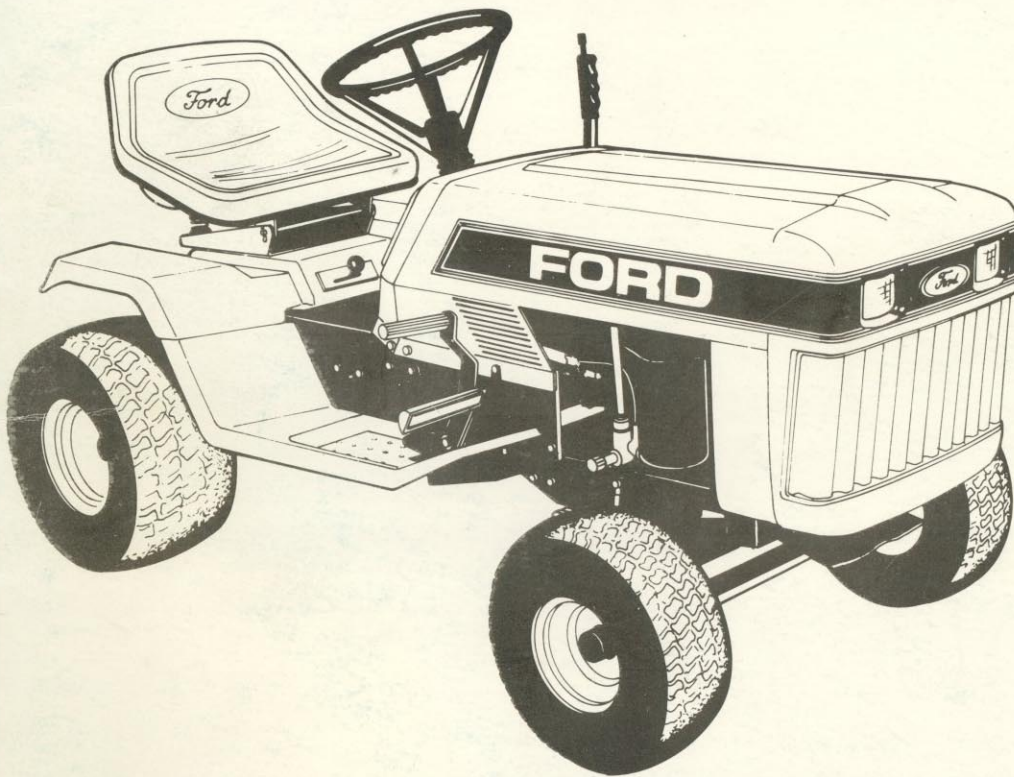


FORD

YT 16H
Yard Tractor
Model 9607432



OPERATOR'S MANUAL

INTRODUCTION

This operator's manual has been prepared to provide the information you need to correctly assemble, operate and maintain your unit. Read it carefully and keep it for future reference. Should you ever need repair parts or service, contact your authorized parts and service dealer.

Be sure safety precautions are observed. Read and follow all safety and operating instructions in this operator's manual.

Any references made in this manual concerning the right- or left-hand sides are determined with the operator facing forward in the operating position.

The replacement of any part on this product by other than the manufacturer's authorized replacement part may adversely affect the performance, durability or safety of this product.

The manufacturer reserves the right to make changes on, or add improvements to its product at any time without prior notice or obligation. The manufacturer also reserves the right to decide, upon its discretion and at any time, to discontinue a product.

NOTICE: A decal with the product model number and serial number of your unit is on the left side of the tractor frame/engine base assembly. Record these numbers in the spaces provided below. Engine model, type and code numbers are located on the engine blower housing, cylinder head shield or backplate.

Product Model No. _____

Product Serial No. _____

Engine Model No. _____

Engine Type No. _____

Engine Code No. _____

Dealer Purchased From _____

Date Purchased _____

Dealer Address _____

Dealer Telephone No. _____



TABLE OF CONTENTS

1 Safety Precautions	1.1-1.2	Secondary Traction Belt	5.5
2 Controls And Operation		Hydrostatic Drive	5.5
Safety Interlock System	2.2	Tow Valve Lever	5.5
Brake Clutch Pedal	2.2	Brake Cable/Parking Brake	5.6
Forward And Reverse Traction		Brake Pad	5.6
Drive Speed Control Pedals	2.2	Steering Gear	5.7
Ground Speed Control Lever	2.2	Electric P.T.O. Clutch	5.7
Choke Control	2.3	6 Electrical System	
Engine Speed Control	2.3	Battery-Electrolyte Level	6.1
P.T.O. (Power Take-Off) Switch	2.3	Cleaning The Battery	6.1
P.T.O. Warning Light	2.3	Battery-Jump Starting	6.1
Headlight Switch	2.3	Fuse	6.1
Ignition Switch	2.3	Safety Interlock System	6.1
Seat Adjuster Handle	2.3	7 Storage	7.1
Ammeter	2.3	8 Trouble Shooting	8.1
Parking Brake Latch	2.4	9 Wiring Diagram	9.1
Attachment Lift Lever	2.4	10 Set-Up And Assembly	
Tow Valve Lever	2.4	Hardware Bag Contents	10.1
Opening Hood	2.4	Battery	10.2-10.3
3 Trial Run		Steering Wheel	10.3
Seat Adjustment	3.1	Seat	10.4
4 Maintenance And Lubrication		Initial Servicing	10.5
Break-In Maintenance And Lubrication	4.1	11 Replacement Decals	
Daily Schedule	4.1	Safety	11.1
25 Hour Schedule	4.2	Standard	11.2
100 Hour Schedule	4.3-4.4	12 Optional Accessories	12.1
5 Adjustment And Servicing		13 Engine Information	
Rear Fender Seat Pan Removal	5.1	14 Owner Assistance	
Gas Tank Removal	5.2		
Primary Traction Belt	5.3		
Belt Diagram	5.4		

IMPORTANT: If decals are missing, illegible, or damaged, they should be replaced.

Notice to Customers in the State of California-The engine on this unit is **NOT** equipped with a spark arresting muffler.

IMPORTANT

USE OR OPERATION OF THIS ENGINE ON ANY FOREST COVERED, BRUSH COVERED, OR GRASS COVERED LAND WITHOUT A STATE APPROVED SPARK ARRESTER IN EFFECTIVE WORKING ORDER BY THE OPERATOR CONSTITUTES A VIOLATION OF THE LAW OF THE STATE OF CALIFORNIA, OTHER STATES MAY HAVE SIMILAR LAWS. FEDERAL LAWS APPLY ON FEDERAL LANDS.

1 SAFETY PRECAUTIONS

THE FOLLOWING PRECAUTIONS ARE SUGGESTED TO HELP PREVENT ACCIDENTS.

A CAREFUL OPERATOR IS THE BEST OPERATOR. MOST ACCIDENTS CAN BE AVOIDED BY OBSERVING CERTAIN PRECAUTIONS. READ AND TAKE THE FOLLOWING PRECAUTIONS BEFORE OPERATING THIS TRACTOR TO HELP PREVENT ACCIDENTS. EQUIPMENT SHOULD BE OPERATED ONLY BY THOSE WHO ARE RESPONSIBLE AND INSTRUCTED TO DO SO.

THE TRACTOR

- Know the controls and how to stop quickly. READ THIS OPERATOR'S MANUAL and instructions furnished with attachments.
- **DO NOT** modify or alter or permit anyone else to modify or alter this tractor or any of its components or any tractor function.
- **DO NOT ALLOW CHILDREN TO OPERATE THE VEHICLE. DO NOT** allow adults to operate it without proper instruction.
- **DO NOT CARRY PASSENGERS. DO NOT** mow when children and others are around. There is no safe place for extra riders.
- Keep all shields in place.
- Replace safety and warning decals when they become illegible.

FUEL USAGE SAFETY

- Handle gasoline with care. It is highly flammable. Only use approved gasoline container.
- **DO NOT** attempt to fill gas tank from fuel container unless the container spout or funnel fits inside the fuel tank filler neck. The use of too large a spout or funnel, or no funnel, may result in spilled gasoline, creating highly flammable gas vapors. This could result in fire and/or explosion, causing severe bodily injury.
- **NEVER** take the cap off or refuel when the engine is running or hot, allow engine to cool for several minutes before refueling.
- **DON'T SMOKE WHILE REFUELING OR ANYWHERE NEAR FUEL.**
- **DO NOT** store, spill or use gasoline near an open flame.
- When filling the tank, maintain control of the nozzle.
- **DON'T** fill fuel tank to capacity allow room for expansion.
- Wipe up any spills immediately.
- **ALWAYS** tighten the fuel tank cap securely.
- If the original equipment fuel tank cap is lost, **ALWAYS** replace it with an approved cap. A will-fit cap may not be safe.
- **DON'T** drive equipment near open fire.
- **NEVER** use gasoline for cleaning parts.

TRACTOR OPERATION

- Disengage all power to attachment(s), fully depress brake-clutch pedal and shift into neutral before attempting to start the engine.
- Only use jumper cables in recommended manner as outlined in Operator's Manual.

- **DO NOT** bypass the safety interlock system. Consult your Dealer if your safety controls malfunction.
- Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tipping or loss of control. Be especially cautious when changing direction on slopes.
- Except for adjustment **DO NOT** operate engine if air cleaner or cover directly over carburetor air intake is removed. Removal of such part could create a fire hazard.
- **DO NOT** operate without a muffler or tamper with the exhaust system. Damaged mufflers or spark arresters could create a fire hazard. Inspect periodically and replace if necessary.
- **DO NOT** operate the tractor engine in an enclosed building without adequate ventilation. Exhaust fumes can cause death.
- **DO NOT** start the engine or operate controls while standing beside the tractor. Always sit in the tractor seat when starting the engine or operating controls.
- **DO NOT** get off the tractor while it is in motion.
- Before leaving the operator's position, disengage power to attachment(s), lower the attachments, shift into neutral, set the parking brake and stop the engine and remove key (if so equipped).
- **NEVER** leave the unit when it is parked on an incline. Always park the unit on level ground where possible. If the unit is to be parked on an incline, always lower the attachment(s), set the parking brake, and securely block the wheels.
- Drive the tractor with care and at speeds compatible with safety, especially when operating over rough ground, crossing ditches, slopes and when turning to avoid up-sets.
- When using any attachments, **NEVER** direct discharge of material toward bystanders nor allow anyone near the vehicle while in operation.
- Keep people and pets a safe distance away from machine.
- Disengage power to attachment (s) when transporting or not in use.
- Keep the tractor in the same gear when going downhill as used when going uphill. **DO NOT** coast or free wheel down hills.
- Use care when pulling loads or using heavy equipment.
 - a) Use only approved drawbar hitch points.
 - 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.

- Watch out for traffic when crossing or near roadways.
- It is recommended that this machine not be used on public roads. However, if riding on public roads is unavoidable you must comply to equipment requirements per SAE J137b and/or ASAE S279.4 lighting and marking standard. These standards require vehicles be equipped with two (2) headlights, one (1) red taillight, two (2) amber flashing warning lights and a slow moving vehicle (SMV) emblem for operation on public roads.

MOWER OPERATION

- Clear the work area of objects which might be picked up and thrown.
- When using the vehicle with mower, proceed as follows:
 - a) Mow only in daylight or in good artificial light.
 - b) Never make a cutting height adjustment while the engine is running if the operator must dismount to do so.
 - c) Check the blade mounting bolts for proper tightness at frequent intervals.
 - d) Shut the engine off when removing the grass catcher or unclogging chute.
- Watch for holes, rocks and roots in the terrain and other hidden hazards. Keep away from drop-offs.
- **DO NOT** stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes; never across the face.
- Disengage power to mower before backing up. **DO NOT** mow in reverse unless absolutely necessary and the only after careful observation of the entire area behind the mower.

SERVICING, MAINTENANCE AND STORAGE

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

- Keep open flame away from battery or cold weather starting aids to prevent fires or explosions.
- Disengage power to attachment (s), stop the engine, disconnect spark plug wire (s) from spark plug (s) before cleaning and making any repairs or adjustments.
- **DO NOT** lubricate or make mechanical adjustments while the units is in motion or when the engine is running. However, if minor engine adjustments must be made, set the parking brake, securely block the wheels and use extreme caution.
- It is necessary to adjust the carburetor with the engine running, take extra care not to allow rings, wristwatches, clothing, etc. to become entangled with moving parts.
- **DO NOT** strike flywheel with a hard object or metal tool as this may cause flywheel to shatter in operation, causing personal injury or property damage.
- **DO NOT** change the engine governor setting or over-speed the engine.
- To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease. **DO NOT** clean while engine is running.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- **NEVER** store 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.
- Keep the machine and supply of gasoline in locked storage to prevent children or others from playing or tampering with them. When machine is to be stored for an extended time, disconnect battery cables or remove the battery.
- Under normal usage the grass catcher bag material is subject to deterioration and wear. Check bag frequently for deterioration and wear and replace worn bags. Check that replacement bags comply with the original manufacturer's recommendations or specifications.

SAFETY DEFINITIONS



DANGER

The signal word "DANGER" signifies that a source of extreme danger to a person on or near a machine exists as a result of the very nature of the machine itself. This danger to persons is such that it would result in a high likelihood of death or permanent injury if the recommended precautions are not taken.



WARNING

The signal word "WARNING" indicates that a source of danger to a person on or near a machine exists which may result in death or injury if the recommended precautions are not taken.

When you see this symbol  it means: ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

2 CONTROLS AND OPERATION

Refer to Fig. 2.1A

IMPORTANT: Be sure to read this section of the Operator's Manual before you attempt to operate your tractor. It is for your safety that you know where all controls are, and are familiar with the functions of each control.

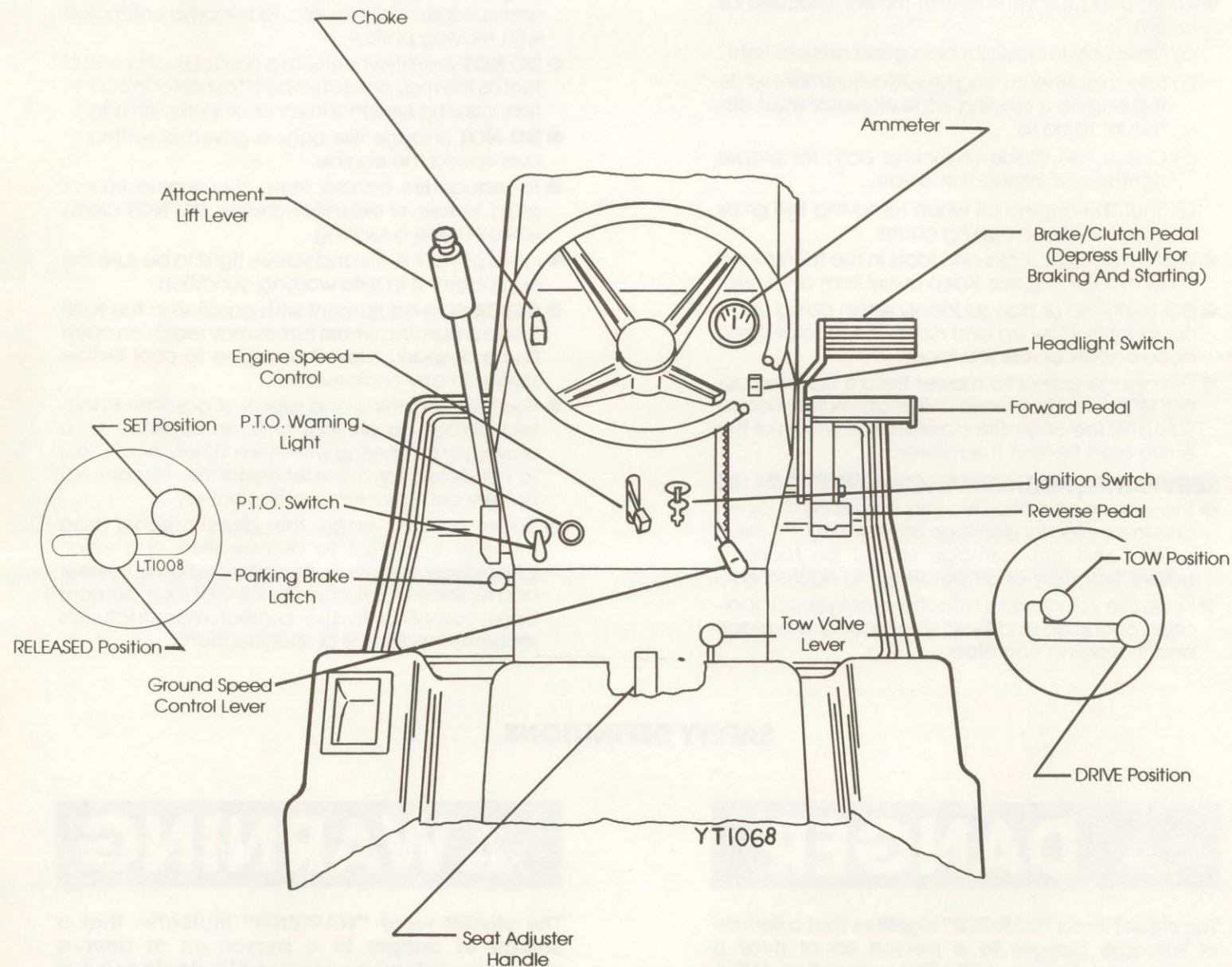


FIG. 2.1A

SAFETY INTERLOCK SYSTEM

Your tractor is equipped with an interlock system that will allow the engine to start only if the brake clutch pedal is fully depressed, the P.T.O. is in the OFF position, and the operator is properly seated. Refer to ELECTRICAL SYSTEM section ("Safety Interlock System") for further explanation.

BRAKE CLUTCH PEDAL

This pedal is foot operated and controls only the brake on this tractor. The pedal is on the right-hand side of frame.

To operate: Depress brake clutch pedal fully. This will automatically put the hydrostatic traction drive in neutral and engage the brake.

NOTE: The brake clutch pedal must be completely depressed, and the P.T.O. lever must be in the OFF position before the engine can be started.

FORWARD AND REVERSE TRACTION DRIVE SPEED CONTROL PEDALS

The forward and reverse pedals are the two ends of a single rocker type assembly. These two pedals are located just above the right foot rest.

To operate: Depress the forward pedal end or the reverse pedal end to control the tractor's forward or reverse movement and speed. Resting your heel on the foot rest while depressing the forward pedal provides a comfortable foot position for long time operations.

GROUND SPEED CONTROL LEVER

This hand control provides the convenience of operating the tractor in forward movement without having to continuously press the forward foot pedal. The ground speed control lever is located on the right-hand side of the instrument panel.

Operation: To maintain a desired ground speed, move the ground speed control lever to the left and upward, positioning it in a "notch" that maintains desired ground speed.

If ground speed control is not set for maximum ground speed, the control can be over-ridden by depressing the forward pedal to increase the ground speed not the engine speed. When forward pedal is released, the speed control will maintain the previously set ground speed.

To instantly disengage the speed control, apply the brake clutch pedal. The ground speed control can also be released by hand with a slight leftward nudge. **NOTE:** The reverse pedal is locked out when ground speed control is engaged. The ground speed control lever must be in the released position before the tractor can be reversed. The use of the ground speed control function is not possible when tractor is operated in reverse.

CHOKE CONTROL

This control aids in starting a cold engine.

For cold engine starting pull knob outward. As the engine warms, push in. Choke is not required for restarting a warm engine.

ENGINE SPEED CONTROL

This control regulates the engine speed from SLOW (idle) to FAST (maximum operating power and speed).

When starting engine, set control to a mid-range position. As engine warms up, gradually move control to maximum FAST position.

NOTE: Always use maximum FAST position when attachments are being used.

To idle, set control in SLOW position.



WARNING: To avoid personal injury, the P.T.O. should never be ON unless an engine powered attachment is being operated. Turn P.T.O. OFF when transporting an attachment to and from a work area.

ELECTRIC P.T.O. (POWER TAKE-OFF) SWITCH

This switch controls the drive to engine powered attachments.

NOTE: The P.T.O. must be in the OFF position and brake clutch pedal must be completely depressed before the engine can be started.



WARNING: To avoid personal injury, before engaging the P.T.O., be sure the attachment is clear of any obstacles.

To ENGAGE, pull toggle lever out then up to the ON position.

To DISENGAGE, pull toggle lever out the down to the OFF position.



WARNING: To avoid personal injury, the P.T.O. should never be on unless an engine powered attachment is being operated. Turn P.T.O. off when transporting an attachment to and from a work area.

P.T.O. WARNING LIGHT

This warning light will go on when P.T.O. switch is in the ON position, warning you that an attachment has power.

The light will operate only if ignition key is in the ON position. Light will turn off if P.T.O. switch or ignition key is turned off.

IMPORTANT: Before starting tractor, check light. For your safety, keep warning light operating correctly.

HEADLIGHT SWITCH

This "rocker" type switch turns the lights ON and OFF.

NOTE: The engine must be running for the lights to operate. (Dimming of lights when engine is idling is normal).

IGNITION SWITCH

For safety purposes a key type ignition switch is utilized for starting and instantly stopping the engine.

TO START: Turn and hold key at START position until engine is running; then release key. Turn key to OFF position to stop engine.

SEAT ADJUSTER HANDLE

TO ADJUST: Sit in tractor seat; pull seat adjuster handle up to release lock, then slide seat forward or backward to desired position. Release handle to secure adjustment.

AMMETER

The ammeter indicates whether battery is charging or discharging.

Movement of ammeter needle to the right of center indicates battery is charging; movement to the left of center indicates battery is discharging. Normal operation of the tractor will keep the battery fully charged. **NOTE:** If ammeter does not move, or indicates constant discharging, contact your authorized dealer for service instructions.

PARKING BRAKE LATCH

This latch is hand operated and sets the parking brake. The latch is located on the left-hand side of the frame above the footrest.

TO SET: Depress brake clutch pedal completely and slide latch forward and up to SET position (see circled illustration Fig. 2.1A).

TO RELEASE: Depress brake clutch pedal until latch releases.

 **WARNING:** To avoid personal injury, the parking brake should be set before the operator leaves the seat.

ATTACHMENT LIFT LEVER

This control will raise or lower attachments (mowers, snowthrowers etc.).

Be sure attachment has been properly mounted before using lift lever.

To raise attachment, pull lever back until the lock engages itself. To lower attachment, pull lever back, depress button on top of lever with your thumb and push lever forward (Fig. 2.4A).

NOTE: An optional electric lift is available as an accessory from your dealer. It is recommended for attachments other than mower and front snow blade.

 **WARNING:** To avoid personal injury, never operate mower with attachment lift lever in a transport position. Mower must be lowered completely before operating. **DO NOT OPERATE MOWER WITH GUARDS REMOVED.**

TOW VALVE LEVER

This hand operated lever allows you to tow or move manually (free wheel) the tractor without starting the engine.

To Engage Tow Valve Lever: Move lever to the left and lock lever in the upper part of notch. The tractor can then be towed or moved without using the tractor engine.

IMPORTANT: The engine will not move the tractor when the tow lever is engaged. For normal tractor operation the control lever must be released.

To Release Tow Valve Lever: Pull lever out of the upper part of notch and place it into the lower part of notch. The engine will now move the tractor.

OPENING HOOD

To open hood grasp hood on both sides and lift with a sharp pull. Do not lift only from one side.

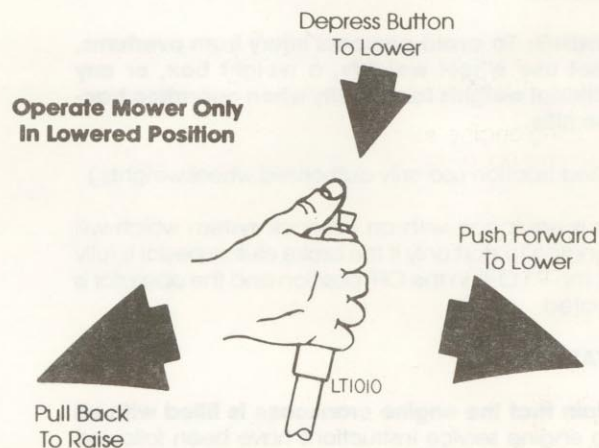


FIG. 2.4A

3 TRIAL RUN

Now that you have located the controls and understand their operation and function it is time to test ride your new tractor. Do this without operating an attachment until you have the feel of the unit.



WARNING: To avoid personal injury, give complete and undivided attention to safe operation of the tractor. Remember, improper use of the tractor is hazardous.



WARNING: To avoid personal injury from overturns, do not use wheel weights, a weight box, or any additional weights for stability when operating tractor on hills.

(For increased traction use only authorized wheel weights.)

This tractor is equipped with an interlock system which will allow the engine to start only if the brake clutch pedal is fully depressed, the P.T.O. is in the OFF position and the operator is properly seated.

BEFORE STARTING

1. **Be certain that the engine crankcase is filled with oil** and the engine service instructions have been followed completely.
2. Sit on the tractor seat in the normal operating position.
3. Move P.T.O. to OFF position.
4. Set engine speed control in mid-position between SLOW and FAST.
5. Pull choke outward if starting a cold engine. Choke might not be required for warm engine starting.
6. Fully depress brake clutch pedal.

TO START

1. Turn ignition key to START until the engine starts then release the key. Do not engage starter for more than a 10 second duration.
2. As the engine warms up push choke in and move engine speed control to FAST.

TO OPERATE

To move forward, depress the forward drive pedal. To reverse movement, depress the reverse drive pedal.



WARNING: To avoid personal injury, use a slow speed until you learn how to drive the tractor.

BEFORE STOPPING ENGINE

1. Disengage P.T.O..
2. SET the parking brake.

TO STOP ENGINE

Turn ignition key to OFF. Remove key.

TRANSMISSION OVER HEATING

When using the tractor for extreme and/or continuous work during very warm weather the transmission may start to "slip". The slippage is caused by the oil in transmission being too hot.

When slipping occurs the transmission must be cooled down. This is done by letting the tractor idle for a short time or shut the engine off and allow transmission to cool.

IMPORTANT: If tractor is used while transmission is slipping, serious damage to the transmission could result.

SEAT ADJUSTMENT

TO ADJUST: Sit in tractor seat; pull seat adjuster handle up to release lock, then slide seat forward or backward to desired position. Release handle to secure adjustment.

4 MAINTENANCE AND LUBRICATION



WARNING: To avoid personal injury, always turn engine off and wait for all movement to stop, remove spark plug wire(s) from spark plug(s) before cleaning, making any repairs or adjustments.

BREAK-IN MAINTENANCE AND LUBRICATION

IMPORTANT: Apply oil and grease carefully and only where required. Oil or grease on drive belts or pulleys will cause slippage and loss of drive. Thoroughly wipe up any excess grease, oil and spills.

For maximum efficiency and trouble free service, make the following periodic inspections of the tractor. For engine maintenance, refer to the engine instructions.

1. The engine oil should be changed as described in the engine instructions. The oil drain pipe is located on the right-hand side of engine just above frame.

Place an oil pan under drain and remove oil drain cap. **The best time to change oil is just after the engine has been run.** Use cardboard or tinfoil to form a gutter from the drain to the oil pan.

After the oil has been drained, replace the oil drain cap. Remove the oil fill cap and dipstick. For proper type of oil and crankcase capacity refer to the engine instructions.

Do not overfill. When checking oil level, screw dipstick assembly firmly but slowly until cap bottoms on tube. Dipstick assembly must be securely assembled into tube at all times when engine is operating.

2. Perform all other checks and maintenance called for under "Daily", "25 Hours", and "100 Hour" schedules.

DAILY SCHEDULE

1. **GENERAL:** Make general visual inspection of the tractor for loose or damaged parts. Check nuts and bolts periodically to insure against looseness caused by vibration or rough handling. Check for oil leaks from engine, differential and transaxle. Damaged parts should be repaired or replaced before using the tractor.
 2. **ENGINE OIL LEVEL:** Refer to the engine instructions. Check oil level with tractor on level ground and the engine stopped. Before removing dipstick, clean dirt from around dipstick and opening.
 3. **ROTATING SCREEN:** Inspect rotating screen for chaff or dirt build-up and clean as required (Fig. 4.2A).
 4. **AIR CLEANER:** Refer to the engine instructions for proper maintenance.
 5. **BATTERY:** Terminals should be tight and free of corrosion. The hold down should be snug over battery. Top of battery should be clean and dry. Check level of electrolyte. Maintain electrolyte level up to the bottom of vent walls. Add clean distilled water as needed.
 6. **OPERATING LIGHTS:** Check operation of all lights before starting and using your tractor. **NOTE:** To check operation of headlights, engine must be running.
- IMPORTANT:** If lights do not work, check circuit and correct failure before starting or using the tractor again. Refer to the WIRING DIAGRAM section.
- NOTE:** If lights need replacement, order replacement parts from your authorized dealer.
7. **BELTS:** Inspect for proper tension. Refer to ADJUSTMENT AND SERVICING section.
 8. **HYDROSTATIC TRANSMISSION COOLING:** The fan guard, fan, and the fins on the transmission must be kept free of grass clippings, dirt and other debris that can impede efficient cooling. Use a suitable soft brush to remove any accumulation of debris from these components. **IMPORTANT:** Do not use water, or any other liquid solvents to clean on or around this area of the transmission!

25 HOUR SCHEDULE

1. GENERAL: Perform the "Daily" maintenance schedule.
2. ENGINE OIL: Refer to the engine instructions.
3. AIR CLEANER: Refer to the engine instructions.

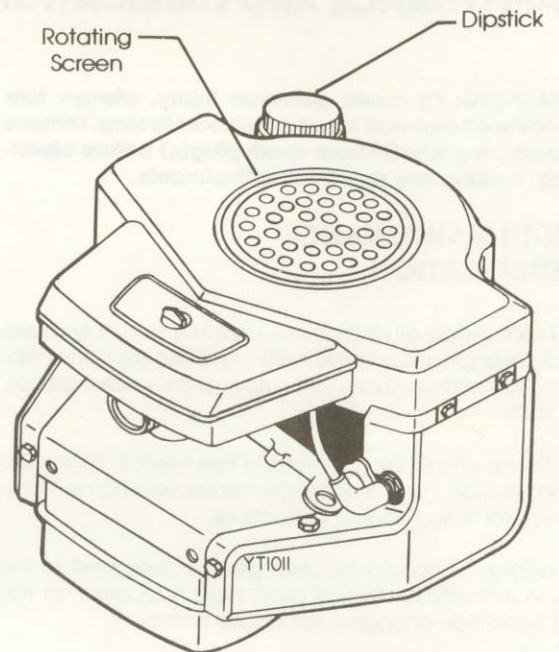


FIG. 4.2A

4. GREASE: NLGI Grade 2 Lithium base EP grease or equivalent. **NOTE:** Clean off grease fittings before attaching grease gun. Grease until the grease comes out of bearings. Wipe off excess grease. Use a pressure type grease gun.

Refer to Fig. 4.2B.

- A. Front Wheels: one fitting located on inner side of each wheel.
 - B. Tie Bar: one fitting on each end.
 - C. Spindles: one fitting on each end of front axle.
 - D. Axle Pivot: one fitting in center of axle.
5. OIL: SAE 30 engine oil.
 - A. Speed Control Linkage-Apply oil at all pivot points to reduce wear and assure free movement. Be sure linkages are clean before applying oil.
 - B. General - Apply oil at all pivot points and linkages to reduce wear and assure free movement. Be sure linkages are clean before applying oil.
 6. TIRE PRESSURE: Check tire pressures. Recommended pressure is 10 p.s.i. for both front and rear tires. Under inflated tires will cause premature failure. Over inflated tires will result in a hard riding tractor which may also loosen hardware on the unit.

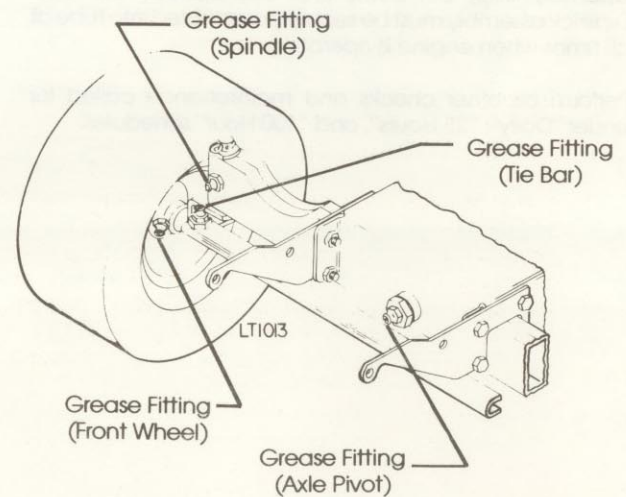


FIG. 4.2B

100 HOUR SCHEDULE

1. GENERAL: Perform the "25 Hour" maintenance schedule.
2. AIR CLEANER: Refer to the engine instructions for proper maintenance.
3. For all engine maintenance, refer to the engine instructions.
4. TRANSMISSION: Under normal operating conditions, the oil need not ever be changed; but the oil level should be maintained as specified.

Refer to Fig. 4.3A.

- A. Check the oil level in the reservoir with the transmission hot and the engine stopped.
- B. Open tractor hood and clean all the dirt away from around the reservoir cover.
- C. Remove the cover and check the oil level. It should be up to the oil level hot mark. If the oil is substantially below the hot level mark, look for external oil leaks and repair the cause.
- D. If the oil level is low wait for transmission to cool. Re-check oil in reservoir, if oil can still be seen in reservoir add detergent oil (SAE 20) to bring oil level up to the cold level mark on reservoir. Replace cap and tighten securely.

IF THERE IS NO OIL IN RESERVOIR ADD OIL AS FOLLOWS:

- E. Remove the rear fender seat pan and gas tank. Refer to the ADJUSTMENT AND SERVICING section ("Rear Fender Seat Pan Removal and Gas Tank Removal").
- F. Clean area around air bleed plug and then remove it (Fig. 4.3B). Remove the cap from the oil reservoir (under engine hood next to battery) Fig. 4.3A and add detergent oil (SAE 20) until oil level rises to the very top of air bleed opening. Replace air bleed plug and firmly tighten. Continue to add oil until oil level reaches cold level mark. Replace cap. **IMPORTANT:** Do not overfill.
- G. After oil is at the proper level reassemble the gas tank and rear fender seat pan by reversing the rear fender seat pan removal and gas tank removal instructions. Be sure the seat switch wires are through the snap bushing and properly connected to the seat switches.

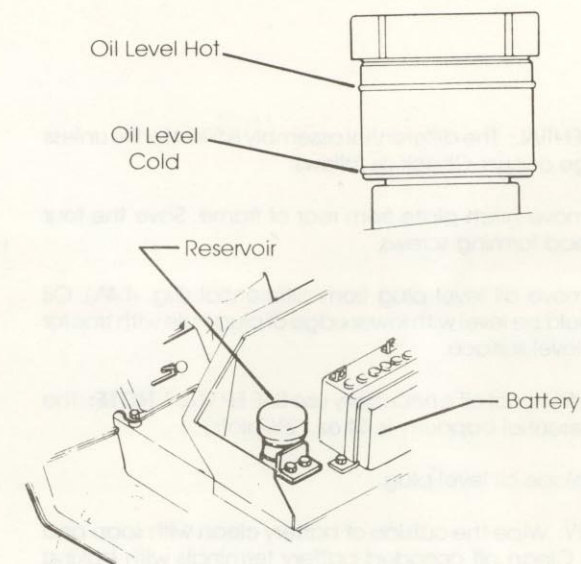


FIG. 4.3A

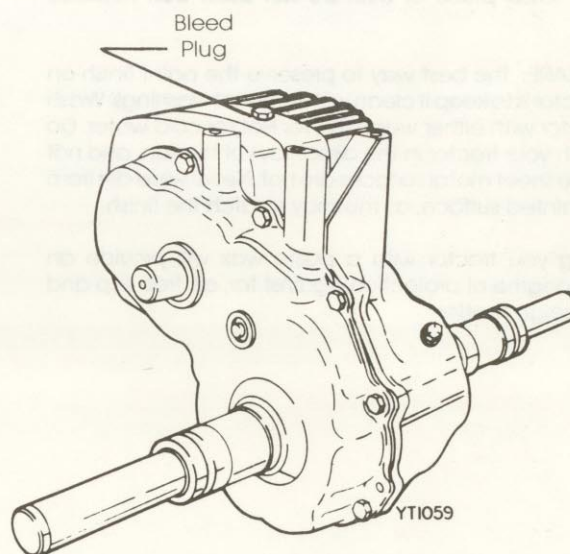


FIG. 4.3B

5. **DIFFERENTIAL:** The differential assembly is filled for life unless leakage occurs. Check as follows:

A. Remove hitch plate from rear of frame. Save the four thread forming screws.

B. Remove oil level plug from differential (Fig. 4.4A). Oil should be level with lower edge of plug hole with tractor on level surface.

C. If additional oil is necessary use SAE EP 90 oil. **NOTE:** The differential capacity is 44 oz. (2¾ pints).

D. Replace oil level plug.

6. **BATTERY:** Wipe the outside of battery clean with soap and water. Clean off corroded battery terminals with baking soda and steel wool. Tighten cables securely to battery terminals. Apply a light coat of petroleum jelly or chassis lube to avoid corrosion. Check battery hold down; tighten if needed. Keep vent holes in battery filler caps open. Remove caps and inspect. If the holes are clogged, clean out using a small piece of wire. **Do not blow out.** Replace caps.

7. **BODY CARE:** The best way to preserve the paint finish on your tractor is to keep it clean with frequent washings. Wash the tractor with either warm (Never Hot) or cold water. Do not wash your tractor in the direct rays of the sun, and not while the sheet metal surfaces are hot. Never wipe dirt from a dry painted surface, as this may scratch the finish.

Polishing your tractor with a paste wax will provide an added degree of protection against tar, oil, tree sap and other foreign matter.

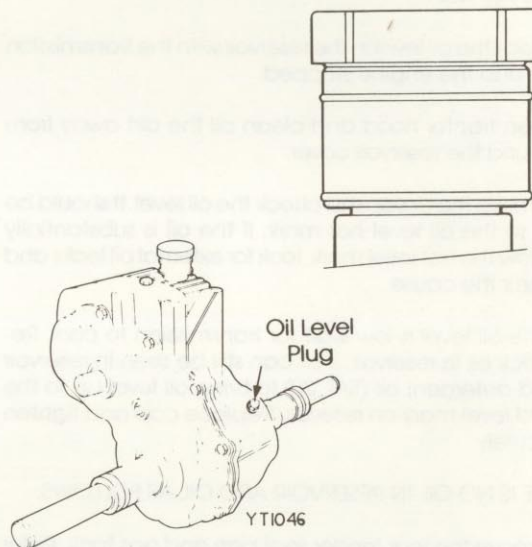


FIG. 4.4A

5 ADJUSTMENT AND SERVICING



WARNING: To avoid personal injury, always turn engine off and wait for all movement to stop, remove spark plug wire(s) from spark plug(s) before cleaning, making any repairs or adjustments.

REAR FENDER SEAT PAN REMOVAL.

IMPORTANT

WHEN REMOVING REAR FENDER SEAT PAN AND GAS TANK REFER TO OPERATOR'S MANUAL FOR INSTRUCTION.

1. Tip the seat forward and locate the plug under the seat and disconnect plug from seat switch (Fig. 5.1A).
2. Remove the plastic connector and gently pull the wires through the hole in the side of the seat hinge support (Fig. 5.1A).

NOTE: If your tractor has taillights the wires must be disconnected from each taillight.

3. Remove the hinge pin. Remove the hardware from one side only and remove pin (Fig. 5.1A).
4. Remove the seat hinge support from the rear fender seat pan (Fig. 5.1B). Remove all four cap screws, spacers and washers.
5. Remove the two screws holding the rear fender seat pan to the support (Fig. 5.1C).
6. Remove the two carriage bolts mounting the rear fender seat pan to the footrest (Fig. 5.1C). Repeat for the other footrest.
7. Remove knob from the tow valve lever if so equipped.
8. Remove knob from the gear shift lever if so equipped.
9. Remove the gas cap from the gas tank and lift the rear fender seat pan off of tractor.
10. Replace gas cap to avoid spilling gas and to prevent foreign debris from entering tank.

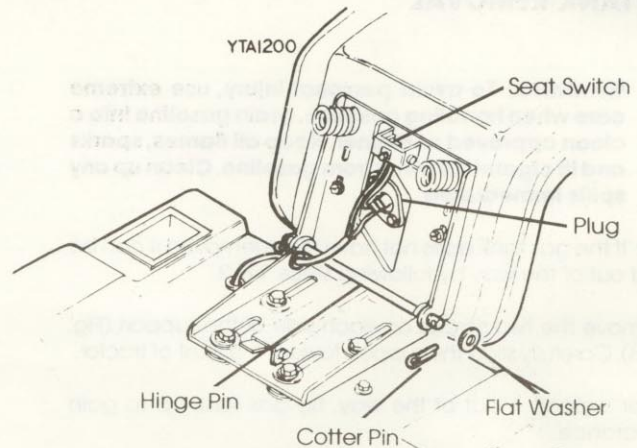


FIG. 5.1A

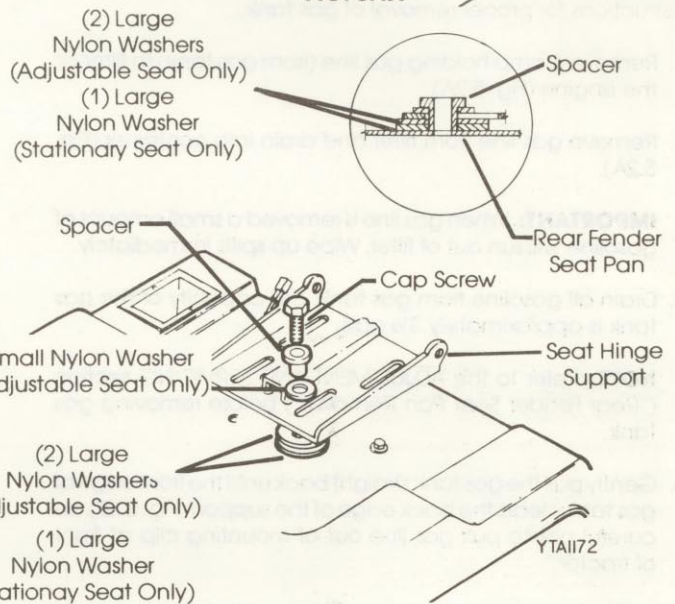


FIG. 5.1B

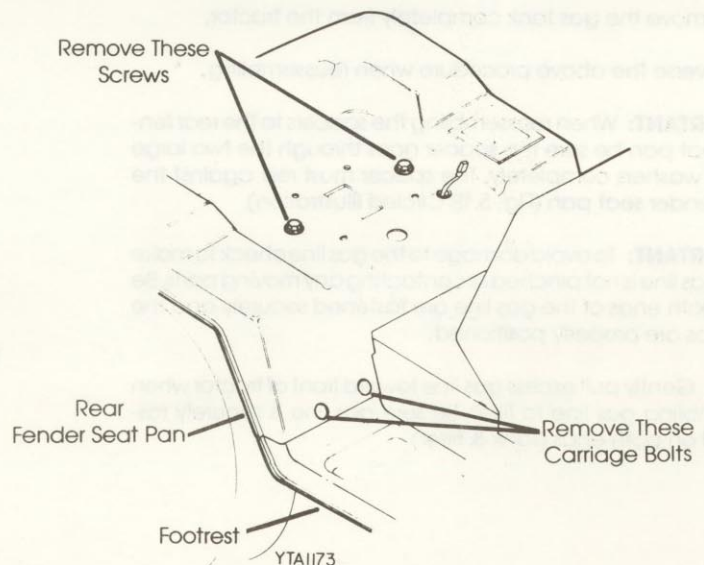


FIG. 5.1C

GAS TANK REMOVAL



WARNING: To avoid personal injury, use extreme care when handling gasoline. Drain gasoline into a clean approved container. Keep all flames, sparks and lit cigarettes away from gasoline. Clean up any spills immediately.

NOTE: If the gas tank does not have to be removed it can be tipped out of the way by following steps 1 & 2.

1. Remove the two screws on each side of the support (Fig. 5.2B). Carefully slide the support toward the front of tractor.
2. After support is out of the way, tip gas tank up to gain clearance.

NOTE: If gas tank has to be removed follow the remaining instructions for proper removal of gas tank.

3. Remove clamp holding gas line (from gas tank) to filter at the engine (Fig. 5.2A).
4. Remove gas line from filter and drain into container (Fig. 5.2A).

IMPORTANT: When gas line is removed a small amount of gasoline will run out of filter. Wipe up spills immediately.

5. Drain all gasoline from gas tank. The capacity of the gas tank is approximately 3½ gals.

NOTE: Refer to the ADJUSTMENT AND SERVICING section ("Rear Fender Seat Pan Removal") before removing gas tank.

6. Gently pull the gas tank straight back until the front edge of gas tank clears the back edge of the support (Fig. 5.2B). Be careful not to pull gas line out of mounting clip at front of tractor.
7. Tip the front of gas tank up past the top of tractor frame and remove the clamp holding the gas line to the tank. Remove the gas line from the tank (Fig. 5.2B).
8. Remove the gas tank completely from the tractor.
9. Reverse the above procedure when reassembling.

IMPORTANT: When reassembling the spacers to the rear fender seat pan be sure the spacer goes through the two large nylon washers completely. The spacer must rest against the rear fender seat pan (Fig. 5.1B Circled Illustration).

IMPORTANT: To avoid damage to the gas line check to make sure gas line is not pinched or contacting any moving parts. Be sure both ends of the gas line are fastened securely and the clamps are properly positioned.

NOTE: Gently pull excess gas line toward front of tractor when assembling gas line to filter. Be sure gas line is securely fastened on both ends (tank & filter).

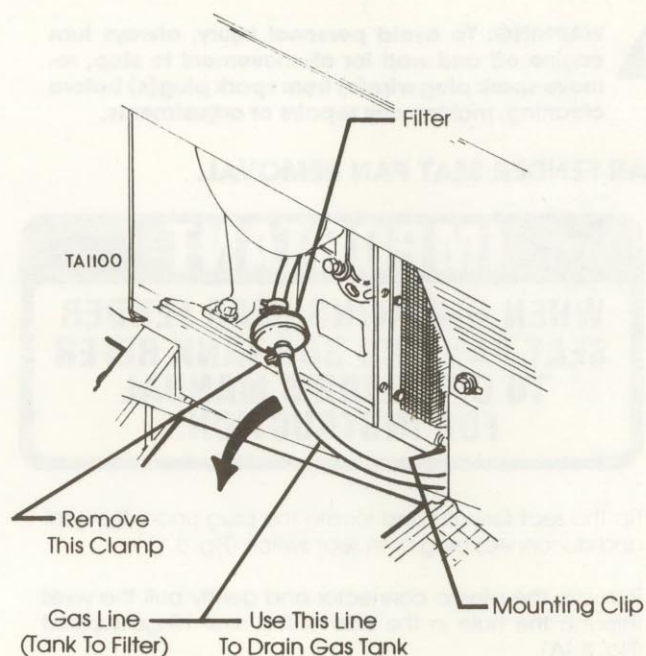


FIG. 5.2A

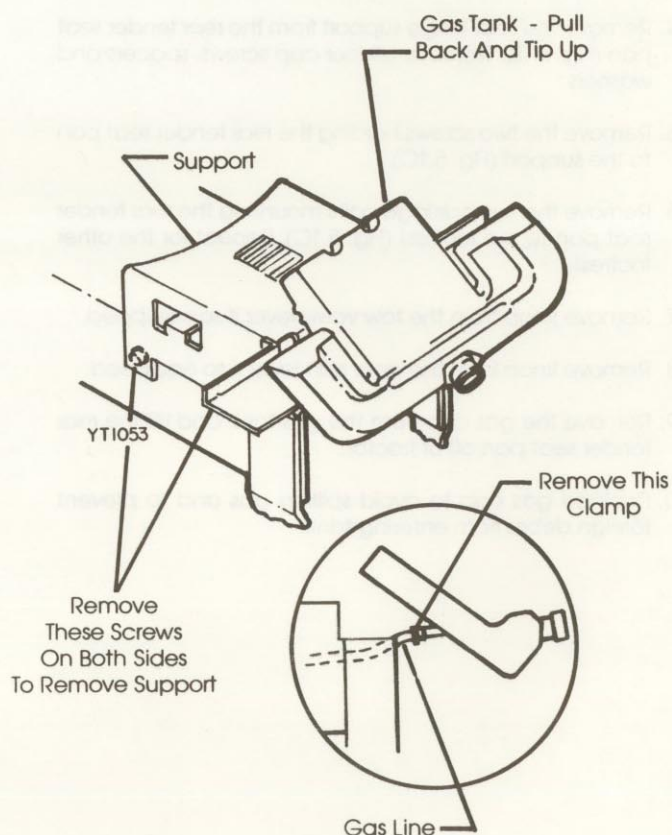


FIG. 5.2B

PRIMARY TRACTION BELT

If this belt has stretched and begins to slip under load the belt must be adjusted.

ADJUSTMENT

Refer to Fig. 5.4A.

1. Apply parking brake.
2. Loosen the jam nut on the underside of frame.
3. Remove the tow valve plate on the front side of seat pan. Save the hardware.
4. Turn the adjuster nut on (through hole where plate was removed) top side of frame clockwise to tighten belt. **NOTE:** This nut is under the seat pan on the right hand side.
5. Check belt for proper adjustment.
 - A. At the mid-point between the engine pulley and the inner jackshaft pulley press down on the belt. The belt should move approximately 1 inch. Readjust until proper tension is reached.
6. Retighten jam nut against underside of frame. Tighten securely.
7. Reassemble the tow valve plate to the seat pan with hardware removed in step 3. Tighten securely. Refer to the ADJUSTMENT AND SERVICING section ("Tow Valve Lever") for proper adjustment.

REPLACEMENT

Refer to Fig. 5.4A.

In the event that the belt is slipping or breakage occurs, replacement is necessary. Order the manufacturer's authorized part to ensure using a belt that will meet the specific service requirements.

1. Place tractor on level surface; set parking brake; move P.T.O. to OFF position; and remove spark plug wire(s).
2. Remove mower or other attachments mounted under tractor. (Follow the instructions in the attachments operator's manual).
3. Remove the tow valve plate on the front side of seat pan. Save the hardware.
4. Turn adjuster nut on (through hole where plate was removed) top side of frame counterclockwise until it is flush with edge of adjuster rod. **NOTE:** This nut is under the seat pan on the right hand side.
5. Pull spring-loaded idler down and remove secondary traction belt. Allow spring-loaded idler to swing upward past belt.
6. Pull primary traction belt to the left and off of inner jackshaft pulley.
7. Pull belt forward off of engine pulley and through belt guide.
8. From the front of tractor slip new belt through engine pulley belt guide. Pull toward rear of tractor. **NOTE:** Be sure belt is routed over the top of the axle pivot.
9. Place front loop of belt around pulley hub on engine pulley.
10. Pull belt all the way back and around inner jackshaft pulley. Be sure belt is twisted around pulleys as shown. From right side of engine pulley under fixed idler pulley and over the top of the inner jackshaft pulley.
11. Place belt around upper pulley on engine pulley.
12. Pull spring-loaded idler down and put secondary traction belt back in groove and release idler.
13. Readjust primary traction belt. Refer to the ADJUSTMENT AND SERVICING section ("Primary Traction Belt").
14. Reassemble the tow valve plate to the seat pan with hardware removed in step 3. Tighten securely. Refer to the ADJUSTMENT AND SERVICING section ("Tow Valve Cover") for proper adjustment.
15. Replace spark plug wire(s).

BELT DIAGRAM

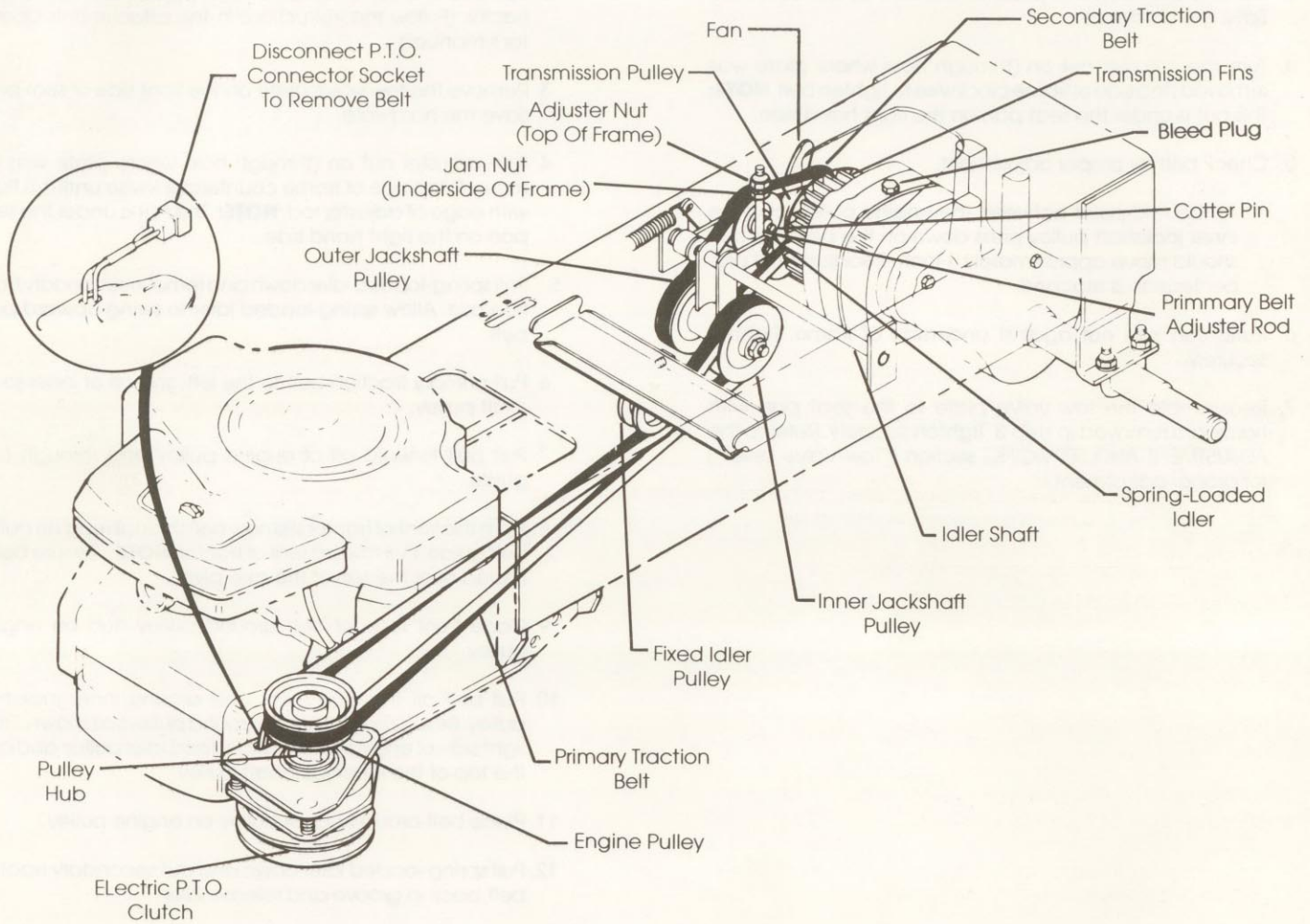


FIG. 5.4A

SECONDARY TRACTION BELT

ADJUSTMENT

No adjustment required. This belt is self adjusted by the spring-loaded pivot bracket. Periodically check pivot bracket to be sure it is pivoting freely and providing tension.

REPLACEMENT

Refer to Fig. 5.4A.

In the event that the belt is slipping or breakage occurs, replacement is necessary. Order the manufacturer's authorized part to ensure using a belt that will meet the specific service requirements.

1. Remove primary traction belt from inner jackshaft pulley. Refer to the ADJUSTMENT AND SERVICING section ("Primary Traction Belt").
2. Remove the cotter pin and disconnect the adjuster rod from the idler shaft. Retain cotter pin for reassembly.
3. Swing the jackshaft pulleys up toward the rear of tractor and remove the secondary belt from the right side of the outer jackshaft pulley.
4. Holding the jackshaft pulleys as far up to the rear as possible, wedge the belt between the right side of pulley and the tractor frame. **NOTE:** Turn belt and slide sideways between hub and frame.
5. Lift belt away from transmission pulley, and carefully work the belt between the fan and the fan guard.
6. Remove belt and replace with new one.
7. Carefully work new belt in between fan and fan guard.
8. Place belt around transmission pulley and around outer jackshaft pulley.
9. Reassemble adjuster rod to the idler shaft using cotter pin removed in step 2.
10. Reassemble primary traction belt to the inner jackshaft pulley. Be sure belt is routed properly.
11. Pull spring-loaded idler pulley down and place belt into groove. Allow idler pulley to swing upward.
12. Readjust the primary traction belt. Refer to the ADJUSTMENT AND SERVICING section ("Primary Traction Belt").

HYDROSTATIC DRIVE

This component is correctly adjusted at the factory. The tractor should idle with no movement after the brake clutch pedal is fully released and neither the forward or reverse pedals are actuated.



WARNING: To avoid personal injury, if the tractor exhibits a tendency to "creep", contact your authorized service dealer for correction.

TOW VALVE LEVER

If your tractor can not be pushed when the lever is in the TOW position adjustment is required.

ADJUSTMENT

1. Loosen the two screws holding the adjustment plate to the front of seat pan.
2. Slide the plate slightly toward the left hand side of tractor. Tighten the two screws and recheck the TOW position.
3. If tractor still can not be pushed move plate farther toward the left hand side.
4. Proper adjustment is when the drive is completely disengaged and the tractor can be pushed easily. Retighten both screws after adjustment is complete.

BRAKE CABLE/PARKING BRAKE

When brake clutch pedal is fully released brake cable should be almost straight with just a slight amount of slack.

ADJUSTMENT

Refer to Fig. 5.6A.

1. Remove the clevis pin and spring clip holding the brake cable clevis to the brake arm. Remove the clevis from the brake arm.
2. Loosen the cable lock nut.
3. Turn the brake cable clevis clockwise or counterclockwise until correct adjustment is reached. **NOTE:** Turning brake cable clevis clockwise will shorten the cable and remove slack.
4. Hold the brake cable clevis against the square nut and retighten the cable lock nut.
5. Reassemble the brake cable clevis to the brake arm with clevis pin and spring clip removed in step 1.

BRAKE PAD

The brake is factory adjusted and will not require adjustment until the brake pads wear and the brake loses its braking ability.

ADJUSTMENT

Refer to Fig. 5.6B.

1. Loosen jam nut.
2. Turn adjuster nut clockwise to compensate for brake pad wear.
3. Check brake by disengaging tow valve lever and roll tractor back and forth. Brake should not drag. Apply the parking brake and try to push tractor. Brake should hold tractor.
4. Retighten jam nut.

REPLACEMENT

When the brake can no longer be adjusted to firmly hold, the brake pads will have to be replaced. Order replacement parts from your authorized dealer.

Refer to Fig. 5.6B.

1. Remove the two hex hd. screws holding the brake to the differential.
2. Remove the worn brake pads and replace with new ones.
3. Be sure the backing plate and push pins are in place behind the new pad in the brake pad holder.

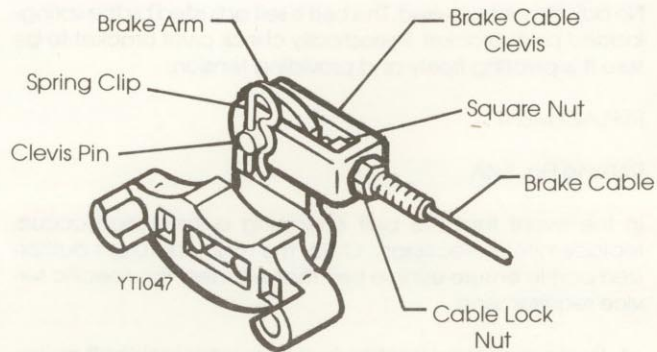


FIG. 5.6A

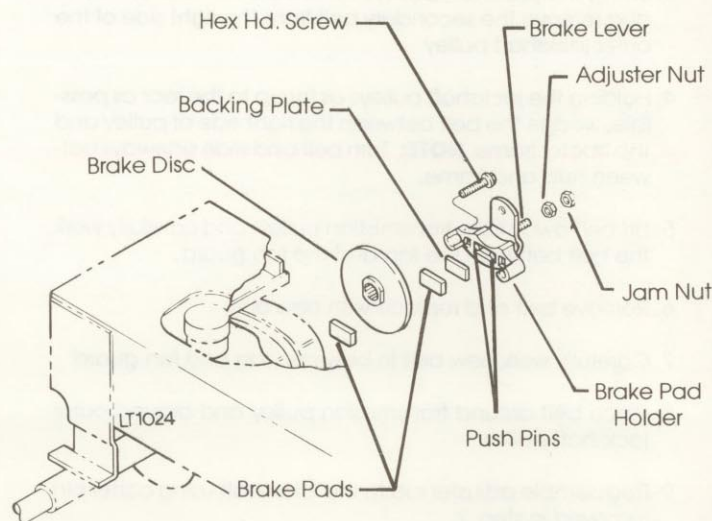


FIG. 5.6B

4. Reassemble the brake to the differential and tighten the two hex hd. screws securely.
5. Readjust brake pads. Refer to the ADJUSTMENT AND SERVICING section ("Brake Pad").
6. If the brake still does not hold the tractor adequately contact your authorized service dealer for repair.

STEERING GEAR

ADJUSTMENT

Refer to Fig. 5.7A.

If excessive play develops in the steering wheel the steering gear can be adjusted by repositioning the steering gear mount.

1. Loosen the three hex nuts that secure the steering gear mount to the frame.
2. Carefully slide the steering gear toward the gear sector assembly.
3. When the steering gear and gear sector mesh together evenly and smoothly tighten the hex nuts securely.

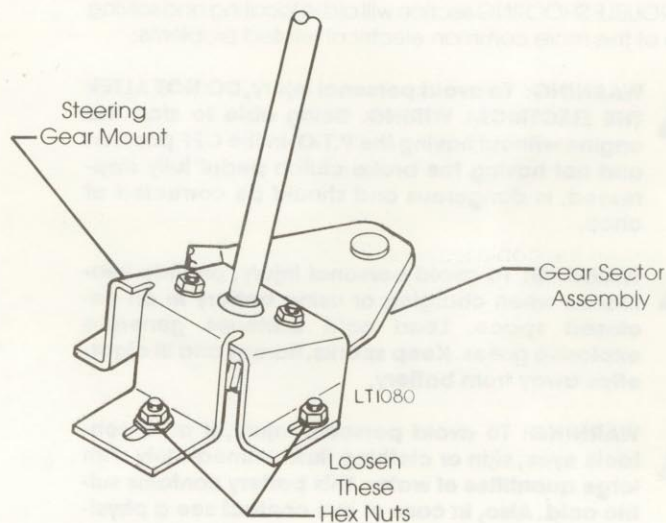


FIG. 5.7A

ELECTRIC P.T.O. CLUTCH

ADJUSTMENT

Refer to Fig 5.7B

Adjustment is required when:

- A. The P.T.O. clutch fails to positively engage powered attachment (indicates that clutch gap is too wide).
 - B. When powered attachment does not stop after the P.T.O. clutch is turned off (indicates that clutch gap is too narrow).
 - C. Noise comes from clutch area.
1. Before proceeding, move P.T.O. switch to OFF position and shut off engine. Wait until the engine has cooled.
 2. To check gap: Insert feeler gauge (.012"-supplied with tractor) through access slot and into clutch gap. Move gauge back and forth. A slight amount of resistance indicates that the clutch is in correct adjustment at that slot.
 3. If gauge can be moved with very little or no resistance, the gap is too wide and must be narrowed.

To narrow the gap: Carefully turn the lock nut (nearest the slot) clockwise.

4. If gauge cannot be inserted into the gap or requires great effort to do so, the gap must be widened.

To widen the gap: Carefully turn the lock nut (nearest the slot) counterclockwise.

5. Accordingly, turn the lock nut until a slight resistance is felt when the gauge is withdrawn. Check and adjust the gap as necessary at the other two slots. **NOTE:** The gap at all three slots must be adjusted the same.

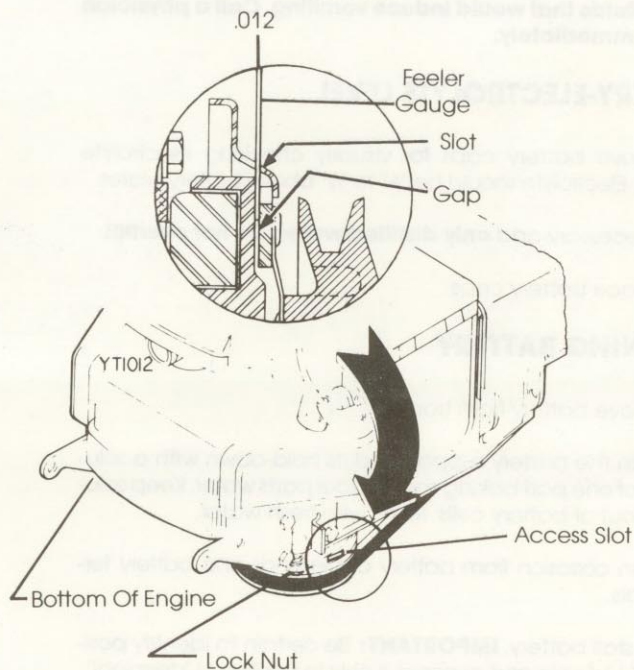


FIG. 5.7B

6 ELECTRICAL SYSTEM

Use the WIRING DIAGRAM section to locate electrical malfunctions which can be traced to loose connections or incorrectly routed wire leads.

The TROUBLE SHOOTING section will aid in locating and solving some of the more common electrical related problems.

 **WARNING:** To avoid personal injury, **DO NOT ALTER THE ELECTRICAL WIRING.** Being able to start the engine without having the P.T.O. in the OFF position and not having the brake clutch pedal fully depressed, is dangerous and should be corrected at once.

 **WARNING:** To avoid personal injury, provide ventilation when charging or using battery in an enclosed space. Lead acid batteries generate explosive gases. Keep sparks, flames and lit cigarettes away from battery.

 **WARNING:** To avoid personal injury, if acid contacts eyes, skin or clothing flush immediately with large quantities of water. This battery contains sulfuric acid. Also, in case of eye contact see a physician immediately. Keep out of children's reach. In case of internal contact, **DO NOT** give fluids that would induce vomiting. Call a physician immediately.

BATTERY-ELECTROLYTE LEVEL

1. Remove battery caps for visually checking electrolyte level. Electrolyte should be $\frac{1}{4}$ " to $\frac{1}{2}$ " above battery plates.
2. As necessary add **only distilled water.** Do not overfill!
3. Replace battery caps.

CLEANING BATTERY

1. Remove battery from tractor.
2. Clean the battery support and its hold-down with a solution of one part baking soda to four parts water. Keep solution out of battery cells. Rinse with fresh water.
3. Clean corrosion from battery cable ends and battery terminals.
4. Reinstall battery. **IMPORTANT:** Be certain to identify positive (+) cable and connect it only to positive (+) terminal.
5. Securely tighten connections and battery hold down. Spread petroleum jelly over terminals and cover positive (+) terminal with its protective rubber cap.

BATTERY-JUMP STARTING

If battery is dead, the engine can be started with jumper cables. Be certain jumper cables are correctly connected: Positive to positive, and negative from booster battery to the tractor's engine block (**not to the negative terminal of the tractor battery**).

 **WARNING:** To avoid personal injury, from possible battery explosion, always connect the negative end of jumper cable to the engine block. After engine starts disconnect negative jumper cable at engine block first.

FUSE (25 amp plug type)

The fuse protects all electrical circuits except the starter and magneto. The fuse holder is clipped to the side of the battery support. The fuse can be removed by simply pulling it out from holder. Replacements are available at most service stations.

 **WARNING:** To avoid personal injury from possible sparking, always disconnect negative (-) battery cable before removing fuse. Replace the fuse, then reconnect battery cable.

SAFETY INTERLOCK SYSTEM

Your tractor is equipped with an interlock system that will allow the engine to start only if the brake clutch pedal is fully depressed, the P.T.O. is in the OFF position, and the operator is properly seated. (**NOTE:** When engine is running operator must set parking brake and turn P.T.O. off before leaving seat, or engine will stop.)

If the engine will not start with the controls in the positions mentioned above, check for the following:

1. Double check to be sure controls are in the positions mentioned.
2. Review engine starting instructions.
3. Be sure fuel tank is filled.
4. Check for a broken, loose or disconnected wire(s).

7 STORAGE

For short term storage, clean tractor and attachments before storing in a dry place. **NOTE:** It is not advisable to store your tractor in an area where it will come in contact with fertilizer fumes. Fertilizer fumes can damage your tractor's paint finish.

If the tractor is to be stored for an extended period of time, the following is recommended.



WARNING: To avoid personal injury, always turn engine off and wait for all movement to stop, remove spark plug wire(s) from spark plug(s) before cleaning, making any repairs or adjustments.



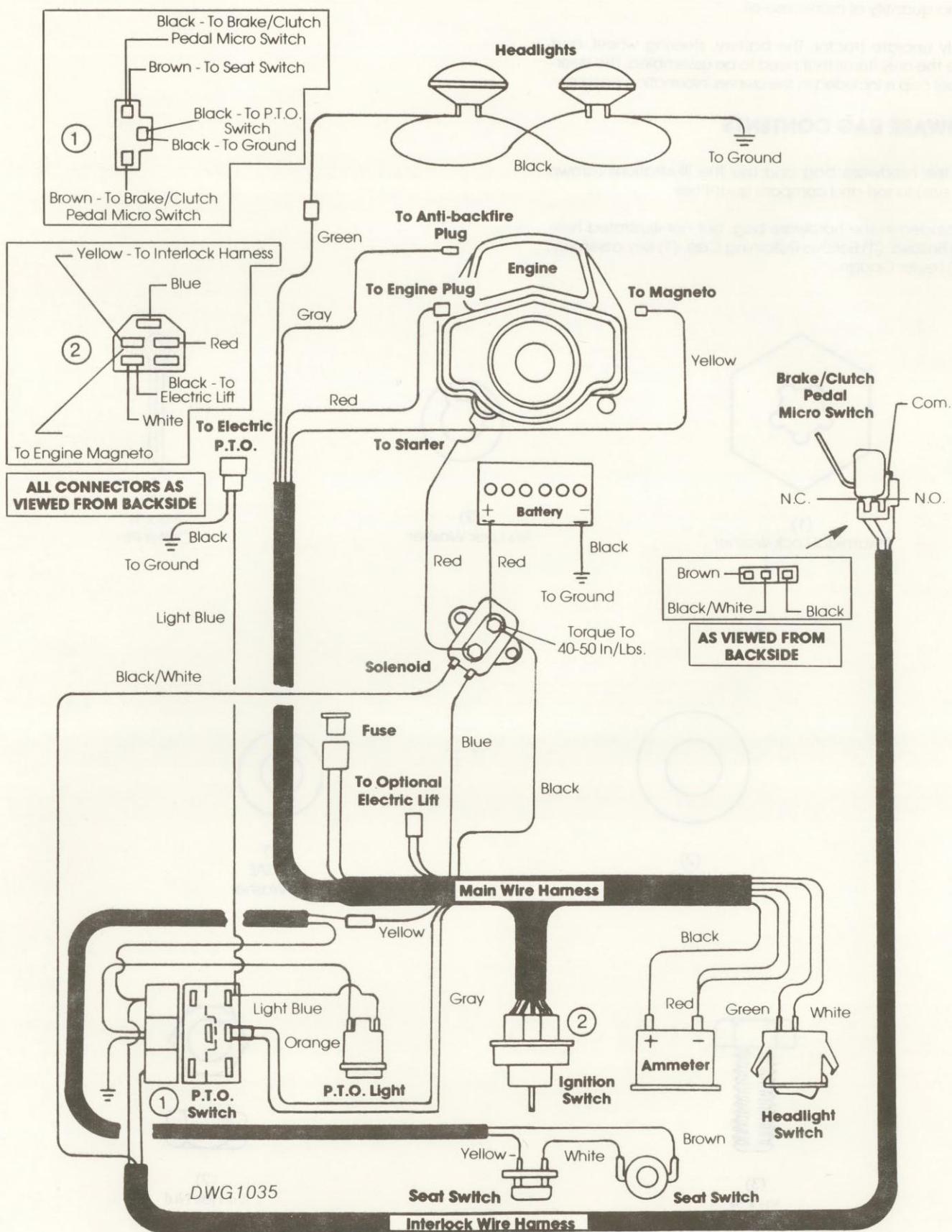
WARNING: To avoid personal injury, use caution with gasoline. Gasoline is very flammable. Keep gasoline in a clean, tight container. Clean any spilled gasoline from the tractor before starting the engine.

1. Drain fuel tank. This will reduce gum deposits forming on essential carburetor parts, fuel filter and gas tank.
2. Run engine until carburetor runs out of gasoline.
3. Remove any small amounts of fuel by absorbing it with a clean, dry cloth.
4. Remove spark plugs. Pour one ounce (2 or 3 tablespoons) of SAE 30 engine oil into each opening. Slowly crank engine to lubricate cylinder walls. Replace spark plugs but leave the spark plug wires disconnected.
5. Drain engine oil. Refill crankcase with new oil. Refer to the engine instructions.
6. Clean dirt and chaff from cylinders, cylinder head fins, blower housing, rotating screen and muffler area.
7. Make sure the battery is fully charged and the electrolyte is at the proper level. Remove battery from tractor. Clean the battery case and terminals. After cleaning, spread petroleum jelly on the terminals to help prevent loss of charge. Store battery in a dry place, protected from freezing (above 32°F). **Do not store battery on concrete.** Check monthly to make sure battery is fully charged; recharge as necessary.
8. Block tractor off its tires or inflate tires at regular intervals.
9. Lubricate the entire tractor.
10. Before using tractor again, review safety and operating instructions in the operator's manual.

8 TROUBLE SHOOTING

Problem	Component and Causes	Refer To This Section
Engine will not crank to start	Brake Clutch Pedal: pedal not fully depressed; interlock not adjusted P.T.O.: not in off position Ignition Switch and Wiring: wire loose or wire grounded; faulty switch Fuse: blown Battery: terminal corroded; battery dead; wire loose or grounded; low fluid level Seat Switch: wire loose; faulty switch	Adjustment & Servicing Controls & Operation Wiring Diagram Electrical System Electrical System Electrical System
Engine cranks, but will not start	Ignition Switch and Wiring: wire loose Carburetor: not adjusted Choke: not fully choked-cold engine; too fully choked-warm engine Fuel: no fuel; plugged filter or gas line Spark Plugs: dirty or broken; wire loose	Wiring Diagram See Authorized Dealer Controls & Operation Initial Servicing Engine Instructions
Engine starts with brake clutch pedal released or with P.T.O. engaged.	Brake Clutch Pedal: interlock switch not adjusted or faulty; wire loose P.T.O.: faulty switch; wire loose Ignition Switch: wire loose, faulty switch	Electrical System Electrical System Wiring Diagram
Engine runs rough	Carburetor: not adjusted	See Authorized Dealer
Engine will not stop	Ignition Switch and Wiring: wire Loose	Wiring Diagram
Battery not charging	Wiring: wire Loose or wire grounded Battery: terminal corroded; wire loose or grounded Engine: charging system failure	Wiring Diagram Electrical System Electrical System
Headlight will not light	Engine: not running or charging Ignition Switch and Wiring: not on, wire loose or grounded; faulty switch; bulbs blown or broken	Electrical System Wiring Diagram
Dead battery	Engine: charging system failure Ignition Switch and Wiring: wire loose, wire grounded Fuse: blown Battery: terminal corroded; wire loose or grounded; low fluid level Engine not being operated at full r.p.m.	Electrical System Wiring Diagram Electrical System Electrical System Controls & Operation
Runs, but unit fails to move	Brake Clutch Pedal: brake not released Tow Valve: not in drive position Belt: broken; too loose	Controls & Operation Controls & Operation Adjustment & Servicing
Brakes do not stop unit or hold in park	Brake: not adjusted; worn (replace brake pads) Brake Cable: stretched or broken	Adjustment & Servicing Adjustment & Servicing
Unit is hard to push	Brake: not adjusted Traction Drive: not in neutral position Tow Valve: not in neutral position	Adjustment & Servicing Controls & Operation Controls & Operation
Traction drive creeps in neutral position	Traction Drive: out of adjustment	See Authorized Dealer

9 WIRING DIAGRAM



10 SET-UP AND ASSEMBLY

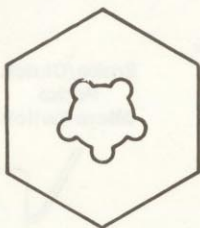
IMPORTANT: Before attempting to start this tractor, check engine oil level. Refer to the engine instructions for specific type and quantity of crankcase oil.

Carefully uncrate tractor. The battery, steering wheel, and seat are the only items that need to be assembled. The steering wheel cap is included in the owners information package.

HARDWARE BAG CONTENTS

Empty the hardware bag and use the illustrations (drawn actual size) to sort and compare quantities.

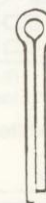
Also included in the hardware bag, but not illustrated here are: (1) Bellows, (1) Bellows Retaining Cap, (1) Key assembly, and (1) Feeler Gauge.



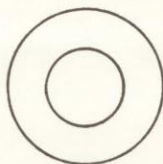
(1)
Pyramidal Lock Washer



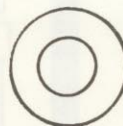
(2)
5/16 Lock Washer



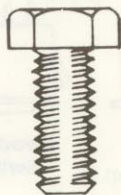
(1)
3/32 X 3/4
Cotter Pin



(2)
3/8 SAE
Flat Washer



(2)
5/16 SAE
Flat Washer



(3)
5/16 X 3/4
Hex Hd. Cap Screw
Grade 5



(2)
5/16 Hex Nut

BATTERY

Refer to Fig. 10.2A.

1. Battery Preparation

- A. Open tractor hood by grasping hood on both sides and pull up sharply. Do not lift only on one side. Remove battery strap from battery. Save the two screws.
- B. Take battery to a qualified service man and have it filled with electrolyte and for its initial charge. For best performance and life it should be filled and charged before installation.



WARNING: To avoid personal injury, do not fill battery with electrolyte when battery is on or near tractor. Provide ventilation when charging or using battery in an enclosed space. Lead acid batteries generate explosive gases. Keep sparks, flames and lit cigarettes away from battery. Never charge a frozen battery.

- a. Place battery on level surface; never in or on vehicle.
- b. Remove vent/filler caps and carefully fill each cell with battery grade electrolyte (1.265 Specific Gravity sulfuric acid) to level indicator in vent/filler well. Battery and electrolyte should be at 60 F to 80 F for best results.



WARNING: To avoid personal injury, if acid contacts eyes, skin or clothing flush immediately with large quantities of water. This battery contains sulfuric acid. In case of eye contact see a physician immediately. Keep out of children's reach. In case of internal contact, DO NOT give fluids that would induce vomiting. Call a physician immediately!

- c. Allow battery to stand for 30 minutes. Check each cell and add electrolyte to level indicator, if necessary. **DO NOT** overfill with electrolyte as this may cause electrolyte to flood over the cover of the battery during charging.
- d. To insure maximum initial charge, charge battery on 4 to 6 amp. manual (constant current slow charging) charger until all cells are gassing freely. Each cell should be checked with a hydrometer to ensure electrolyte specific gravity is at least 1.250. Total charging time should not exceed 6 hours. **NOTE:** We recommend that the use of "automatic" or "high rate" chargers be avoided. These types of chargers will not properly charge a freshly activated, dry charge battery when operated in their normal mode.
- e. At the end of the charging time, but while the battery is still on charge adjust the levels with electrolyte until it just touches the lowest part of the vent well. Turn off charger and disconnect cables.
- f. Replace vent/filler caps and wash off any electrolyte which may have spilled on the battery. Connect vent tube to battery if so equipped.
- g. Installation: Clean cable connectors. Install battery in vehicle. Tighten hold down brackets. Connect positive cable to positive terminal and negative cable to negative terminal. **CONNECT THE NEGATIVE CABLE LAST!**

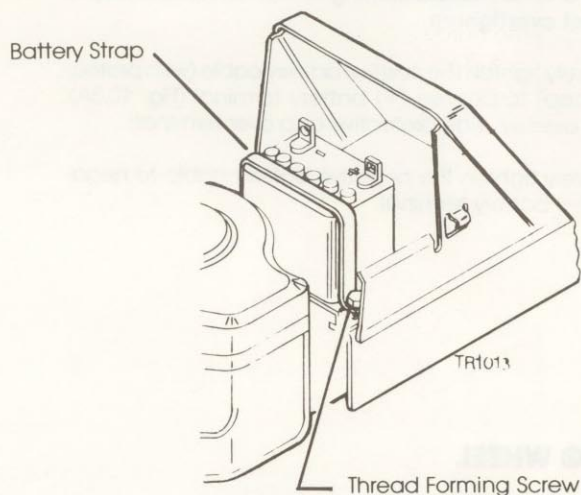


FIG. 10.2A

2. Reinstall battery

PARTS NEEDED

- (2) $\frac{5}{16} \times \frac{3}{4}$ Hex Hd. Cap Screw
- (2) $\frac{5}{16}$ Hex nuts
- (2) $\frac{5}{16}$ SAE Flat Washers
- (2) $\frac{5}{16}$ Lock Washers

- A. Open Hood.
- B. Clamp the battery in place (Fig. 10.2A). Use battery strap and two thread forming screws removed in step 1.
Do not overtighten.
- C. Securely tighten the positive battery cable (with protective cap) to positive (+) battery terminal (Fig. 10.3A). After assembly, slide protective cap over terminal.
- D. Securely tighten the negative battery cable to negative (-) battery terminal.

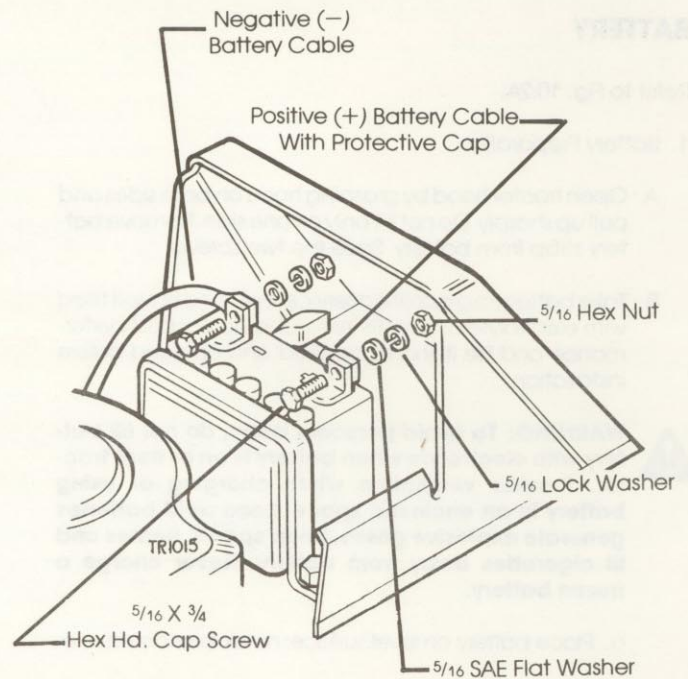


FIG. 10.3A

STEERING WHEEL

1. Assemble steering wheel to steering wheel shaft.

Refer to Fig. 10.3B.

PARTS NEEDED:

- (1) Steering Wheel
- (1) Bellows
- (1) $\frac{5}{16} \times \frac{3}{4}$ Hex Hd. Cap Screw
- (1) Pyramidal Lock Washer
- (1) Steering Wheel Cap (from owners information package)
- (1) Bellows Retaining Cap

- A. Stretch bellows, and with the tapered end down, slide it onto the steering shaft.
- B. Place the bellows retaining cap on top of bellows.
- C. Place steering wheel onto shaft. **NOTE:** Position steering wheel so the steering wheel cap will be readable from the operating position, with the front wheels pointed straight ahead.
- D. Secure steering wheel in place with the pyramidal lock washer and the $\frac{5}{16} \times \frac{3}{4}$ hex hd. cap screw. Tighten securely.
- E. Position bellows around the bellows retaining cap.
- F. Snap steering wheel cap in place.

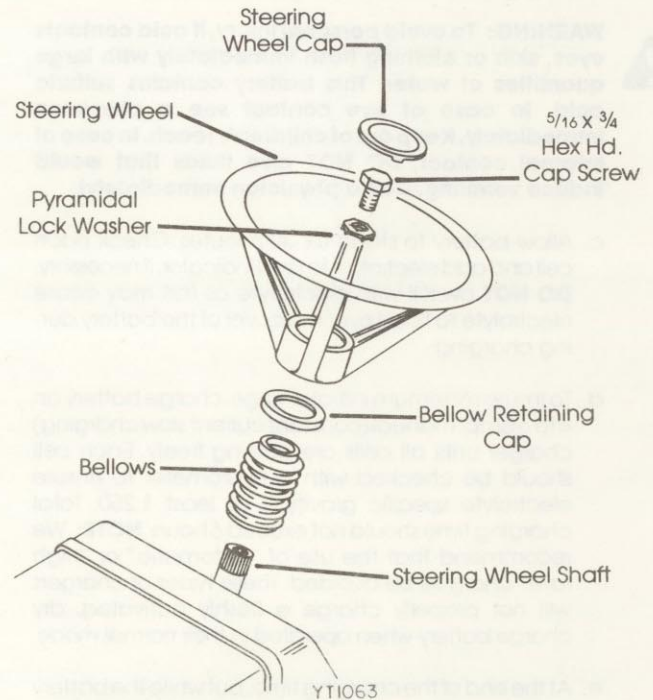


FIG. 10.3B

REMOVAL

To remove steering wheel use a steering wheel or hub puller or thread cap screw part way out. While putting upward pressure on the rim, tap the cap screw with a hammer until steering wheel is loose.

SEAT

1. Attach seat to tractor.

Refer to Fig. 10.4A.

PARTS NEEDED:

- (1) Seat
- (2) $\frac{3}{8}$ SAE Flat Washers
- (1) $\frac{3}{32} \times \frac{3}{4}$ Cotter Pins

- A. Remove the cotter pin from one end of the seat pivot rod. Discard the cotter pin.
- B. Line up the holes in the plate under seat with the holes in the seat support. **NOTE:** The plate on the seat should be on the outside of the seat support.
- C. Place a $\frac{3}{8}$ SAE flat washer onto the seat pivot rod.
- D. Insert the seat pivot rod through the lined up holes.
- E. Place a $\frac{3}{8}$ SAE flat washer onto the other end of the seat pivot rod and secure in place with a $\frac{3}{32} \times \frac{3}{4}$ cotter pin. Bend back the ends.
- F. Connect the plug on the wire assembly to the terminals on the seat switch. Push plug completely onto terminals. Connect the wires to the other seat switch.
- G. Pivot seat down to the operating position.

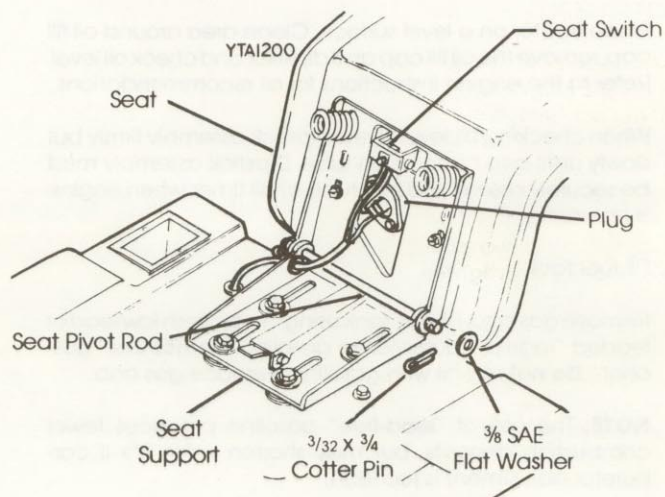


FIG. 10.4A

INITIAL SERVICING

Refer to Fig. 10.5A.

1. Check engine crankcase oil.

Place tractor on a level surface. Clean area around oil fill cap, remove the oil fill cap and dipstick and check oil level. Refer to the engine instructions for oil recommendations.

When checking oil level screw dipstick assembly firmly but slowly until cap bottoms on tube. Dipstick assembly must be securely assembled into tube at all times when engine is operating.

2. Fill fuel tank.

Remove gas cap. Fill gas tank using clean, fresh low lead or leaded "regular" automotive gasoline. **Do not** use "gasohol". **Do not** mix oil with gasoline. Replace gas cap.

NOTE: The use of "lead-free" gasoline produces fewer combustion deposits, but may shorten valve life if carburetor adjustment is too lean.



WARNING: To avoid personal injury, use caution with gasoline. Gasoline is very flammable. Keep gasoline in a clean, tight container. Clean any spilled gasoline from the tractor before starting the engine.

3. Tire Pressure.

The front and rear tires are normally overinflated for shipping purposes. The recommended operating tire pressure is 10 lbs. for both front and rear tires. Overinflated tires will result in a hard riding tractor and can loosen hardware on the unit.

4. Lubrication Points.

It is recommended that all lubrication points be serviced prior to trial run. Refer to MAINTENANCE AND LUBRICATION section.

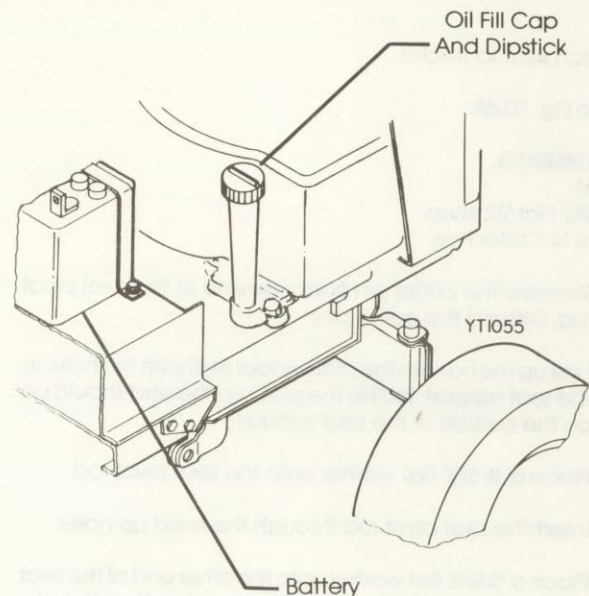


FIG. 10.5A



WARNING

FAILURE TO FOLLOW SAFE OPERATING PROCEDURE MAY RESULT IN INJURY.

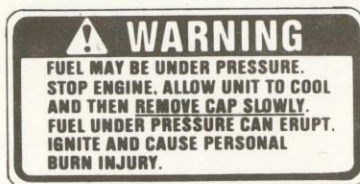
1. READ OPERATOR'S MANUAL
2. KNOW LOCATION AND FUNCTION OF ALL CONTROLS
3. BEFORE LEAVING OPERATOR'S POSITION
 - A. SET PARKING BRAKE
 - B. SHUT ENGINE OFF AND REMOVE KEY
4. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING MACHINE
5. DO NOT OPERATE MACHINE WHERE IT COULD TIP OR SLIP
6. IF MACHINE STOPS GOING UPHILL, DISENGAGE P.T.O. (ATTACHMENT DRIVE) AND BACK SLOWLY DOWN
7. LOOK TO REAR BEFORE BACKING UP
8. REMOVE OBJECTS THAT COULD BE THROWN BY ROTATING BLADES
9. NEVER CARRY CHILDREN. KEEP PEOPLE AND PETS A SAFE DISTANCE AWAY FROM MACHINE
10. KEEP GUARDS AND SAFETY DEVICES IN PLACE AND WORKING

REPLACEMENT MANUALS ARE AVAILABLE FROM YOUR DEALER

TR1059

11 REPLACEMENT DECALS

SAFETY



GB239433
Warning - Fuel
(Located On The Rear Left Hand
Side Of Seat Support Behind Seat)



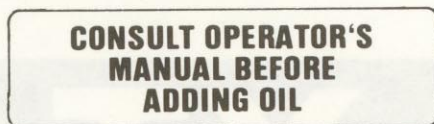
GB243046
Gas Tank Instructions
(Located Under Seat On
The Seat Support Plate)



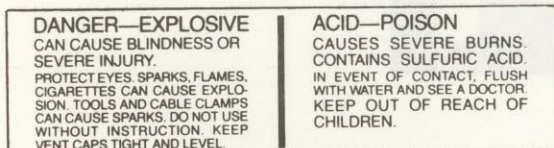
GB211427
Battery
(Located On Top Of Battery Strap)



GB234510
Draw Bar
(Located On Rear Of Hitch Plate)



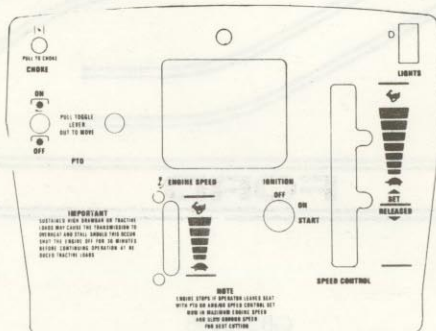
GB244842
Transmission Oil
(Located On Reservoir Cover)



GB244123
Battery
(Located On Battery)



GB234511
Warning - Draw Bar
(Located On Rear Hitch)



GB245577
Instrument Panel
(Located On Instrument Panel)

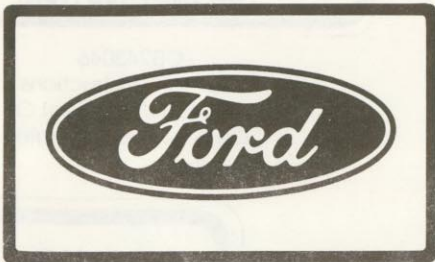
LIFT
PULL
BACK
TO
RAISE

GB36794
Lift
(Located On Lift Lever)



GB243059
Operating Instructions
(Located In Front Of
Seat On Frame)

STANDARD



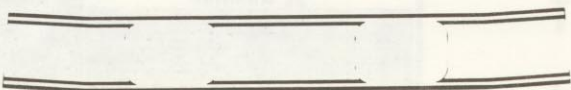
GB243677
Ford
(Located On Side Of Battery)



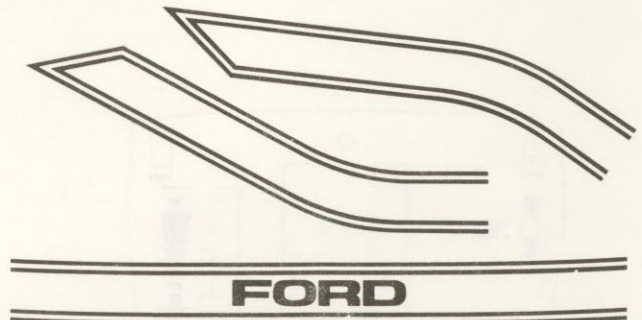
GB243346
Hood Trim Sides
(Located On The Right And Left Hand Sides Of Hood)



GB237878
YT16H
(Located On Right And Left Hand Sides Of Hood)



GB243044
Hood Trim
(Located On Front Of Tractor Hood)



GB243045
Fender
(Located On Back Of Fender And Seat Support)

12 OPTIONAL ACCESSORIES

Accessories and Parts Manual for this unit are available from your local dealer.
Please include your serial number when ordering.



Deluxe and super deluxe dump carts. 6-cu/ft to 10 cu/ft capacity.



Lawn sweepers-31" 14-bushel and 38" 19-bushel.



42" Front blade for easy snow removal.



36" single-stage snow thrower. Raise, lower and adjust chute direction from operator's seat.



All weather cab with hard top.



26" rotary tiller - counter rotating 12" tines.



Thatcher for lawn renovation.

**THIS SECTION IS
A PARTIAL REPRODUCTION OF
THE BRIGGS & STRATTON
ENGINE MANUAL
FORM NO 271196 - 1/87**

**Operating and Maintenance Instructions
Model Series 400700, 402700, 404700, 422700**



IN THE INTEREST OF SAFETY



WARNING: DO NOT RUN THE ENGINE IN AN ENCLOSED AREA. Exhaust gases contain carbon monoxide, an odorless and deadly poison.

A FIRE OR EXPLOSION CAN OCCUR RESULTING IN PERSONAL INJURY IF THE FOLLOWING INSTRUCTIONS ARE NOT FOLLOWED:

1. DO NOT FILL GASOLINE TANK while engine is running. Allow engine to cool for two minutes before refueling.
2. Do not operate the engine when an odor of gasoline is present or other explosive conditions exist.
3. If gasoline is spilled, move machine away from the area of the spill and avoid creating any source of ignition until the gasoline has evaporated.
4. DO NOT STORE, SPILL OR USE GASOLINE NEAR AN OPEN FLAME, or devices such as a stove, furnace or water heater which utilize a pilot light, or devices which can create a spark.
5. Refuel outdoors preferably, or only in well ventilated areas.
6. DO NOT OPERATE ENGINE WITHOUT A MUFFLER. Inspect muffler periodically and replace, if necessary.
7. Periodically clean the muffler area to prevent grass, dirt and combustible material from accumulating.
8. DO NOT use this engine on any forest covered, brush covered or grass covered unimproved land unless a spark arrester is attached to the muffler.
9. DO NOT operate the engine if air cleaner or cover directly over the carburetor air intake is removed.
10. When transporting equipment which is powered by an engine using a float feed carburetor and gravity fuel source, the fuel shut off valve must be closed to prevent fuel leaking from carburetor.
11. DO NOT choke carburetor to stop the engine.
2. A.N.S.I. Standard Safety Specifications for rotary power lawn mowers specify a maximum blade tip speed of 19,000 feet per minute (96.5 meters per second), primarily to reduce the danger from thrown objects.
3. Do not tamper with the engine speed selected by the original equipment manufacturer.
4. DO NOT TOUCH hot mufflers, cylinders or fins as contact may cause burns.
5. Dirt and grass clippings or other debris, in cooling fins or governor parts can affect engine speed. See cleaning instructions in MAINTENANCE section.
6. TO PREVENT HAND OR ARM INJURY, always pull starter cord rapidly to avoid kickback; starting engine with a loose blade or without a blade may cause a severe kickback.
7. ALWAYS KEEP HANDS AND FEET CLEAR OF MOVING OR ROTATING PART.
8. TO PREVENT ACCIDENTAL STARTING when servicing the engine or equipment, always remove the spark plugs or wire from the spark plugs, shown on page 4. Disconnect negative wire from battery terminal if equipped with a 12 volt starting system.

IMPORTANT: DO NOT RUN ENGINE AT EXCESSIVE SPEEDS. Operating an engine at excessive speeds increases the danger of personal injury.

1. DO NOT TAMPER WITH GOVERNOR SPRINGS, GOVERNOR LINKS OR OTHER PARTS WHICH MAY INCREASE THE GOVERNED ENGINE SPEED.

WHEN WORKING ON EQUIPMENT

DO NOT STRIKE FLYWHEEL with a hard object or metal tool as this may cause flywheel to shatter in operation, causing personal injury or property damage. To remove flywheel, use Briggs & Stratton approved tools only.

IN THE INTEREST OF ENVIRONMENT

A muffler which leaks because of rust or damage can permit an increased exhaust noise level. Therefore, examine the muffler periodically to be sure it is functioning effectively. To purchase a new muffler, see SERVICE AND REPAIR INFORMATION.

IMPORTANT: If this engine is not equipped with a spark arrester and is to be used on any forest covered, brush covered, or grass covered unimproved land, before using on such land a spark arrester must be added to the muffler. The arrester must be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. See your Authorized Briggs & Stratton Service Center for spark arrester muffler options.



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

TUNE-UP SPECIFICATIONS

Spark Plug Type	Champion	Autolite
Resistor Long Plug	RJ-12	308
Spark Plug Gap	.030" (.76 mm)	
Intake Valve		
Clearance**	.004"-.006" (.10-.15 mm)	
Exhaust Valve		
Clearance**	.007"-.009" (.18-.23 mm)	

**with valve springs installed.

In some areas, local law requires the use of a resistor spark plug so as to suppress ignition signals. If an engine was originally equipped with resistor spark plugs, be sure to use the same type of spark plugs for replacement.



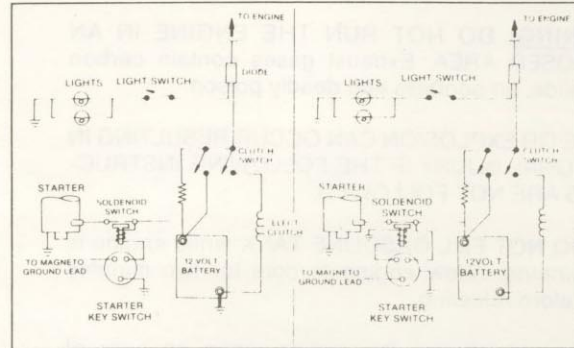
WARNING: For personal safety always remove cable from the negative (-) terminal of battery before attempting any repairs or maintenance.

STORAGE INSTRUCTIONS

Engines to be stored over 30 days should be completely drained of fuel to prevent gum deposits forming on essential carburetor parts, fuel filter and tank.

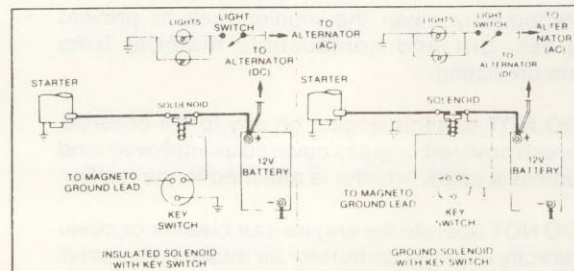
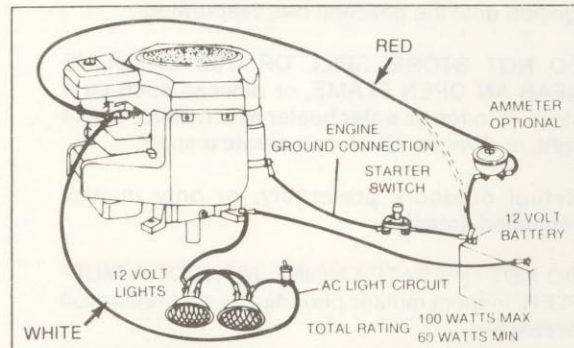
NOTE: The use of a fuel additive, such as STA-BIL®, or an equivalent, will minimize the formation of fuel gum deposits during storage. Such an additive may be added to the gasoline in the fuel tank of the engine, or to the gasoline in a storage container.

- All fuel should be removed from the tank. Run the engine until it stops from lack of fuel.
- While engine is still warm, drain oil from crankcase. Refill with fresh oil.
- Remove spark plugs, pour approximately one ounce (30 cc) of engine oil into each cylinder and crank slowly to distribute oil. Replace spark plugs.
- Clean dirt and chaff from cylinders, cylinder head fins, blower housing, rotating screen and muffler areas.
- Store in a clean and dry area.
- Charge battery and store as recommended by the manufacturer.



Tri-Circuit

TYPICAL WIRING DIAGRAMS



Dual Circuit

BEFORE STARTING

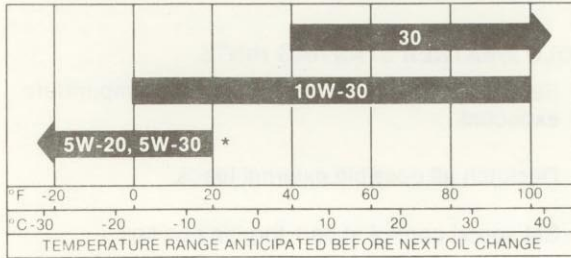
READ THE OPERATING INSTRUCTIONS OF THE EQUIPMENT THIS ENGINE POWERS

OIL RECOMMENDATIONS

Note: Engine is shipped WITHOUT oil.

Use a high quality detergent oil classified "For Service SF, SE, SD or SC." Detergent oils keep the engine cleaner and retard the formation of gum and varnish deposits. No special additives should be used with recommended oils.

RECOMMENDED SAE VISCOSITY GRADES



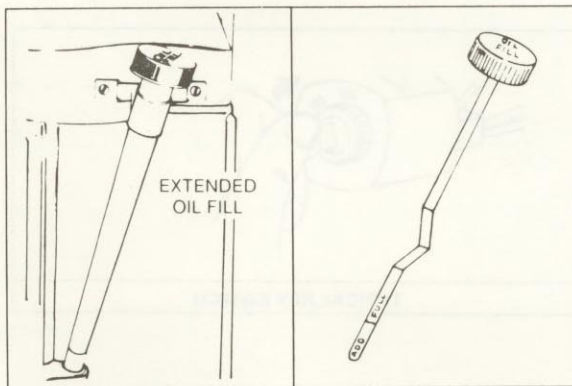
*If not available, a synthetic oil may be used having 5W-20, 5W-30 or 5W-40 viscosity.

NOTE: 10W-40 oil may be used if 10W-30 is not available.

FILL CRANKCASE WITH OIL

Place engine level. Clean area around oil fill before removing dipstick.

EXTENDED OIL FILL. Remove cap and dipstick. **FILL TO FULL MARK** on dipstick, **POUR SLOWLY**. Capacity approximately 3 pints (1.4 liters). When checking oil level, screw dipstick assembly firmly but slowly until cap bottoms on tube. **DO NOT OVERFILL**. Dipstick assembly must be securely assembled into tube at all times when engine is operating.



CHARGE BATTERY

Charge battery before use on engines equipped with (STANDARD) 12 volt electric starter motor. See manufacturers' recommendations.

FUEL RECOMMENDATIONS

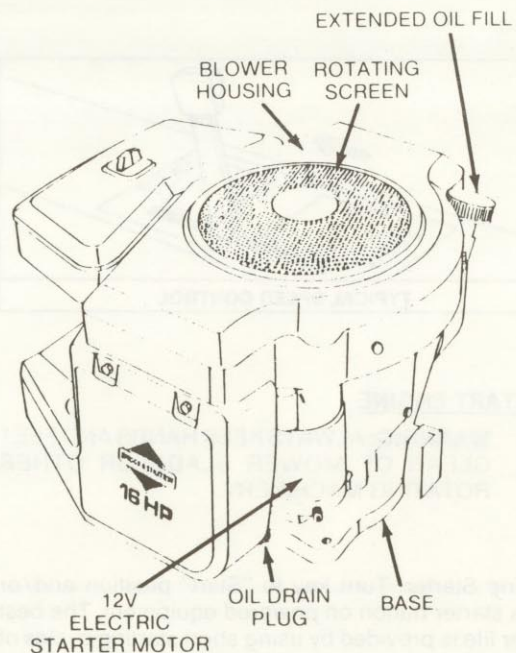
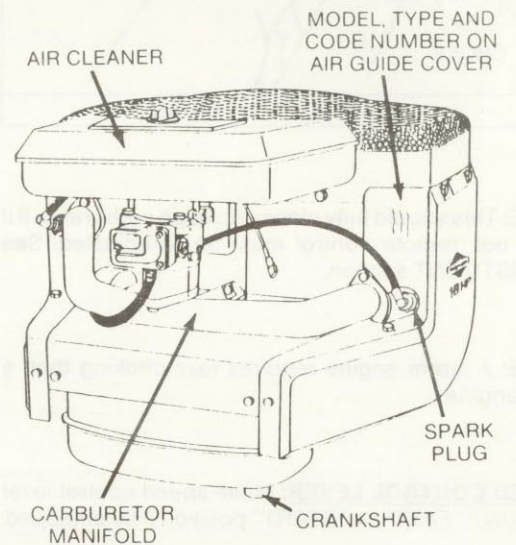
Our engines will operate satisfactorily on any gasoline intended for automotive use. **DO NOT MIX OIL WITH GASOLINE.**

We recommend the use of clean, fresh, lead-free gasoline. Leaded gasoline may be used if lead-free is not available. A minimum of 77 octane is recommended. The use of lead-free gasoline results in fewer combustion deposits and longer valve life.

NOTE: We **DO NOT** recommend the use of gasoline which contains alcohol, such as gasohol. However, if gasoline with alcohol is used, it **MUST NOT** contain more than 10 percent Ethanol and **MUST** be removed from the engine during storage. **DO NOT** use gasoline containing Methanol. See **STORAGE INSTRUCTIONS**.



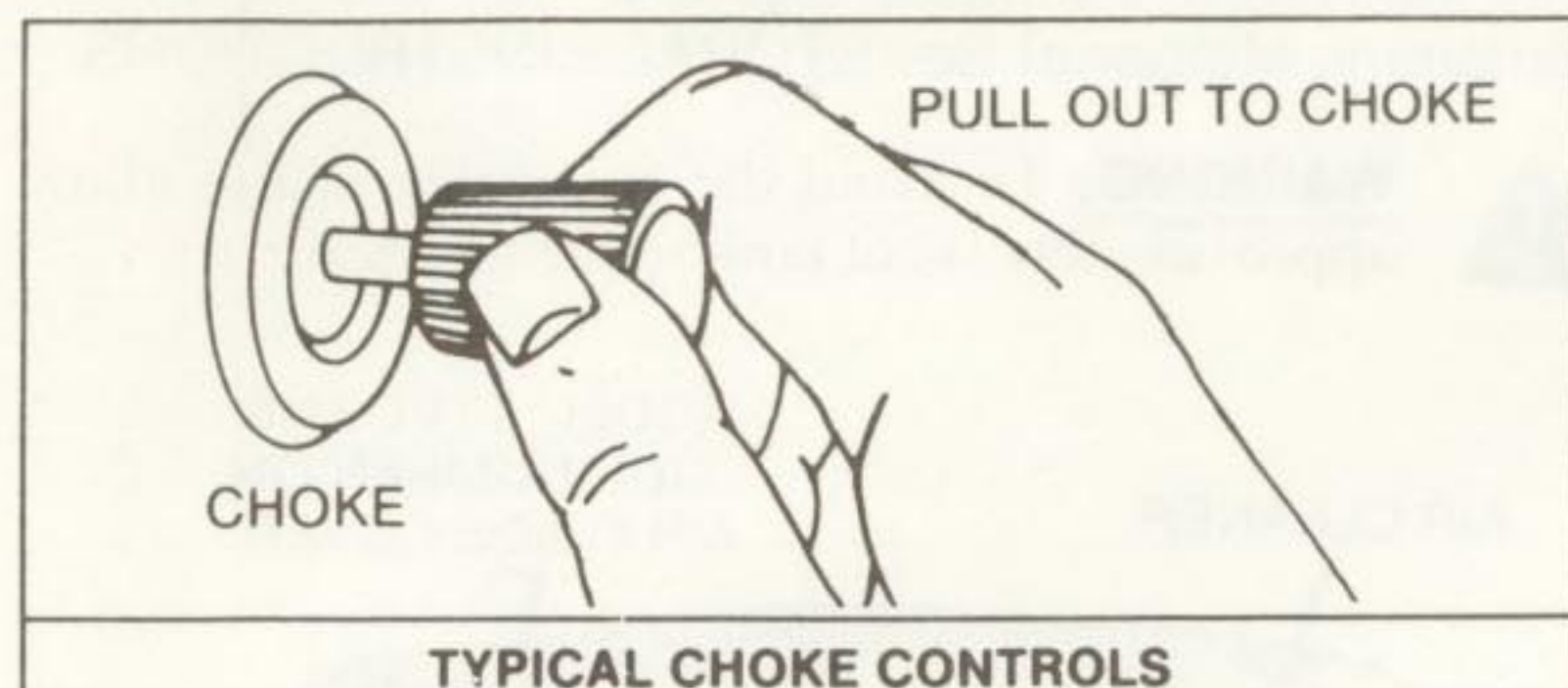
WARNING: To avoid the possibility of fire allow approximately 1/4" of tank space for fuel.



STARTING

OPEN FUEL VALVE on engines so equipped.

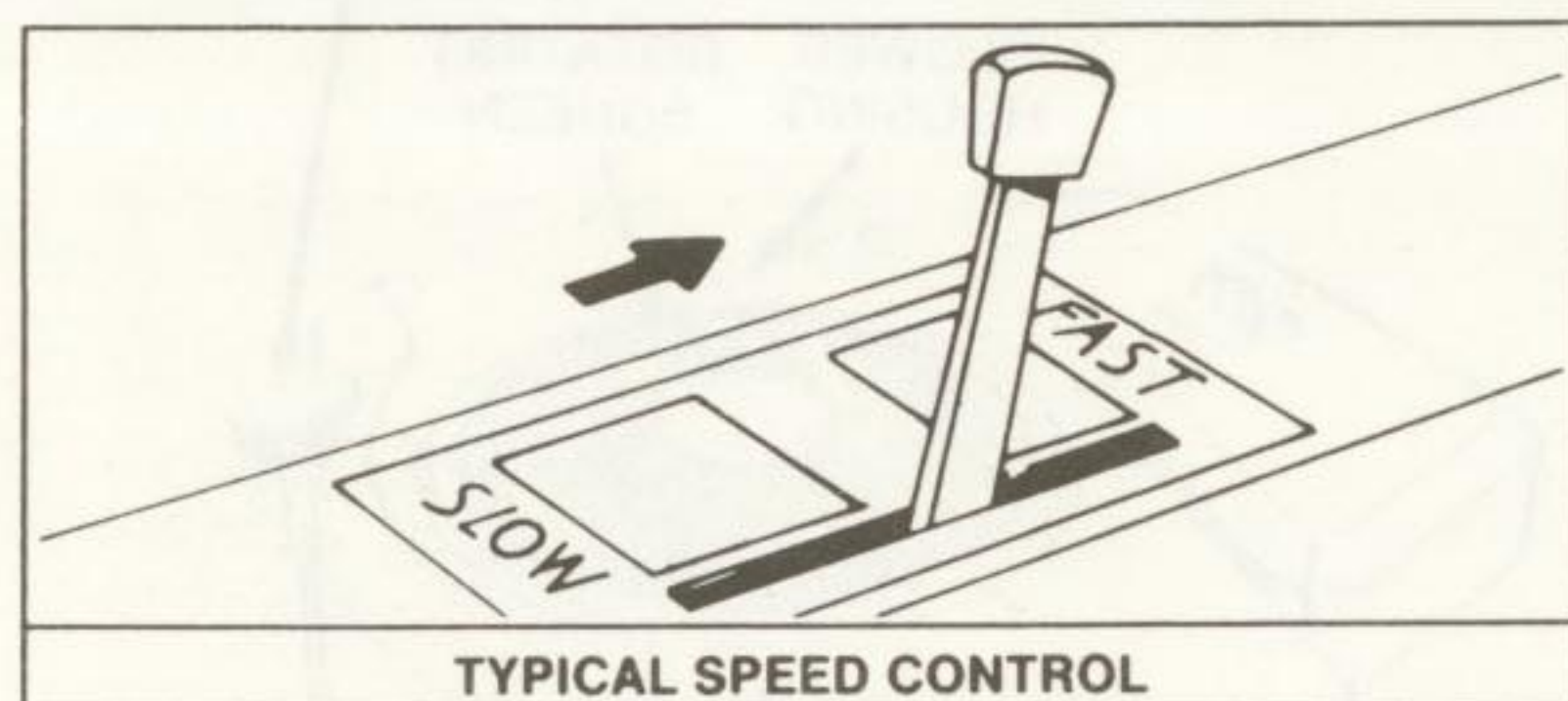
CHOKE ENGINE: Move equipment control lever to "CHOKE" position.



NOTE: This should fully close choke on carburetor. If it does not, remote control must be re-adjusted. See ADJUSTMENT section.

NOTE: A warm engine requires less choking than a cold engine.

SPEED CONTROL LEVER: Move speed control lever to "RUN," "FAST" or "START" position if so equipped.

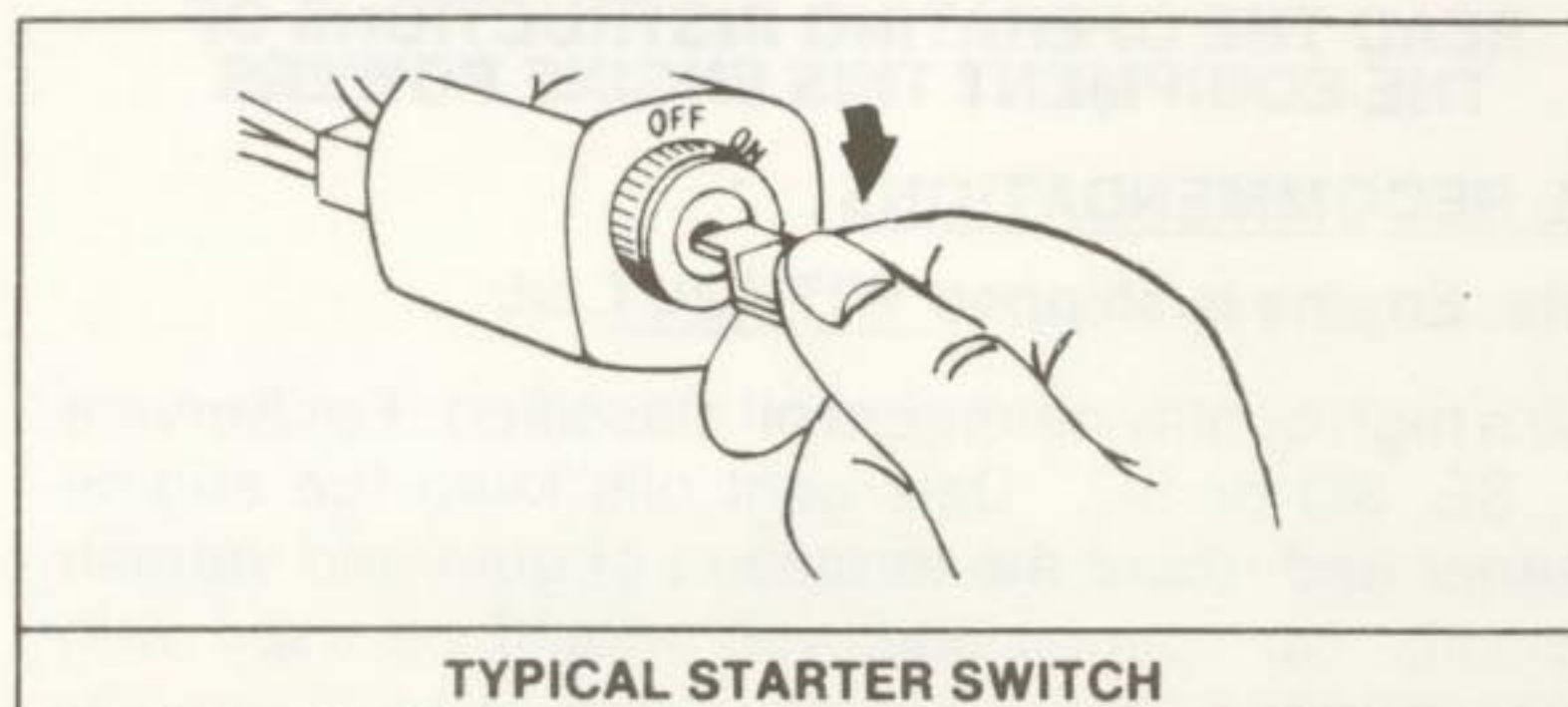


TO START ENGINE



WARNING: ALWAYS KEEP HANDS AND FEET CLEAR OF MOWER BLADE OR OTHER ROTATING MACHINERY.

Electric Starter. Turn key to "Start" position and/or press starter button on powered equipment. The best starter life is provided by using short starting cycles of several seconds. Prolonged cranking can damage the starting motor if cranked more than 15 seconds per minute. Allow starter to cool 2 minutes. When engine starts open choke gradually.



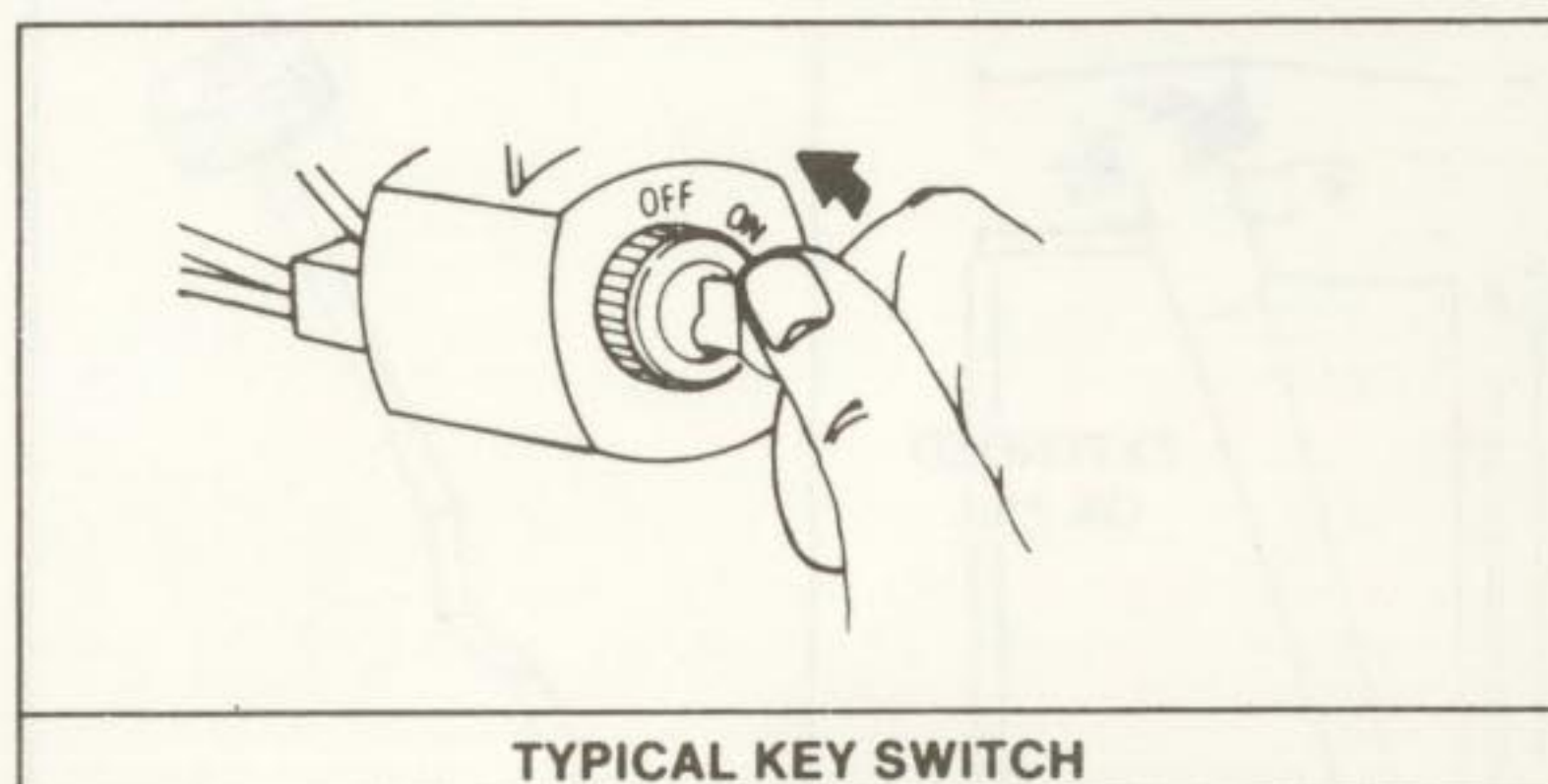
COLD WEATHER STARTING HINTS

1. Be sure to use the proper oil for the temperature expected.
2. Declutch all possible external loads.
3. Set speed control at part-throttle position.
4. A warm battery has much more starting capacity than a cold battery.
5. Use fresh winter grade fuel.

NOTE: Winter grade gasoline has higher volatility to improve starting. Do not use gasoline left over from summer.

TO STOP ENGINE

Turn key to "OFF" position. Do not choke carburetor to stop the engine.



WARNING: To avoid injury always remove key from switch when leaving equipment unattended or when equipment is not in use.

When equipment is not in operation, provide protection from direct exposure to weather.

NOTE: Close fuel shut-off valve when engine is transported to prevent fuel leakage from the carburetor.

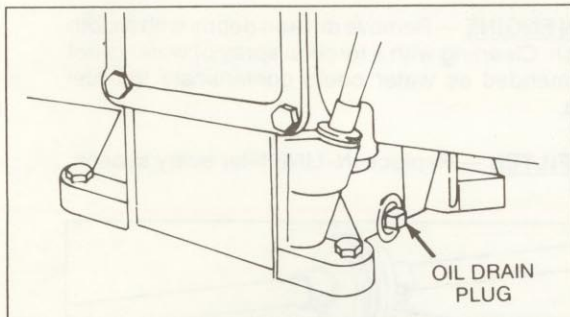
MAINTENANCE



WARNING: TO PREVENT ACCIDENTAL STARTING when servicing the engine or equipment, always remove the spark plugs or wire from the spark plugs shown on page 3. Disconnect negative wire from battery negative terminal.

CHECK OIL LEVEL regularly — after each five hours of operation. BE SURE OIL LEVEL IS MAINTAINED.

CHANGE OIL after first five hours of operation. Thereafter change engine oil every 50 hours of operation, under normal operating conditions. Change engine oil every 25 hours of operation if the engine is operated under heavy load, or in high ambient temperatures. Remove oil drain plug and drain oil while engine is warm. Replace drain plug. Remove dipstick and refill with new oil of proper grade. Replace dipstick.



TO SERVICE DUAL ELEMENT AIR CLEANER

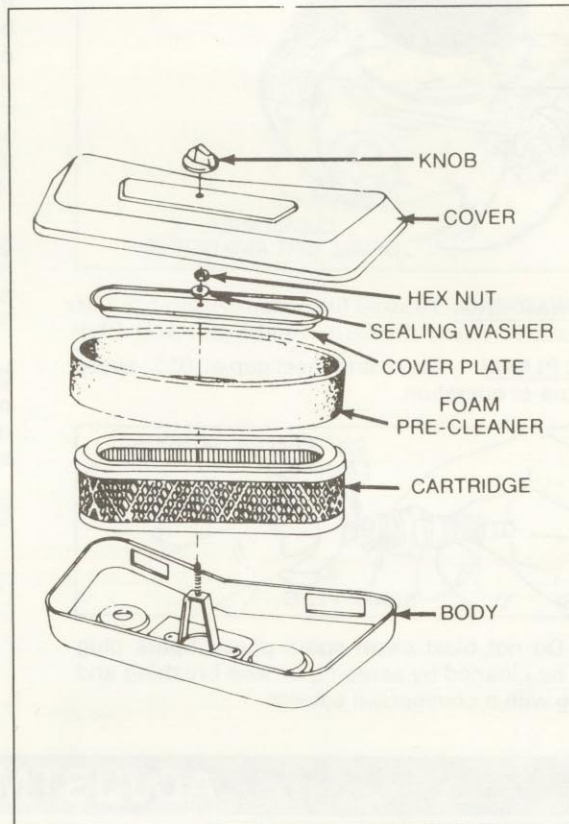
Clean and re-oil foam pre-cleaner at three month intervals or every 25 hours, whichever occurs first.

NOTE: Service air cleaner more often under dusty conditions.

1. Remove knob and cover.
2. Remove foam pre-cleaner by sliding it off the paper cartridge.
3. a. Wash foam pre-cleaner in kerosene or liquid detergent and water.
- b. Wrap foam pre-cleaner in cloth and squeeze dry.
- c. Saturate foam pre-cleaner in engine oil. Squeeze to remove excess oil.
4. Install foam pre-cleaner over paper cartridge. Reassemble cover and screw down tight.

Yearly or every 100 hours, whichever occurs first, remove paper cartridge. Clean by tapping gently on flat surface. If very dirty, replace cartridge, or wash in a low or non-sudsing detergent and warm water solution. Rinse thoroughly with flowing water from inside out, until water is clear. Cartridge must be allowed to stand and air dry thoroughly before using. Service more often if necessary.

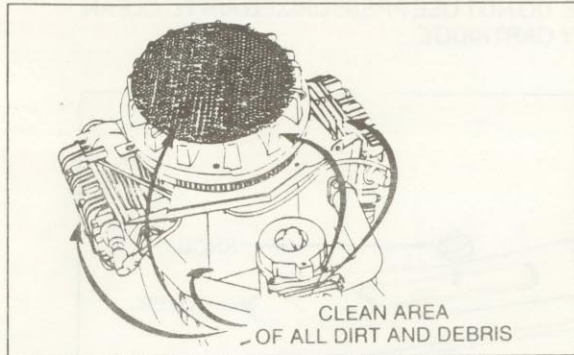
CAUTION: Petroleum solvents, such as kerosene, are not to be used to clean cartridge. They may cause deterioration of the cartridge. **DO NOT OIL CARTRIDGE. DO NOT USE PRESSURIZED AIR TO CLEAN OR DRY CARTRIDGE.**



CLEAN COOLING SYSTEM — Grass, chaff or dirt may clog the rotating screen and the air cooling system, especially after prolonged service in cutting tall dry grasses. Yearly or every 100 hours, whichever occurs first, remove the blower housing and clean the areas

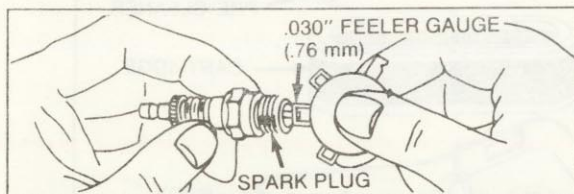
MAINTENANCE (Cont.)

shown to avoid overheating and engine damage. Clean more often if necessary.



WARNING: To avoid fire periodically clean muffler area to remove all grass, dirt and combustible debris.

SPARK PLUGS — Clean and reset gap at .030" every 100 hours of operation.



NOTE: Do not blast clean spark plugs. Spark plug should be cleaned by scraping or wire brushing and washing with a commercial solvent.



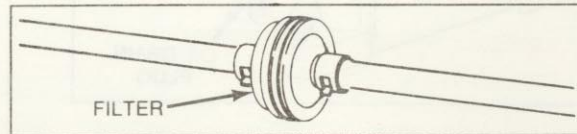
IMPORTANT: Sparking can occur if wire terminals do not fit firmly on spark plugs. Reform terminals if necessary.

REMOVE COMBUSTION DEPOSITS every 100-300 hours of operation. Remove cylinder heads and cylinder head shields. Scrape and wire brush the combustion deposits from cylinder, cylinder heads, top of pistons and around valves. Use a soft brush to remove deposits. Re-assemble gaskets, cylinder heads and cylinder head shields. Turn screws down finger tight, with the three longer screws around the exhaust valve, if so equipped. Torque cylinder head screws in a staggered sequence to 165 inch pounds (18.65 Nm).

SPARK ARRESTER EQUIPPED MUFFLER — If engine muffler is equipped with spark arrester screen assembly, remove every 50 hours for cleaning and inspection. Replace if damaged.

CLEAN ENGINE — Remove dirt and debris with a cloth or brush. Cleaning with a forceful spray of water is not recommended as water could contaminate the fuel system.

FUEL FILTER — Replace IN-LINE filter every season.



ADJUSTMENTS

CARBURETOR ADJUSTMENTS

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude or load.

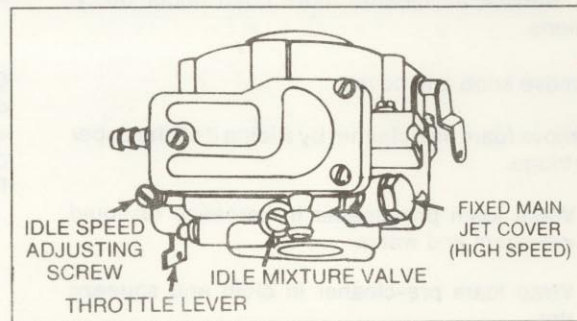
NOTE: The air cleaner must be assembled to carburetor when running engine.

THE TWIN CYLINDER ENGINE CARBURETOR FUEL MIXTURE ADJUSTMENT PROCEDURE IS UNIQUE. ADJUST CARBURETOR FUEL MIXTURE IN THE ORDER STATED AS FOLLOWS:

Gently turn the idle mixture valve clockwise until it just closes. Valve may be damaged by turning it in too far. Open idle valve 1-1/2 turns counterclockwise.

This initial adjustment will permit the engine to be started and warmed up (approximately 5 minutes) prior to final adjustment.

Start engine and place equipment speed control lever in idle position. Hold carburetor throttle lever against idle stop, and adjust idle speed screw to obtain: 1200 to 1400 RPM. Turn idle mixture valve slowly clockwise (lean mixture) until speed just starts to slow. Then turn idle mixture valve 1/2 turn counterclockwise. Now



adjust idle speed screw to obtain: 900 to 1200 RPM. Release throttle lever.

NOTE: Engines operated at altitudes of approximately 5000 feet, may require the installation of a high altitude carburetor main jet to achieve best engine performance. If erratic performance or lack of power is observed, select the fixed main jet part number 231333. It may be ordered and installed at your nearest Briggs & Stratton Service Center.

If the engine does not accelerate properly, re-adjust idle mixture valve approximately 1/8 turn counterclockwise (rich).

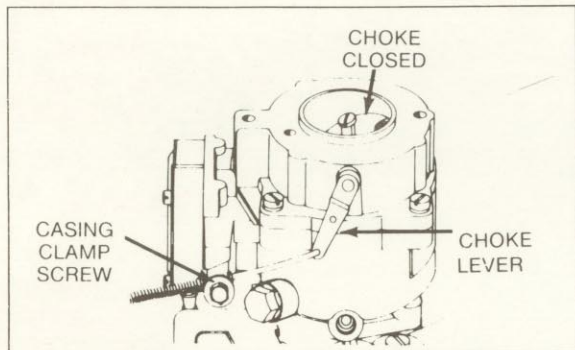
ADJUSTMENTS (Cont.)

CONTROL ADJUSTMENTS

Proper choke and speed control operation is dependent upon proper adjustment of remote controls on the powered equipment.

TO CHECK OPERATION OF CHOKE CONTROLS:

Move control lever to "choke" position. The carburetor choke should be closed.



TO ADJUST CHOKE:

Place control lever on equipment in "CHOKE" position. Loosen casing clamp screw. Move casing and wire until choke is completely closed. Tighten casing clamp screw.

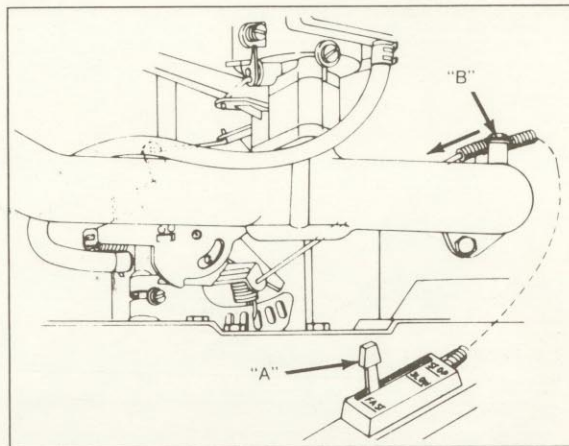
SPEED CONTROL ADJUSTMENT

The acceptable operating speed range is 1800 to 3600 RPM. Idle speed is 1400 RPM. The manufacturer of the equipment on which the engine is used, specifies the

top governed no load speed at which the engine may be operated. DO NOT EXCEED this speed.

Engine speed is controlled by movement of the control lever. Move control lever on equipment, "A", to slowest engine speed possible. Throttle lever on carburetor should touch idle speed adjusting screw. To adjust, loosen casing clamp screw "B." Move casing and wire in direction shown by arrow until throttle lever touches idle speed adjusting screw on carburetor. Retighten casing clamp screw "B."

IMPORTANT: Throttle lever on carburetor **MUST** touch idle speed adjusting screw when equipment control lever is in slowest position.



GENERAL INFORMATION

These engines are two-cylinder L-head, air-cooled type.

MODEL SERIES 400700, 402700 & 404700

Bore 3-7/16" (87.31 mm)
 Stroke 2-5/32" (54.77 mm)
 Displacement 40.00 cu. in. (656.0 cc)
 Horsepower 400700 14 HP Max. @ 3600 RPM
 Horsepower 402700 16 HP Max. @ 3600 RPM
 Horsepower 404700 ... 12.5 HP Max. @ 3600 RPM
 Torque (Ft.-Lbs.) 402700 ... 25.8 Max. @ 2700 RPM
 Torque (Ft.-Lbs.) 400700 ... 24.4 Max. @ 2300 RPM
 Torque (Ft.-Lbs.) 404700 ... 23.7 Max. @ 2200 RPM

MODEL SERIES 422700

Bore 3-7/16" (87.31 mm)
 Stroke 2-9/32" (57.94 mm)
 Displacement 42.33 cu. in. (694.0 cc)
 Horsepower 18 HP @ 3600 RPM
 Torque (Ft.-Lbs.) 28.6 @ 2600 RPM

The horsepower ratings listed are established in accordance with the Society of Automotive Engineers Test Code-J607. For practical operation, the horsepower loading should not exceed 85% of this rating. Engine power will decrease 3-1/2% for each 1,000 feet (304.8 m) above sea level and 1% for each 10° above 60° F (16° C).

BRIGGS & STRATTON ENGINES ARE MADE UNDER ONE OR MORE OF THE FOLLOWING PATENTS

2,999,491	3,305,223	3,526,146	3,625,492	3,745,393	3,971,353	4,233,043
3,194,224	3,457,804	3,572,218	3,650,354	3,961,724	4,168,288	4,270,509
3,276,439	3,465,740	3,625,071	3,738,345	3,968,854	4,189,040	

DESIGN
 D-247,177
 OTHER PATENTS PENDING

NOTE

Engine speed is controlled by the governor. The governor is located in the engine compartment. The governor is controlled by the throttle cable. The throttle cable is connected to the throttle lever on the engine. The throttle lever is controlled by the throttle pedal on the floor.

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CAUTION: The throttle cable is under tension. Do not adjust the throttle cable while the engine is running. The throttle cable is under tension. Do not adjust the throttle cable while the engine is running.



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ADJUSTMENT OF GOVERNOR

The governor is controlled by the throttle cable. The throttle cable is connected to the throttle lever on the engine. The throttle lever is controlled by the throttle pedal on the floor. The governor is controlled by the throttle cable. The throttle cable is connected to the throttle lever on the engine. The throttle lever is controlled by the throttle pedal on the floor.

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GOVERNOR ADJUSTMENT

Engine Speed (RPM)	Throttle Cable Adjustment
1500	1.5 in. (38 mm)
1600	1.6 in. (41 mm)
1700	1.7 in. (43 mm)
1800	1.8 in. (46 mm)
1900	1.9 in. (48 mm)
2000	2.0 in. (51 mm)
2100	2.1 in. (53 mm)
2200	2.2 in. (56 mm)
2300	2.3 in. (58 mm)
2400	2.4 in. (61 mm)
2500	2.5 in. (64 mm)
2600	2.6 in. (66 mm)
2700	2.7 in. (69 mm)
2800	2.8 in. (71 mm)
2900	2.9 in. (74 mm)
3000	3.0 in. (76 mm)

GOVERNOR ADJUSTMENT

Engine Speed (RPM)	Throttle Cable Adjustment
1500	1.5 in. (38 mm)
1600	1.6 in. (41 mm)
1700	1.7 in. (43 mm)
1800	1.8 in. (46 mm)
1900	1.9 in. (48 mm)
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2500	2.5 in. (64 mm)
2600	2.6 in. (66 mm)
2700	2.7 in. (69 mm)
2800	2.8 in. (71 mm)
2900	2.9 in. (74 mm)
3000	3.0 in. (76 mm)

OWNER ASSISTANCE

We at Ford New Holland and your Ford New Holland dealer want you to be completely satisfied with your investment. Normally any problems with your equipment will be handled by your dealer's Service Department. Sometimes, however, misunderstanding can occur. If your problem has not been handled to your satisfaction, we suggest the following.

1. Contact the owner or General Manager of the dealership, explain the problem, and request assistance. When additional assistance is needed, your dealer has direct access to our branch office.
2. If you cannot obtain satisfaction by doing this, contact the New Holland branch office in your area and provide the with:

- Your name, address, and telephone number
- Machine Model and serial number
- Dealership name and address
- Machine purchase date and amount of use
- Nature of problem

Atlanta

2000 Mountain Ind. Blvd.
Tucker, GA 30084
Telephone: (404) 491-3499

Dallas

P.O. Box 10227
Dallas, TX 75207
Telephone: (214) 939-4950

Kansas City

P.O. Box 14550
Lenexa, KS 66219
Telephone: (913) 888-7000

Minneapolis

P.O. Box 1342
Minneapolis, MN 55440
Telephone: (612) 887-4232

New Holland

500 Diller Avenue
New, Holland, PA 17557
Telephone: (717) 354-1112

Oakland

P.O. Box 12964
Oakland, CA 94604
Telephone: (415) 273-0200

Troy

1315 Coolidge Avenue
Troy, MI 48084
Telephone: (313) 637-9382

Calgary

Box 1616, Main P.O.
Calgary, AB
CANADA T2P 2M7
Telephone: (403) 273-6771

Toronto

P.O. Box 7000
Brampton, ON
CANADA L6V 2M9
Telephone: (416) 457-2720

3. If you need further assistance contact:

*Consumer Services Department
Mail Station 500
Ford New Holland, Inc.
New Holland, PA 17557
Telephone: (717) 354-1545*

When contacting Ford New Holland's branch office or Consumer Services Department, be aware that your problem will likely be resolved in the dealership using the dealer's facilities, equipment, and personnel. So it is important that your initial contact be with the dealer.

