

Owner's Manual

935000 Series Yard Tractors

Model 935005 (YT1132) 11 H.P.
Gear drive with 32" mower
Serial no. 003501 and up

Model 935009 (YT1138) 11 H.P.
Gear drive with 38" mower
Serial no. 000101 and up

Model 935011 (YT1032) 10 H.P.
Gear drive with 32" mower
Serial no. 000101 and up

Ariens

ARIENS COMPANY
655 West Ryan Street
Brillion, Wisconsin
54110-1098 U.S.A.

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INSTRUCTIONS FOR SAFE OPERATION

1. Know the controls and how to stop quickly. READ THE OWNER'S MANUAL.
2. Do not allow children to operate the vehicle. Do not allow adults to operate it without proper instruction.
3. Do not carry passengers. Keep children and pets a safe distance away.
4. Clear the work area of objects which might be picked up and thrown.
5. Sit on seat, disengage traction and attachment power and shift into neutral before attempting to start the engine.
6. Disengage power to attachment, stop the engine and place Speed Selector Lever to "NEUTRAL" position and set parking brake lock before leaving the operator's position.
7. Disengage power to attachment and stop the engine before making any repairs or adjustments.
8. Disengage power to attachment when transporting or not in use.
9. Take all possible precautions when leaving the vehicle unattended, such as disengaging the attachment power, lowering the attachment brake lock, stopping the engine and removing the key.
10. Do not stop or start suddenly when going uphill or downhill. Operate up and down the face of steep slopes; never across the face. If you cannot back up the hill, DO NOT operate the tractor on it. It is too steep for safe operation.
11. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
12. Stay alert for holes in the terrain and other hidden hazards.
13. Use care when pulling loads or using heavy equipment.
 - a. Use only approved hitch points.
 - b. Limit loads to those you can safely control.
 - c. Do not turn sharply. Use care when backing up.
 - d. Use counterweight when suggested in the tractor owner's manual or in the attachment owner's manual.
14. Watch out for traffic when crossing or near roadways.
15. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the vehicle while in operation.
16. Handle gasoline with care — it is highly flammable.
 - a. Use approved gasoline container.
 - b. Never remove the cap of the fuel tank or add gasoline to a running or hot engine, or fill the fuel tank indoors. Wipe up spilled gasoline.
17. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
18. Exhaust fumes are dangerous. Do not run the engine indoors.
19. Keep the vehicle and attachments in good operating condition, and keep safety devices in place.
20. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
21. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.
22. 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, see items 6 & 7.
23. Do not change the engine governor settings or overspeed the engine.
24. When using the vehicle with mower, proceed as follows:
 - a. Mow only in daylight or in good artificial light.
 - b. Shut the engine off when unclogging chute.
 - c. Check the blade mounting bolts for proper tightness at frequent intervals.
 - d. Always look behind you before backing up.



THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT SAFETY INFORMATION IN THIS MANUAL. WHEN YOU SEE THE SYMBOL BE ALERT TO THE POSSIBILITY OF INJURY AND CAREFULLY READ THE INFORMATION THAT FOLLOWS.

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BE AWARE OF SAFETY DECALS

CAUTION

- Read operator's manual
- Keep shields in place
- Keep people and pets a safe distance away

GO

- Release parking brake
- Depress clutch pedal
- Shift to desired speed
- Slowly release clutch

STOP

- Depress clutch pedal
- Depress Brake pedal
- Before leaving operator's position, Shift to neutral, Engage parking brake, Disengage attachment clutch, Shut off Engine, Remove ignition key

SERVICING

- Wait for all movement to stop
- Disconnect spark plug wire
- Before tipping unit, drain gas tank and remove battery - if electric

CAUTION

ROTATING PARTS

- Keep hands and feet away from under entire housing
- Do not operate mower unless grass catcher is attached or mower guard is in operating position

32" ONLY

CAUTION

Before starting engine be sure machine is in neutral and implement clutch is disengaged*

SCREENED ON PANEL

CAUTION

ROTATING PARTS

- Keep hands and feet away from under entire housing
- Do not operate mower unless grass catcher is attached or mower guard is in operating position

NOTE: THIS PRODUCT IS EQUIPPED WITH AN INTERNAL COMBUSTION TYPE ENGINE. DO NOT USE UNIT ON OR NEAR UNIMPROVED, FOREST-COVERED OR BRUSH-COVERED LAND UNLESS THE EXHAUST SYSTEM IS EQUIPPED WITH A SPARK ARRESTER MEETING APPLICABLE LOCAL, STATE OR FEDERAL LAWS. A SPARK ARRESTER, IF IT IS USED, MUST BE MAINTAINED IN EFFECTIVE WORKING ORDER BY THE OPERATOR. SEE YOUR ARIENS DEALER OR ENGINE MANUFACTURER'S SERVICE CENTER.

FEATURES AND CONTROLS

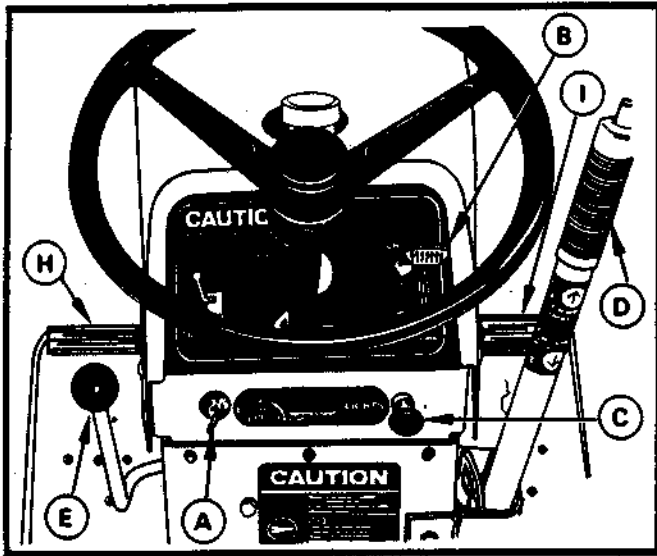


FIGURE 1

(A) IGNITION AND STARTER SWITCH — FIGURE 1

The ignition and starter switch has three positions: "OFF", "RUN", and "START". Start the engine by turning the key fully clockwise to "START" position and then release the key as soon as the engine starts. Stop the engine by turning the key counterclockwise to the "OFF" position.

(B) THROTTLE-CHOKE CONTROL LEVER — FIGURE 1

This control operates both the throttle and choke. When starting a cold engine, raise the lever past the offset and into the "CHOKE" position. After the engine has started, lower the lever to the throttle operating range and allow the engine to warm at 1/2 throttle. Select the appropriate engine speed in the throttle range after the engine has warmed up.

NOTE: UNLESS OTHERWISE SPECIFIED, THE ATTACHMENTS SHOULD BE OPERATED AT FULL THROTTLE. THE THROTTLE IS NOT TO BE USED TO SELECT DESIRED TRAVEL SPEEDS. OPERATE AT FULL THROTTLE AND REGULATE GROUND SPEED WITH THE GEAR SHIFT LEVER.

(C) LIGHT SWITCH — FIGURE 1

Turn lights on by pulling the control knob out. Turn lights off by pushing the knob in.

(D) ATTACHMENT LIFT LEVER — FIGURE 1

To raise the attachment, depress thumb button, pull the lever to the rear, and release thumb button. This will hold the attachment in the raised position. When using the mower attachment, select the "notch" that allows the mower to cut at the desired height.

To lower the attachment, pull the lever to the rear, depress the button to release the latch and allow the lever to move forward.

(E) IMPLEMENT POWER CONTROL — FIGURE 1

The Implement Power Control is used to operate the attachments. Push the lever forward to engage the clutch and

drive the attachment. Pull the lever rearward to disengage the clutch and stop the attachment. The lever must be in the rear (disengaged) position to start the engine. THIS IS A SAFETY FEATURE. The engine will not start until the lever has been placed in the disengaged position.

(F) SPEED SELECTOR LEVER — FIGURE 2

The Speed Selector Lever is used to select any of three forward gears or one reverse gear. The markings "1, 2, 3" and "R" on the floor plate indicate the locations of the gears. The slowest forward gear is indicated by "1", the secondary gear, "2", and the fastest gear, "3". The "R" indicates reverse. The Speed Selector Lever must be in the "NEUTRAL" position as shown in Figure 2 to start the engine. THIS IS A SAFETY FEATURE.

(G) HIGH-LOW SPEED RANGE SELECTOR — FIGURE 2

The High-Low Speed Selector gives a choice of six forward speeds; three in "HIGH" range; and three in "LOW" range. The speed in reverse gear is the same in both ranges.

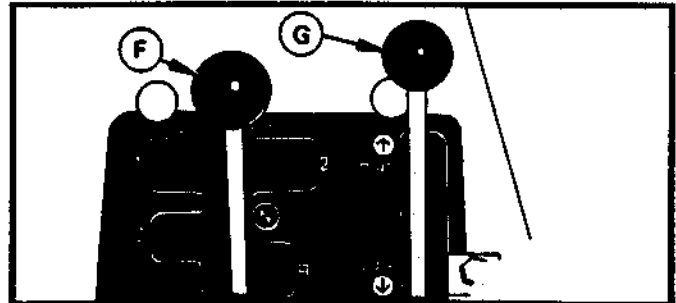


FIGURE 2

(H) CLUTCH PEDAL — FIGURE 1

Depressing the Clutch pedal disengages the transaxle from the engine and permits shifting the speed selector to any desired gear. Always release the clutch pedal slowly for smooth acceleration. Do not allow foot to rest on pedal except when clutching.

IMPORTANT: ALWAYS DEPRESS CLUTCH PEDAL TO EASE ENGINE STARTING. DEPRESSING CLUTCH PEDAL RELEASES PARKING BRAKE. BE READY TO APPLY FOOT BRAKE WHEN STARTING FROM PARK POSITION.

(I) BRAKE PEDAL — FIGURE 1

Depressing the brake pedal applies pressure to the disk brake and stops the tractor (with the clutch depressed). Be sure to depress clutch pedal to disengage the clutch before braking. Brake will not stop tractor without depressing clutch pedal.

(J) PARKING BRAKE LOCK — FIGURE 3

A Parking Brake Lock is provided to prevent the tractor from moving when parked or left unattended. To lock the brake, pull the parking brake lock up with the pedal fully depressed. Then release the brake pedal. Figure 3 shows the parking brake lock engaged. Clutch pedal must not be depressed when locking brake. Parking brake lock may be disengaged by depressing either brake or clutch pedal.

FEATURES AND CONTROLS



IMPORTANT: ENGAGE THE BRAKE LOCK BEFORE DISMOUNTING FROM THE TRACTOR OR ANY TIME IT IS LEFT UNATTENDED.



CAUTION: WHEN USING TRACTOR OR ATTACHMENT FOR THE FIRST TIME USE LOW RANGE SPEEDS AND LOWER GEARS TO MAKE SURE OF YOUR CONTROLS.

OPERATION

WHEN USING ATTACHMENTS OTHER THAN MOWERS

A rear weight box and wheel weights are available to increase traction when using the Sno-Thro or the front blade attachments. Rear tire chains are also available for use in snow conditions.

NOTE: TOO MUCH REAR WHEEL TRACTION WILL RESULT IN DRIVE TRAIN OVERLOAD AND POSSIBLE DAMAGE. THEREFORE, WEIGHT BOX LIMIT IS 125 LBS. REAR TIRE CHAINS ARE NOT TO BE USED ON DRY SOIL OR GRAVEL.

PRE-STARTING INSPECTION

1. Check oil in engine crankcase. Add oil as required to maintain proper level. See "LUBRICATION" section.
2. Check fuel supply. Fill with clean, fresh gasoline only. See Engine Instructions manual provided for fuel recommendation.
3. Check air cleaner and tire pressures.
4. Check for engine, transmission or differential oil leaks. See your Ariens dealer for repairs.
5. Make visual checks regarding safety precautions, obstructions and maintenance.

STARTING THE ENGINE

Use the following procedure to start the engine.

1. Depress Clutch Pedal (A) and hold the tractor in position by depressing the Brake pedal (B). See Figure 1.
2. Place the Speed Selector Lever (F) in the "NEUTRAL" position as shown in Figure 2.

NOTE: THE ENGINE WILL NOT START UNLESS THE SPEED SELECTOR LEVER IS IN THE "NEUTRAL" POSITION.

3. Place Implement Power Control (E) Figure 1, in the rear (disengaged) position.

NOTE: THIS IS A SAFETY FEATURE. THE ENGINE WILL NOT START UNLESS THE IMPLEMENT POWER CONTROL IS IN THE DISENGAGED POSITION.

4. Raise Throttle-Choke Control Lever (D) Figure 1, past the offset in the slot to the "CHOKE" position.

NOTE: OPERATOR MUST BE ON SEAT TO START UNIT. TRACTOR HAS A SEAT SWITCH FOR SAFETY.

5. Turn ignition key (C) shown in Figure 1 clockwise all the way. Release key as soon as the engine starts and gradually lower the Throttle Choke Control Lever past the offset until the engine runs at 1/2 throttle.

NOTE: A WARM ENGINE WILL REQUIRE LESS CHOKING THAN A COLD ENGINE.

If the engine fails to start on the first attempt, turn key to the "OFF" position, wait a few minutes and try again. Do not operate starter continuously for more than 30 seconds at a time.

Always allow engine to warm up before applying load. In below freezing weather, allow engine to run at a fast idle for a period of at least five minutes before moving the tractor or starting the attachment. **SERIOUS DAMAGE TO THE ENGINE AND TRANSMISSION COULD RESULT IF THIS PROCEDURE IS NOT FOLLOWED.**

STOPPING THE ENGINE

Always use the following procedure to stop the engine:

1. Move the Speed Selector Lever (F) (Figure 1) to the "NEUTRAL" position.
2. Disengage the Implement Power Control (E), Figure 1.
3. Engage Parking Brake Lock (J) by depressing the Brake Pedal (I) (Figure 1) and pulling up on the Parking Brake Lock (J) (Figure 3).

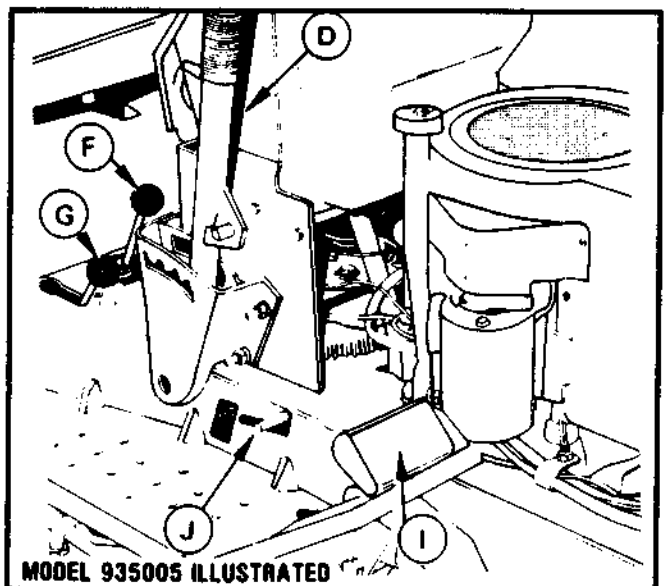


FIGURE 3

OPERATION

STOPPING THE ENGINE (CONTINUED)

4. Lower attachment to the ground.
5. Lower Throttle Choke Control Lever and allow the engine to idle for a short period of time. DO NOT STOP A HOT ENGINE AT HIGH SPEED AS INTERNAL ENGINE DAMAGE COULD RESULT.
6. Turn ignition key counterclockwise to the "OFF" position to stop the engine.
7. BE CAREFUL: REMOVE IGNITION KEY BEFORE DISMOUNTING FROM TRACTOR. THIS WILL PREVENT CHILDREN AND INEXPERIENCED OPERATORS FROM STARTING THE TRACTOR.

OPERATING THE TRACTOR

1. Start the engine using the procedure explained under "Pre-starting Inspection" and "Starting the Engine".

NOTE: THE SPEED SELECTOR LEVER MUST BE IN THE NEUTRAL POSITION, THE IMPLEMENT POWER CONTROL DISENGAGED AND THE OPERATOR ON SEAT TO START THE ENGINE.

2. Release Parking Brake Lock (A) by depressing the Brake (B) or Clutch Pedal (C) (Figure 1) until the lock disengages.
3. Depress Clutch Pedal, place Speed Selector Lever (D) and High-Low Range Selector (E) (Figure 1) into the desired gear and range and slowly release the pedal to provide smooth acceleration.
4. Select the desired throttle speed with the Throttle-Choke Control Lever. When operating a power-driven attachment, operate the engine at full throttle, (3250 RPM) unless otherwise specified and control travel speed by selecting an appropriate gear.
5. To raise or lower the attachment use the Attachment Lift Lever (F).
6. To start the attachment, engage the Implement Power Control (G) slowly with the engine running at 1/2 throttle, then increase speed to full throttle.
7. To stop the tractor, fully depress Clutch and Brake Pedals and place Speed Selector Lever in "NEUTRAL". Fully depress Brake Pedal and engage the Parking Brake Lock when parking or leaving the tractor. (Figures 1, 2 & 3)

EMERGENCY STOPPING

Always use caution when mowing--be alert for children, pets or obstacles in path. If necessary to make emergency stop, firmly depress Clutch Pedal and Brake Pedal.

IMPORTANT: DO NOT FORCE SPEED SELECTOR LEVER IF GEAR DOES NOT ENGAGE. APPLY SLIGHT PRESSURE ON THE SPEED

SELECTOR LEVER WHILE RELEASING THE CLUTCH PEDAL. THE CLUTCH PEDAL MUST BE DEPRESSED TO ENGAGE ANY SELECTED GEAR. DEPRESSING THE PEDAL TOO LITTLE WILL CAUSE GEAR CLASH AND POSSIBLE DAMAGE TO THE TRANSMISSION. HOLD LEVER TOWARD ENGAGED POSITION WHILE DECLUTCHING.



WARNING:

1. BEFORE SERVICING ANY ATTACHMENT:
 - a. DISENGAGE POWER TO ATTACHMENT.
 - b. SHUT OFF ENGINE.
 - c. MAKE SURE ATTACHMENT HAS STOPPED REVOLVING.
 - d. DISCONNECT ENGINE SPARK PLUG CABLE TO PREVENT ACCIDENTAL RESTART.
2. KEEP CHILDREN, BYSTANDERS, AND PETS OUT OF THE WORKING AREA.
3. KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
4. KEEP ALL SHIELDS AND GUARDS IN PLACE.

OPERATING TIPS

NOTE: FOR BEST CUTTING RESULTS CLEAN INSIDE OF MOWER PAN AFTER EACH MOWING OPERATION IS COMPLETED.

NOTE: OPERATE ENGINE AT "FAST" THROTTLE-SETTING AND SELECT SPEED SELECTOR LEVER AS DESCRIBED IN FOLLOWING INSTRUCTIONS.

1. The Tractor may be operated at one of three forward speeds or one reverse speed in each of two speed ranges. Depress Clutch Pedal (C) and use Speed Selector Lever (D) to shift from "NEUTRAL" (N) to First Speed (1) or Reverse (R).
2. The operator should acquaint himself with the area to be mowed and slow down using Speed Selector Lever (F), not Clutch, to maintain control in restricted spaces.
3. In heavy cutting conditions, where grass may be extremely high or thick, the Attachment Lift Lever (G) should be set at a higher setting than normal and the Speed Selector Lever (D) set at Second or First Speed.

OPERATION

OPERATING TIPS (CONTINUED)

4. The use of higher Lever settings will allow grass cutting in heavy conditions without lugging the engine. A second cutting may be required in some cases to mow grass to the desired height.
5. With a Grass Bagger the use of lower ground speeds may

be required depending on grass conditions. Avoid cutting at too low a height which may lug engine and cause plugging of the discharge area or bagger.

6. Generally, try tractor operation at lower ground speeds until you are familiar with the controls of the unit, then experiment with higher speeds if desired. Be sure that safe operation is possible at the speed traveled. Avoid cutting grass when wet.

ADJUSTMENTS / MAINTENANCE

GENERAL

Ariens Dealers will provide any service which may be required to keep the Yard Tractor operating at peak efficiency. Ariens Company recommends that you contact an **Ariens Dealer** before making any major adjustments to this tractor. Refer to the Engine Instructions for engine maintenance instructions. If repairs or service are required for the engine, see your **Ariens Dealer** or the nearest authorized engine service station.

SEAT ADJUSTMENT

The seat is adjustable front or back to many positions. Adjustment is made by loosening the two rear mounting bolts located under rear of the seat; sliding the seat to the most comfortable position and then tightening the mounting bolts.

RAISING THE HOOD — FIGURE 4

1. The engine, battery, electrical components, air cleaner, fuel filter and fuel tank are readily accessible by raising the hood.
2. To raise the hood, grasp each side and raise it upwards and forward until it stops.

RAISING THE REAR DECK — FIGURE 4

The transaxle, PTO and jackshaft assembly, clutch idler, and Traction Drive Belt are readily accessible by raising the rear deck until the seat rests against the steering wheel.

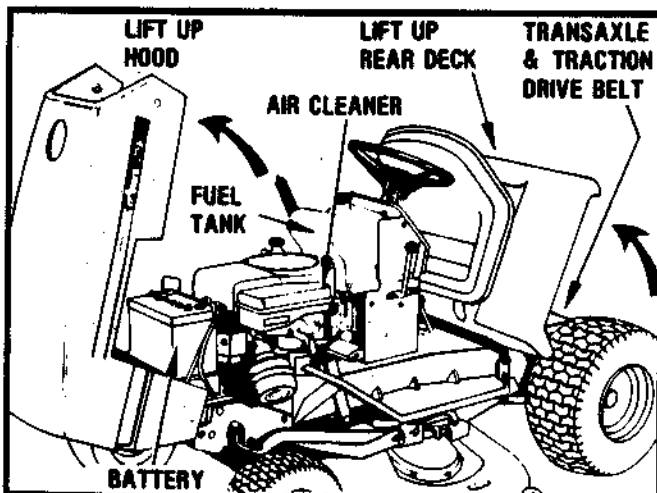


FIGURE 4

AIR CLEANER SERVICE

Clean the air cleaner and re-oil the element every 25 hours under normal operating conditions. When operating in extremely dusty conditions, perform this service at more frequent intervals.

1. Raise the tractor hood for access.
2. Remove the air cleaner cover and service per engine manufacturer's instructions furnished with the tractor.
3. Replace the cover and lower the hood.

IMPORTANT: NEVER RUN THE ENGINE WITH THE AIR CLEANER REMOVED!

ENGINE COOLING SYSTEM — FIGURE 6

1. The engine is air cooled. Grass particles, chaff and dirt may clog the cooling system, especially when mowing dry grass or operating in extremely dusty conditions. Continued operation with a clogged cooling system may cause severe overheating and possible engine damage.

ADJUSTMENTS/MAINTENANCE

ENGINE COOLING SYSTEM (CONTINUED)

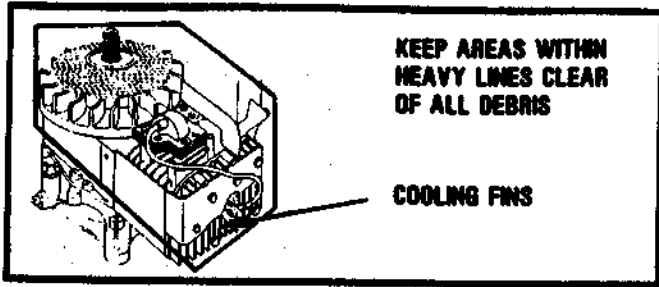


FIGURE 6

- It is essential that the rotating screen, engine cooling fins and the exhaust system be kept free of dirt and debris which could cause the engine to overheat.
- To avoid overheating and possible engine damage, periodically remove the shrouding from around the cooling fins, Figure 6, and clean the area shown within the heavy black line of all grass, dirt or chaff accumulation.

SEAT MAINTENANCE

When cleaning seat use a vinyl cleaner (not a solvent.) Protect the seat from weather damage by storing tractor inside an enclosure or by covering the seat. If the seat is damaged repair it with a vinyl repair kit.



CAUTION: REMOVE BATTERY FROM TRACTOR BEFORE TIPPING OR LIFTING THE UNIT FOR ADJUSTMENTS. BATTERY IS NOT SEALED AND SPILLED ACID WILL DAMAGE EQUIPMENT. WHEN HANDLING BATTERY BE SURE TO AVOID CONTACT WITH BATTERY ACID, WHICH CAN CAUSE SERIOUS INJURY TO EYES, ETC.

BATTERY SERVICE



WARNING: STORAGE BATTERIES GIVE OFF HIGHLY INFLAMMABLE HYDROGEN GAS. DO NOT ALLOW SPARKS OR FLAME NEAR BATTERY. DO NOT LAY TOOLS ACROSS BATTERY TERMINALS WHICH MAY CAUSE A SPARK RESULTING IN AN EXPLOSION.

CAUTION: ELECTROLYTE CONTAINS SULPHURIC ACID WHICH IS HARMFUL TO SKIN, EYES AND CLOTHING. HANDLE WITH EXTREME CARE. IF SPILLAGE OCCURS ON BODY OR CLOTHING, RINSE AT ONCE WITH WATER.

WARNING: REVERSED BATTERY CABLES OR REVERSED CABLES FROM A BATTERY CHARGER OR BOOSTER BATTERY CAN CAUSE DAMAGE TO THE PRODUCT. SPARKS AND POTENTIAL HAZARDS TO OPERATOR COULD RESULT. MAKE CERTAIN THE GROUND CABLE IS CONNECTED TO THE ENGINE AND THE POSITIVE CABLE IS CONNECTED TO THE POSITIVE (+) TERMINAL.

PRODUCT	BATTERY MODEL	CHARGE RATE FOR 10 HRS.
Tractor	Ariens 29175 (WISCO LM-9)	3.9 Amps

NOTE: CHARGING BATTERY AT A HIGHER RATE WILL DAMAGE BATTERY.

- Do an occasional visual inspection. Be sure to keep the battery clean, both the case and the terminals. This visual inspection should be done once a month.
- Check the level of the electrolyte. It may be necessary to add distilled water. This should be checked before each usage.
- Another important check is the specific gravity. The specific gravity should be checked with a hydrometer.

NOTE: A HYDROMETER, PART NO. 140, OFFERED THROUGH ARIENS IS RECOMMENDED FOR ALL SET-UP AND MAINTENANCE PROCEDURES OF ARIENS BATTERIES.

TIRE PRESSURES - TABLE 1

Check tires pressures at least once each month. Inflate tires to pressures shown using a low pressure tire gauge for accurate readings. Keep tires properly inflated at all times. Over-inflation will cause operator discomfort. Under-inflation will cause short tire life. Make sure the tire valve caps are in place.

TIRE SIZE	LOADING		
	Light	Medium	Heavy
Front 13 x 5.00 - 6	(Lawn Work) 10 psi	(Tilling) 12 psi	(Sno-Thro) 16 psi
Rear 18 x 8.50 - 8	(Lawn Work) 6 psi	(Sno-Thro) 8 psi	(Tilling) 10 psi

TABLE 1

FUEL FILTER SERVICE — FIGURE 7

When dirt or other foreign material is allowed to enter the fuel tank it will collect in the fuel filter eventually causing fuel stoppage. If this occurs, replace filter.

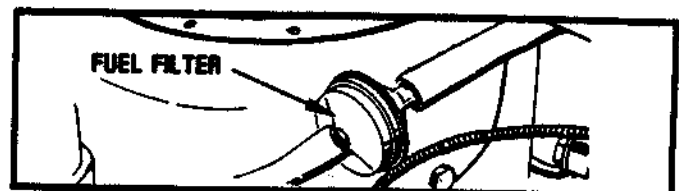


FIGURE 7

MOWER BLADE AND VANES — FIGURES 8 & 9

Check tire pressure. Uneven tire pressure may cause uneven grass cutting.

ADJUSTMENTS / MAINTENANCE

MOWER BLADE AND VANES (CONTINUED)

Mowers are equipped with high lift blades standard. Vanes may be bolted to the blades to improve discharge and bagging or collecting of grass. These vanes may or may not be helpful depending on your type of grass and cutting conditions.

Ariens recommends that the user try the mower without vanes first and if the performance is satisfactory, use without vanes since the vanes use more power and generate more noise. Use vanes only if satisfactory performance cannot be obtained without them. Generally, broadleaf grasses can be cut and bagged without vanes. The finer grasses may require vanes. In damp conditions, vanes may also be of help.

Routinely check for wear on the mower blade and vanes, if used. This is especially true in sandy soil conditions.



CAUTION: WEAR OF THE MOWER BLADE CAN CAUSE STRUCTURAL WEAKNESS. DO NOT INSTALL NEW OR REPLACEMENT VANES ON WORN BLADES. THIS IS A POTENTIAL HAZARD.

Replace worn parts with Ariens original equipment, blades, vanes, and Grade 8 hardware as specified. Cap screws must be installed with heads on top of the vanes and vanes on top of the blade. See Figure 8.

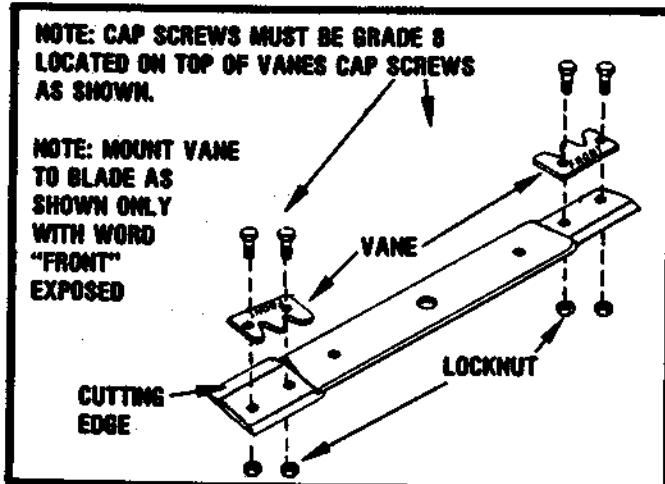


FIGURE 8

IMPORTANT: THE VANES MUST BE USED IN PAIRS. THEY CANNOT BE INTERCHANGED WITH DIFFERENT OR WORN VANES ON THE SAME BLADE. USING ONE OF EACH OF A DIFFERENT TYPE OR WORN VANE WILL CAUSE THE BLADE TO BE OUT OF BALANCE AND SEVERE VIBRATION WILL OCCUR. EVEN WEAR ON THE PARTS AND PROPER BALANCE IS ENSURED BY REPLACING VANES IN PAIRS.

The mower blade should always be kept sharp and properly balanced. Disconnect spark plug wire. Remove Mower Pan, clear dirt and grass from underside, and check blade. Use a heavy glove or padding for hand protection while removing mower blade. Remove the nut and lockwasher securing the blade and remove blade. See Figure 4.

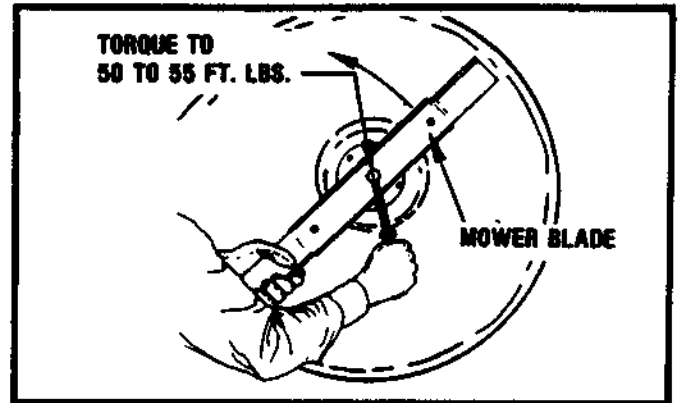


FIGURE 9

See your Ariens dealer to replace or sharpen blade.

Replace mower blade in position on mower and secure with lockwasher and nut. Use a heavy wrench; torque to 50-55 lbs. Be sure to use a heavy glove or padding for hand protection while fastening blade. See Figure 9.

SHIFT LEVER DETENT ADJUSTMENT — FIGURE 10

Check tightness of screws holding shift handle in the detent positions. Screws must be tightened securely. This will eliminate jumping out of gear. See Figure 10.

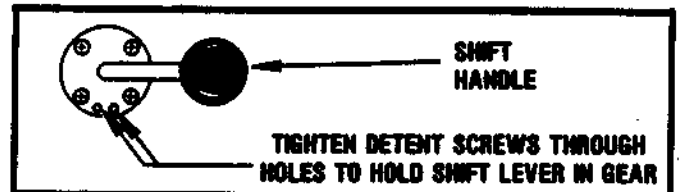


FIGURE 10

DISC BRAKE ADJUSTMENT — FIGURE 11

Once each season, or if the brake begins to slip and does not hold the tractor, it is necessary to adjust the disc brake located on the lower left side of the transaxle assembly. See Figure 11. Adjust as follows:

1. Position the tractor on a smooth level surface and place the Speed Selector Lever in "NEUTRAL" so the tractor can be pushed by hand to check the brake.

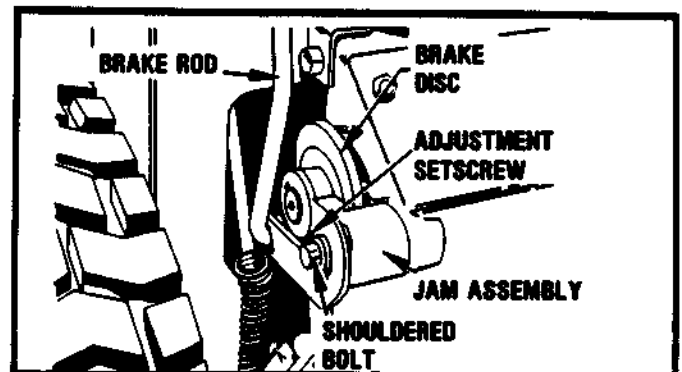


FIGURE 11

ADJUSTMENTS / MAINTENANCE

DISC BRAKE ADJUSTMENT (CONTINUED)

- Adjust the setscrew in the brake jaw assembly clockwise until the brake just starts to lock. This can be felt by pushing the tractor by hand. Leave the brake pedal up during this adjustment.
- Turn setscrew 1/2 turn counterclockwise from locking point to adjust the brake.

BRAKE PEDAL SPRING ADJUSTMENT — FIGURE 3

The tension on the Brake Pedal itself is adjustable. If the brake pedal does not return or feels loose, adjust the nut on the end of the brake rod just inside the frame next to the parking brake slot. Tighten the nut until the spring adjacent to the nuts is 1 1/4 inches in length.

REMOVAL OF MOWER PAN — FIGURES 12 & 14

In order to perform some maintenance it may be necessary to remove the mower pan as follows:

- Lower the mower pan. Remove the hairpin cotter and washer from the stud on the attachment idler (Figure 16) and disconnect the mower brake link.
- Raise the mower deck. Loosen the belt fingers on the tractor PTO sheave, slide them to one side, and remove the mower belt from this sheave. See Figure 16.
- Lower the mower pan and remove the hairpin cotters and washer. The two pins and washers on the front secure the mower pan to the front hangers and can be disconnected to free the front of the pan. The other two pins and washers join the front of the pan to the belt tightener bracket. Loosen the hex nuts and turn the rear hanger hooks to the side to free them from the rear hangers. See Figure 12.
- Place front hanger on top of rear hanger. Raise the Attachment Lift Lever to pull the hangers up out of the way. Pull the mower pan from under the tractor.

The front and rear hangers may be assembled and engaged with washers and hairpin cotters.

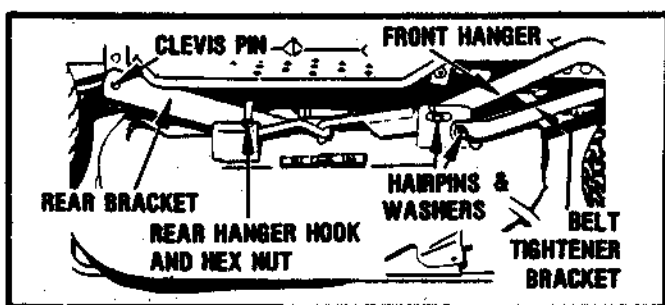


FIGURE 12

INSTALLATION OF MOWER PAN — FIGURES 12 & 13

Position the tractor on a smooth, level surface and install the mower pan as follows:

- Lower the Attachment Lift lever. One front set of pins and washers will connect the tabs on the front of the mower pan to the front hangers, the second set of pins and washers connect the front of the pan to the belt tightener bracket. The rear set of pins and washers connect the rear hangers to the frame.
- With the Mower Belt in place on the pan and the lift arm in its highest position, position the pan under the tractor and forward against the front wheels.
- Lower the Attachment Lift Lever. Slide the pan back (while lifting the rear of the pan) so that the pan hanger hooks slide up on the rear hanger. Assemble the front hangers to the tabs on the mower pan, while, at the same time, assembling the front and rear hangers. Secure with four washers and hairpin cotters. Connect the Belt Tightener Bracket to the pan.
- Raise the Attachment Lift Lever to maximum height. Connect Mower Belt to PTO Sheave.
- Connect the blade brake arm to the stud on the center of the Attachment Clutch Idler. Secure with a washer and a hairpin cotter.
- Adjust the belt fingers on the tractor PTO Sheave to clear the belt by 1/8 to 1/16". Tighten the belt finger hardware.

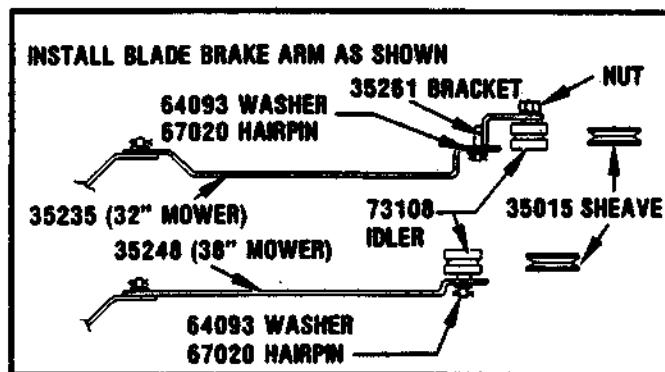


FIGURE 13

MOWER PAN LEVELING — FIGURES 12, 14 & 18

The mower pan is designed to cut evenly with the rear of the pan 1/8 inch higher than the front. To level the mower pan proceed as follows:

- Position the tractor on a smooth level surface. Adjust tire pressure as follows (light loading):
Front - 10 psi / Rear - 6 psi
- Measure the distance from surface to mower blades at the front and rear of the pan. The rear of blades should be 1/8 inch higher than front and blades should hang even side to side.
- If adjustment is required, turn the hex nuts on the rear hanger hooks to move the hooks up or down to secure the proper adjustment. When the pan is leveled and hangs evenly, tighten the hex nuts securely. See Figure 12.

ADJUSTMENTS/MAINTENANCE

MOWER PAN LEVELING (CONTINUED)

- Adjust Mower Belt for proper center distance. See Figure 14 and 19. Adjust nuts on the adjustor rod to move mower pan forward or rearward. Adjust for 1 to 1½ inch clearance between belt as shown in Figure 19 with mower pan in highest position.



CAUTION: ADJUSTMENT TOO FAR FORWARD WILL NOT ALLOW MOWER BELT TO DECLUTCH! CHECK FOR PROPER MOWER BELT DECLUTCHING IN ALL HEIGHT POSITIONS. IF MOWER BELT DOES NOT DECLUTCH, ADJUST MOWER PAN BACKWARD UNTIL PROPER DECLUTCHING OCCURS. (P.T.O. SHEAVE MUST NOT HAVE A TENDENCY TO DRIVE MOWER BELT AND/OR OVERRIDE BRAKE.)

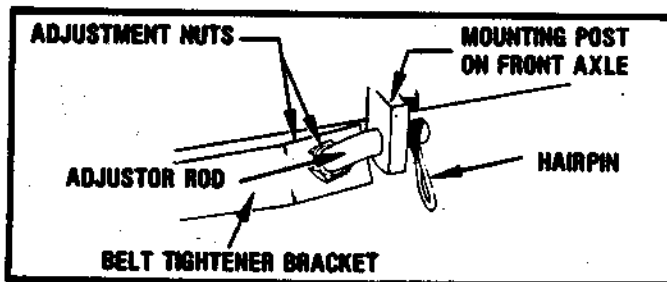


FIGURE 14

MOWER PAN CUTTING HEIGHT — FIGURE 15

After the mower pan has been leveled properly, minor adjustments can be made in the pan cutting height by increasing or decreasing the center distance between 35321 rod end and 35322 adjustment link. Increasing center distance lowers cutting height. Decreasing center distance raises cutting height. Raising the Attachment Lift Lever to another notch in the lift quadrant will also raise the cutting height of the mower pan. Adjust to suit individual grass cutting conditions.

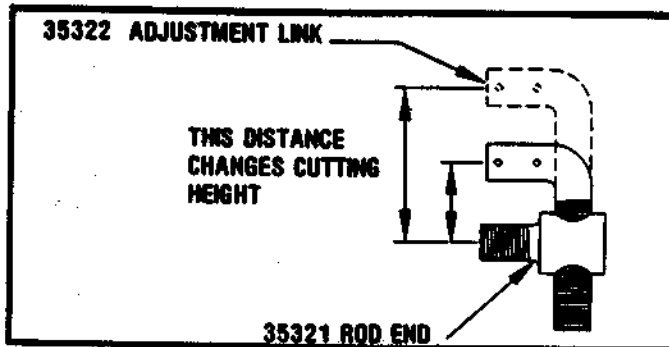


FIGURE 15

MAIN DRIVE BELT REPLACEMENT — FIGURES 16 & 17

- Removal of main drive belt.

NOTE: REMOVE SPARK PLUG WIRE.

- Loosen or remove the three fasteners holding spindle housing and belt fingers on transaxle mount near PTO

sheave and remove or rotate the belt fingers away from PTO sheave. See Figure 16. Spindle housing should be free to move, allowing belt removal.

- Move Implement Clutch Lever to "OUT."
- Move Attachment Lift Lever to highest position.
- Unwrap mower drive belt from PTO Sheave (DO NOT PRY).
- Move Attachment Lift Lever to lowest position.
- Move Implement Clutch Lever to "IN."
- Remove hairpin and mower brake link from attachment idler. See Figure 16.
- Disconnect attachment idler spring from anchor on right side of transaxle. (Use vise grips — See Figure 16.)
- Remove cotter pin, washer and PTO Rod from attachment idler arm. See Figure 16.

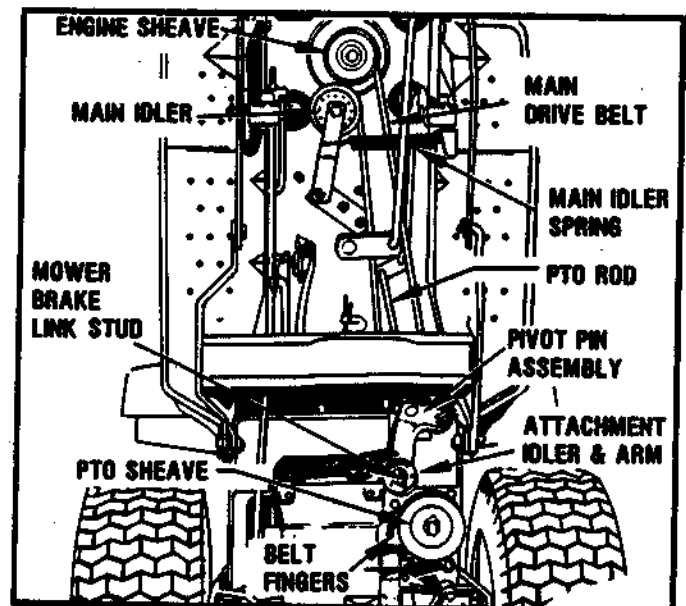


FIGURE 16

- Loosen fasteners holding two belt fingers around traction drive belt to frame, and rotate fingers away from belt. See Figure 17.
- Depress Clutch Pedal with left foot and unwrap traction drive belt from transaxle and upper groove of top PTO sheave. See Figure 17.
- Release clutch, disconnect traction clutch spring from traction clutch idler arm. (Use vise grips). See Figure 17.
- Rotate attachment idler until hair pin at top of idler assembly pivot pin can be removed rearward. See Figure 17.

ADJUSTMENTS / MAINTENANCE

MAIN DRIVE BELT REPLACEMENT (CONTINUED)

14. Remove PTO pivot pin, hairpin and washer. See Figure 16.
 15. Lower attachment idler assembly until traction clutch idler arm is free of pivot pin.
 16. Disconnect main idler spring from anchor point at left side of frame. (Use vise grips). See Figure 16.
 17. Slide rear of belt ahead and between upper traction and lower attachment idler assemblies. See Figure 16.
 18. Unwrap main drive belt from engine sheave and remove from tractor.
- B. Installation of New Belt**
1. Wrap new main drive belt around engine sheave.
 2. Feed other end rearward, above steering arm and through, between upper traction and lower attachment idler pivot assemblies.
 3. Push attachment idler arm upward until pivot pin is completely positioned through the traction clutch idler arm pivot.
 4. Rotate attachment idler arm so that hairpin can be re-installed in a forward direction. Place washer over pivot pin, install hairpin.
 5. Move Implement Clutch to "IN".
 6. Feed PTO rod between main drive belt lengths and install end through hole in attachment idler arm. See Figure 16.
 7. Install washer and cotter pin in PTO Rod - See Figure 16.
 8. Connect attachment idler spring to anchor on right front corner of transaxle. (Use vise grips.)
 9. Wrap main drive belt around lower (larger groove on top PTO sheave.) See Figure 17.
 10. With the main drive belt in the groove, re-assemble the spindle housing and belt fingers. See Figure 16.
 11. Reconnect main idler spring to anchor hole on left side of frame. Be sure main idler is on backside of main drive belt and spring is above steering link. See Figure 16.
 12. Grasp traction clutch idler spring with vise grips and connect hook to traction clutch idler arm. See Figure 17.
 13. Depress traction clutch pedal and wrap traction drive belt around upper groove on PTO sheave and transaxle sheave. DO NOT PRY. See Figure 17.
 14. Release clutch pedal and align and tighten traction belt fingers to 1/16" to 1/8" from belt.
 15. Move Implement Clutch Lever to "OUT" and move Attachment Lift Lever to highest position.
 16. Wrap mower belt around bottom PTO sheave. DO NOT PRY.
 17. Re-align fingers around bottom PTO sheave 1/16" to 1/8" away from pulley and tighten.
 18. Move Implement Clutch Lever to "IN".
 19. Attach mower brake link to stud under attachment idler and secure with hairpin. See Figure 13.
 20. NOTE: LEAVE SPARK PLUG WIRE DISCONNECTED.
 21. Move Attachment Lift Lever to lowest position.
 22. Move Implement Clutch Lever to "OUT". Place Speed Selector Lever in "NEUTRAL".
 23. Crank engine (with starter only) about six revolutions.
 24. Inspect main drive belt and main idler for alignment and clearance from sharp edges.
 25. Replace spark plug wire and test function.

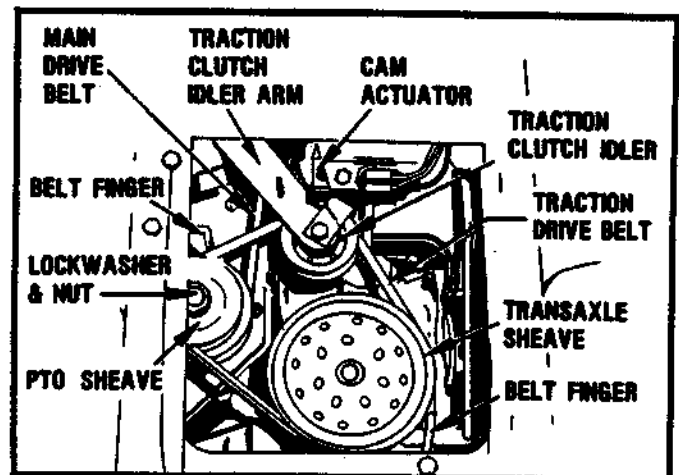


FIGURE 17

TRACTION DRIVE BELT REPLACEMENT — FIGURE 17

The traction drive belt is easily replaced by lifting the rear deck; loosening the belt fingers; including belt finger on traction clutch idler arm; depressing the Clutch Pedal and removing the belt. Replacement is similar, depress the Clutch Pedal; install the belt and replace the belt fingers. Adjust the three belt fingers to provide 1/8 to 1/16 inch clearance from the belt with clutch engaged (pedal up).

ADJUSTMENTS / MAINTENANCE

MOWER BELT REPLACEMENT & ADJUSTMENT — FIGURES 18 & 19

If belt squeals when Implement Power Control is properly engaged, check adjustment of belt. If squeals continue, belt may require replacement.

A. Removal

1. Place the Attachment Lift Lever in the lowest position, (forward). Disengage the Implement Power Control (lever to rear).
2. Loosen the belt fingers at the PTO sheave and turn them away from the sheave.
3. Remove the hairpin or cotter pin securing the brake band and rotate the band away from the sheave. See Figure 18.

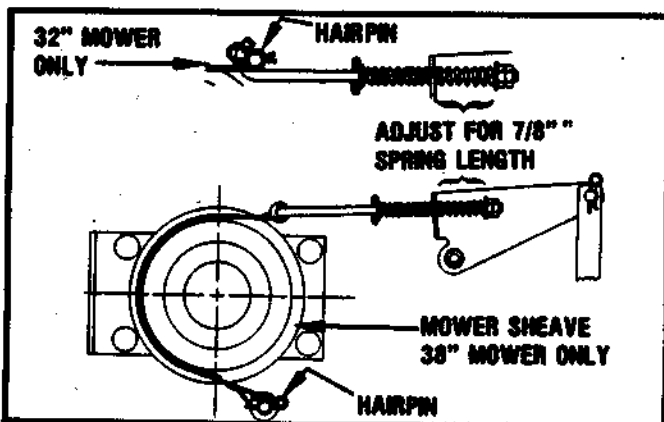


FIGURE 18

4. Raise the mower pan to its mid position and remove the mower belt from the PTO sheave; lower the pan and remove the belt from mower pan. See Figure 19.

B. Replacement

1. Position the replacement mower belt around the sheave on the mower pan. Reposition the brake band around the sheave and secure with the cotter or hair pin. See Figure 18.
2. Raise the mower pan to its center position and install the mower belt around the PTO sheave. See Figure 19.

C. Adjustment

Adjust mower belt for proper center distance, see Figure 14 and 18. Adjust nuts on adjustor rod to move mower pan forward or rearward. Adjust for 1 inch clearance between belt as shown in Figure 19 with mower pan in highest position.

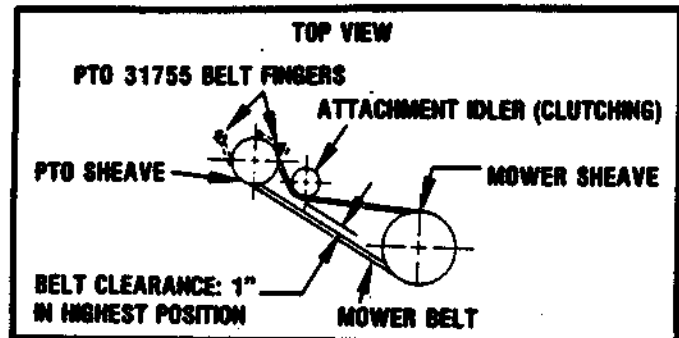


FIGURE 19

A NOTE ABOUT ARIENS BELTS

ARIENS BELTS are individually engineered to the highest standards of material quality, design, and construction including special cording locations for strength and stability. This assures that the belts will deliver maximum performance and durability for each product's specific applications.

The selling of ARIENS BELTS reflects these quality features. Our name and number stamped on your replacement belt is your assurance of receiving the quality you are paying for.

MOWER BRAKE ADJUSTMENT — FIGURE 18

With the mower belt adjusted and the Implement Power Clutch disengaged, adjust the nut on the end of the brake rod until the spring is 7/8" in length. See Figure 18.

MOWER RUNNER ADJUSTMENT — 32" MODELS

After adjusting the cutting height and blade pitch as described elsewhere in this section, the mower runners may be adjusted, as desired, to allow smooth, even cutting of grass at different cutting height settings. Adjustment must be even from side to side. Assemble outside spacers to runners and mower before center spacers. This will aid in alignment and ease of installation. Do not tighten hardware until outside spacers are installed.

1. To pre-set the runners prior to a test cutting they may be adjusted as shown in Figure 20.

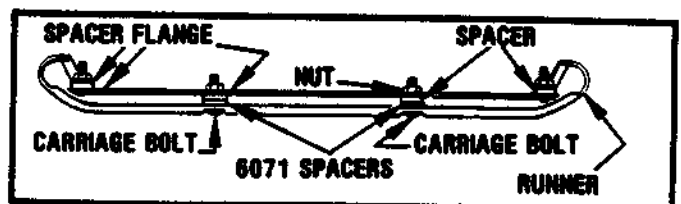


FIGURE 20

2. To obtain smoothest cutting in lowest cutting height settings, the runners may be adjusted as shown in Figure 21.
3. To obtain smoothest cutting in higher cutting height settings, the runners should be adjusted as shown in Figure 22.

ADJUSTMENTS / MAINTENANCE

MOWER RUNNER ADJUSTMENT — 32" MODELS (CONTINUED)

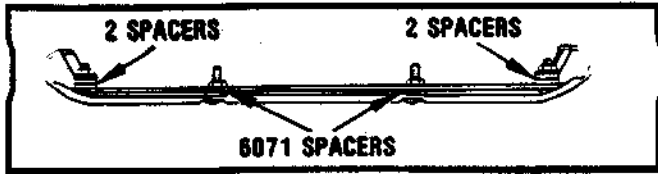


FIGURE 21

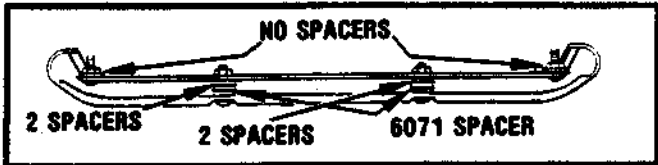


FIGURE 22

LUBRICATION

ENGINE OIL — FIGURE 23

Fill crankcase with oil as recommended in Engine Manufacturer's instructions supplied with the product. Check oil level before each use and change oil regularly according to Engine Manufacturer's instructions. Check oil level with tractor on a level surface. Keep dipstick area clean.

IMPORTANT: ENGINE WILL SMOKE EXCESSIVELY IF DIPSTICK IS NOT PUSHED DOWN UNTIL IT SNAPS INTO PLACE.

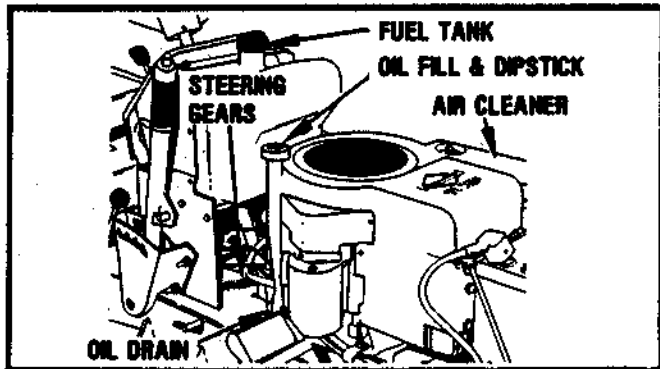


FIGURE 23

CHANGE ENGINE CRANKCASE OIL — FIGURE 23

1. When the tractor is new, the oil should be changed after the first five hours of operation. Thereafter under normal operating conditions the oil should be changed every 25 hours of operation. If extremely dusty or dirty conditions prevail, change oil more frequently.
2. Drain crankcase by opening petcock or removing the drain plug, Figure 23, while the engine is warm. Allow the oil to run into a container.

NOTE: WITH THE ENGINE WARM, THE OIL WILL FLOW MORE FREELY PERMITTING MORE CONTAMINANTS TO BE DRAINED FROM THE CRANKCASE.

3. Close petcock or replace the drain plug. Remove dipstick and refill crankcase with the proper type and viscosity of oil as shown in Engine Instruction Manual. Check oil on the dipstick to make sure that the level is to the "FULL" mark. **DO NOT OVERFILL.**

STEERING GEARS — FIGURE 23

Apply a light coat of Ariens Multi-Purpose Grease (Part No. 150) to steering gears every 50 hours of operation. See Figure 23.

TRANSAXLE

The Transaxle is lubricated at the factory and should require no further lubrication by the owner.

GREASE FITTINGS — FIGURES 24 & 26

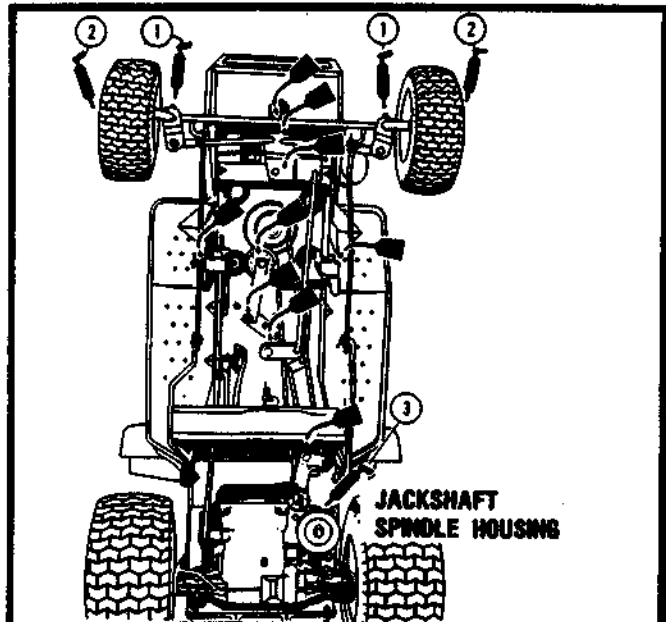


FIGURE 24

LUBRICATION

GREASE FITTINGS (CONTINUED)

Each fitting should be wiped clean before and after lubrication. Grease each fitting every 50 hours of operation with Ariens Multi-Purpose Grease (Part No. 150). Following is a list of the grease fittings with reference numbers that identify each location on the corresponding illustration.

1. Right and Left Steering King Pins — Figure 24.
2. Right and Left Front Wheels — Figure 24.
3. Jackshaft Spindle Housing — Figures 24 & 26.
4. Grease mower input (center) spindle.
5. Transaxle is sealed for dirt-free operation. However, should repairs be needed, requiring additional lubrication, use Ariens Multi-Purpose Grease, Part No. 150.

POINTS TO OIL — FIGURES 24, 25 & 26

1. Periodically oil the lift point pivots, front axle pivot, control linkage pivots and the shaft pivots to insure long life and smooth operation of the parts. See Figures 24 and 26.
2. Lubricate slide for shift interlock switch. See Figure 25.

IMPORTANT: KEEP GREASE AND OIL OFF THE BELTS TO AVOID BELT SLIPPAGE AND DETERIORATION.

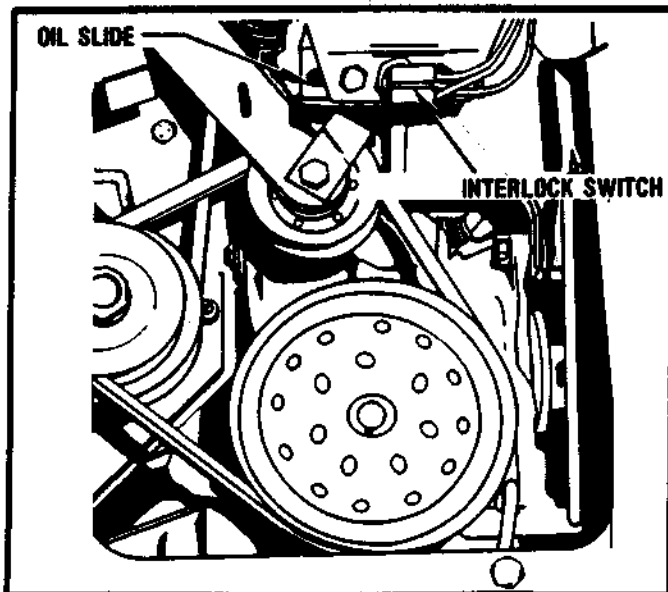


FIGURE 25

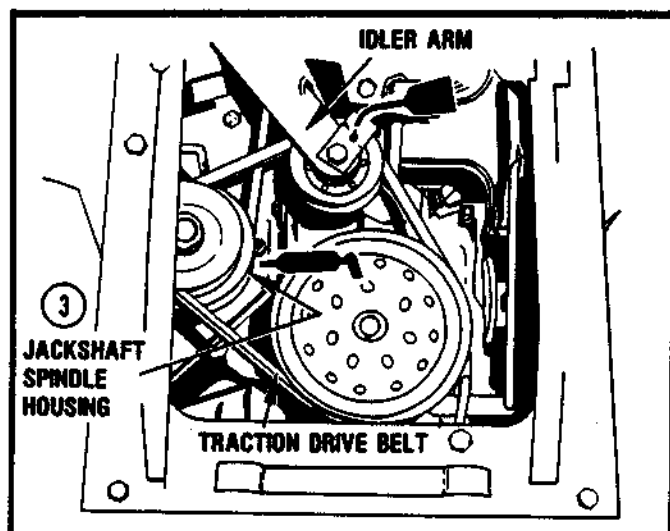


FIGURE 26

STORAGE



WARNING: NEVER STORE TRACTOR IN AN ENCLOSED AREA WHERE FUEL FUMES MAY REACH AN OPEN FLAME, SPARK, OR PILOT OF FURNACE, ETC. ALLOW THE ENGINE TO COOL BEFORE STORING IN ANY ENCLOSURE. DRAIN FUEL OUTDOORS, AWAY FROM OPEN FLAME AND USE ONLY AN APPROVED FUEL CONTAINER.

ENGINE

If tractor is not to be used for thirty days or more, prepare engine according to Engine Instructions Manual.

BATTERY



WARNING: STORAGE BATTERIES GIVE OFF HIGHLY INFLAMMABLE HYDROGEN GAS. DO NOT ALLOW SPARKS OR FLAME NEAR BATTERY. DO NOT LAY TOOLS ACROSS BATTERY TERMINALS WHICH MAY CAUSE A SPARK RESULTING IN AN EXPLOSION.



CAUTION: ELECTROLYTE CONTAINS SULPHURIC ACID WHICH IS HARMFUL TO SKIN, EYES AND CLOTHING. HANDLE WITH EXTREME CARE. IF SPILLAGE OCCURS ON BODY OR CLOTHING, RINSE AT ONCE WITH WATER.

BASIC USER-CONSUMER COMPONENTS

NOTE: FOR ENGINE LUBRICATION AND PARTS SUCH AS AIR CLEANER AND SPARK PLUGS REFER TO ENGINE INSTRUCTIONS MANUAL SUPPLIED WITH UNIT. CONTACT ENGINE MANUFACTURER'S DEALER FOR REPLACEMENTS.

PARTS OR SERVICE MANUALS

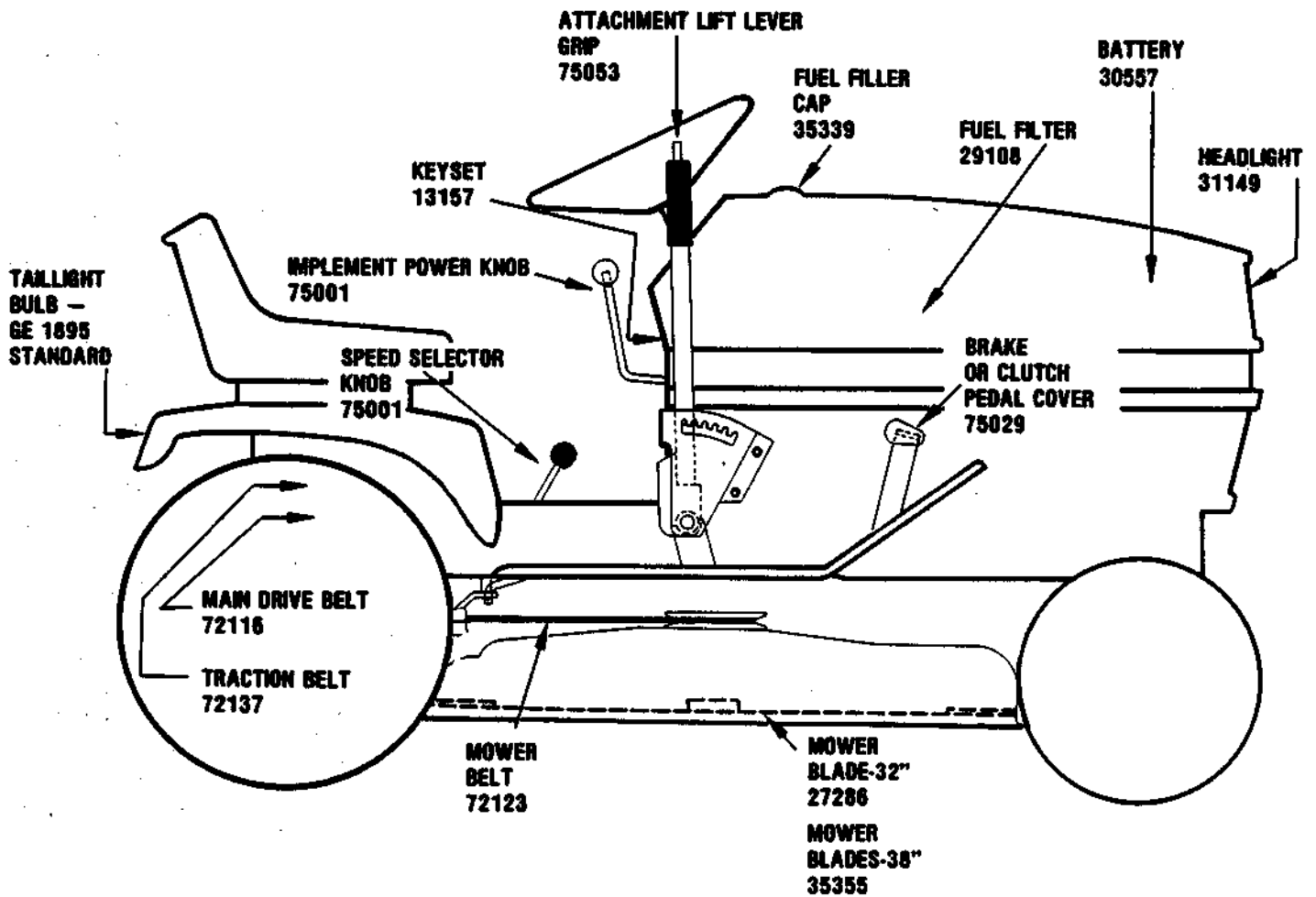
Basic Consumer-User Service Components are illustrated on this page and are described in the text of this manual. These components are most commonly used for consumer repair.

Should a complete parts list and/or repair manual less engine be required order under the following part numbers.

Parts Manual	Part No. PM-35-83
Repair Manual	Part No. RM935-1983

Please Remit To: **ARIENS COMPANY**
 655 West Ryan Street
 Brilmen, Wisconsin
 54110-1098 U.S.A.

For engine parts list and repair instructions, contact the engine manufacturer's dealer.



BASIC USER-CONSUMER COMPONENTS

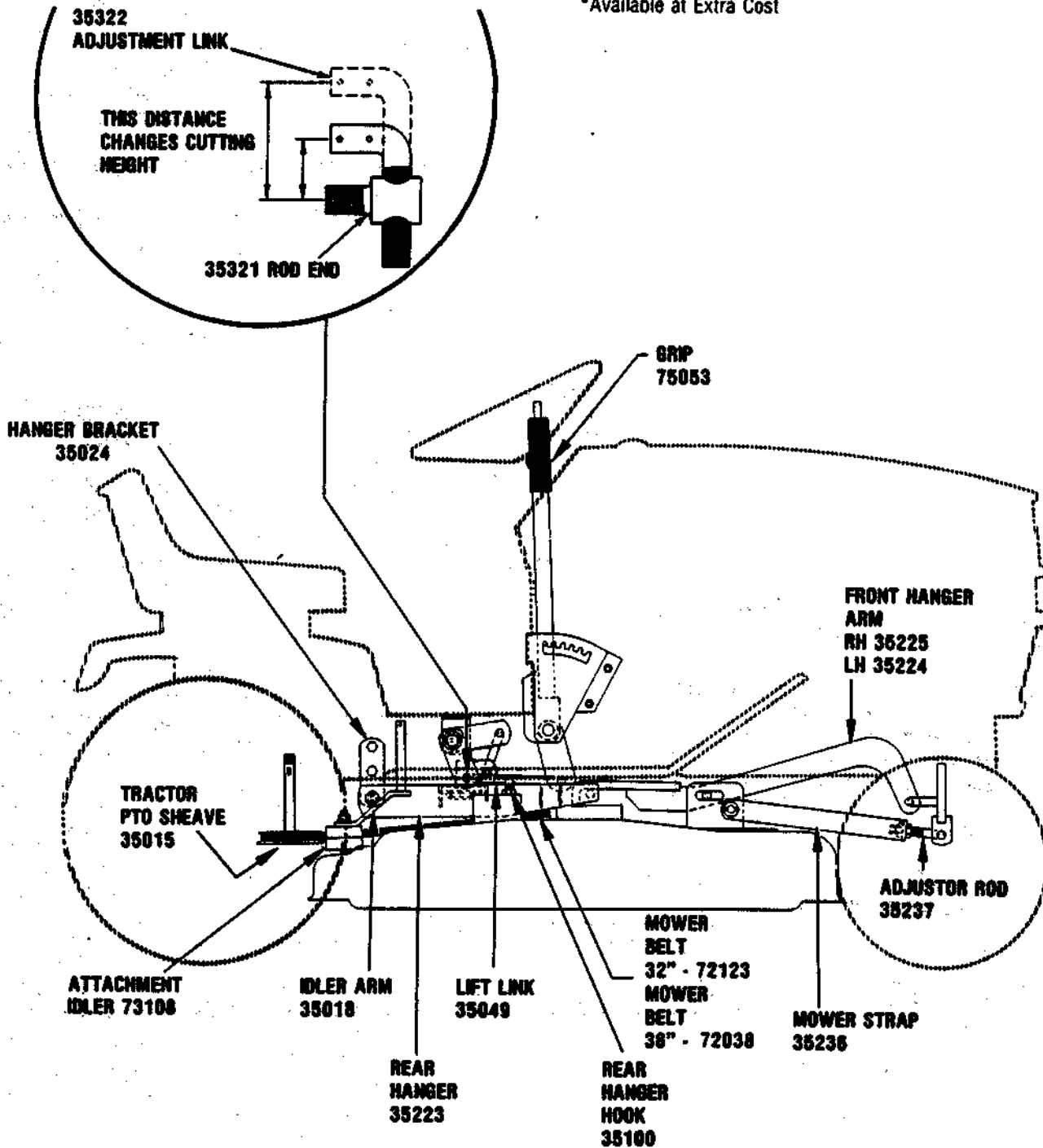
Optional Accessories*:

Weight Box (Rear), 735004
 Wheel Weights, 735002; Tire Chains, 713977

Optional Attachments*:

42" Front Blade, 835002, (42FB)
 36" Sno-Thru, 835006 (36ST)
 32" Grass Bagger, 835016
 38" Grass Bagger, 835017
 26" Tiller, 835008 (26RT)

*Available at Extra Cost



ASSEMBLY & PRE-SERVICE

BATTERY

Battery is dry charged. Dealer or customer must add electrolyte (sulfuric acid and water) and make sure battery is fully charged.

STEERING WHEEL — FIGURE 27

Install steering wheel on the column as shown in Figure 27. Line up the holes in steering wheel and steering post and secure by driving in the roll pin.

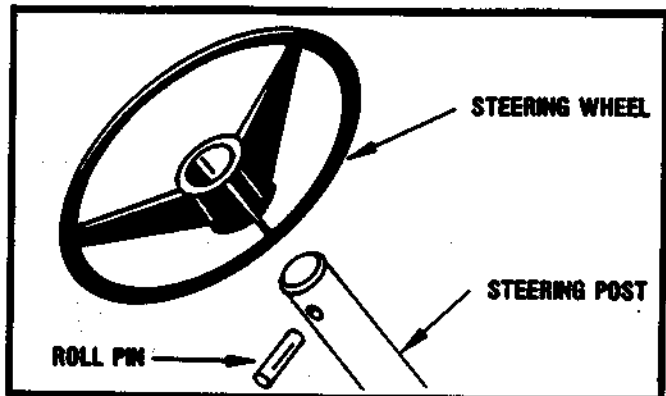


FIGURE 27

INSTALLATION OF MOWER PAN — 38" MOWER

Position the tractor on a smooth, level surface and install the mower pan according to instructions in "ADJUSTMENTS-MAINTENANCE" section.

LEVEL ADJUSTMENT OF MOWER PAN

The mower pan is designed to cut evenly with the rear of the pan 1/8 inch higher than the front. To level the mower pan follow instructions in "ADJUSTMENTS-MAINTENANCE" section of this manual.

CHUTE DEFLECTOR INSTALLATION — FIGURE 28



WARNING: THE CHUTE DEFLECTOR MUST BE ATTACHED TO THE 32" MOWER PAN ON THE TRACTOR BEFORE DELIVERY.

THE TRACTOR IS SHIPPED WITHOUT THE CHUTE DEFLECTOR IN PLACE. ATTACH THE CHUTE DEFLECTOR (035243) TO THE MOWER PAN CHUTE WITH THE TWO CARRIAGE BOLTS (62017) INSERTED FROM THE INSIDE, AND SECURED WITH TWO LOCKNUTS (65040). DEFLECTOR IS HELD DOWN BY THE CARRIAGE BOLT (62042) AND WING NUT (65064) THROUGH THE FLANGE ON THE FRONT OF THE DEFLECTOR AND PAN.

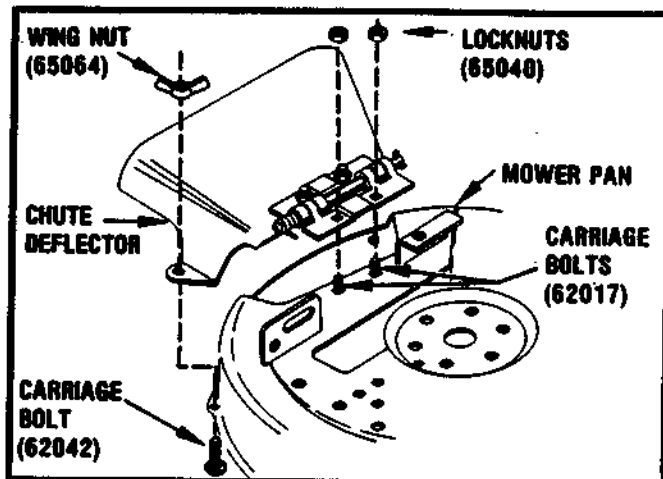


FIGURE 28

ENGINE

Use high quality detergent type oil with service designation SC, CC, SD, or SE. Oil weight specifications are shown in Engine Instructions Manual provided.

FILL FUEL TANK

Refer to Engine Instructions Manual provided.

REGISTRATION

Fill out pre-warranty registration card and mail to Ariens Company. Warranty will only be registered under the model and serial number found on the serial number label (also stamped into the frame of the unit). Add serial numbers to this page.

DELIVERY

Using the Owner's Manual as a guide, instruct the customer as follows:

1. Instruct the customer on the operation of the tractor. Emphasize safety and discuss the safety information in the Owner's Manual.
2. Advise customer to change oil in the engine crankcase after the first five hours of operation.
3. Explain how to perform on the recommended lubrication and periodic service.

4. Explain maintenance and adjustment instructions. Instruct customer to re-adjust Mower Belt after first five hours of operation. See page 13.
5. Demonstrate how to mount and dismount attachments.
6. Make certain the customer has his Owner's Manual and Engine Instructions.
7. Explain Ariens Warranty Policy. Fill out and return Ariens Warranty Registration Card.

SERIAL NUMBER — TRACTOR
(Plate Located on Frame)
SERIAL NUMBER — ENGINE
(Plate Located on Exterior of Engine)

A message to the Ariens customer...

Welcome to the world of Ariens equipment. We are pleased that you have selected Ariens and sincerely believe you have purchased the best equipment available. The care you give your new Ariens equipment will greatly determine the satisfaction and service life you will obtain from it. Use this manual and the engine manual supplied, as your guide. By observing the instructions and suggestions in these manuals, your Ariens equipment will serve you well for many years.

Your **Ariens Dealer** will be happy to supply any service or advice which may be required to keep your Ariens equipment operating at peak efficiency. He stocks genuine Ariens parts and lubricants; manufactured with the same precision and skill as the original equipment. His factory trained staff is kept well informed on the best methods of servicing Ariens equipment and is ready and able to serve you. If engine repairs or services are required, they can be obtained from an **Ariens Dealer** or from an authorized engine manufacturer's service station. If service is required, be prepared to supply the service person with the Model Number and Serial Number of the equipment and the engine, as well as full description of the problem encountered.
