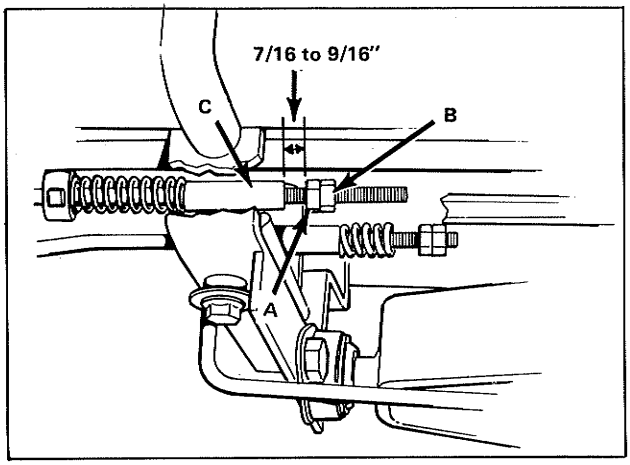


Figure 32. Clutch Rod Adjustment

Clutch Rod Tension Adjustment

1. Fully depress clutch-brake pedal and engage parking brake.
2. Loosen setscrew (item D, figure 33) in collar. Move the collar forward or backward so that the clutch rod spring is compressed from 7/16 to 1/2 inch (11 to 13 mm).
3. With the clutch rod spring compressed 7/16 to 1/2 inch, tighten setscrew in collar.

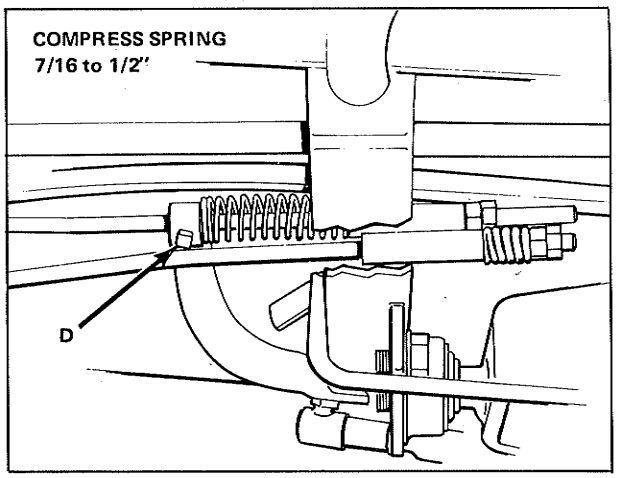


Figure 33. Clutch Rod Tension Adjustment

WARNING

To avoid serious injury, perform maintenance on the tractor or mower only when the engine is stopped. Always remove ignition key before beginning the maintenance to prevent accidental starting of the engine.

Drive Belt Stop Adjustment

If the main drive belt does not stop when the clutch-brake pedal is depressed, the belt stops may need adjustment (see figure 34). The belt stops should be adjusted so there is a 1/16 (1.5 mm) gap between the belt stop and the belt when the belt is tight (clutch engaged). To adjust a belt stop, loosen the bolt that secures it and move the belt stop slightly before retightening the bolt. Then recheck the adjustment. Bolt should be torqued to 25 ft./lbs.

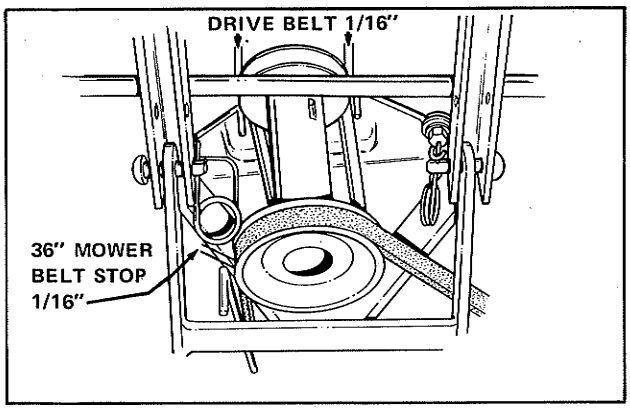


Figure 34. Drive Belt Stop Adjustment

36 INCH MOWER ADJUSTMENTS

The following adjustments are for the 36 inch mower. Proper mower adjustment is necessary for efficient and safe mower operation.

Drive Belt Tension Adjustment

If the mower slips or fails to drive, the mower belt tension may need adjustment. To check for proper adjustment, lower the mower, place the PTO lever in the engaged position. Then measure the gap between the rod guide (item A, figure 35) and the set collar (item B). The gap should be 3/8-1/2 inch (10 -13 mm). If it is not, perform adjustment as follows:

1. Place the PTO lever in the disengaged position.
2. Loosen the setscrew (item C) in the set collar (item B).
3. Move the set collar on the PTO rod slightly forward to increase the gap, slightly rearward to decrease the gap.
4. Retighten setscrew (item C).
5. Repeat the measurement of the gap and the adjustment until the gap measures 3/8 -1/2 inch (10-13 mm).

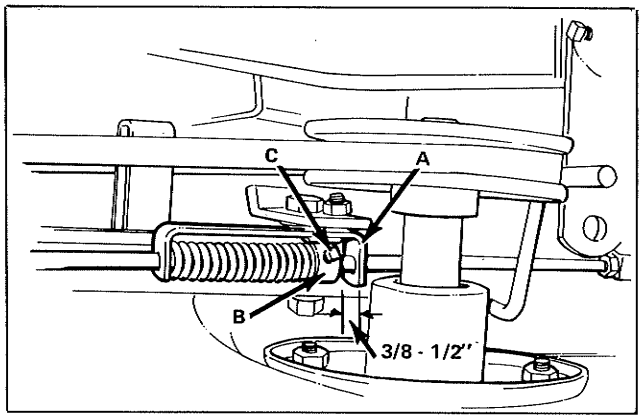


Figure 35. Drive Belt Tension Adjustment

Mower Belt Stop Adjustment

The belt stop holding the mower drive belt on the lower engine pulley should be adjusted for 1/16 inch (1.5mm) clearance between the belt and belt stop when the mower clutch is engaged. See figure 34.

Right Arbor Belt Stop

The right arbor belt stop should be adjusted so that it is 1/8 inch (3 mm) from the belt with the PTO engaged (see figure 36). If it is not, loosen the nut and lockwasher and move the belt stop until the 1/8 inch clearance is reached. Then retighten the nut while holding the belt stop from moving.

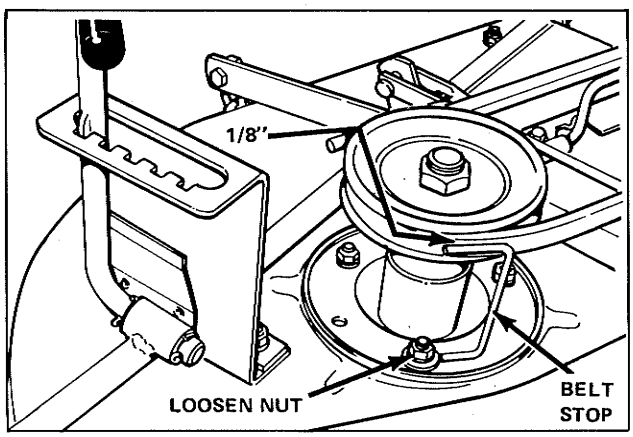


Figure 36. Right Arbor Belt Stop Adjustment

Idler Pulley Belt Guide

The idler pulley belt guide is correctly adjusted when its edge is 1/4 inch (6 mm) from the edge of the PTO idler arm (see figure 37). If it is not, loosen the nut and lockwasher holding on the belt guide and move the belt guide to its proper position. Hold the belt guide from moving while retightening the nut.

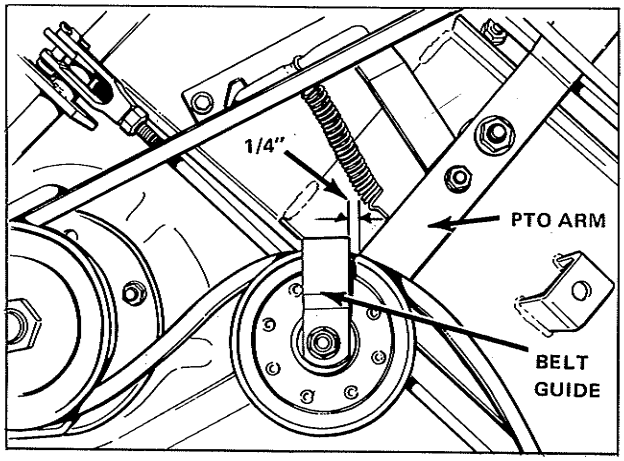


Figure 37. Idler Pulley Belt Guide Adjustment

Leveling 36" Mower

If the 36" mower is giving an uneven cut, or if one side of the mower cuts at a different height than the other side, then the mower needs leveling. To level the mower, proceed as follows:

WARNING

To avoid serious injury, perform maintenance on the tractor or mower only when the engine is stopped. Always remove the ignition key before beginning the maintenance to prevent accidental starting of the engine.

1. Mount the mower on the tractor and place it on a level, smooth surface, such as a concrete floor.
2. Check for bent blades, and replace if necessary.
3. With the mower clutch disengaged and the key removed from the ignition switch, arrange the mower blades so that they are both pointing from side to side, perpendicular to the tractor.
4. Measure the distance between the outside tips of each blade and the ground. If there is more than 1/8 inch (3 mm) difference between the measurements on each side, proceed to step 5.
5. Remove the cotter pin holding on the mower leveling rod (figure 38), and shorten the rod to raise the left side of the mower, and lengthen the rod to lower the left side of the mower. Put the leveling rod back in its hole and recheck the measurements. When both sides are the same height, replace the cotter pin in the leveling rod.

6. Arrange the blades so that they are facing front to back, parallel with the tractor.
7. Measure the distance to the ground from the front tip of the left blade and the rear tip of the right blade. The measurements should be equal. If they are not, proceed as follows:
8. Remove the cotter pins and pins from the hitch clevises (figure 38). Turn each clevis an equal number of turns in the same direction, shortening the hitch rods to raise the front of the mower, and lengthening the hitch rods to lower the front of the mower.
9. Replace pins through clevises and rear suspension arm and recheck measurements. When the mower is level replace and spread cotter pins, and tighten nuts against clevises.

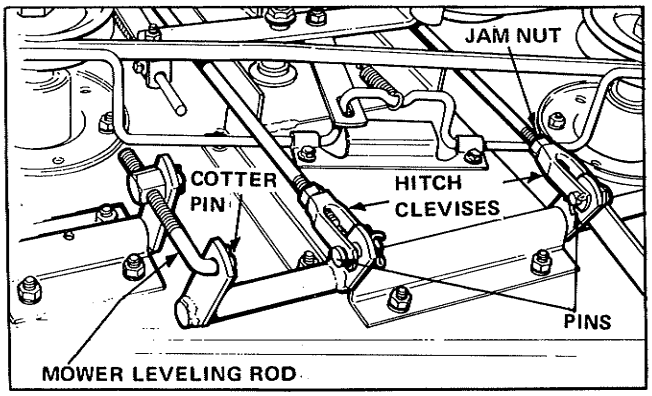


Figure 38. Leveling Mower

42 INCH MOWER ADJUSTMENTS

The following adjustments are for the 42 inch mower. Proper adjustment is necessary for safe and efficient operation.

Drive Belt Tension Adjustment

If the mower slips or fails to drive, the mower belt tension may need adjustment. To check for proper adjustment, lower the mower, place the PTO lever in the engaged position. Then measure the gap between the rod guide (item A, figure 39) and the set collar (item B). The gap should be 1/2 - 5/8 inch (13 - 16 mm). If it is not, perform the adjustment as follows:

1. Place the PTO lever in the disengaged position.
2. Loosen the setscrew (item C) in the set collar (item B).
3. Move the set collar on the PTO rod slightly forward to increase the gap, slightly rearward to decrease the gap.
4. Tighten setscrew (item C) in verticle position.

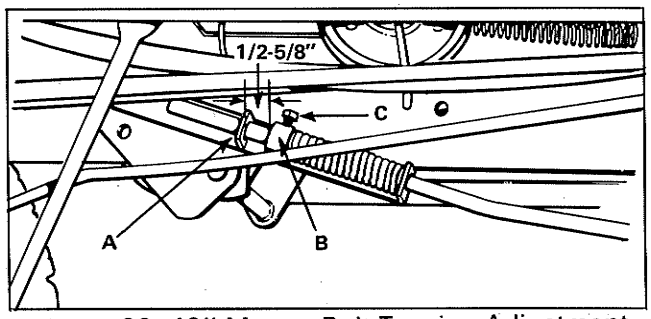


Figure 39. 42" Mower Belt Tension Adjustment

5. Repeat the measurement of the gap and the adjustment until the gap measures 1/2 - 5/8 inch (13 - 16 mm).
6. If because of wear the drive belt has stretched to the point where the flat clutch idler contacts the front V idler when the PTO is engaged, the front V idler can be moved forward.
7. Loosen the nut on V idler and move forward in slotted hole. Be sure V idler does not rub against the front hitch. Retighten nut.

Center Arbor Belt Stops

The center arbor belt stops are correctly adjusted when they are 1/8 inch (3 mm) from the belt when the PTO is engaged (see figure 40). If they are not properly adjusted, loosen the nut and lockwasher holding on the belt stop and move the belt stop to the proper position. Retighten the nut while holding the belt stop to keep it from moving out of position.

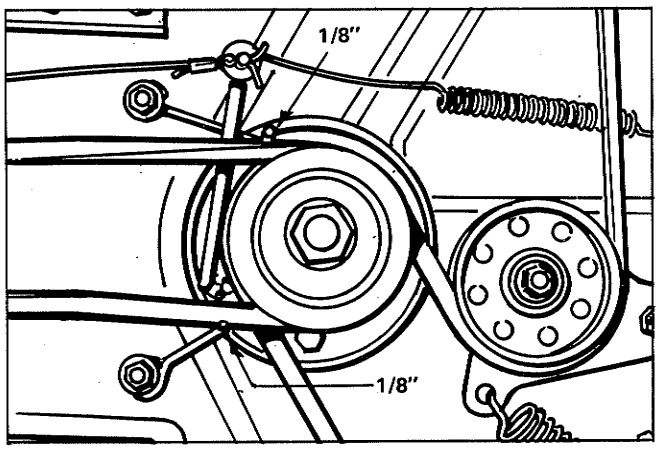


Figure 40. Belt Stop Adjustment

Mower Pitch Adjustment

For smoothest mowing results, the 42 inch mower should be adjusted so that the front tip of the center blade is 1/8 to 1/4 inch (3 to 6 mm) higher than the rear tips of the left and right blades. To check, follow these steps:

1. Place the tractor, with the mower mounted, on a smooth, level surface. Place the mower in the highest cutting position, and place the mower lift lever in the lowered position.
2. Move the blades so that they are pointing forward and back.
3. Measure the distance from the front tip of the center blade to the ground, and note that measurement. (See figure 41).

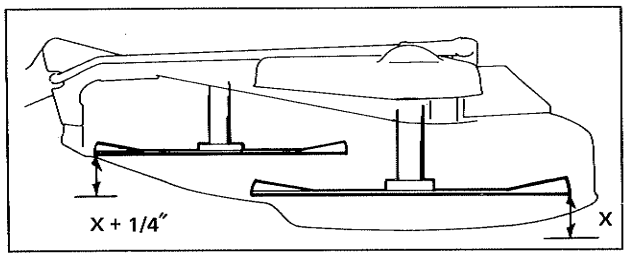


Figure 41. Leveling 42" Mower

4. Measure the distance to the ground from the rear tips of the left and right blades. Compare these measurements with the measurement from the front tip of the center blade. The front tip of the center blade should be 1/4 inch (6 mm) higher than the rear tips of the side blades (figure 41).
5. If adjustment is needed, remove the pins holding the bail assembly turnbuckles to the height adjustment arm (see figure 42). Loosen locking nuts on turnbuckles.
6. Turn both turnbuckles the same number of turns, shortening the bail arms to raise the front of the mower and lengthening the bail arms to lower the front of the mower.

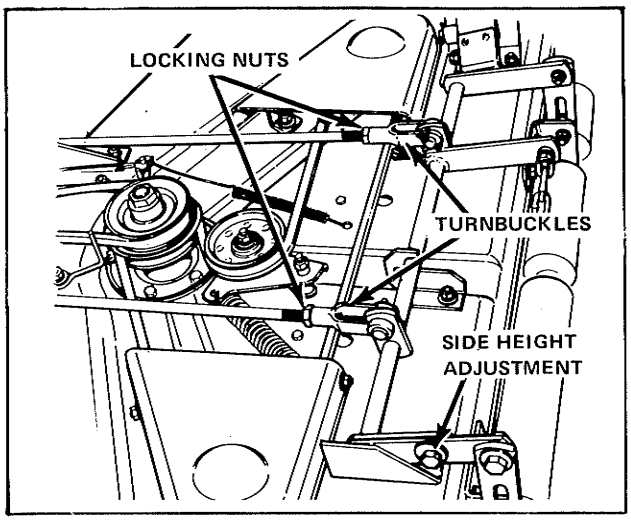


Figure 42. Leveling 42" Mower

7. Replace pins through turnbuckles and height adjustment arm and recheck measurements. When the proper measurement is reached, replace the cotter pins through the pins and tighten the locking nuts to the turnbuckles.

Side-to-Side Leveling

1. To check for side-to-side levelness on the 42" mower, position the blades so they are pointing side-to-side. Then measure the distance from the outside tips of the side blades to the ground when the mower is on the tractor and on a level surface
2. If the difference between the two measurements is greater than 1/8 inch (3 mm), loosen the capscrew in the slotted hole on the left rocker arm (see figure 42).
3. Level the outside tips to within 1/8 inch and retighten the capscrew. Recheck and level again if necessary.

Mower Belt Stop Adjustment

The belt stop holding the 42" mower drive belt onto the lower engine pulley should be adjusted for 1/16 to 1/8 inch (1.5 to 3mm) clearance between the pulley and the belt stop when the mower clutch is engaged. If not, loosen the belt stop screw, position the belt stop, and retighten the screw while holding the belt stop in place. (See figure 43).

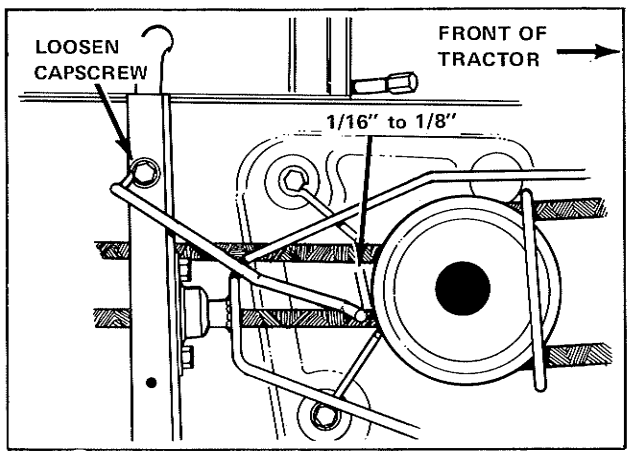


Figure 43. 42" Mower Belt Stop

Seat Adjustment

The seat may be moved forward or backward to suit different size operators. To move the seat, proceed as follows:

1. Raise the seat deck by lifting the latch on the left side of the seat. (See figure 44.)
2. Loosen the two handles (figure 44) that secure the seat to the seat deck.

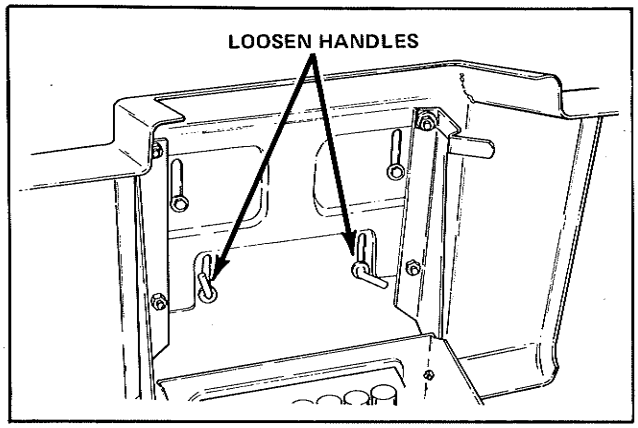


Figure 44. Seat Adjustment

3. Move the seat forward or backward as desired.
4. Tighten the handles to hold the seat in place.

Raising Tractor Hood

To raise the tractor hood, pull the sides of the hood outward, and raise the hood upward and forward until it rests in its raised position.

CAUTION

To prevent injury, take care that the hood or seat is not accidentally tipped back while working on or near the tractor.

Wiring Diagram

A wiring diagram is provided in figure 45 to aid in troubleshooting and repair of electrical problems.

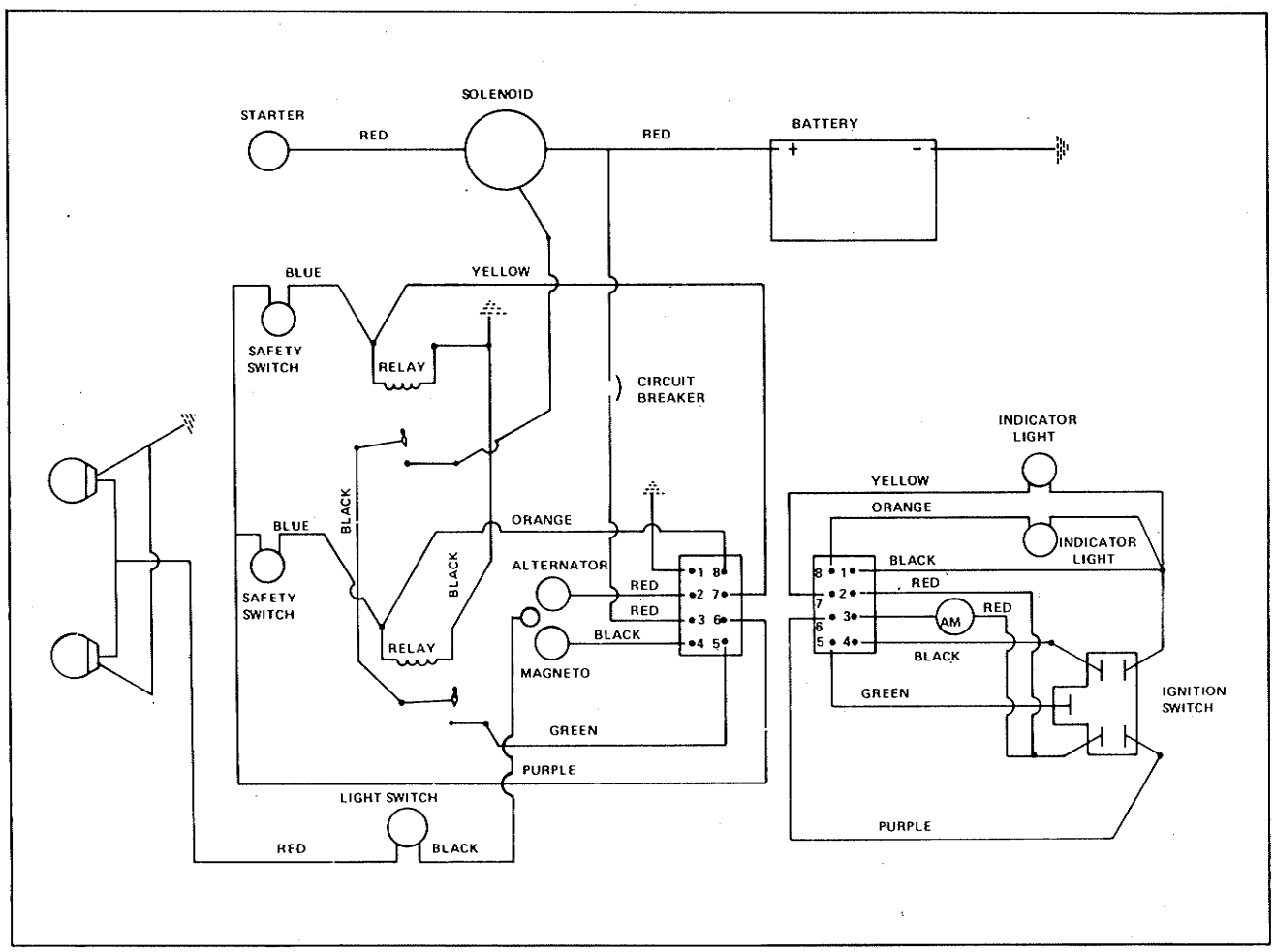


Figure 45. Wiring Diagram

Specifications

ENGINE	MAKE: BRIGGS AND STRATTON, SYNCHRO-BALANCED	6010	6008
		MODEL NO: 251707	MODEL NO: 191707
		HORSEPOWER:10@3600 r.p.m.(7.46kw)	HORSEPOWER: 8 @3600 r.p.m (5.97 kw)
		CYCLES: 4	CYCLES: 4
		CYLINDERS: 1	CYLINDERS: 1
		BORE: 3-7/16 Inches (87 mm)	BORE: 3 Inches (76 mm)
		STROKE:2 - 5/8 Inches (67 mm)	STROKE: 2 -3/4 Inches (70 mm)
		DISPLACEMENT: 24.36 Cu.In. (399 cc)	DISPLACEMENT: 19.44 Cu.In. (319 cc)
		CRANKSHAFT: Vertical	CRANKSHAFT: Vertical
	Electrical System	Dual Circuit Alternator, D.C. Charging Circuit, A.C. Light Circuit	
		6010 – 12 Volt – 39 Amp. Hr. Automotive Battery	
		6008 – 12 Volt – 32 Amp. Hr. Automotive Battery	
	Ammeter	Key Ignition	
		STARTER: 12 Volt Gear Drive	
		Dual Headlights	
		Separate Indicator Lights for Safety Interlock Switches	
	Ignition	TYPE: Flywheel Magneto w/Key Switch	
		Dust Proof Breaker Enclosure Under Flywheel	
	Governor	TYPE: Adjustable, Mechanical, Running in Oil	
		RANGE: 1750 to 3400 R.P.M. (approx.)	
	Air Cleaner	Sealed Joint Housing, Oilded Foam Element	
		ELEMENT: Reusable Polyurethane Foam	
	Crankcase	BREATHER: Ventilated through Carburetor	
		LUBRICATION: Gear Impeller System	
		6010 OIL CAPACITY: 3 Pints (1.4 L)	
		6008 OIL CAPACITY: 2 - 1/4 Pints (1.1 L)	
	Fuel Tank	MATERIAL: High Density Polyurethane	
		Fuel Level Gauge Built into Filler Cap	
		CAPACITY: 2.2 Gallons (8.4 L)	
	Muffler	Quiet Compact, Low Back Pressure	
TRANSAXLE	Type	All Spur Gear, Running in Oil Bath	
	Material	GEARS: Heat Treated	
		SHAFTS: Hardened and Ground	
		BEARINGS: Needle Type Roller	
	Lubrication	SAE 90 OIL CAPACITY: 1 Quart (.9 L)	
	Speeds	Three Forward, One Reverse	
	Speeds @3600 r.p.m.	6010	6008
		LOW: 1.0 Mph (1.6 kph)	LOW: .9 Mph (1.4 kph)
		SECOND: 2.5 Mph (4 kph)	SECOND: 2.3 Mph (3.7 kph)
		HIGH: 3.9 Mph (6.2 kph)	HIGH: 3.6 Mph (5.8 kph)
		REVERSE: 3.9 Mph (6.2 kph)	REVERSE: 3.6 Mph (5.8 kph)
	Differential	All Gear, Controlled Traction Type	
CHASSIS	Frame	Channel, Heavy Gauge Steel	
		POWER TAKE-OFF POINTS: Front and Rear	
		ENGINE MOUNTING: Above Front Axle	
	Rear Wheels	PIVOT POINT LOCATION: Front Axle	
		6010 TIRE SIZE: 20 x 8.00 – 10 Terra - Tread (Tubeless)	
		6008 TIRE SIZE: 18 x 9.50 – 8 Terra - Tread (Tubeless)	

CHASSIS (cont'd)	Rear Wheels (cont'd)	PNEUMATIC INFLATION PRESSURE: 6 to 8 P.S.I. (41-55 kPa)	
	Front Wheels	TIRE SIZE: 15 x 6.00 – 6	
		PNEUMATIC INFLATION PRESSURE: 12 to 15 P.S.I. (83-103 kPa)	
		BEARINGS: Sintered Iron with Grease Fittings	
	Accessibility	Hood Tips Forward, Seat Tips Back, for Accessibility	
	Seat	TYPE: Bucket, High Back	
		Adjustable to Suit Different Size Operators	
	Turning Radius	INSIDE REAR TIRE: 25 Inches (.635 mm)	
CONTROLS	Steering	Full Circle Steering Wheel	
		SYSTEM: Gear and Sector	
	Clutch And Brake Pedal	LOCATION: Right Front	
		CLUTCH: Soft Action, Touch-O-Matic V-Belt	
		BRAKE: External Band Type	
		Parking Brake Lock Foot Engaged	
	Location	MOWER LIFT LEVER: Right Side	
		POWER TAKE-OFF CLUTCH LEVER: Left Side	
		GEAR SELECTOR: Front Center of Seat	
		Ignition Key Switch	On Instrument Panel
		Light Switch	
		Throttle Lever Combined Choke Lever	
		Ammeter	
		PARKING BRAKE LOCK: On Clutch-Brake Pedal	
DIMENSIONS	Overall Length	6010 – 64.5 Inches (1638 mm) 6008 – 63.5 Inches (1613 mm)	
	Overall Width	6010 – 33.5 Inches (851 mm) 6008 – 35.1 Inches (889 mm)	
	Height	6010 – TO TOP OF STEERING WHEEL: 42 Inches (1067 mm)	
		6008 – TO TOP OF STEERING WHEEL: 39 Inches (991 mm)	
		TO TOP OF ENGINE COVER: 33 Inches (838 mm)	
	Wheel Base	45.5 Inches (1156 mm)	
	Shipping Weight With Mower	6010 – 590 Lbs. (268 kg) 6008 – 520 Lbs. (236 kg)	
MOWER	Effective Cutting Width	6010 w/42" Mower	6008 w/36" Mower
		42 Inches (1067 mm)	36 Inches (914 mm)
	Overall Width with Deflector	57 Inches (1448 mm)	46 Inches (1168 mm)
	Weight	123 Lbs. (55.8 kg)	76 Lbs. (34.5 kg)
	Variable Cutting Height	Between 1-1/2 and 3-1/2 In.	Between 1-1/2 and 3-1/2 In.
	Blade Arrangement	Three staggered blades	Two staggered blades
	Mower Drive	V-Belt from Tractor PTO Pulley	
	Spindle Bearings	Sealed, Rolling Contact	

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Maintenance Record

Date	Hours Used	Oil Change	Air Cleaner Service	Lubrication	Maintenance/Repair

PARTS MANUAL AVAILABLE FOR 6000 SERIES

You can order a parts manual for your tractor and for your attachments. Check the appropriate box below for the parts manual(s) you want, enclose the form with a check or money order made out to SIMPLICITY in an envelope, and send them to:

Simplicity Manufacturing Co.
500 N. Spring Street
Port Washington, WI 53074

Parts manual TP-359 contains tractors 6008 and 6010, and 36" and 42" mower.

Parts manual TP-360 contains:
36" Snow Thrower
42" Snow Plow and Dozer Blade and Hitch
Vacuum Collector and adaptor
Grass Catcher for 36" Mower
30" Tiller
Dump Cart and Cover
and all available accessories.

I would like a parts manual (TP-359) for my 6000 Series **tractor** and **mower.**
I am enclosing a check or money order for **$2.00.**

I would like a parts manual(TP-360)for my 6000 Series **attachments** and **accessories.** I am enclosing a check or money order for **$2.00.**

I would like parts manuals for both the 6000 Series **tractors** and **attachments** and **accessories.** I am enclosing a check or money order for **$4.00.**

NAME _____ Tractor No. _____

STREET OR RFD _____

CITY _____ STATE _____ ZIP _____

(Allow Two To Three Weeks For Delivery)

Send this form with your check or money order to:

SIMPLICITY MANUFACTURING CO.
ATTN: CUSTOMER PUBLICATIONS
500 N. SPRING STREET
PORT WASHINGTON, WI 53074