## OPERATOR'S INSTRUCTION MANUAL

PRICE \$.25

# Ariens manorway

SERIAL NUMBER

MODEL 913003 - 000101

AND UP



#### SAFETY MESSAGE



The product for which you have requested information or replacement parts is not a current product. The replacement models incorporate product designs, safety features, safety instructions or warnings which represent the latest "State Of The Art" developments. For your safety and those around you please contact your nearest Ariens/Gravely Dealer for a demonstration of the current product safety provisions and features.



#### WARRANTY

Ariens Company hereby warrants to the original retail purchaser all new products of its own manufacture to be free from defects in material and workmanship, for a period of one year except when used commercially or for rental purposes in which case the warranty period shall be for 45 days from date of original purchase, subject to the following exceptions:

- Engine parts and service must be handled by the respective engine manufacturer.
- A 90 day warranty will be extended on belts, tires, throttle controls, or any other items subject to normal wear:
- 3. No warranty is extended to any equipment which has been misused, neglected or damaged by accident. Ariens Company shall not be responsible for damage in transit or handling by any common carrier, and under no circumstances, within or without the warranty period, will the Company be liable for damages for loss of use, or damages resulting from delay, or any consequential damages.

It is the consumer's responsibility for: (1) Normal maintenance as greasing, gear case lubrication, minor adjustments, etc. (2) Transportation of any Ariens product to and from the place the warranty work is performed.

Ariens warranty WILL NOT APPLY to any products repaired or altered by anyone other than an Authorized Service Distributor or Authorized Service Dealer.

Any transportation charges incurred on any equipment claimed defective, which shall include time and expense of the distributor or dealer for pickup, and/or return of the equipment, shall be borne by the purchaser.

Ariens Company reserves the right to incorporate any changes in design into its products without obligation to make such changes on units previously manufactured.

#### DISCLAIMER OF FURTHER WARRANTY

There are no warranties, expressed or implied, oral or written, in fact or by operation of law, nor shall there be a warranty or merchantability, on any of the company's products except as otherwise expressly stated above. In no event shall the company be liable for any indirect, special or consequential damages such as loss of anticipated profits or other economic loss in connection

with or arising out of the existence, furnishing, functioning, or the ultimate consumer's use of any products supplied by the company.



ARIENS COMPANY

**BRILLION, WIS. 54110** 

#### SAFETY PRECAUTIONS

Improper use of riding lawn mowers, garden tractors and attachments on the part of the opera-tor can result in injury. To reduce this possi-bility, give complete and undivided attention to the job at hand.

This mower conforms to the requirements of USA Standard B71.1-1968.

- 1. Know the controls and how to stop quickly -
- READ THE OWNER'S MANUAL.

  2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper in-
- 3. Do not carry passengers. Keep children and pets a safe distance away.
  4. Clear work area of objects which might be
- picked up and thrown.
- 5. Disengage all attachment clutches and shift into neutral before attempting to start engine.
- 6. Disengage power to attachments and stop engine before leaving operator position.
  7. Disengage power to attachment and stop engine before making any repairs or adjustments.
  8. Disengage power to attachments when transporting or not in use.

  9. Take all possible precautions when leaving
- Take all possible precautions when leaving vehicle unattended; such as disengating power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
   Do not stop or start suddenly when going uphill or downhill. Mow up or 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. Exercise extreme caution when changing direction on slopes.
   Stay alert for holes in terrain and other hidden
- 12. Stay alert for holes in terrain and other hidden
- 13. Use care when pulling loads or using heavy
- A. Use care when pulming today of using nearly 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 wheel weights when suggested in owner's

  - manual.

- 14. Watch out for traffic when crossing or near
- 15. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
- 16. Handle gasoline with care -- it is highly flam-
  - A. Use approved gasoline container,
  - A. Use approved gasoline container.

    B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.

    C. Open doors if engine is run in garage --exhaust fumes are dangerous. Do not run
- engine indoors.

  17. Keep vehicle and attachments in good operating condition and keep safety devices in place.

  18. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
- 19. Never store equipment with gasoline in the tank inside a building where fumes may reach an
- open flame or spark.
  20. Allow engine to cool before storing in any
- enclosure.
- 21. To reduce fire hazard, keep engine free of grass, leaves or excessive grease.
  22. 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.
- 23. Do not change engine governor settings or overspeed engine.
- 24. When using vehicle with mower:

  A. Mow only in daylight or in good artificial
  - light.

    B. Never make a cutting height adjustment while
  - engine is running if operator must dismount
  - to do so. C. Shut engine off when removing grass catcher
  - and/or unclogging chute.

    D. Check blade mounting bolts for proper tightness at frequent intervals.

25. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety

#### **ASSEMBLY** SECTION 1

## PREOPERATING INSTRUCTIONS

#### 1. TRACTOR

The Manorway tractor is shipped completely assembled except for mounting the steering wheel. Before mounting the steering wheel, adjust the seat to a comfortable position so that the brake and clutch pedals can be operated easily. Remove the cap screw and locknut from the steering wheel Place the steering wheel in position on the steering column. While seated on the tractor, hold the steering wheel at a comfortable height and fasten with the cap screw and locknut.

#### 2. BATTERY

Fill the battery according to the battery instructions in Section IV, Paragraph 10.

#### 3. TIRES

The Manorway tractor is shipped with tires over inflated. Before operating, reduce tire pressure on rear tires to 12 to 15 psi. Reduce the pressure on front tires to 12 psi if using a rotary mower; 20 psi if equipped with a snow thrower or front blade.

#### 4. TRANSAXLE

Check oil level in the transaxle (Figure 2). If required, add oil to reach a level where the oil is in the filler tube. Be sure unit is on level surface when checking. Use Ariens Premium Gear Lubricant MP90.

#### 5. ENGINE

Prepare engine for service according to the engine manual.

#### 6. MANUAL

Read operator's manual for engine and mower before operating. Fill out prewarranty registration card and mail to Ariens Company. Warranty will only be registered under the model and serial number stamped into the frame of the unit. Do not give engine or mower pan model and serial number.

## SECTION II LUBRICATION

#### 1. TRACTOR

a. Front Wheels. Lubricate wheel bearings and wheel spindles in front axle monthly or every 25 hours. Lubricate oftener if working in extremely dusty conditions. Use Ariens Moly Lithium grease. Wipe fittings clean after lubrication.

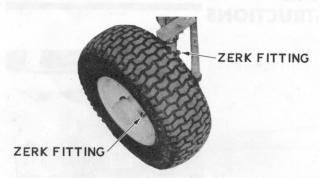


Figure 1

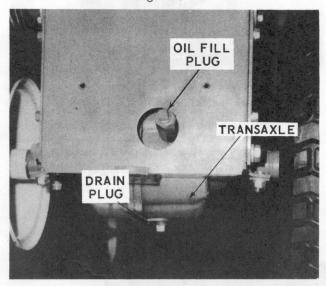


Figure 2

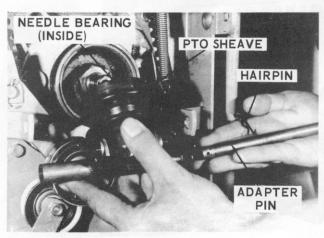


Figure 3

b. Transaxle. Periodically remove the oil fill plug and check the oil level. See figure 2. When required, add oil to a level where the oil is in the filler tube. Be sure tractor is on level surface when checking. Every 200 hours or 2 years, whichever comes first, remove the transaxle drain plug and drain all oil. Replace the plug and add 48 ounces of Ariens Premium Gear Lubricant MP-90 through the filler hole.

c. PTO Needle Bearing (Figure 3). PTO is located directly below engine. Use only Ariens Moly Lithium grease or equivalent. Use low pressure single stage type grease gun (Ariens #10 grease gun) when greasing PTO needle bearing. Apply grease through zerk fitting until the grease comes out of the slot on the side of the zerk fitting. PTO needle bearing MUST be greased every 25 hours of operation or sooner if operating under dusty conditions.

#### CAUTION -

DO NOT over grease or use pressure grease applicator. This will force grease to reach PTO lining, thus ruining the lining.

d. Grease the shift shaft every 25 hours of operation or once each season. See figure 4. Before greasing shaft, move the speed range control to the HI range.



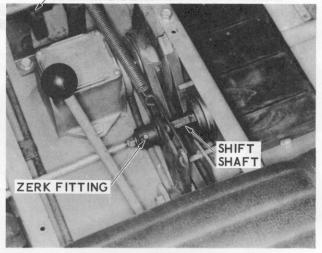


Figure 4 - CAUTION -

Use care when greasing shift shaft to prevent grease from reaching the secondary drive belts.

e. Grease steering gears (Figure 4). Use Ariens Moly Lithium Grease.

#### 2. ENGINE

Before starting the engine for the first time, fill the crankcase with oil. Proper grade of oil to be used is indicated on the engine nameplate. Additional engine instructions are given in the engine manual.

#### - NOTE -

Check engine crankcase oil level with the dipstick every 5 hours of operation or each time the engine is used. If necessary, add sufficient oil of the proper viscosity to bring the oil level up to the full mark on the dipstick.

#### SECTION III **OPERATING INSTRUCTIONS**

#### 1. PRE-STARTING INSTRUCTIONS

Before starting the engine each day, perform the following checks and services.

- a. Check fuel supply. Use regular gasoline only.
- b. Be sure oil in engine crankcase is at the proper level. Add oil as indicated to maintain indicated level.
- c. Be sure air cleaner is free of obstructions and excessive dirt.

#### 2. STARTING ENGINE

#### - CAUTION -

When connecting a battery charger or jumper cables to battery, disconnect the in-line fuse connector on right side of engine. This is to prevent damage to the electrical system.

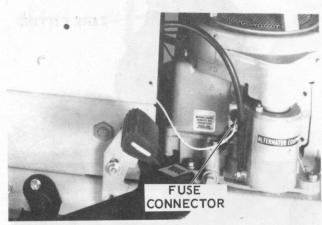
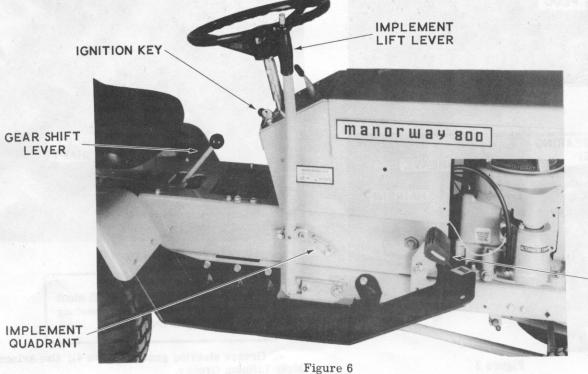


Figure 5

Before starting engine, do the following:

- a. Disengage the PTO clutch by placing PTO clutch lever in DOWN position. See Figure 8. Engine cannot be started unless PTO is disengaged.
- b. Depress the brake pedal and engage the parking brake. See figures 6 and 7.

BRAKE PEDAL



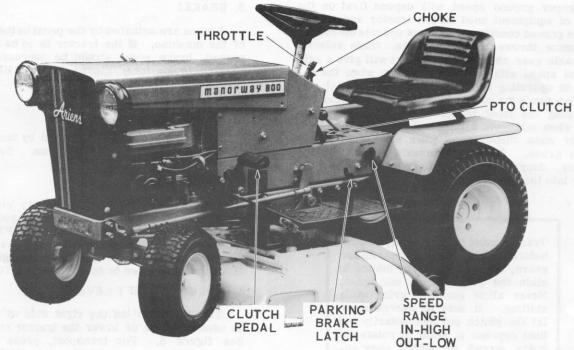


Figure 7

- c. Place the shift lever in the NEUTRAL position. Engine cannot be started unless the shift lever is in this position.
- d. Pull out the choke. The choke should be pulled all the way out for cold engine starting. Less choke is required for starting a warm engine. Experience will soon tell you how much choking is necessary. Push in choke control immediately after engine begins to run.
- e. Turn the ignition key to the right as far as possible to start the engine. Always allow the engine to warm up before applying load.

#### 3. STOPPING THE ENGINE

- a. Before stopping the engine, lower equipment and disengage drives to remove load. Allow engine to idle a few minutes before turning it off.
- b. Depress the brake pedal and lock the parking brake. Depress the clutch pedal and shift to NEUTRAL position.
- c. To stop the engine, turn the ignition key all the way to the left (OFF position). Remove the key. To prevent a person without proper instruction from operating your Manorway, it is important to develop the habit of removing the key each time you leave your Manorway.

#### 4. CHANGING SPEEDS

Tractor ground speed is regulated by three controls:

- a. Shifting the transaxle into any one of the three forward or one reverse speeds. See figure 8.
- b. Moving the speed range control into one of two speed ranges: HI or LO. See figure 8.

c. Adjusting the throttle position.

A total of six forward and two reverse tractor speeds are possible with this drive combination at full throttle as follows:

GEAR	HI-RANGE	LO-RANGE
1st gear	2.1 mph	.7 mph
2nd gear	3.6 mph	1.2 mph
3rd gear	5.4 mph	1.7 mph
Reverse	2.8 mph	9 mnh

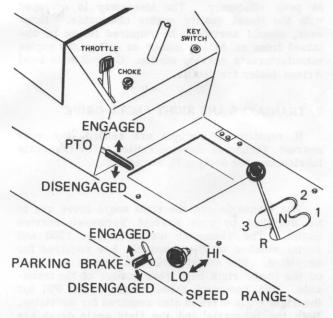


Figure 8

Proper ground speed will depend first on the type of equipment used on the tractor and second on the ground conditions. Always operate the mower and snow thrower at full throttle. Then select a transaxle gear and drive range that will give a safe ground speed with these attachments when the engine is operating at full throttle. In general, use the high range for proper ground speed when mowing or using the front blade. Use the lower range only when minimum ground speed is desired such as for snow throwing or when mowing in tall or dense grass. To shift transaxle gears, stop the tractor, depress the clutch pedal and shift the lever into the desired gear.

#### - NOTE -

Tractor must be completely stopped before shifting gears. When shifting gears, use strong steady motion to slide the gears firmly into mesh. Never allow gears to grind while shifting. It may be necessary to let the clutch out momentarily and then depress it again to rotate the gears enough to permit easy engagement. To change speed ranges, depress clutch pedal and push or pull the SPEED RANGE control in or out on the left side of the tractor.

#### 5. BRAKES

Brakes are actuated by the pedal on the right side of the machine. If the tractor is to be stopped or parked, brake pedal should be depressed and the parking brake lever moved into the UP position. See figures 6 and 8.

#### 6. TRACTOR CLUTCH

The tractor clutch is actuated by the foot pedal on the left side of the machine. See figure 7.

#### 7. PTO CLUTCH

Any of the tractor attachments utilizing the power take off are engaged and disengaged by moving the PTO lever up or down. The PTO lever is located on the left side under the tractor dash. See figure 8. Move the lever up to engage the PTO. Move the lever down to disengage the PTO.

#### 8. IMPLEMENT LIFT LEVER

The lift lever on the right side of the tractor is used to raise or lower the tractor attachments. See figure 6. For transport, press the thumb release button and pull the lever to the UP position to raise mounted equipment. Move the lever toward the DOWN position to lower equipment. Removing pressure from the thumb release will permit the lever to lock into an indent and hold the equipment in a desired position. The attachment instructions will indicate the detent position for proper operation of the attachments.

## SECTION IV SERVICE AND ADJUSTMENTS

#### 1. GENERAL

Ariens dealers will provide any service which may be required to keep the Manorway operating at peak efficiency. The Manorway is equipped with the finest quality engine obtainable. However, should servicing be required it can be obtained from an Ariens dealer or authorized engine manufacturer's service station. Consult your local Ariens dealer for details.

#### 2. TRANSAXLE AND RIGHT ANGLE DRIVE

If repairs or service are needed, see your nearest Tecumseh Service Outlet. For transaxle lubrication, see Section II, Paragraph b.

The transaxle and the right angle drive are to be serviced by your nearest Tecumseh Service Outlet. The Tecumseh model number 1208 and serial number of the transaxle are required for servicing. The serial number is located on a plate on the lower right hand rear corner of the transaxle. The Tecumseh model number 1850 P91 for the right angle drive is also required for servicing. Both the transaxle and the right angle drive are subject to Tecumseh warranty only.

#### - CAUTION -

Do not use the Manorway tractor with ground engaging tools. Use of such attachments will void warranty on the transaxle.

#### 3. ENGINE

Refer to engine instruction book and nameplate on engine for maintenance instructions. If repairs or service are needed for the engine, see the nearest authorized engine service station. Use only the Ariens gas line filter. This filter is supplied with a brass filter screen. Use of another filter may cause engine gasket failure.

#### 4. PRIMARY DRIVE BELT

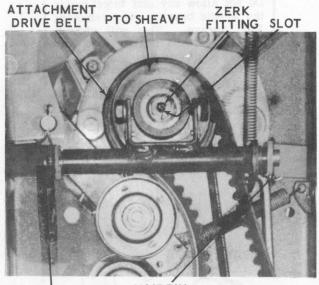
The primary drive belt located under the tractor frame requires no adjustment since the spring loaded idler keeps the belt at proper tension. See figure 10. In the event the primary drive belt requires replacement, proceed as follows:

a. Remove the hairpin and pull the adapter pin securing the lower section of the power take off pulley. See figure 9.

#### - CAUTION -

Do not allow any dirt to get inside the needle bearing when removing PTO sheave. This will shorten the life of the bearing. If dirt does get inside the bearing, the bearing must be cleaned and then repacked with grease.

- b. Pull the lower section of the power take off pulley from the shaft.
- c. Replace the primary drive belt around the engine sheave and right angle drive sheave and position the idler on the belt.
- d. Replace the PTO section of the pulley. Secure with the adapter pin and hairpin. Remember to position the mower or snow thrower belt in place on the PTO before replacing the assembly.



ADAPTER PIN

HAIRPIN

Figure 9

#### 5. SECONDARY DRIVE BELTS

The two secondary drive belts for high and low range are located within the tractor frame. No adjustment of these belts is required. In the event that either of these two belts requires replacement, proceed as follows:

- a. Removal of Old Secondary Drive Belts.
- (1) Loosen the four hex head screws securing the top cover, in front of the seat, and remove the cover. The secondary drive belts are under the cover along the right side of the frame.
- (2) Unhook the spring hook from the idler bracket to release the tension on the belts.
  - (3) Remove the front belt cover.

- (4) Remove the rear hitch from the tractor by removing the six cap screws.
  - (5) Remove the rear belt cover.
  - (6) Remove the belts.
  - b. Installation of the New Secondary Drive Belts.
    - (1) Install the belts on the sheaves.
- (2) Check the position of the sheaves. The low range belt is to be in the center of the idler with idler in low range position. Reposition front sheave if required.
- (3) Hook the spring hook into the idler bracket.
- (4) Replace the front and rear belt covers. Before fastening the belt covers in place, check them for straightness and proper adjustment. See Paragraph c. After fastening belt covers in place, run the unit to be sure the belts declutch. If belts do not declutch, recheck adjustments and/or install new belt covers.
  - (5) Install rear hitch.
  - (6) Replace the top cover.
- c. Check belt covers for straightness and for correct adjustment.

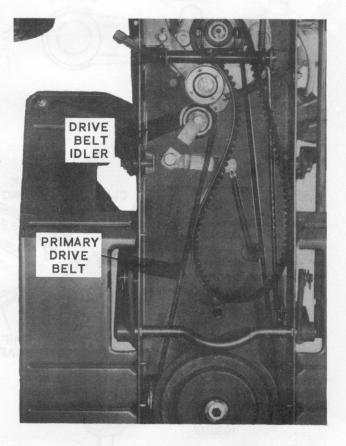


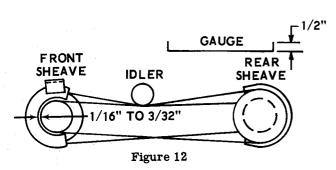
Figure 10

(1) When checking the belt covers for straightness, the clearance between the belt cover and the side of the sheave should be 1/16-inch as shown in figure 11. If belt covers do not meet the 1/16-inch dimension, remove the belt covers and try to straighten them. If belt covers cannot be corrected, new belt covers will have to be installed



Figure 11

(2) Proper adjustment of belt covers is illustrated in figure 12. The 1/16 to 3/32-inch dimension is for the entire belt cover circumference and it applies to both belt covers. The belts are to be in the engaged position when checking. To accomplish this, place the idler in the low range position and hold the high range belt at the position in which the idler would hold it. As an aid in checking the 1/16 to 3/32 dimension, a gauge should be used. The gauge is made up of a 1/16 wire 6 inches long with a 1/2-inch leg on each end as shown.



#### 6. ATTACHMENT DRIVE BELT

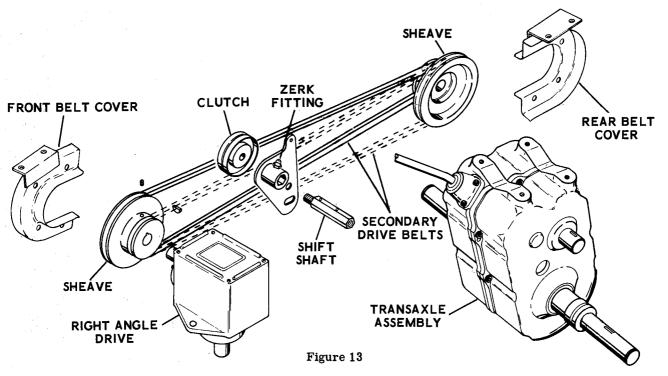
The tractor is shipped with the mower attachment drive belt in position. Rotary mower attachment and the snow thrower attachment to use different belts. Changing attachments requires the belt be changed. To change belts proceed as follows:

- a. Remove the hairpin and pull the support pin securing the lower section of the PTO clutch assembly. See figure 9.
- b. Pull the lower section of PTO clutch assembly from the end of the engine shaft. Install the proper belt.

#### - CAUTION -

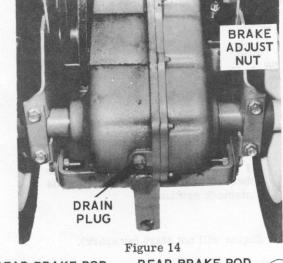
Do not allow any dirt to get inside the needle bearing when removing PTO sheave. This will shorten the life of the bearing. If dirt does get inside the bearing, the bearing must be cleaned and then repacked with grease.

c. Replace the PTO clutch assembly on the engine shaft and secure with the adapter pin and hairpin.



#### 7. BRAKE ADJUSTMENT

Adjustment of the brake band around the brake drum is accomplished by turning a hex nut on the brake band. See figure 14. This nut is located under the tractor on the left side of the transmission. Turning the nut clockwise will increase the brake band tension. Turning the nut counterclockwise will release the brake band tension. Proper adjustment is secured when the brake begins to take hold with the brake pedal depressed about 1-inch.



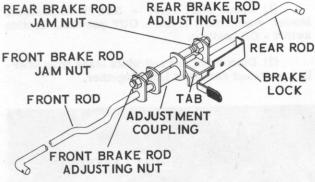


Figure 15

After adjusting the brake band the rear and front brake rods will require adjustment. Proceed as follows:

- a. Loosen rear jam nut.
- b. Depress brake pedal until brake is fully engaged. Be sure pedal is not hitting foot rest.
- c. Adjust the rear brake rod adjusting nut until the brake lock clears tab by 1/16 to 1/8 inch. Retighten jam nut and release brake.
- d. Adjust front brake rod so brake pedal clears foot rest by approximately 3/16 inch when fully engaged. Loosen the front brake rod jam nut. Adjust the front brake rod adjusting nut to obtain the 3/16 inch clearance. Retighten jam nut.

#### 8. PTO CLUTCH LEVER ADJUSTMENT

In the event that the PTO clutch lever does not lock over center in the UP position and does not supply sufficient tension to the PTO clutch, it may be adjusted by adjusting the two hex nuts located on the PTO clutch rod under the dash. See figure 16. Tightening it down (clockwise) will increase the tension on the PTO clutch.

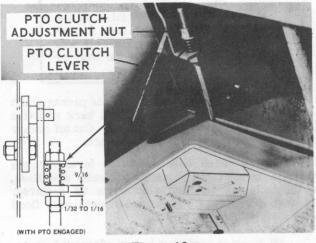


Figure 16

#### 9. TIRE PRESSURE

Inflate the front tires to 12 psi if tractor is equipped with rotary mower. Inflate to 20 psi if equipped with snow thrower or front blade. Inflate rear tires to 12 to 15 psi. Use low pressure tire gauge to check inflation.

#### 10. BATTERY (Electric Starting Models Only)

a. General. Battery connection should be tight at all times, especially when charging batteries. Loose cables will cause arcing and pitting of the connections and eventual failure. If necessary, remove battery cable and use a wire brush to remove corrosion around battery terminals. Wash the terminals with a solution consisting of one part baking soda to four parts water. Do not allow cleaning solution to run into battery cells. After connecting the cables and making sure they are tight, coat the terminals with petroleum jelly. Check the liquid level of each cell by removing the cap. Water should be level with top of circular split ledge inside filler tube. Use clean distilled water when possible to fill battery. When absolutely necessary, clean drinkable water may be used. Keep the liquid at the proper level during winter or freezing weather. Also keep the battery fully charged to prevent freezing. When adding water to battery during freezing weather, be sure the engine is running and continues to run until water and electrolyte have had a chance to mix thoroughly. This should be at least an hour.

b. Activation. Prior to service, store battery and electrolyte indoors at temperature of 60° F. to 110° F. Always add the electrolyte to the battery before installing on equipment or remove battery from equipment to activate.

Handle the acid with caution and avoid spilling. It will damage clothing and other materials on contact. Wearing of safety glasses to avoid eye damage is advised when filling the battery.

#### - NOTE -

Refer to the antidote label on the top of the acid container for instructions and procedures if acid comes in contact with the body or is taken internally.

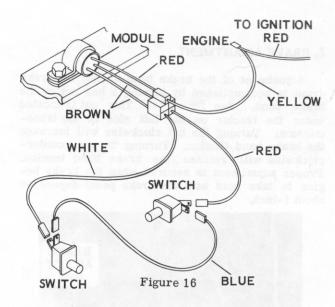
- (1) Refer to instructions on acid package. Lift corner tab on acid package. Pull back to dotted line and pull out corner of acid bag. Cut off corner of bag per instructions on acid package.
- (2) Fill each cell until acid level reaches triangle in vent well. After all cells are filled, recheck levels and add electrolyte as required. Do not overfill as excess electrolyte will flood cell when battery is charged.
  - (3) Replace vent caps before charging battery.
- (4) After filling battery, charge at 10 amps until the electrolyte temperature is 80° F. or higher and the specific gravity is 1.250 or higher. Lower charging rates may be used to obtain this temperature and specific gravity but will require more time. After charging battery at this rate, rinse off with water to remove acid overflow. Battery is now ready for service.
- c. Maintenance. Check battery monthly for state of charge. When specific gravity of battery falls below 1.225 or terminal voltage below 12.24 volts, recharge battery. Recharge battery at the following charging rates:

SP24-2 amps, SP32-3 amps, SP40 & SP45-4-8 amps.

These charging rates apply only when the specific gravity of the battery indicates recharging is necessary. They do not apply to the charging rate of the generator on the equipment. For maximum performance, batteries should be kept at or near full charge. Maintain the liquid level above the plates at all times.

#### 11. SAFETY INTERLOCK SYSTEM

a. General. The basic interlock system is illustrated in Figure 16. It consists of two switches and a module. Switches are located at the speed shift lever and on the PTO lever. The module is located under the access panel in front of the seat. See Figure 17. In event of trouble with the circuit, follow the instructions in the paragraph below.



#### NOTE

DO NOT connect volt ohmmeter or battery power circuit across interlock or interlock switch connections of interlock circuit. Failure to observe this note will damage the interlock system.

- b. Engine will not start (no spark).
- (1) Check shift lever NEUTRAL position. Mower engagement lever OUT position. Ignition switch ON position.
- (2) Disconnect red and white leads from interlock switches and short leads together.

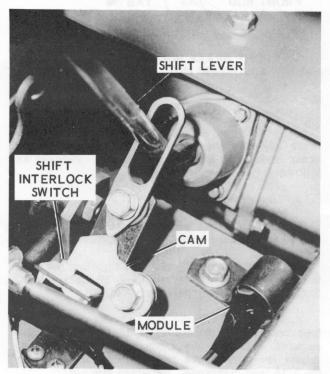


Figure 17

- (a) If engine starts, the interlock module is operating properly.
- (b) If engine does not start, replace module. Be sure replacement unit has same stamped letter (B or T) as replaced unit.
- (3) Check interlock switches with a volt ohmmeter or continuity tester for proper operation (plunger depressed completes circuit). Replace any faulty switches.
  - (4) Reconnect all leads and start engine.
- (a) If engine does not start, check all leads for broken wires and refer to troubleshooting guide for the particular engine under service.

### c. If engine starts with shift lever in drive position or mower pan engaged:

- (1) Check for broken or disconnected magneto wire leads. Make sure module case is firmly grounded to frame.
- (2) Check for faulty interlock switch. (See note.)

#### -CAUTION-

For the sake of safe operating conditions, the tractor or mower must never be operated with the interlock module or system disconnected or malfunctioning.

#### SECTION V STORAGE

If your tractor will not be used for a period of time such as through the winter season or for more than 30 days, perform the following operations:

- a. Engine.
- (1) Remove gas line filter and drain gas tank and fuel lines.
- (2) Drain carburetor bowl by pushing up on drain valve on bottom of carburetor bowl.
  - (3) Replace gas line filter.
- (4) Remove all oil, grease and dirt from around engine and related parts.
- (5) Use spray paint or brush to touch up all unpainted areas to prevent rust.
- (6) Remove spark plug and pour in approximately one tablespoonful (1 ounce) SAE 30 oil. Turn engine over manually at least two times and replace spark plug.
  - b. Tractor.
- (1) Remove battery and store in a cool dry place. Check water level. Refill and charge fully. See Section IV, paragraph 10.
- (2) Clean tractor exterior thoroughly, removing all mud, dirt, grease and other material.

- (3) Touch up all unpainted and exposed surfaces with paint to prevent rust.
- (4) Check all visible moving parts for wear, breakage or damage. Now is the time to order any parts required and make necessary repairs to avoid needless delay when starting again next season.
- (5) Block up tractor to take weight off tires. Store tractor in cool, dark and dry place if possible to prevent excess tire deterioration.
  - (6) Clean belts with a dry cloth.

Your dealer is equipped to give your tractor a complete service check and make recommendations for replacing parts in need of attention.

- c. Preparing Tractor for Use After Storage.
  - (1) Engine.
- (a) Drain and refill engine crankcase with proper weight and grade oil.
  - (b) Refill gasoline tank.
  - (c) Clean spark plug and set gap.
  - (2) Tractor.
- (a) Reinstall battery. Check liquid level. Charge fully.
  - (b) Check transaxle oil level.
  - (c) Check tire inflation.

#### SECTION VI ATTACHMENTS

Attachments for the Manorway Tractor are available from your Ariens dealer. These include the following:

- 1. 38" Rotary Mower
- 2. 32" Snow Thrower
- 3. 40" Snow Blade

Complete instructions for operation and installation of these attachments are packed with each attachment. The attachments require no changes to the tractor except for removal of the front bumper when installing the Snow Throw or Snow Blade.

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