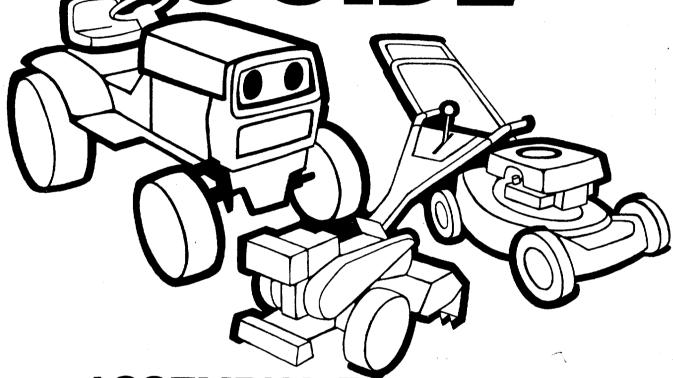
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# OWNER'S GUIDE



ASSEMBLY
OPERATION
MAINTENANCE
PARTS LIST

IMPORTANT: Read Safety Rules and Instructions MODEL NUMBER 130-780A

16 H.P.
HYDRO STATIC
LAWN TRACTOR



NOTE

OPTIONAL 44" DECK MODEL 190-935A AVAILABLE

# LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.



# TO PURCHASERS OF INTERNAL COMBUSTION ENGINE EQUIPPED MACHINERY OR DEVICES IN THE STATE OF CALIFORNIA

The equipment which you have just purchased does not have a spark arrester. If this equipment is used on any forest covered land, brush covered land, or grass covered unimproved land in the State of California, before using on such land, the California law requires that a spark arrester be provided. In addition, spark arrester is required by law to be in effective working order. The spark arrester must be attached to the exhaust system and comply with Section 4442 of the California Public Resources Code.



It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

This unit is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

# SAFE OPERATION PRACTICES FOR RIDING VEHICLES

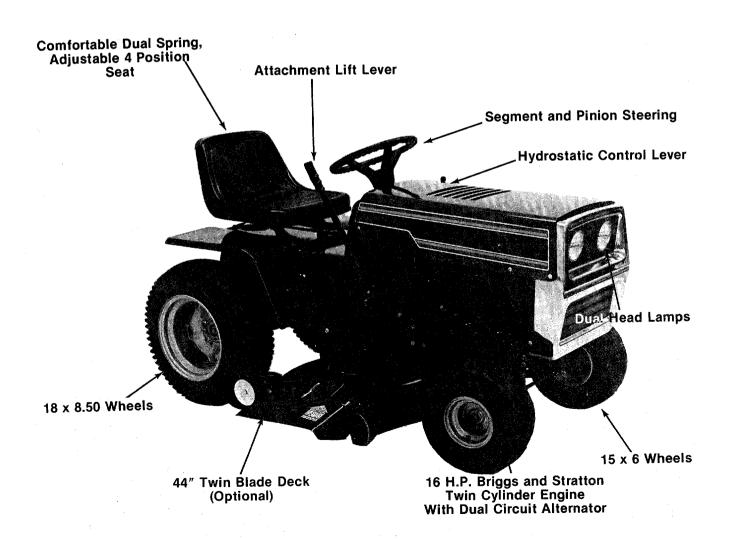
- Know the controls and how to stop quickly— READ THE OWNER'S MANUAL.
- Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
- 3. Do not carry passengers
- 4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidently thrown by the mower in any direction.
- Clear work area of objects which might be picked up and thrown by the mower in any direction.
- Disengage all attachment clutches and shift into neutral before attempting to start engine.
- 7. Disengage power to attachment(s) and stop engine before leaving operating position.
- Disengage power to attachment(s) and stop engine before making any repairs or adjustments. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
- Before attempting to unclog the mower or discharge chute, stop the engine and be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
- Disengage power to attachment(s) when transporting or not in use.
- 11. Take all possible precautions when leaving vehicle unattended such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
- 12. Do not stop or start suddenly when going uphill or downhill. Mow up and down 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.
- 14. Stay alert for holes in terrain and other hidden hazards.
- 15. 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 owner's manual.
- 16. Watch out for traffic when crossing or near roadways.
- 17. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
- Handle gasoline with care. It is highly flammable.
  - 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.
- Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in owner's manual.
- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- 21. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
- To reduce fire hazard, keep engine free of grass, leaves or excessive grease.
- 23. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
- 24. Do not change the engine governor settings or overspeed the engine.
- 25. When using the vehicle with mower, proceed as follows:
  - (1) Mow only in daylight or in good artificial light.
  - (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
  - (3) Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
  - (4) Check blade mounting bolts for proper tightness at frequent intervals.
- Check grass catcher bags frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.
- Look behind to make sure the area is clear before placing the transmission in reverse and backing up.

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# **KNOW YOUR TRACTOR**



# **ASSEMBLY**

The Garden Tractor is packed and shipped in one container and is fully assembled except for the steering wheel, seat, battery and mounting the cutting deck.

#### **BATTERY INFORMATION**



- A. Battery acid must be handled with great care as it will blister the skin and damage clothing. It is advisable to wear goggles, rubber gloves, and a protective apron when working with it.
- B. Neutralize acid spilled on clothing with dilute ammonia water or a water solution of baking soda. If acid gets on clothes, dilute it with clean water first, then neutralize.
- C. If for any reason acid should be spattered in the eyes, wash it out immediately with clean cold water. Seek medical aid if discomfort continues.
- D. Since battery acid is corrosive to metals, do not pour into any sink or drain. Rinse empty electrolyte containers and mutilate before discarding.



BATTERIES CONTAIN SULFURIC ACID AND MAY CONTAIN EXPLO-SIVE GASES (when electrolyte has been added)

- A. Keep sparks, flame, cigarettes away.
- B. Hydrogen gas is generated during charging and discharging.
- C. Ventilate when charging or using in enclosed space.
- D. When using a charger—to avoid sparks, NEVER connect or disconnect charger clips to battery while charger is turned on.
- E. Always shield eyes, protect skin and clothing when working near batteries.

#### **ACTIVATING THE BATTERY**



If your battery is activated (electrolyte in the battery) and installed in the tractor, go directly to step 9.

- 1. Place the battery to be filled on a workbench. Never activate a battery in the unit.
- 2. Remove the fill caps from all cells.
- Fill each cell carefully using 1.265 specific gravity electrolyte. Fill each cell to the top of the separators. Do not overfill.
- 4. Let the battery sit for 20 minutes for the chemical reaction to take place.
- Charge the battery at a MAXIMUM RATE OF 5
   AMPS. until the specific gravity reads 1.265.
   Use a hydrometer to check the specific gravity.



An excessive rate of charge will damage the battery.

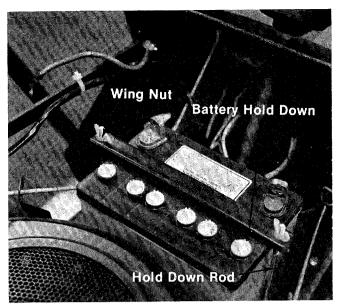
- Check the level of electrolyte. Adjust level to bottom of split ring if necessary with electrolyte.
- 7. Replace fill caps.
- 8. Once the battery has been activated never add anything except distilled water or a good grade of drinking water.
- 9. If your battery has been installed in your unit at the factory:
  - A. Use a hydrometer to check the specific gravity. The specific gravity should be 1.265 at 80° F.
  - B. If it is less, remove the fill caps and use a battery charger to bring the specific gravity up to 1.265. NEVER CHARGE AT MORE THAN 5 AMPS.
  - C. Replace the fill caps.
  - D. The positive cable has been attached to the positive terminal of the battery at the factory. You only have to attach the negative cable (grounded) to the negative (Neg. N or —) terminal of the battery with a hex head bolt, lock washer and nut.

#### Installing the Battery



The positive battery terminal is marked Pos. (+). The negative battery terminal is marked Neg. (-).

- 1. Place the battery in the battery box with the terminals towards the rear of the tractor.
- Secure the battery with the two hold down rods, battery hold down, lock washers and wing nuts. See figure 1.



#### FIGURE 1.

- 3. Attach the positive cable (from the starter solenoid) and the small wire (from the circuit breaker) to the positive battery terminal (+) with a 1/4-20 x 3/4" long bolt, lock washer and hex nut.
- 4. Attach the negative cable (grounded) to the negative battery terminal (-) with the other 1/4-20 x 3/4" long bolt, lock washer and hex nut.

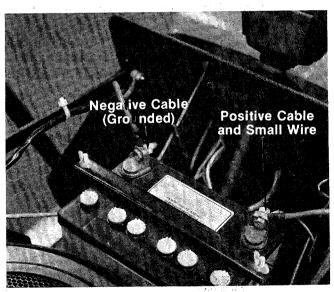


FIGURE 2.



The vented battery allows any gases or liquid from the battery to be carried to the rear of the tractor and onto the ground.

Route the rubber drain tube down beside the tractor frame so it drains onto the ground.

#### **SEAT ASSEMBLY**

The seat can be adjusted to four positions. With the seat tipped forward, hook the front of the seat spring into the slots on the tractor frame. Allow the seat to pivot backwards until it rests on the rear of the springs. (See figure 3.)

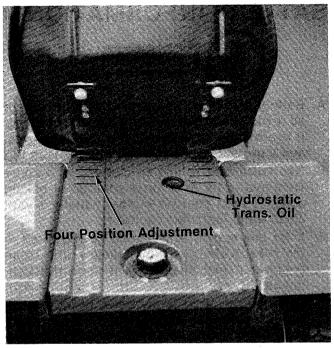


FIGURE 3. STEERING WHEEL

 Place the steering wheel over the steering column extending through the dash. Line up the flats on the steering column with the flats in the steering wheel. (See figure 4.)



FIGURE 4.

- 2. Place the washer with the cupped side down over the steering column and secure with a hex nut 5/16".
- 3. Place the cap over the center of the steering wheel and seat it with your hand.

#### TIRE PRESSURE

Reduce the rear wheel tire pressure to 15 p.s.i. for operation. The tires have been over-inflated for shipping. Equal tire pressure should be maintained on all tires. Maximum tire pressure is 30 p.s.i.

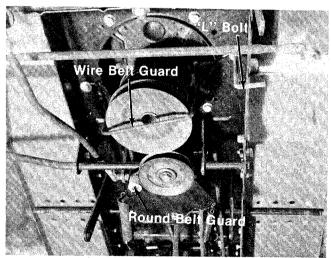
#### **HYDROSTATIC TRANSMISSION**

See the maintenance section of this manual for correct lubrication and level for the oil in the hydrostatic transmission.

#### **ATTACHING THE CUTTING DECK (Optional)**

#### **Deck Assembly Screw Pack**

- 4 Flat Washers 1/2" I.D.
- 1 Small Cotter Hairpin
- 4 Medium Cotter Hairpins
- 2 Large Cotter Hairpins
- 1. Remove the round belt keeper from the idler by removing the cotter hairpin. (See figure 5.)
- 2. Unscrew the "L" bolt and swing the wire belt guard on the engine pulley forward.

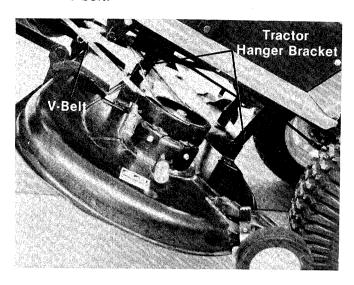


#### FIGURE 5.

- Adjust the deck wheels to their lowest cutting position.
- 4. Move the tractor lift handle all the way back to the full raised position.
- 5. Turn the tractor steering wheel all the way to the left.
- 6. Slide the deck under the tractor from the left side.
- 7. Attach the four tractor hanger brackets to the deck with four 1/2" I.D. washers and four medium cotter hairpins. (See figure 6.)



The left front tractor hanger bracket goes through the center of the V-belt.



#### FIGURE 6.

7. Assemble the front cross bar as shown in figure 7 using two large cotter hairpins to attach the deck linkage to the tractor frame.

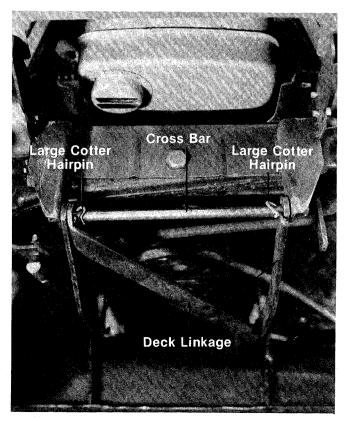
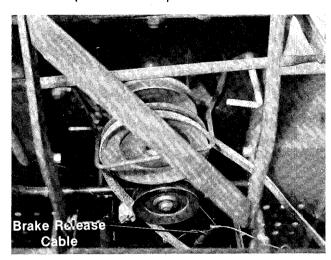


FIGURE 7.

- 8. Place the deck belt around the engine pulley and idler. (See figure 8.)
- 9. Replace the round belt guard and swing the wire belt guard over the engine pulley and secure it with the "L" bolt.
- 10. Check all belt guards for clearance. The belt guards must be between 1/16" and 1/8" away from the belt when the PTO lever is in the engaged position.
- 11. Hook the brake release cable into the tractor idler bracket and secure it with the small cotter hairpin and clevis pin.



#### FIGURE 8.

# CONTROLS AND PRELIMINARY CHECKS

#### **CONTROLS**

#### **Ignition Switch**

The ignition switch is located in the center of the dashboard. Turn the key to the START position to start the engine. When the engine is running leave the key in the ON position. To stop the engine turn the key to the OFF position. (See figure 9.)



Remove the key from the tractor when the tractor is not in use to prevent accidental starting.

#### **Throttle Control**

The throttle control is located on the left side of the dashboard and is used to regulate the engine speed. (See figure 9.) The engine should be operated from 3/4 to full throttle (FAST) when operating any equipment that uses the tractor engine as a source of power such as the mowing deck, snow thrower or rotary tiller. (See figure 9.)

#### **Choke Control**

The choke control is located on the right side of the dashboard and is operated manually. Details for the choke operation are covered in the Engine Operating and Maintenance Instructions Manual. (See figure 9.)

#### **Light Switch**

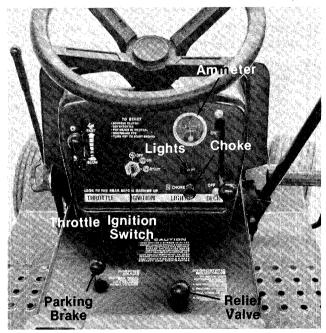
The head lamps are operated by pushing the light switch located on the dashboard. The head lamps will only operate when the engine is running. (See figure 9.)

#### **Ammeter**

The ammeter registers the rate of battery charge or discharge. The ammeter should register on the plus (+) side when the engine is running in the FAST position until the battery is completely charged.

With a fully charged battery or with the engine idling the ammeter may not show a charge.

The maximum charging rate is 3 amps. The head lamps operate directly from the engine alternator and do not register on the ammeter. (See figure 9.)



#### FIGURE 9.

#### **Gasoline Tank**

The gasoline tank is located under the tractor seat. Fill the gasoline tank with approximately 1.9 gallons of clean, fresh, lead-free or leaded "regular" grade automotive gasoline. Tip the seat forward to fill the tank. (See figure 10.)

#### **Seat Adjustment**

The tractor is adjustable to four positions. To change positions, tip the seat all the way forward and lift it out of the slots on each side. (See figure 10.)

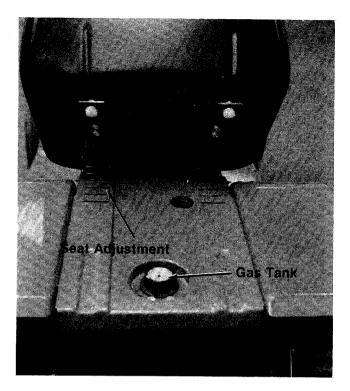


FIGURE 10.

#### **Hydrostatic Control Lever**

A single control lever connected to the hydrostatic transmission controls both the speed and direction of the tractor. Infinite speed control is achieved by moving the control lever forward or backward. The farther forward or backward you move the control lever the faster you will travel. Pulling the control lever into neutral (N) area will stop the tractor. To increase rear wheel torque (pulling power) move the control lever towards neutral (N) position. The riding mower responds similar to shifting to a lower gear with a gear type transmission. (See figure 11.)

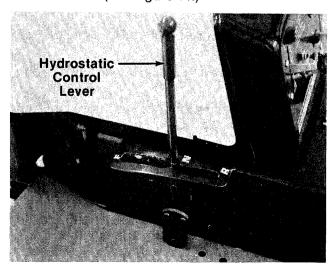


FIGURE 11.

#### Clutch-Brake Pedal

The clutch-brake pedal is located on the right side of the riding mower. Depressing the pedal disengages the engine from the hydrostatic transmission and applies the brake. You can release the clutch pedal and resume the same speed without moving the hydrostatic control lever. See figure 12.

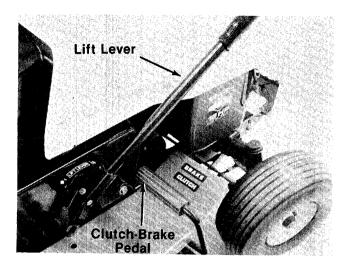


FIGURE 12.



The clutch-brake pedal must be depressed to start the engine.

#### **Parking Brake**

To set the parking brake, depress the clutch-brake pedal and pull up the parking brake knob. It will stay in the raised position. To release the parking brake, depress and release the clutch-brake pedal. (See figures 9 and 12.)

#### Lift Lever

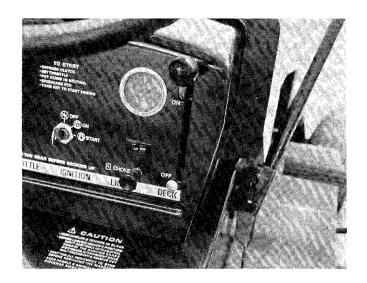
The five position lift lever is used to change the operating position of the attachments. To operate, pull the lever towards you. To release, move the lever to the right and then forward. (See figure 12.)

#### Power Take Off (PTO) Lever

The PTO lever is located on the right side of the dashboard. To engage the PTO, lift the lever slowly and lock it into the notch. (See figure 13.)



The PTO lever must be in the disengaged position (down) to start the engine.



#### FIGURE 13.

#### **Relief Valve**

To move the riding mower without the engine running, pull up the relief valve and lock it in the raised position. This allows the rear wheels to roll. (See figure 9.)

#### CHECKING OIL AND GASOLINE



When packaged for shipment, the machine contains no oil or gasoline. Before starting the engine, oil must be added to the engine crankcase and gasoline to the tank. DO NOT mix oil with gasoline.

**Briggs & Stratton.** Use a high quality detergent oil classified "For Service SC or SD or MS". Nothing should be added to the recommended oil.

**Summer.** (Above 40°F.) Use SAE 30. If not available use SAE 10W-30 or SAE 10W-40.

Winter. (Under 40°F.) Use SAE 5W-20 or SAE 5W-30. If not available, use SAE 10W or SAE 10W-30. Below 0°F., use SAE 10W or SAE 10W-30 diluted 10% with kerosene.

Place the engine level. Fill the oil sump to the FULL mark on the dipstick. Pour slowly.

Crankcase Capacity—3½ Pints.

#### **OPERATION**

# **CAUTION**

- 1. KEEP ALL SHIELDS & GUARDS IN PLACE
- 2. BEFORE LEAVING OPERATOR'S POSITION:
  SHIFT CONTROLS INTO NEUTRAL
  SET PARKING BRAKE
  DISENGAGE ATTACHMENT DRIVE
  SHUT ENGINE OFF
  REMOVE IGNITION KEY
- 3. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING MACHINE
- 4. KEEP PEOPLE & PETS A SAFE DISTANCE
  AWAY FROM MACHINE

Your riding mower is equipped with a chute deflector and internal baffle on the cutting deck. The riding mower must not be operated without these pieces in their proper place.

# **CAUTION**

DO NOT OPERATE MOWER UNLESS GUARD OR ENTIRE GRASS CATCHER IS IN ITS PROPER PLACE.

#### Operation

- 1. Place the PTO lever in the disengaged position (down).
- 2. Depress the clutch-brake pedal and set the parking brake.
- 3. Place the hydrostatic control lever in the "NEUTRAL" (N) position.
- Set the throttle control in the "FAST" position.
- 5. Pull out the choke control. A warm engine requires less choking.
- 6. Turn the ignition key to the right to the "START" position. After the engine starts release the key. It will return to the "ON" position.
- 7. Slowly push in the choke as the engine warms up.

- 8. Depress the clutch-brake pedal so the parking brake is released and then release the clutch-brake pedal.
- 9. Move the hydrostatic control lever forward. The farther forward you move the hydrostatic control lever the faster you will travel.
- To stop the tractor pull the hydrostatic control lever into "NEUTRAL" (N) or depress the clutch-brake pedal.
- 11. To shut off the engine, turn the ignition key to "OFF" position.



After striking a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

#### **MAINTENANCE**

#### **TROUBLESHOOTING**

Refer to the chart on page 22 for troubleshooting engine problems.

#### **CRANKCASE OIL**

To ensure maximum engine performance, perform the following periodic maintenance:

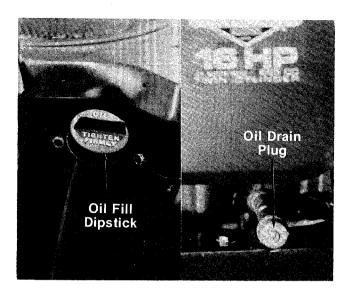
#### Oil Check

Check the oil level in the crankcase before each use of the machine and after every two hours of operation. Keep the oil level between ADD and FULL. See figure 14.

#### Oil Change

After the first two hours of operating a new engine, drain the oil (see figure 14) from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil after every 25 hours of operation. This procedure ensures minimum wear of engine parts and provides virtually trouble-free operation. To change the oil, proceed as follows:

- Step 1. Remove oil filler plug.
- Step 2. Drain the oil.
- Step 3. Replace oil filler plug.
- Step 4. Refill crankcase with oil. See page 10 for quantity and type of oil.



#### FIGURE 14.

#### **Hydrostatic Oil Level**

The transmission has been filled at the factory and should not require changing for the life of the transmission. The following oils can be used.

Texaco 2209
General Motors Dexron B
Ford M2C-33F
Mobil Fluid 300
or a good quality SAE 20 High Detergent
oil

CAUTION

Never use a multi-viscosity oil.

The transmission fluid level should be checked prior to initial use. The level should not be above the COLD mark which is about 1/4" from the bottom of the reservoir/expansion tank. (See figure 15.)

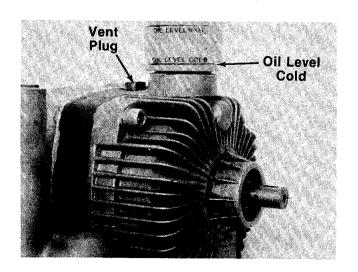


FIGURE 15.

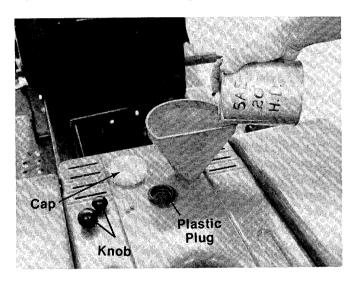


Overfilling reduces the expansion area in the reservoir/expansion tank and fluid will spill at operating temperatures.

To check or add fluid to the transmission:

- 1. Unscrew the parking brake and relief valve knobs. (See figure 9.)
- 2. Unscrew the two screws holding the access cover located in front of the seat.
- 3. Check the oil level in the reservoir/expansion tank. (See figure 15.)
- 4. If it is necessary to add oil, remove the plastic plug, unscrew the cap on the reservoir/expansion tank and add oil through the hole with a funnel. Do not overfill. (See figure 16.)
- 5. Reassemble parts.

If frequent additions are required, locate the leak and correct. Inadequate supply of fluid may result in permanent internal damage.



#### FIGURE 16.

If contaminate is observed on the reservoir/expansion tank screen, poor maintenance is indicated. Remove the reservoir/expansion tank, wash clean, dry and reinstall. If the screen is pierced, the reservoir/expansion tank should be replaced.



The threads on the reservoir/expansion tank are left hand thread.

If the natural color of the transmission fluid has changed, black or milky, overheating and/or water contaminate is indicated. The fluid should be drained and replaced with new transmission fluid. To drain the hydrostatic transmission, remove the hex plug on the bottom of the hydrostatic transmission.

To fill the hydrostatic transmission, remove the vent plug located next to reservoir/expansion tank to prevent an air lock. Replace vent plug.

#### **Hydrostatic Transmission Cooling.**

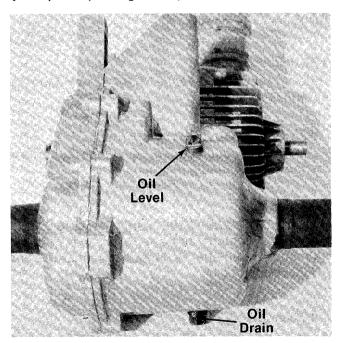
The hydrostatic transmission is cooled by the oil, fan and fins. Normal operating temperature is 180°F. If the hydrostatic transmission runs hot check to see if the fan is in operating condition, the oil level is correct and the fins are clean.



Do not use high pressure water spray or steam to clean the hydrostatic transmission.

#### **Transaxle**

Check the oil level four times a year. Lubricant should be at the point of overflowing. Use SAE E.P. 90 oil. Drain and refill every two years. Capacity 234 pints. (See figure 17.)



#### FIGURE 17.

#### **Hydrostatic Control Adjustment**

The hydrostatic transmission control is in correct adjustment when the tractor does not move with the engine running, the clutch engaged and the hydrostatic control lever is in the neutral position.

If adjustment is necessary, follow these steps:

- 1. Raise both rear wheels off the ground by placing blocks under the rear frame.
- 2. Loosen both lock nuts on both ends of the connecting rod. See figure 18.

- 3. Place the hydrostatic control lever in the neutral position. See figure 11.
- 4. Start the tractor.
- 5. Release the clutch/brake pedal.

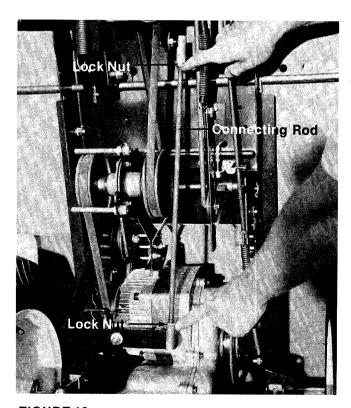


Do NOT set the parking brake or the dump valve.



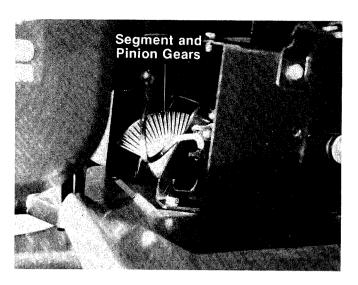
Be careful of the cooling fan on the front of the hydrostatic transmission.

- 6. Turn the connecting rod back and forth until the rear wheels do not rotate.
- 7. Shut off the engine.
- 8. Tighten both lock nuts on the connecting rod.
- 9. Remove the blocks under the tractor frame and test the tractor operation.



#### FIGURE 18. Steering Gears

Wipe off the old grease and dirt. After every 25 hours of operation place an automotive multipurpose grease in the teeth of the segment and pinion gears. (See figure 19.)



#### FIGURE 19.

**Linkage**—Once a season lubricate all the pivot points on the clutch, brake and lift linkage with SAE 30 engine oil.

Wheel Bearings—The front wheel bearings and king pin bearings have Oilon PV 80 bearings that require no lubrication.

**Ball Joints**—The ball joints and drag link ends are permanently lubricated.

#### **MAINTENANCE OF BATTERY**

- Check electrolyte level periodically (at least every two weeks). Keep the level to the split rings. Use only distilled water or a good quality drinking water. Never add acid or any other chemicals to the battery after initial activation.
- The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, the battery should be recharged. Maximum charge rate 5 amps.
- Coat the terminals and exposed wire with a thin coat of grease or petroleum jelly for longer service and protection against corrosion.
- 4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.
- 5. Avoid tipping the battery. Even a "sealed" battery will leak electrolyte when tipped.

#### STORAGE OF THE BATTERY

- 1. Store the battery in the unit.
- Keep the exterior of the battery clean, especially the top. A dirty battery will discharge itself.

Check the battery with a hydrometer. The battery must be stored with a full charge. A discharged battery will freeze.

Specific Gravity	Freezing Point
1.265	−71°F.
1.250	−62°F.
1.200	– 16°F.
1.150	5°F.
1.100	16°F.



All batteries discharge during storage.

4. Recharge battery whenever the specific gravity is less than 1.225, before returning to service or every two months, whichever comes first.

#### **COMMON CAUSES FOR BATTERY FAILURE**

- 1. Overcharging
- 2. Undercharging
- 3. Lack of water
- 4. Loose hold downs and/or corroded connections
- 5. Excessive loads
- 6. Battery electrolyte substitutes
- 7. Freezing of electrolyte



These failures do not constitute warranty.

#### **BATTERY REMOVAL OR INSTALLATION**



When removing the battery follow this order of disassembly to prevent your wrench from shorting against the frame.

- 1. Remove the Negative cable.
- 2. Remove the Positive cable.

To install a battery:

- 1. Attach the Positive cable.
- 2. Attach the Negative cable.

#### **JUMP STARTING**

1. Attach the first jumper cable from the Positive terminal of the good battery to the Positive terminal of the dead battery.

Attach the second jumper cable from the Negative terminal of the good battery to the FRAME OF THE UNIT WITH THE DEAD BAT-TERY.



Failure to use this starting procedure could cause sparking and the gases in either battery could explode.

#### Fuel Shut-Off Valve and Filter

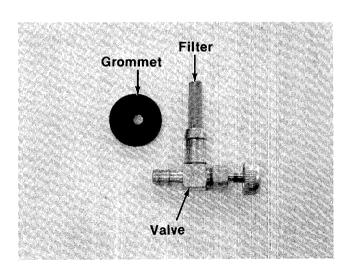
The valve and filter is located on the bottom of the gasoline tank located at the extreme rear of the tractor.

Turn the valve knob in to shut off the fuel flow. Turn the valve knob out to operate the tractor. (See figure 20.)

The entire valve can be pulled out to clean the filter. When reassembling, place the rubber grommet into the gasoline tank first, then push the valve all the way in.



Only use factory approved parts if repairs are needed on the gasoline tank, grommet, valve or gasoline line.



#### FIGURE 20. Installation of Tire to Rim



The following procedure must be followed when removing or installing a tire to the rim.

- 1. Lubricate the tire beads and rim flanges.
- 2. Do not exceed 30 p.s.i. when seating beads.
- 3. Adjust to recommended pressure after beads are sealed.

#### **Rear Wheel Tract Adjustment**

The distance between the rear wheels can be changed from wide to narrow by removing the rear wheels one at a time and reversing them on the hub.

With the rear wheels in the narrow position, their outside is even with the outside of the front wheels.

With the rear wheels in the wide position, their inside is even with the inside of the front wheels.

#### **Wheel Alignment**

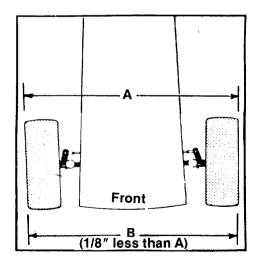
The front wheels should toe-in approximately 1/8". Measure the distances A and B on the front wheels. (See figure 21.)



Dimension B should be approximately 1/8 inch less than dimension A.

To adjust the toe-in, loosen the hex jam nut, remove the elastic locknut, lift the tie rod end out of the hole in the steering arm and screw the tie rod end in or out as necessary. (See figure 22.)

Reassemble the tie rod end after the correct alignment is made.



#### FIGURE 21.

#### **Drag Link**

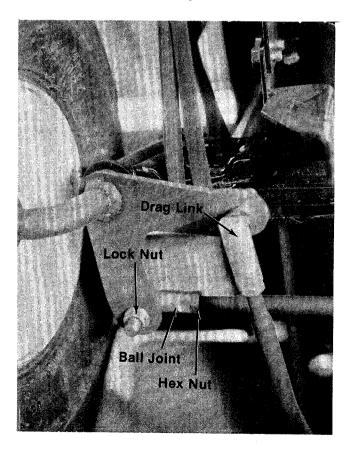
If the drag link or ball joints are changed the new assembly must be adjusted to the exact same length as the original. If adjusted wrong it will allow the tractor to turn sharper one direction than the other.

To take off the drag link, remove the nuts and lock washers holding the ball joint to the steering gear and left front axle bracket.

#### **Brake Adjustment**

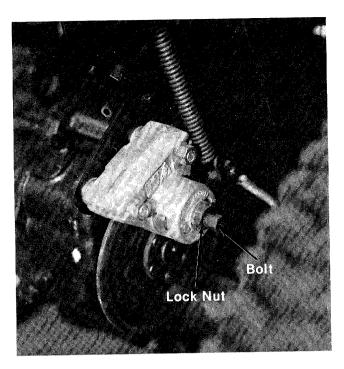


Do not adjust the brake while the engine is running. Be sure to block the wheels of the tractor before making the brake adjustment.



#### FIGURE 22.

- 1. Loosen the lock nut. (See figure 23.)
- 2. Tighten the center bolt all the way in.
- 3. Unscrew the center bolt one complete turn.
- 4. Test the brakes and repeat step three if necessary.
- 5. Tighten the lock nut.



#### FIGURE 23.

#### **Changing the Front Drive Belt**

- 1. Remove the cutting deck and battery.
- 2. Raise and block the front wheels of the tractor so you can work under it.
- 3. Unscrew the belt guard release next to the engine pulley. (See figure 24.)

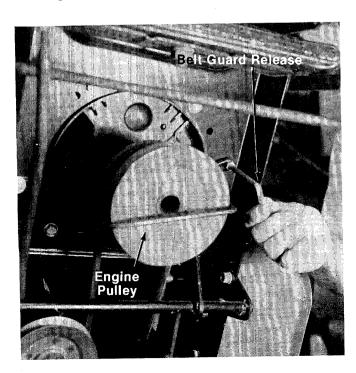


FIGURE 24.



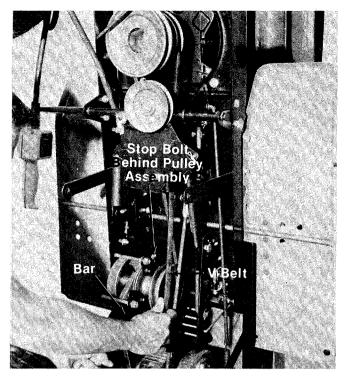
#### FIGURE 25.

4. Swing the belt guard forward towards the front of the tractor. (See figure 25.)



Observe the way the belt is twisted. If the new belt is installed backwards, the tractor will run backwards.

- 5. Loosen the stop bolt behind the pulley assembly so the pulley assembly will pivot forward enough to remove the V-belt.
- 6. Using a bar or large screwdriver, pry the pulley assembly towards the front of the tractor and unhook the belt from the pulley. (See figure 26.)
- 7. Install the new belt by hooking it over the engine pulley and twisting the belt to the left as you attach it to the pulley.
- 8. Test the operation of the tractor to assure the belt has been installed correctly.



#### FIGURE 26.

#### Removing the Rear (Clutch) Belt

- 1. Remove the cutting deck and battery.
- 2. Raise and block the front wheels of the tractor so you can work under it.
- 3. Depress the clutch-brake pedal and set the parking brake.
- 4. Remove the two belt guard pins on the pulley assembly. (See figure 27)

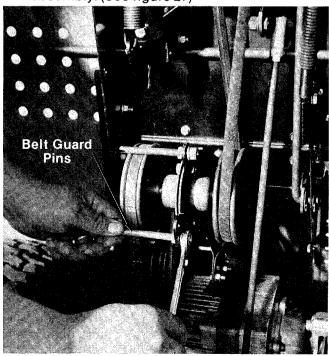
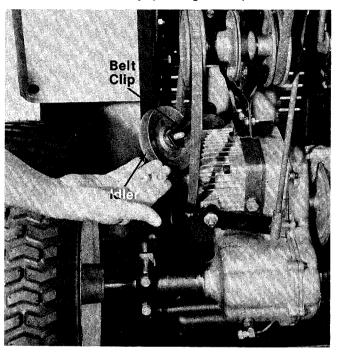


FIGURE 27.

5. Take off the idler assembly by removing the center bolt.



Be sure the belt clip is reassembled the same way. (See figure 28.)



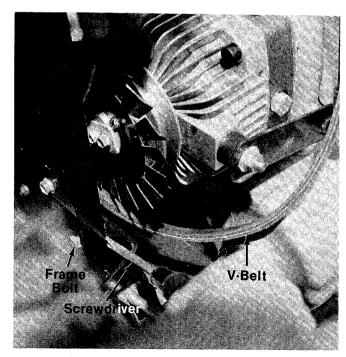


FIGURE 29.

6. Take off the round wire belt guard around the hydrostatic pulley by removing the two screws through the frame.

- 7. Loosen the frame bolt holding the rear axle bracket to the frame. See figure 29.
- Pry the frame over about 1/4" and remove the V-belt.
- Reassemble in reverse order with a new V-belt.

#### Clean Air Cleaner

Clean and re-oil foam pre-cleaner at 3 month intervals or every 25 hours, whichever occurs first.

- 1. Remove the wing nut and cover.
- 2. Remove the hex nut and washer with a 7/16" wrench and lift off the inner oblong cover.
- 3. Remove the foam pre-cleaner element by sliding it off the paper filter cartridge.
  - A. Wash foam in liquid detergent and water.
  - B. Squeeze dry.
  - C. Oil with one ounce of engine oil. Squeeze to distribute oil evenly. Remove excess oil.
- 4. Install foam element over the paper filter cartridge. Install the oblong inner cover and secure with the hex nut. Replace the outer cover and secure with the wing nut.

Yearly or every 100 hours, whichever occurs first, remove paper air filter cartridge. Clean by tapping gently on flat surface. If very dirty, replace cartridge, or wash in liquid detergent and water. Rinse until water remains clear. Cartridge must be air dried thoroughly before re-using. (See figure 30.)

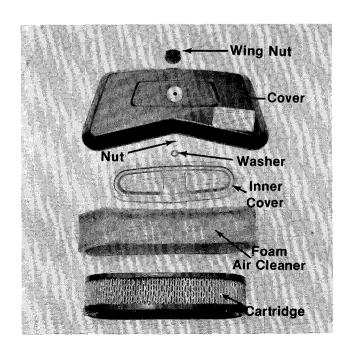


FIGURE 30.

#### **Clean Cooling System**

Grass of chaff may clog cooling system after prolonged service. Continued operation with a clogged cooling system causes servere overheating and possible engine damage. Remove blower housing and clean regularly. (See figure 31.)

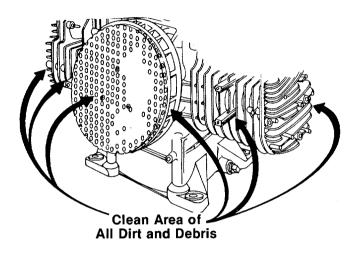


FIGURE 31.



If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

#### **Carburetor Adjustments**

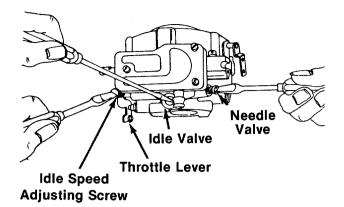
Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load.

To Adjust Carburetor—Turn needle valve clockwise until it just closes.



Valve may be damaged by turning it in too far.

Now open needle valve 1½ turns counterclockwise. Close idle valve in same manner and open 1½ turns. This initial adjustment will permit the engine to be started and warmed up prior to final adjustment. (See figure 32.)



#### FIGURE 32.

#### **Final Adjustment**

Place governor speed control lever in "IDLE" position. Hold throttle lever against idle stop and set idle speed adjusting screw to obtain 1400 R.P.M. Turn idle valve slowly clockwise (lean mixture) until engine misses or R.P.M. slows. Then turn idle valve ½ turn counterclockwise.

Hold throttle shaft in closed position and adjust idle speed screw to 900 R.P.M. Release the throttle. With remote control in idle position, adjust tab "A" to obtain 1400 R.P.M.



Governed idle must be adjusted on all engines for proper operation. The smaller spring keeps the engine on governor, even at idle speed. If moderate loads are applied at idle, the engine will not stall. Idle speed should be no lower than 1100 R.P.M.

Place governor speed control lever in fast position. Then turn needle valve in slowly clockwise (lean) until engine misses or R.P.M. slows. Then turn needle valve ½ turn counterclockwise.

If engine does not accelerate properly, readjust needle valve approximately 1/8 turn counterclockwise (richer). (See figure 33.)

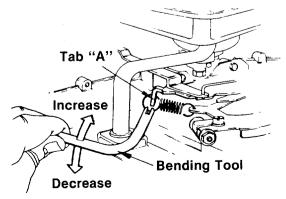


FIGURE 33.

# **OFF-SEASON STORAGE**

If the machine is to be inoperative for a period longer than 30 days, the following procedures are recommended:

- Working outdoors, drain all fuel from the fuel tank. Use a clean dry cloth to absorb the small amount of fuel remaining in the tank, then run the engine until all fuel in the carburetor is exhausted.
- 2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with clean new oil.
- 3. Disconnect the spark plug wires and remove the spark plugs from the cylinders. Pour about 2 or 3 tablespoons of engine oil into each cylinder, and then turn the engine over several times to spread out the oil. Replace the spark plugs but do not connect the wires.
- 4. Clean the engine and the entire tractor thoroughly.
- 5. Lubricate all lubrication points and wipe the entire machine with an oiled rag in order to protect the surfaces.
- 6. Battery storage. See page 13.

# MAINTENANCE CUTTING DECK (Optional)





#### FIGURE 34.

Keep hands and feet away from the chute area on cutting deck. See figure 34.

#### Lubrication

The blade spindles on the cutting deck are permanently lubricated.

#### **Cutting Blade**

The blades may be removed for sharpening or replacement as follows:

- 1. Remove the large bolt and lock washer holding the blade and adapter to the blade spindle.
- 2. Remove the blade and adapter from the crankshaft.
- 3. Remove the two smaller bolts, lock washers and nuts holding the blade to the adapter. See figure 35.

When sharpenging the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge be ground equally to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the mower.

The blade can be tested for balance by balancing it on a screwdriver. Remove metal from the heavy side until it balances evenly. See figure 36.



When replacing the blade, be sure the side of the blade marked "Bottom" or having the part number, is facing down toward the ground when the mower is in the operating position.

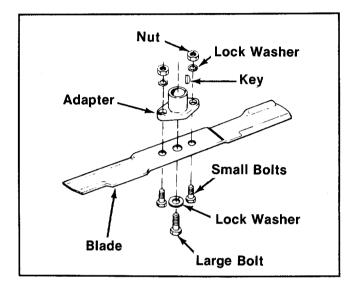


FIGURE 35.

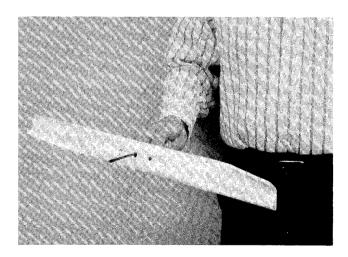


FIGURE 36.

#### Removing the Deck Belt

- 1. Remove the two hex screws holding the belt guard to the timing belt cover. See figure 37.
- 2. Replace the belt and reassemble.

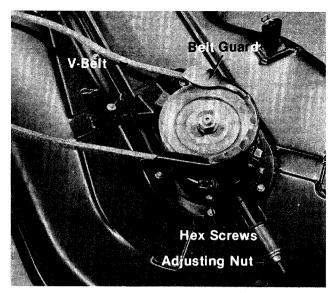


FIGURE 37.

#### Removing the Blade Belt

- 1. Remove the belt guard and drive pulley. See figure 37.
- 2. Remove the blade belt cover.
- 3. Loosen the four spindle nuts. See figure 40.
- Loosen the tension adjusting nut. See figure 38.
- 5. Remove and replace the blade belt.
- 6. Reassemble and adjust the belt tension.

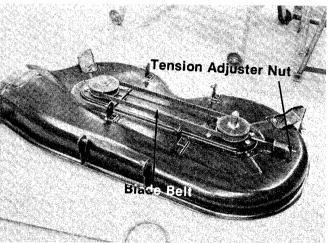


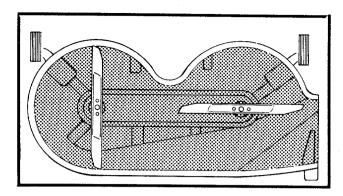
FIGURE 38.

#### **Timing the Blades**

- 1. Remove the center blade bolt on either blade.
- 2. Rotate the blade on the cutting deck and reassemble the other blade at 90° exactly as shown in figure 39.



If the blades are not timed it will affect the cut of the grass and the discharge.



#### FIGURE 39.

#### **Adjusting the Belt Tension**

- 1. Loosen the four spindle nuts on the bottom of the cutting deck. See figure 40.
- 2. Tap the deck with a hammer handle to loosen the washers on the four spindle nuts.
- 3. Tighten the tension adjustment nut until the large spacer is not loose. See figure 38.
- 4. Tighten the four spindle nuts.

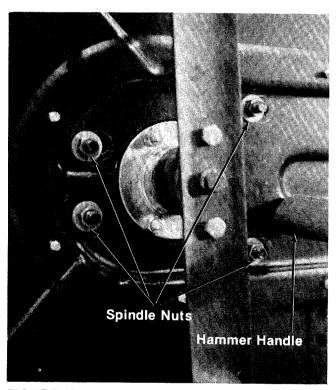


FIGURE 40.



This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

# TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY					
Engine will not crank	Battery installed incor- rectly	The battery must be installed with the negative, identified at the terminal post by (Neg, N or -), grounded. The positive (Pos, P or +) attaches to the large cable from the solenoid. The small red wire from the fuse holder or circuit breaker is also attached to the positive terminal.					
	Blow fuse or circuit breaker	Replace fuse with 7½ amp. fuse ¼ x 1¼" lg. Circuit breaker will reset itself when it cools off. Fuses or circuit breakers seldom open or fail without a reason. The problem must be corrected. Check for loose connections in the fuse holder. Replace fuse holder if necessary. A dead short may be in the cranking or charging circuit where the insulation may have rubbed through and exposed the bare wire. Replace the wire or repair with electrican's tape if the wire strands have not been damaged. Note: Look for a wire pinched between body panels, burned by the exhaust pipe or muffler or rubbed against a moving part.					
	Battery is dead or weak	Use a hydrometer to check the condition of the battery. The Specific Gravity (s.g.) should 1.265 at 80°F. (1.215 s.g. minimum needed for cranking engine). The reason for the battery ing must be determined. (1) Defective battery. Battery will not accept or hold a full charge Short circuit. Check for grounded wire. (3) Charging system not working.  Alternator. The charging system is an alternator located under the flywheel. It is unregula and rated 3 amp. at 3600 r.p.m. A diode (rectifier) is located in the output lead just before wire harness plug on the engine side.					
		Red Wire Diode Tube (Batt.)  7 AMP AC (Lamps)  Black Wire Polorized Plug					
		The diode changes A.C. to D.C. to charge the battery. A bad diode can either fail to charge the battery or discharge the battery if the alternator is shorted as well as the diode. To test: (1) Disconnect charger lead from the battery (small red wire). (2) Connect 12 V small test lamp between the 3 amp. D.C. charge lead and the positive terminal of the battery. (3) With the engine off, the lamp should not light. If it does, the diode and possibly the alternator should be replaced. (4) Start the engine. The lamp should light. If it does not, the alternator (stator) or lead wire is bad and should be replaced.					
	Mechanical failure. (Wires and switches)	The interlock system includes two mechanical activated switches which are wired in series in the circuit used to energize the starter solenoid. While testing the interlock system, you will make the mower temporarily unsafe by permitting the engine to be started with the blade and clutch engaged. WARNING: While testing, disengage the clutch, shut off the blade control, set the parking brake and place the gear shift lever in neutral. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal on the solenoid. If the engine does not crank: (1) There is a loose connection or poor ground. (2) The solenoid may be bad. The solenoid can be checked by using a heavy wire (#8 gauge minimum) and jumping between the two large terminals. If the engine cranks, the solenoid is bad. (3) If the engine does not crank when you jump the solenoid, have the starter motor tested by an authorized engine dealer. If the engine does crank, the problem is with one of the safety switches, ignition switch or the wire between the fuse holder (or circuit breaker) and the small terminal on the solenoid. Note: Look for a poor connection at the switches or a defective switch. Replace if necessary.					
Engine cranks but will not start	Throttle or choke not in starting position	Check owner's guide for correct position for throttle control and choke for starting.					
		22					

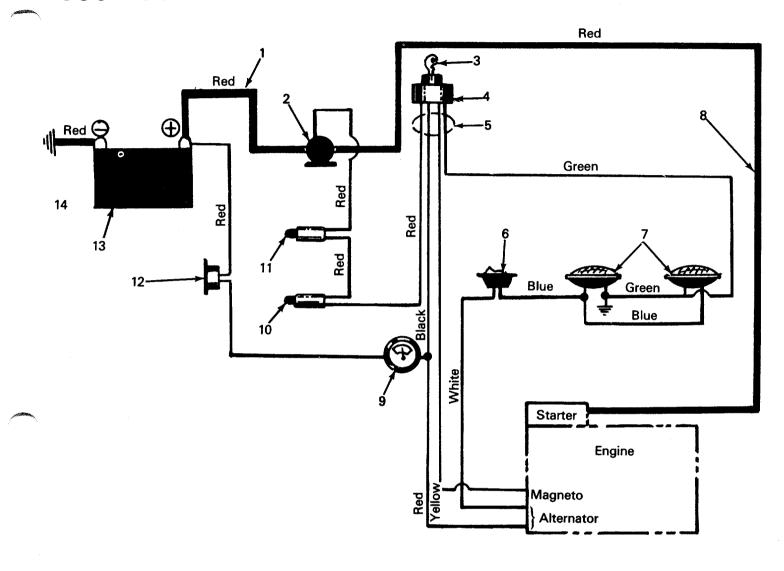
# TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY
	No spark to spark plug	Spark plug lead disconnected. Connect lead. Hold spark plug lead away from engine block about 1/8". Crank engine. There should be a spark. If not, have engine repaired at authorized engine service dealer.  Faulty spark plug. To test, remove spark plug. Attach spark plug lead to spark plug. Ground the spark plug body against the engine block. Crank the engine. The spark plug should fire at the electrode. Replace if it does not.
	No fuel to the carburetor	Gasoline tank empty. Fill. Fuel valve shut off. Open valve. Valve is located either at the bottom of the fuel tank or on the carburetor. Fuel line plugged. Remove and clean.
	Air filter dirty	If the air cleaner is dirty, the engine may not start. Clean or replace as recommended by the engine manufacturer.
Engine smokes	Engine loses crankcase vacuum	Dipstick not seated or broken. Replace defective part. Engine breather defective. Replace.
Excessive vibration	Bent or damaged blade spindle	Stop engine immediately. Check all pulleys, blade spindles, blade adpaters, keys and bolts for tightness and damage. Tighten or replace any damaged parts.
	Bent blade	Stop engine immediately. Replace damaged blade. Only use original equipment blades.
Mower will not discharge	Engine speed low	Throttle must be set between 3/4 and full throttle.
grass or leaves	Transmission selection	Use lower transmission speed. The slower your ground speed, the better the quality of cut.
uncut strips	Blades short or dull	Sharpen or replace blades (uncut strip problem only).

# **HYDROSTATIC TRANSMISSION TROUBLE SHOOTING**

No output torque (power) in either direction, cold start.	Recheck relief valve position, control linkage, input drive.			
,	<ol> <li>Oil level in reservoir low.</li> <li>Broken control shaft dowel pin. Transmission must be repaired or replaced.</li> </ol>			
Loss of output torque, continous load.	<ol> <li>Operating at conditions approaching hydraulic stall. The transmission fluid has exceeded 180°F.</li> <li>Internal leakage due to wear. Transmission should be repaired or replaced.</li> <li>Water in transmission fluid. Purge system of all fluid and replace with new transmission fluid. Replacement of the transmission is generally not necessary.</li> </ol>			
No output torque in one direction.	One of the directional valves is stuck. Transmission should be repaired or replaced.     Low oil level.			
Riding mower cannot be pushed	1. Relief valve control not set.			
with engine off.	Relief valve travel not adjusted.     Motor piston or rotor seized. Transmission must be repaired or replaced.			
No neutral.	Recheck linkage. Loose linkage creates an adjustment problem.  Note: The hydraulic neutral band is very narrow. Deflection in the linkage may make it difficult to obtain neutral from both directions. It is recommended that neutral should be positive from for ward drive.			
Oil leakage at the control shaft	Spillage when fluid has been added to the reservoir.			
seal.	<ol> <li>Spillage at the vent in the reservoir at operating temperatures due to cold level being too high or water in the fluid. Reduce fluid level or replace fluid in the event there is water in it (milky color).</li> <li>Loose oil reservoir or cover.</li> <li>Loose vent bolt.</li> <li>Damaged control shaft seal. Transmission should be repaired.</li> </ol>			
Noisy Operation.	Operating at part throttle. Hydrostatic transmission is designed to operate with the engine running at full throttle.     Water in transmission fluid. Replace transmission fluid.     Air in transmission fluid. Bleed air from vent.			
Output shaft rotates in the opposite direction.	The transmission body is 180° out of position. Transmission has to be removed and reassembled correctly.			

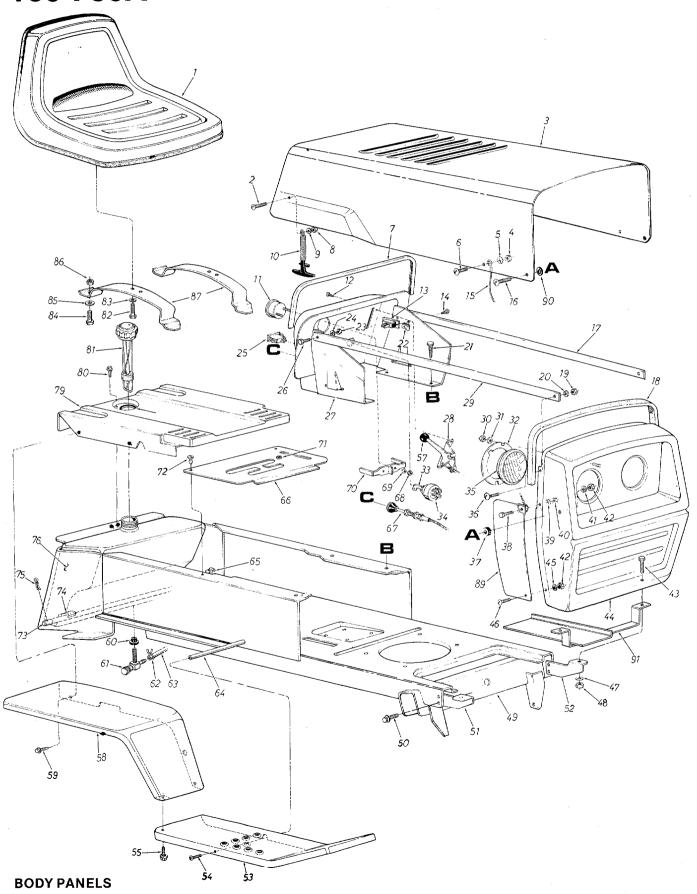
# 130-780A



#### PARTS LIST FOR ELECTRICAL SYSTEM 130-780A

		<del>••••</del>	ELECTRICAL STOTEM 130-7	UUA
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	725-05	63	Electric Cable	
2	725-05	30	Solenoid	
2	725-02	01	Ignition Key	
4 5 6 7	725-02	67	Ignition Switch	
5	725-06	66	Wire Harness	
6	725-06	34	Light Switch	
7	725-02	22	Headlight	
8 9	725-056	61	Electric Cable	
	725-01	19	Ammeter	:
10	725-040	35	Safety Switch	
11	725-026	68	Safety Switch—Black N.O.	
12	725-04	59	Circuit Breaker	
13	725-045	53	12 V-Battery	
14	725-056	63	Electric Cable	

# 130-780A

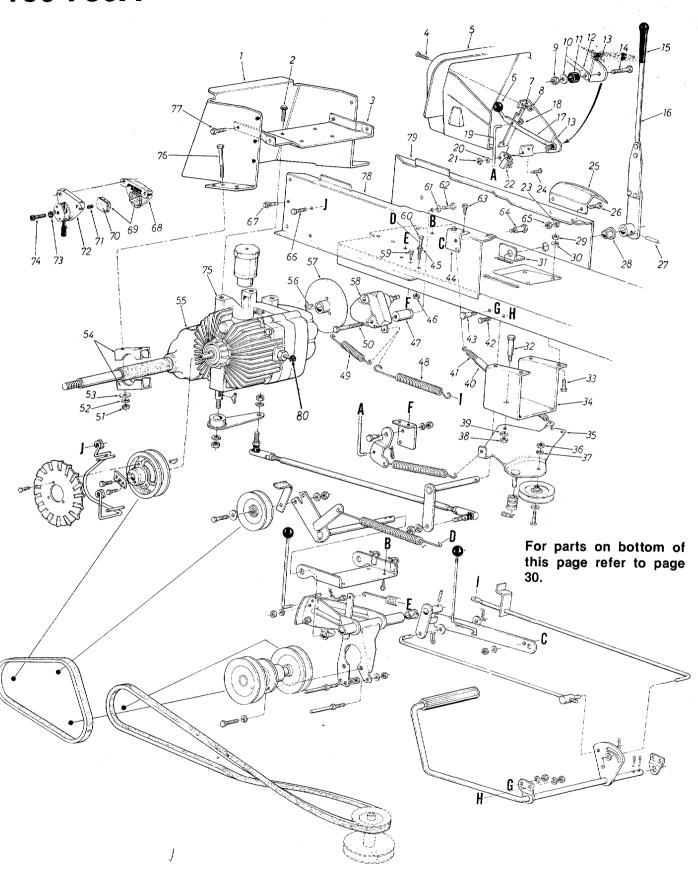


#### PARTS LIST FOR MODEL 130-780A

,		· · · · · · · · · · · · · · · · · · ·		PARTS LIST	FOR	MOD	EL 130-	780A		
_	REF.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART		PART NO.	COLOR CODE	DESCRIPTION	NEW PART
	1	757-028	36	Seat Assembly		48	712-02	67	Hex Nut 5/16-18 Thd.*	
	2	710-028	36	Truss Mach. Scr. 1/4-20 x .50"		49	13820		Lower Frame Ass'y.	
		40000		. Lg.*		50	710-06	00	Hex Thd. Rolling Scr. 5/16-24	
	3	13808		Hood		E 4	10000		x .50" Lg.	
	4 5	712-028 736-032		Hex Nut ¼-20 Thd.* L-Wash. ¼" Scr.*		51 52	13862 13863		Grille Mount Brkt.—R.H. Grille Mount Brkt.—L.H.	
	.6	710-028		Truss Mach. Scr. 1/4-20 x .50"	.	53		<b>—452</b>	Running Board—R.H.	
			, ,	Lg.*				-452		
	7	731-042	23	Vinyl Molding Strip					Shown)	
	8	712-028		Hex Nut 1/4-20 Thd.*		54	710-03	23	Truss Mach. Scr. 5/16-18 x	
	9	736-032		L-Wash. 1/4 Scr.*			710.00		.75 <u>"</u> Lg.*	
	10 11	723-029 725-011		Hood Latch Ass'y.		55	710-06	00	Hex Thd. Rolling Scr. 5/16-24	
	12	710-035		Ammeter Hex Tap Scr. #10 x .50" Lg.*		56	735-01	70	x .50" Lg.	
	13	725-045		Circuit Breaker 8 Amp.		57	720-010		Grommet (Gas Tank Neck) Knob (Throttle Control)	
	14	710-035		Hex Tap Scr. #10 x .50" Lg.*		58	13810	<b>—</b> 462	Fender Ass'y.—R.H.	
	15	727-019		Hood Stop			13809	-462	Fender Ass'y.—L.H. (Not	
	16	710-025	55	Truss Mach. Scr. 1/4-20 x .75"					Shown)	
	47	740.000		Lg.*		59	710-060	00	Hex Thd. Rolling Scr. 5/16-24	
j	17 18	749-022 722-013		Grille Positioning Rod PVC Foam Strip ½ x 1.00"		60	735-014	40	x .50" Lg.	
	10	722-010	"	x 12.5" Lg.		61	751-017		Bushing (Gas Tank) Fuel Shut-Off Valve	
	19	712-028	37	Hex Nut 1/4-20 Thd.*		62	726-018		Hose Clamp 3/8"	
	20	736-032		L-Wash. ¼ " Scr.*		63	751-017		Gas Line 60" Lg.	
	21	710-059	9	Hex Thd. Rolling Scr. 1/4-20 x	- 1	64	738-043		Running Board Rod	
	20	740.004	.	.50" Lg.	ĺ	65 66	726-015	06	Speed Nut	
-	22	712-034 712-028		Speed Nut #10 Z Hex Nut 1/4-20 Thd.*		67	14023 746-034	12	Access Cover Choke Control Comp.	
	24	736-032		L-Wash. 1/4" Scr.*	Ì	68		+0	Part of Ref. No. 11	
	25	725-063		Light Switch		69			Part of Ref. No. 11	
	26	710-016	66	Truss Hd. Scr. 1/4-20 x 1.00"		70			Part of Ref. No. 11	
	07	10040		Lg.*		71	731-040		Snap Bushing	
	27 28	13843 746-035	И	Dash Panel Ass'y. Throttle Control Comp.		72	710-047	73	Truss Hd. Scr. ¼-20 x .75"	
	29	749-022		Grille Positioning Rod	1	73	738-040	11	Lg. Hitch Rod	
	30	712-028		Hex Nut 1/4-20 Thd.*	.	74	722-013		P.V.C. Foamstrip ½" x 1.00"	
	31	736-032	9	L-Wash. 1/4 Scr.*	ł				x 2.00"	
	32	09960		Head Lamp Retainer	I	75	714-014		Internal Cotter Pin	
	33	725-020		Ignition Key	ł	76	751-025	9	Gas Tank	
	34	725-026 725-022		Ignition Switch Head Lamp	1	79 80	13814 710-060	10	Seat Plate	
	36	710-025		Hex Scr. 1/4-20 x .62" Lg.*		00	7 10-000	,0	Hex Thd. Rolling Scr. 5/16-24 x .50" Lg.	
	37	735-014		Rubber Wash50" I.D. x	İ	81	723-034	16	Gas Gauge	
				1.00 O.D. x .25 Thk.		82	710-011		Hex Scr. 5/16-18 x .75" Lg.*	
l	38	710-028	6	Truss Mach. Scr. 1/4-20 x .50"		83	736-011		L-Wash. 5/16" Scr.*	
	39	736-032	.	Lg.* L-Wash. ¼ " Scr.*		84	710-068	39	Hex Scr. Nylon Scr. ½-13 x	
	40	712-028		Hex Nut 1/4-20 Thd.*		85	736-019	12	.75" Lg. FI-Wash50" I.D. x 1.00"	
l	41	736-032		L-Wash. 1/4 " Scr.*	ĺ		700.010	,2	O.D. x .090	
]	42	712-028		Hex Nut 1/4-20 Thd.*		86	712-020	)6	Hex Nut 1/2-13 Thd.*	
1	43	710-011	8 . I	Hex Scr. 5/16-18 x .75" Lg.*		87	13123		Seat Spring	
		-13801 <sup>)</sup>		Grille Ass'y.		89	13864		Grille Side Panel—R.H.	
	45 46	736-032		L-Wash. 1/4 " Scr. *			13235	<b>—462</b>	Grille Side Panel—L.H. (Not	
	40	710-028	U	Truss Mach. Scr. 1/4-20 x .50" Lg.*	1	90	736-017	<b>'</b> 3	Shown) Fl-Wash. 1/4" I.D.	
	47	736-011	9	L-Wash. 5/6" Scr.*		91	14150	·	Muffler Shield	N
-				<del></del>						14
		····		MROME						

310 CHROME

# 130-780A



**DRIVE SYSTEM** 

#### PARTS LIST FOR MODEL 130-780A

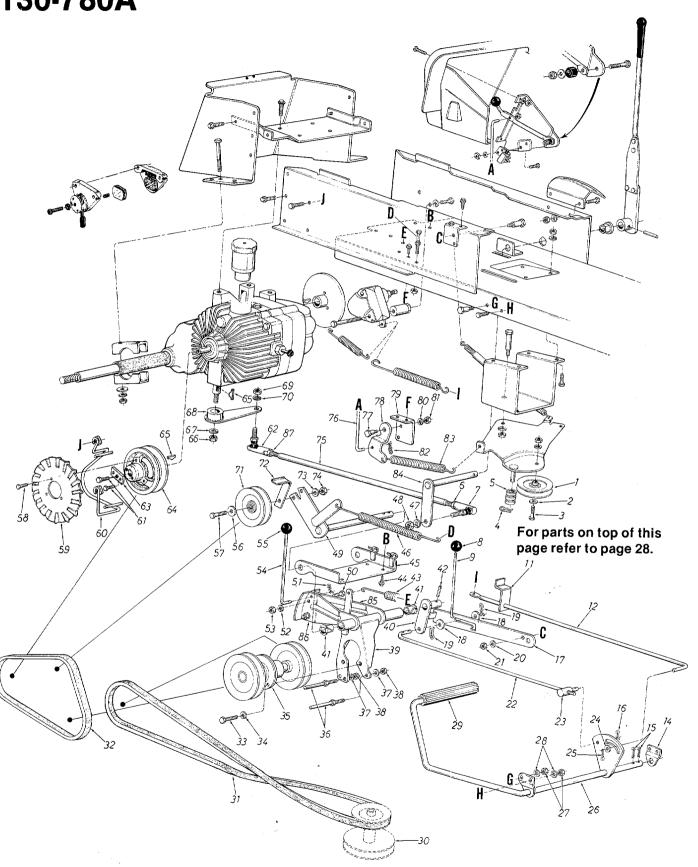
REF.	PART COLOR		NEW	REF.	PART COLOR	DECORPTION	NEW
NO.	NO. CODE	DESCRIPTION	PART	NO.	NO. CODE	DESCRIPTION	PART
	13813	Hitch Plate		42	710-0201	Hex Bolt 3/8-16 x .62" Lg.*	
· <sub>1</sub> 2	710-0216	Hex Bolt 3/8-16 x .75" Lg.*		43	738-0234	Shid. Scr50" Dia. x .395"	
3	13835	Rear Axle Support Brkt.	_		10000	Lg. (3/8-16)	
4	710-0286	Truss Mach. Scr. ¼-20 x .50		44	13833	Parking Brake Cam Mtg.	
		Lg.*		45	740.0067	Brkt. Hex Nut 5/16-18 Thd.*	
5	13843	Dash Panel Ass'y.		45	712-0267	Hex Nut 5/16-18 Thd.*	ļ
6	720-0165	Knob—Blade Clutch		46 47	712-0267 748-0276	Spacer	
7	736-0329	L-Wash. 1/4" I.D.*		48	732-0260	Brake Tension Spring	
8	712-0287	Hex Nut ¼-20 Thd.* Hex Cent. L-Nut ¼-20 Thd.	l	49	732-0200	Ext. Spring—Brake Return	İ
9	712-0107	FI-Wash28" I.D. x .74" O.	<b>`</b>	50	710-0937	Hex Bolt 3/8-16 x 2.50" Lg.*	
10	736-0173	x .063	<i>J</i> .	51	712-0798	Hex Nut 3/8-16 Thd.*	
44	735-0126	Rubber Wash33" I.D. x .85	7"	52	736-0169	L-Wash. 3/8" I.D.*	
11	733-0120	O.D. x .30	1	53	736-0258	FI-Wash390" I.D. x 1.00"	,
12	747-0157	Blade Clutch Lever			100 0200	O.D. x .125" Thk.	
13	13950	Deck Clutch Cont. Brkt.		54	13892	Rear Axle Bracket	
14	710-0106	Hex Bolt 1/4-20 x 1.25" Lg.*		55		Transaxle (See Breakdown	
15	720-0143	Grip				Page 40)	
16	14038	Control Arm Ass'y.	N	56	714-0137	Hi-Pro Key 3/16 x 3/4" Lg.	
17	747-0157	Blade Clutch Lever		57	761-0142	Hub and Disc Ass'y. (For	
18	726-0106	Push Nut 1/4" O.D. Rod				Brake)	
19	747-0307	Deck Control Rod		58	761-0179	Disc Brake Ass'y. Comp.	
20	736-0147	Ext. L-Wash. #10 Scr.*		59	710-0599	Hex Wash. Hd. Self-Tap Scr.	
21	712-0121	Hex Nut #10-24 Thd.*				½-20 x .50" Lg.	
22	725-0465	Safety Switch		60	710-0442	Hex Bolt 5/6-18 x 1.50" Lg.*	
23	736-0119	L-Wash. 5/16" I.D.*		61	736-0169	L-Wash. 3/8" I.D.*	
24	710-0473	Truss Mach. Scr. #10-24 x		62	710-0216	Hex Bolt 3/8-16 x .75" Lg.*	
		x.50" Lg.*	l N1	63	710-0599	Hex Wash. Hd. Self-Tap Scr 1/4-20 x .50" Lg.	•
<del>~~</del> √25	14020	Speed Control Bracket	, N	64	738-0155	%-20 x .50 Lg. Shld. Scr437" Dia. x .162"	
.6	710-0752	Hex Bolt 5/16-18 x .62" Lg.		04	730-0133	Lg.	
27	715-0108	Spring Pin Spiral 1/4" Dia.		65	712-0267	Hex Nut 5/16-18 Thd.*	
20	744 0005	x 1.00" Lg. Hex Flange Brg.		66	710-0216	Hex Bolt 3/8-16 x .75" Lg.*	
28 29	741-0225 712-0267	Hex Nut 5/16-18 Thd.*		67	710-0600	Hex Wash. Hd. Self-Tap Scr	•
30	736-0119	L-Wash. 5/16" I.D.*		"	1.10 0000	5/16-24 x .50" Lg.	
31	14035	Speed Control Shaft Brkt.	N	68	HU-16-13807	Anvil	}
32	738-0155	Shid. Scr437" Dia. x .162		69	HU-24-13772	Lining	
02	7000100	Lg.		70	HU-25-13808	Backing Plate	
33	710-0376	Hex Bolt 5/16-18 x 1.00" Lg	.*	71	HU-39-13774	Pin, Actuator	I
34	13826	Idler Support Brkt.	1	72	HU-B003770069	Housing with Lever and Pin	1
35	13893	Idler Brkt. Ass'y.		73	HU-37-13818	Nut	
36	712-0798	Hex Nut 3/8-16 Thd.*	1	74	HU-39-13775	Pin, Adjuster	
37	736-0105	Belleville Washer. 3/8" 1.D.		75	717-0426	Hydrostatic Pump Comp.	N
38	712-0267	Hex Nut 5/16-18 Thd.*		76	710-0644	Hex Bolt 3/8-16 x 3.25" Lg.*	
39	736-0119	L-Wash. 5/16" I.D.*	_1	77	710-0600	Hex Wash. Hd. Self-Tap Sci	•
40	731-0483	Convoluted Conduit .50" I.	D.	70	10040	5/16-24 x .50" lg.	_
		x 4.0" Lg.		78	13848	Side Panel Upper Frame R.	
41	732-0308	Ext. Spring .50" O.D. x 6.37	1	79 80	13847 731-0493	Side Panel Upper Frame L.I	1.
		Lg.		30	731-0483	Cap	
		<u> </u>					

#### (462-Red Flake)

When ordering parts if color is important, use the appropriate color code listed above. (e.g. 12369—462—Red Flake)

<sup>\*</sup>For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

# 130-780A

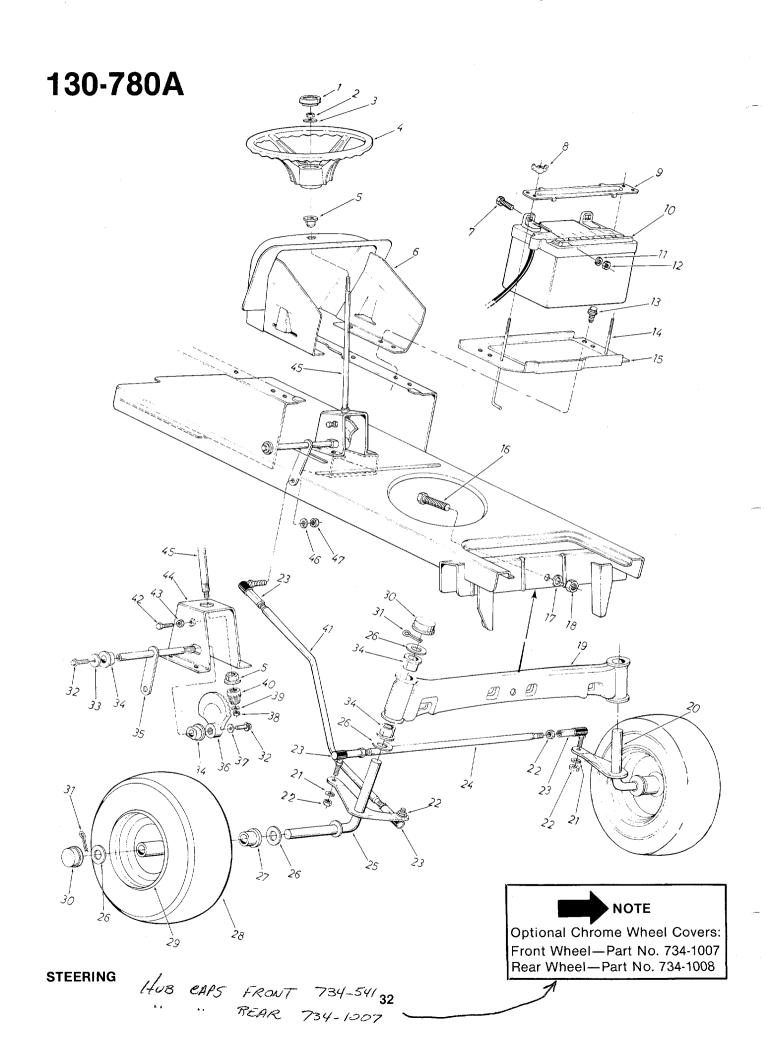


#### PARTS LIST FOR MODEL 130-780A

	1								
NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART		PART NO.	COLOR CODE	DESCRIPTION	NEW PAR
, 1	756-029	3	4" Dia. "V"-Idler Pulley		45	13822		ldler Mtg. Brkt.	
2	736-030	0	FI-Wash. 3/8" I.D.		46	732-02	262	Ext. Spring (Drive Idler)	
3	710-034	2	Hex Bolt 3/8-16 x 1.25" Lg.*		47	736-01		L-Wash. 3/8" I.D.*	
4	714-010	)4	Intern. Cotter Pin 5/16" Dia.		48	712-02		Hex Nut 3/8-24 Thd.*	İ
5	748-027	'8	Spacer		49	13815		Clutch Brkt. Ass'y.	ļ
6	712-071	1	Hex Jam L-Nut 3/8-24 Thd.		50	710-02		Hex Bolt 1/4-20 x .50" Lg.*	
7	723-015	i6 /	Ball Joint Ass'y. 3/8-24 Thd.		51	714-01		Internal Cotter Pin 5/16" Dia.	
8	720-016	18 5	Ball Knob					Rod	
9	747-030		Parking Brake Link		52	736-03	329	L-Wash. 1/4" I.D.*	
11	14027		Brake Řod Hanger	N	53	712-02		Hex Nut 1/4-20 Thd.*	
12	747-030	5	Brake Rod		54	747-03	12,87	Relief Valve Lockout Rod	N
14	13859	_	Clutch Rod Brg. Brkt.		55	720 <del>-01</del>	66-87	Ball Knob	''
15	714-047	'4	Cotter Pin 1/8" Dia. x 1.00"		56	736-03		FI-Wash. 3/8" I.D.	
'		`	Lg.*		57	710-03		Hex Bolt 3/8-16 x 1.25" Lg.*	1
16	714-014	5	Hairpin Cotter 3/8" Rod		58	710-02		Hex Bolt 1/4-20 x .50" Lg.*	}
17	13832	·	Parking Brake Cam		59	14019	.00	Cooling Fan	N
18	736-010	11	FI-Wash406 I.D. x 1.00" O.D.		60	14016		Belt Guard Ass'y.	
'	700010	'	x .030		61	710-02	,,,	Hex Sems Bolt 1/4-20 x .75"	N
19	714-014	5	Hairpin Cotter 3/8" Rod		٠, ا	7 10-02	• ' '	Lg.*	
20	736-027		Fl-Wash. 5/16" Scr.*		62	723-03	51		
21	712-026		Hex Nut 5/16-18 Thd.*		02	123-03	101	Ball Joint Ass'y. 3/8-24 L.H. Thd.	l N
22	747-030		Brake Cam Rod		63	04493			N
23	711-019		Pivot Bushing					End Stop	N
24	736-027		FI-Wash401" I.D. x .749"		64 65	756-03		Transaxle Pulley 4.25" Dia.	
24	130-021	3	O.D. x .057" Thk.			714-01		Hi-Pro Key 1/8" x 1/2" Dia.	N
25	714 011	_			66	712-07		Hex Nut 3/8-16 Thd.*	
25	714-011	5	Cotter Pin 1/8" Dia. x 1.00"		67	736-01	69	L-Wash. 3/8" I.D.*	
00	10056	i	Lg.		68	14022	ا	Pintle Arm Ass'y.	N
26	13856	.	Clutch Brake Pedal Ass'y.		69	712-02		Hex Nut 3/8-24 Thd.*	
27	736-016		L-Wash. 3/8" I.D.*		70	736-01		L-Wash. 3/8" I.D.*	
28	712-037		Hex Cent. L-Nut 3/8-16 Thd.		71	756-02	193	4" "V"-Idler Pulley	
29	735-019		Foot Pad		72	13819		Belt Guard (Clutch Idler)	
30	756-032	88	Two-Step Engine Pulley	ĺ	73	736-01		L-Wash. 3/8" I.D.*	
0.4	==	_	4.75" and 5.56"		74	712-07		Hex Nut 3/8-16 Thd.*	
31	754-024		"V"-Belt ½" x 59" Lg.		75	747-03		Speed Control Rod	N
32	754-015	ľ	"V"-Belt ½" x 37" Lg.		76	747-03		Deck Control Rod	
33	710-019	8	Hex Sems Bolt 5/16-18 x .75"		77	738-01	55	Shld. Scr437" Dia. x .162"	
	700.044	_	Lg.*	ŀ				Lg. (5/16-18)	
34	736-011		L-Wash. 5/16" I.D.*	ĺ	78	13887		Deck Control Pivot Brkt.	
35	756-032		Jack Shaft Ass'y.	ļ	79	13833		Parking Brake Cam Mtg.	
36	711-069		Stud 3/8-16 x 3.62" Lg.	I				Brkt.	
37	736-016		L-Wash. 3/8" I.D.*	I	80	736-01		L-Wash. 5/16" I.D.*	İ
38	712-079	8	Hex Nut 3/8-16 Thd.*		81	712-02		Hex Nut 5/16-18 Thd.*	
39	13823		Jack Shaft Mtg. Brkt. Ass'y.	ł	82	714-01		Internal Cotter Pin 5/16" Rod	
40	13871		Clutch Idler Horn Ass'y.		83	732-03	84	Extension Spring	
41	741-029	II.	Nyliner 5/8" I.D. x .88" Lg.	-	84	14034	I	Speed Control Shaft Ass'y.	N
42	715-010	8	Spring Pin Spiral ¼ " Dia. x	1	85	14025		Relief Valve Cam-L.H.	N
- 1			1.00" Lg.	1	86	14026		Relief Valve Cam—R.H.	N
43	732-015		Ext. Spring (Jack Shaft)	j	87	712-03	12	Hex Jam L-Nut 3/8-24 L.H.	'
44	710-059	9	Hex Wash. Hd. Self-Tap Scr.				ļ	Thd.	N
			1/4-20 x .50" Lg.						



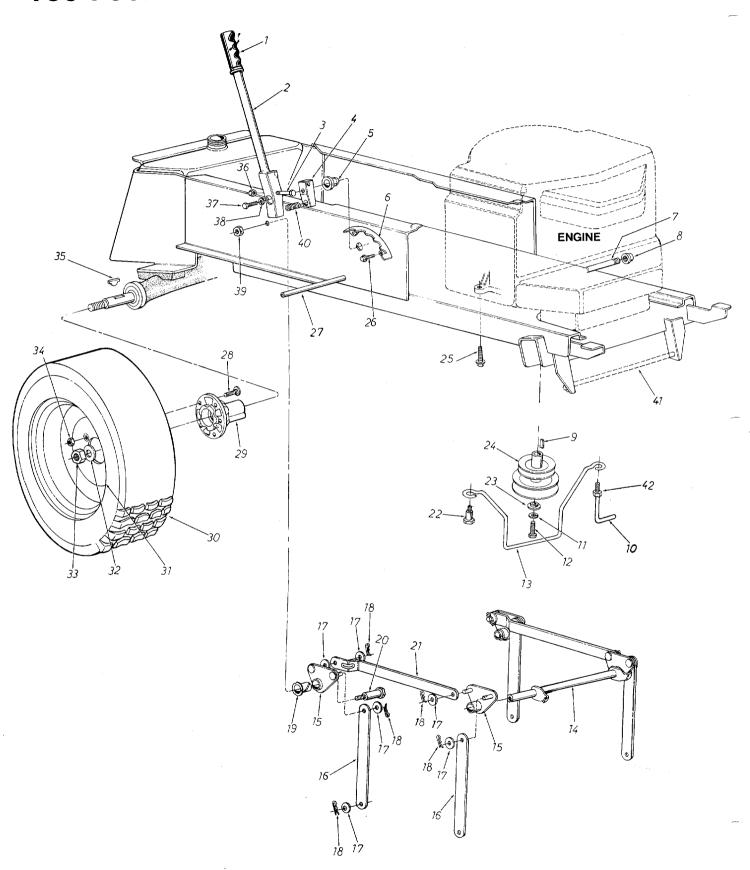
This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.



PARTS LIST FOR MODEL 130-780A

		IST FOR MODEL 130-780A	
REF NO.		DESCRIPTION	NEW PART
1	731-0220	Steering Wheel Cap	
2	712-0158	Hex Cent. L-Nut 5/16-18 Thd.	
3	736-0275	Fl-Wash. 5/16" I.D. x 1.00"	
		O.D. x .057	
4	731-0356	Steering Wheel	
5	741-0225	Plastic Hex Bearing 5/8" I.D.	
6	13843	Dash Panel Ass'y.	
7	710-0258	Hex Scr. 1/4-20 x .62" Lg.	
8	712-0113	Wing Nut Plastic 1/4-20 Thd.	
9	12614	Battery Hold Down	
10	725-0453	12-V Battery	
11	736-0329	L-Wash. 1/4" Scr.*	
12	712-0287	Hex Nut 1/4 -20 Thd.*	
13	710-0599		
13	710-0599	Hex Thd. Rolling Scr. 1/4-20	
144	711 0000	x .50" Lg.	
14	711-0222	Battery Hold Down Rod	
15	13379	Battery Plate	
16	710-0533 736-0158	Hex Scr. 5/8-18 x 2.50" Lg.*	
17	730-0158	L-Wash. 5/8" Scr.*	
18	712-0923	Hex Cent. L-Nut 5/8-18 Thd.	
19	13865	Front Pivot Bar Ass'y.	
20	13839	Front Axle Ass'y.—L.H.	
21	736-0169	L-Wash. 3/8" Scr.*	
22	712-0241	Hex Nut 3/8-24 Thd.*	
23	723-0156	Ball Joint Ass'y.	
24	747-0301	Tie Rod	
25	13838	Front Axle Ass'y.—R.H.	
26	736-0316	Fl-Wash780 I.D. x 1.59 O.D.	
27	741- <del>629</del> 3531	Flange Bearing	
28	734-0960	Front Wheel Ass'y. Comp.	
29	734-0961	Front Wheel Rim Only	
	734-0498	Front Wheel Tire Only 15 x	
		6.00	
	734-0255	Air Valve	
30	731-0484	Dust Cover	
31	714-0121	Cotter Pin 5/32" Dia. x 1.00"	
		Lg.*	
32	710-0180	Hex Scr. 3/8-24 x .75" Lg.	
		Grade 5	
33	736-0133	FI-Wash. 3/8 I.D. x 1.25 O.D.	
		_ x .090_	
34	741-0199	Flange Double "D" Brg753	
	1.07.10	I.D.	
35	12749	Steering Arm Shaft Ass'y.	
36	748-0236	Side Gear—Steering	
37	736-0105	Bell-Wash. 3/8" I.D.	
38	712-0237	Hex Cent. L-Nut 5/16-24 Thd.	
39	736-0264	FI-Wash. 5/16" I.D. x 62 O.D.	
		x .059	
40	748-0237	Pinion Gear—Steering	
41	747-0302	Drag Link	
42	710-0670	Hex Nylon Scr. 3/8-16 x 1.25"	
		Lg.	
43	712-0798	Hex Nut 3/8-16 Thd.*	
44	12850	Steering Gear Sup. Ass'y.	
45	738-0317	Steering Shaft	
46	736-0169	L-Wash. 3/8" Scr.*	
47	712-0241	Hex Nut 3/8-24 Thd.*	
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# 130-780A



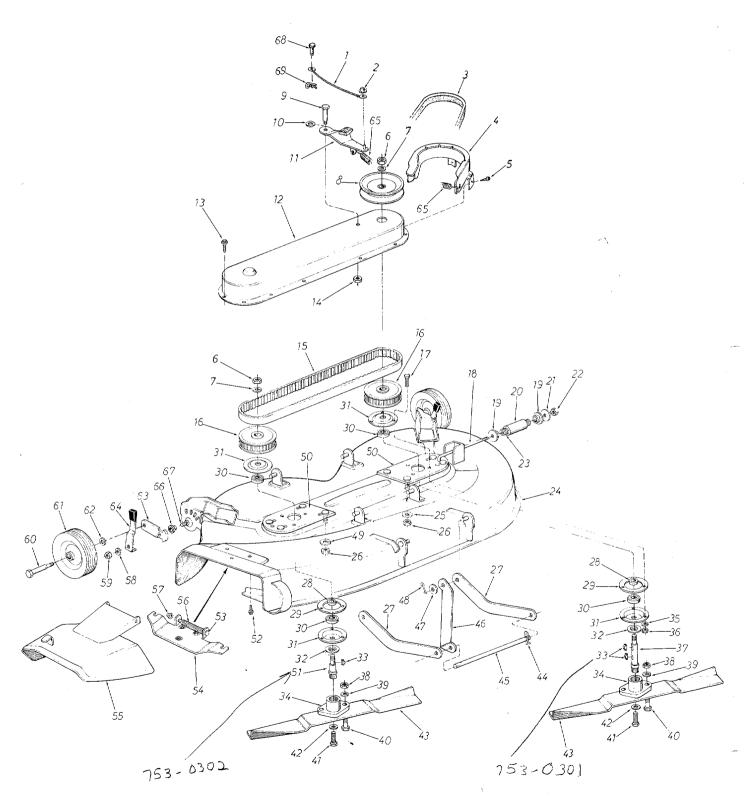
#### PARTS LIST FOR MODEL 130-780A

		IST FOR MODEL 130-780A	
REF. NO.	PART COLOR NO. CODE	DESCRIPTION	NEW PART
1	720-0157	Grip	
2	13884	Lift Handle Ass'y.	
3	710-0442	Hex Scr. 5/16-18 x 1.50" Lg.*	
4	748-0274	Lift Shaft Drive	
5	741-0225 13873	Plastic Hex Brg. 5/8" I.D.	
7	737-0164	Index Brkt. Deck Lift Pipe Nipple 3/8-18 Npt.	
8	737-0104	Pipe Cap 3/8-18 Npt.	
9	714-0118	Sq. Key 1/4" x 1/4" x 1.50"	
	1	Lg.	
10	747-0216	Belt Guard Lock Pin	
11	736-0171	L-Wash. 7/16" Scr.*	
12	710-0757	Hex Scr. 7/16-20 x 1.50" Lg.	
13	747-0299	Belt Guard	
14	13889	Lift Shaft Ass'y.	
15	13895	Lift Pivot Brkt. Ass'y.	
16	13791	Link (Deck)	
17	736-0192	FI-Wash. 1/2" I.D. x 1.00"	
10	7140474	O.D. x .090	
18	714-0474	Cotter Pin 1/8" Dia. x .75"	
19	741-0295	Lg.	
20	738-0445	Nyliner 5/8" I.D. x .88" Lg. Shld. Scr. 5/8" Dia. x .96"	
20	730-0443	Lg. 3/8-16	
21	13790	Connecting Link	
22	738-0296	Shid. Scr437 Dia. x .268 Lg.	
	100 0200	5/16-18	
23	748-0277	Step Wash. (Special)	
24	756-0328	Two-Step Engine Pulley 4.75"	
		& 5.56"	
25	710-0502	Hex Wash. Hd. Scr. 3/8-16 x	
		1.25" Lg.	
26	710-0600	Hex Thd. Rolling Scr. 5/16-24	
07	700 0405	x .50" Lg.	
27	738-0435	Running Board Rod	
28	710-0617	Rd. Hd. Ribbed Neck Scr.	
		3/8-24 x 1.00" Lg. (Service Only)	
29	719-0236	Rear Wheel Hub Ass'y, with	
~	. 10 0200	Studs	
30	734-0966	Rear Wheel Ass'y. Comp.	
31	734-0785	Rear Wheel Rim Only	}
	734-0967	Rear Wheel Tire Only 22 x	
		7.50	
32	748-0160	Spacer	
33	712-0288	Hex Ins. L-Nut 3/4-16 Thd.	l
34	712-0193	Hex Cone Nut 3/8-24 Thd.	
35	714-0146	#27 Woodruff Key 1/4 x	
20	710 0150	2.12 H.T.	
36 37	712-0158 710-0237	Hex Cent. L-Nut 5/16-18 Thd.	
38	736-0119	Hex Scr. 5/16-24 x .62" Lg.* L-Wash. 5/16" Scr.*	-
39	712-0181	Hex Top L-Nut 3/8-16 Thd.	
40	732-0369	Compression Spring	}
41	738-0392	Deck Connecting Rod	
42	712-0123	Hex Nut 5/16-24 Thd.*	
		The state of the Late	

The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines — Gasoline."



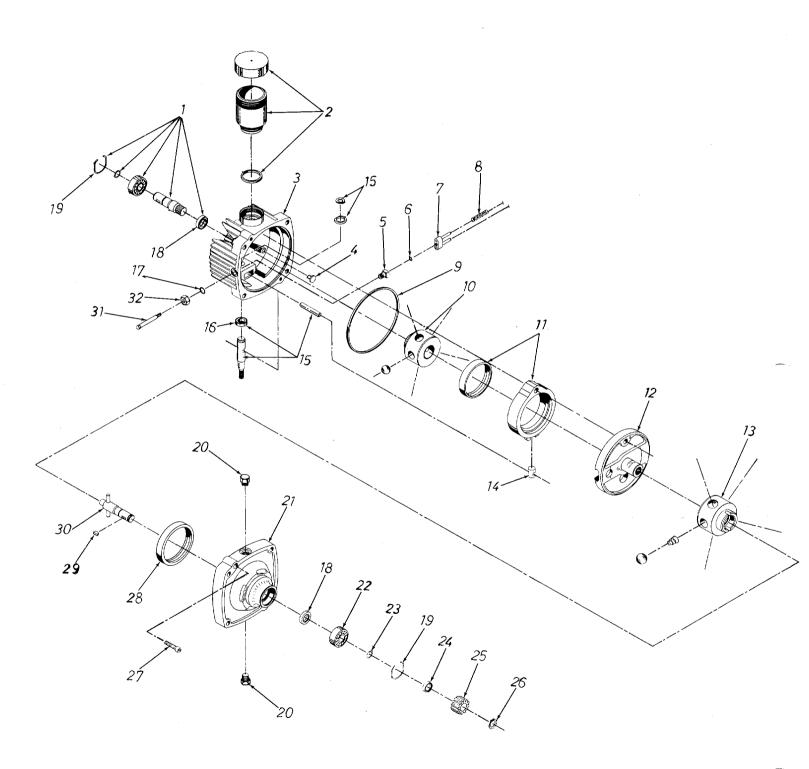
# 190-935A (OPTIONAL 44" DECK)



No.   No.   Code   PART   No.   No.   Code   PART   No.   No.   Code   PART   No.   PART   PART   No.   PART   No.   PART   PART   No.   PART   PART   No.   PART   PAR		•										
No.   No.   Description   New   Ref   Part   Color   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   No.   Description   No.   Description   No.   Description   No.   Description   No.   Description   No.   Description   Part   No.   Part   No.   No.   Description   Part   No.   Part									208			
No.   No.   Description   New   Ref   Part   Color   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   New   Ref   Part   No.   No.   Description   No.   Description   No.   Description   No.   Description   No.   Description   No.   Description   No.   Description   Part   No.   Part   No.   No.   Description   Part   No.   Part				OF	TI	) N	ΔΙ		(3) D			
No.   No.   Description   New   Ref.   Part   Color   No.   Description   New   Ref.   Part   No.   No.   Description   New   Ref.   Part   No.   No.   Description   New   Ref.   Part   No.   No.   Description   New   Ref.   Part   No.   No.   Description   New   Ref.   Part   No.   No.   Description   New   Ref.   Part   No.   No.   Description   No.   Description   No.   Description   No.   Description   No.   Description   No.   Description   Part   No.   Part   No.   Part	2010 Marco	77 / 10 mar										
NO.   NO.   CODE   DESCRIPTION   PART   NO.   CODE   DESCRIPTION   PART   NO.   CODE		PARTS LIST FOR MODEL 190-935A 44" DECK										
2 726-0106 Push Cap 1/4" Stúd 375-40230 13910 13910		NO.	CODE	DESCRIPTION				COLOR	DESCRIPTION	NEW PART		
3 754-0230   """-Belt "\" x 56" Lg. 4 13910   Belt Guard (Deck) 7 710-0599   Hex Thd. Rolling ¼-20 x .50" Lg. 7 72-0242   Hex Jam Nut 5/8-11 Thd. 8 76-0317   L9.				Brake Cable Ass'y. (Deck)								
4   13910   Belt Guard (Deck)   Hex Thd. Rolling '4-20 x .50"   Lg.   T10-0599   Hex Thd. Rolling '4-20 x .50"   Lg.   T10-0180   Hex Scr. 5/16-24 x 1.00" Lg.   Grade 5   T2-0242   Hex Jam Nut 5/8-11 Thd.   Belle. Wash. 5/8" l.D. x				Push Cap 1/4" Stud								
The first content of the content o			J									
6 712-0242			•			40	710-01	17				
Fig.   Fig.	)	7 10-0598	9									
7   736-0317		710 004	,			41	710-018	30				
1.25 O.D.   1.25 O.D.   43   742-0125   742-0126   742-0127   742-0127   742-0128   74												
8   756-0329   Deck Drive "Y"-Pulley Shid. Scr437" Dia. x .180"	/ /	736-0317	1						L-Wash. 3/8" Scr. H.D.			
9 738-0140		750 0000	`			ı						
Lg. 5/16-18   Wave Wash. 7/16" Scr.   Spindle Brake Arm Ass'y.   Spindle Brake Arm Ass'y.   Hex Thd. Rolling Scr. 1/4-20 x												
10	9	736-0140	,					92				
11   13908	10	726 0141	1		•							
12			ı			47	736-019	92				
13				Spindle Brake Arm Ass'y.	١.,							
14			`		N	48	714-011	11				
14	13	7 10-0598	,	Hex Ind. Rolling Scr. 1/4-20 X				_	Lg.*			
15	11	712 0150	<b>)</b>	Low Cont I Next 5/10 10 The				)5	Belle. Wash. 3/8" Scr.			
16		E .		Timing Ball #1440 014 00								
17   710-0322		į.							Blade Spindle—R.H.			
1.00" Lg.* Adjustment Scr. Shid. Spacer (Special) Spacer—Adj. Scr. T736-0231 Fi-Wash. 5/16" I.D. x 1.125" O.D. Hex Nut 5/16-18 Thd.* Compression Spring 44" Deck Ass'y. Spacer—Adj. Scr. T736-0105 Belleville Wash. 3/8" I.D. Belleville Wash. 3/8" I.D. T13866 T712-0241 Belleville Wash. 3/8" I.D. Belleville Wash. 3/8" I.D. T13866 T712-0241 Belleville Wash. 3/8" I.D. T13866 T712-0241 Belleville Wash. 3/8" I.D. T13866 T712-0241 Belleville Wash. 3/8" I.D. T13866 T712-0241 Belleville Wash. 3/8" I.D. T736-0105 Belleville Wash. 3/8" I						52	710-059	99	Hex Wash. Hd. Self-Tap Scr.	i i		
18	' '	110-0322	_						½-20 x .50" Lg.			
19	10	710 075	ı					′1	Hinge Pin			
20    750-0455				Adjustment Scr.					Grass Catcher Adapter Plate			
736-0231				Silid. Spacer (Special)								
O.D.    22   712-0267   Hex Nut 5/16-18 Thd.*   Compression Spring   44" Deck Ass'y.   Belleville Wash. 3/8" I.D.   Hex Nut 3/8-24 Thd.*   Compression Spring   44" Deck Ass'y.   Belleville Wash. 3/8" I.D.   Hex Nut 3/8-24 Thd.*   Compression Spring   44" Deck Ass'y.   Government Plate   Government												
Transfer   Transfer		730-0231										
23       732-0377       Compression Spring         24       13861       44" Deck Ass'y.         25       736-0105       Belleville Wash. 3/8" I.D.         26       712-0241       Hex Nut 3/8-24 Thd.*         27       13866       Deck Stabilizer         28       750-0456       Spacer         29       09164       Reinforcement Plate         30       741-0919       Ball Bearing         31       08253       Bearing Housing         32       13703       Bearing Shield         33       714-0126       #9 Hi-Pro Key 3/16 x 3/4"         34       748-0235       Blade Adapter 3/4" Spindle         35       736-0119         36       736-0119         37       740-0974         38       748-0235         39       748-0235         31       748-0235         32       748-0235         33       748-0235         34       748-0235         35       736-0119         36       748-0235         37       748-0235         38       748-0235         39       748-0235         39       748-0235	ຸມາ	712 0267	,									
24       13861       44" Deck Ass'y.         25       736-0105       Belleville Wash. 3/8" I.D.         26       712-0241       Hex Nut 3/8-24 Thd.*         27       13866       Deck Stabilizer         28       750-0456       Spacer         29       09164       Reinforcement Plate         30       741-0919       Ball Bearing         31       08253       Bearing Housing         32       13703       Bearing Shield         33       714-0126       #9 Hi-Pro Key 3/16 x 3/4"         Dia.       Blade Adapter 3/4" Spindle         4       748-0235       Blade Adapter 3/4" Spindle         35       736-0119       L-Wash. 5/16" Scr.*	23											
25	24					60	738-045	5				
Tole	25		; 1			^4	70405					
13866   750-0456   Spacer   Reinforcement Plate   830   741-0919   31   08253   13703   32   13703   33   714-0126   748-0235   748-0235   736-0119   35   736-0119   36   748-0279   748-0235   748	26					61	734-097	4	Wheel Ass'y. Comp. 6"	N		
28       750-0456       \$pacer         29       09164       Reinforcement Plate         30       741-0919       Ball Bearing         31       08253       Bearing Housing         32       13703       Bearing Shield         33       714-0126       #9 Hi-Pro Key 3/16 x 3/4"         Dia.         34       748-0235       Blade Adapter 3/4" Spindle         35       732-0118       Extension Spring         56       748-0279       Shld. Spacer         710-0342       Hex Scr. 3/8-16 x 1.00" Lg.         Grade 5       Clevis Pin 1/4" Dia. x 1.00"         Clevis Pin 1/4" Dia. x 1.00"       Lg.						00	700 040	_				
29       09164       Reinforcement Plate       64       14082       Spring Lever Ass'y. with Knob       N         30       741-0919       Ball Bearing       65       732-0118       Extension Spring       Extension Spring         32       13703       Bearing Shield       66       748-0279       Shld. Spacer       Hex Scr. 3/8-16 x 1.00" Lg.         33       714-0126       Blade Adapter 3/4" Spindle       68       711-0701       Clevis Pin 1/4" Dia. x 1.00" Lg.         34       748-0235       Blade Adapter 3/4" Spindle       68       711-0701       Clevis Pin 1/4" Dia. x 1.00" Lg.         35       736-0119       L-Wash. 5/16" Scr.*       68       711-0701       Lg.			,					כו				
30			'									
31			1			04	14082		Spring Lever Ass'y. with	N		
32   13703   Bearing Shield   748-0279   Shid. Spacer   Hex Scr. 3/8-16 x 1.00" Lg.   Grade 5			·			65	722.044	。				
33   714-0126	32			Bearing Shield								
Dia.  34   748-0235   Blade Adapter 3/4" Spindle   Clevis Pin 1/4" Dia. x 1.00"   L-Wash. 5/16" Scr.*	33		.									
34   748-0235   Blade Adapter 3/4" Spindle   68   711-0701   Clevis Pin 1/4" Dia. x 1.00"   L-Wash. 5/16" Scr. *	ا تحا	. 17 0120	·	Dia	Ì	0/	710-034	ا ۷				
35 736-0119 L-Wash. 5/16" Scr. *	34	748-0235	,			60	711 070	,				
200 740 0007				I-Wash 5/16" Ser *		00	7 1 1-070	ı				
		712-0267		Hex Nut 5/16-18 Thd.*		69	714-010	,				
36 / 12-0267   Hex Nut 5/16-18 Ind.*   69   714-0104   Hairpin Cotter 1/4" Dia.						03	, 14-010	<b>-</b>	Hampin Cotter 1/4" Dia.			

# 130-780A

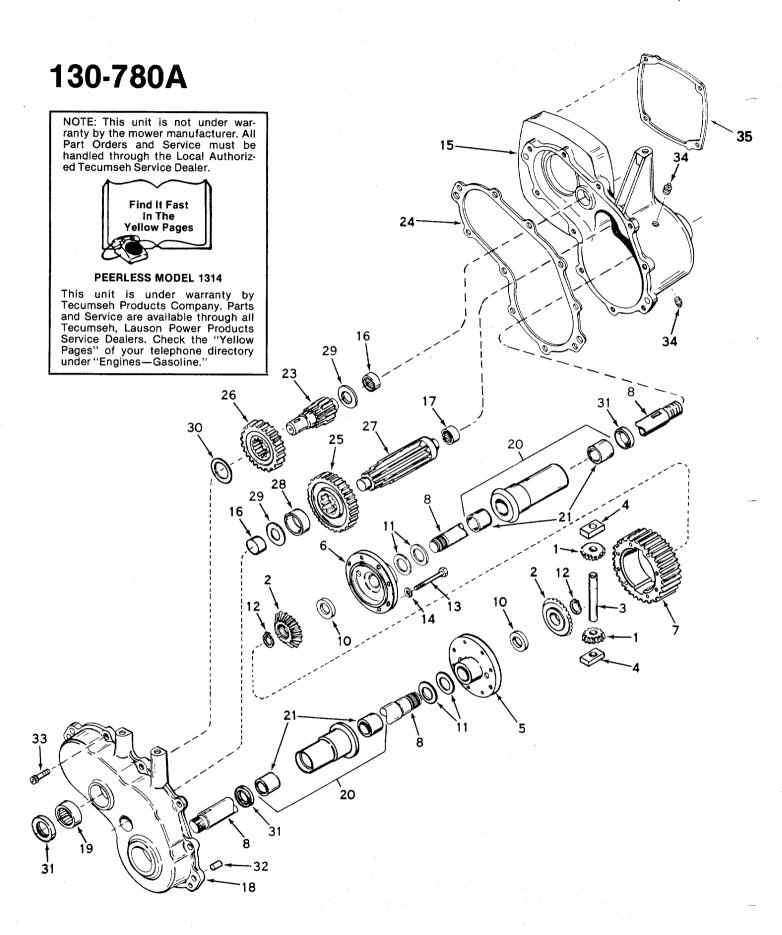
#### HYDROSTATIC TRANSMISSION M-7 (717-0426) ET-000700-002



# PARTS LIST FOR HYDROSTATIC TRANSMISSION M-7 (717-0426) ET-000700-002

DEE	(717-0426) E1-000700-002				
REF. NO.	PART NO.	DESCRIPTION			
1	ET-990067-000	Kit—Input Shaft			
2	ET-990077-000	Kit-Reservoir			
3	ET-990176-000	Kit—Cover			
4	ET-101597-000	Button			
5	ET-024234-000	O-Ring Fitting Guide Sub- assembly			
6	ET-008761-010	O-Ring			
7	ET-024166-000	Bracket—Pins Subassembly			
8	ET-072149-000	Valve Spring			
<u> </u>	ET-008771-162	Square Cut Seal Ring			
10	ET-022712-000	Pump Rotor-Ball Subassembly			
11	ET-102449-000	Cam Ring Subassembly			
12	ET-102532-000	Pintle Subassembly			
13	ET-022711-000	Motor Rotor-Ball Subassembly			
14	ET-095203-000	Cam Ring Insert			
15	ET-990083-000	Kit-Control Shaft			
16	ET-093895-000	Oil Seal			
17	ET-008761-013	O-Ring .013			
18	ET-093955-000	Oil Seal			
19	ET-091231-000	Retaining Ring			
20	ET-025090-006	O-Ring Plug Subassembly			
21	ET-032278-000	Body			
22	ET-090797-000	Ball Bearing (output)			
23	ET-097121-000	Snap Ring			
24	ET-095202-000	Spacer			
25	ET-040511-000	Drive Gear			
26	ET-096098-066	External Retaining Ring			
27	ET-095912-125	Socket Hd. Scr. 5/16-18 x 1.25"   Lg.			
28	ET-040519-000	Motor Race			
29	ET-009476-000	Woodruff Key #3			
30	ET-022892-000	Output Shaft Subassembly			
31	ET-062240-000	Dump Valve Shaft			
32	ET-024235-000	Nut-Gasket Subassembly			

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GEAR REDUCTION AND DIFFERENTIAL MODEL 1314.

# PARTS LIST FOR GEAR REDUCTION AND DIFFERENTIAL MODEL 1314

REF. NO.	PART NO.	DESCRIPTION		
1	PE-778014	Pinion, Bevel		
2	PE-778039	Gear, Bevel		
3	PE-786019	Pin, Drive		
4	PE-786027	Block, Drive		
5	PE-774028A	Carrier, Differential		
6	PE-774029A	Carrier, Differential		
7	PE-778033A	Gear, Ring		
8	PE-774403	Axle		
	PE-780107	Washer		
	PE-780042	Washer, Thrust		
	PE-792018	Ring, Snap		
1	PE-792020	Screw, Hex Hd., 1/4-20 x 2-1/4		
1	PE-792006	Lock Washer, 1/4"		
	PE-770052	Case Ass'y. (Incl. Nos. 16 & 17)		
16	PE-780013	Bearing, Needle		
	PE-780088	Bearing, Needle		
18	PE-772063	Cover Ass'y. (Incl. Nos. 16 & 19)		
19	PE-780089	Bearing, Needle		
20	PE-782041	Housing Ass'y., Axle (Incl. 2 of		
		No. 21)		
21	PE-780054	Bushing		
23	PE-776093	Shaft, Brake		
24	PE-788044	Gasket, Case to Cover		
25	PE-778036	Gear, Output		
26	PE-778037	Gear, Idler		
27	PE-778041	Shaft, Output		
,	PE-786017	Spacer		
29	PE-780001	Washer		
	PE-780090	Washer		
	PE-788008	Seal, Oil		
32	PE-786026	Pin, Dowel		
33	PE-792046	Screw, Hex Hd. Self-Tapping, 1/4-20 x 1		
34	PE-792010	Plug, Pipe		
35	PE-788046	Gasket		
00	. = 1000-10			

NOTE: This unit is not under warranty by the mower manufacturer. All Part Orders and Service must be handled through the Local Authorized Tecumseh Service Dealer.



#### **PEERLESS MODEL 1314**

This unit is under warranty by Tecumseh Products Company. Parts and Service are available through all Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines—Gasoline."

# **PARTS INFORMATION**

#### **POWER EQUIPMENT PARTS AND SERVICE**

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts number, description of parts and the quantity of each part required.

ALABAMA	BIRMINGHAM
Auto Electric & Carburetor Co	2625 4th Ave. S 35233
ARKANSAS	FORT SMITH 4515 South 16th Street 72901
Mity Mite Motors, Inc	4515 South 16th Street 72901
	NORTH LITTLE ROCK
Sutton's Lawn Mower Shop	Rt. 4 Box 36872117
CALIFORNIA	PORTERVILLE
Billious	PORTERVILLE 75 North D Street 93257
	SAN BERNARDINO 25608 E. Baseline 92410
Lawn Mower Supply Co	25608 E. Baseline 92410
	SAN FRANCISCO
J.W. Jewett Co	. 981 Folsom St 94107
COLORADO South Denver Lawn Equip	527 West Evens 90222
FLORIDA	JACKSONVILLE
Radco Distributors	2403 Market St 32206
	OPA LOCKA
Small Eng. Dist	2351 N.W. 147th St 33054
GEORGIA	<b>EAST POINT</b> 2834 Church St 30344
East Point Cycle & Key	2834 Church St 30344
ILLINOIS	LYONS
Keen Edge Co	8615 Ogden Ave 60534
INDIANA Parts & Sales Inc	2101 Industrial Disease 46514
IOWA	DURIOUE
IOWA Power Lawn & Garden Equip	2551 J.F. Kennedy 52001
LOUISIANA	NEW ORLEANS
LOUISIANA Suhren Engine Co	8330 Earhart Blvd 70118
MARYLAND	ΤΔΚΟΜΔ ΡΔΡΚ
Center Supply Co	5867 New Hampshire Ave 20012
MASSACHUSÉTTS Morton B. Collins Co	SPRINGFIELD
MICHIGAN	LANSING
Lorenz Service Co	2500 S Denneylyania 48010
Lorenz der vice co	MOUNT CLEMENS
Power Equipment Dist	36463 South Gratiot 48043
MINNESOTA Hance Distributing Inc	HOPKINS
Hance Distributing Inc	420 Excelsior Ave. W 55343
	ST. PAUL
Power Tools Inc	71 Sibley Memorial Hwy 55122
MISSISSIPPI Biloxi Sales & Service, Inc	BILOXI
MISSOURI	KANSAS CITV
MISSOURI Automotive Equip. Service	3117 Holmes St 64109
	ST. JOSEPH
Ross-Frazier Supply Co	8th and Monteray 64503
	CT LOUIC
Henzler, Inc.	2015 Lemay Ferry Rd 63125
NEW JERSEY	BELLMAWR
Lawnmower Parts Inc	
Feld Distributor	RUTHERFORD 28 Glap Rd 07070
NEW YORK	CARTHAGE
NEW YORK Gamble Dist., Inc	West End Ave. 13619
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BRIGGS AND STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should handled by your nearest authorized engine service firm. Check yellow pages of your telephone directory under the listing Engines—Gasoline, Briggs & Stratton or Tecumseh Lauson.

Engines—Gasoline, briggs & Stratto	SYRACUSE
GTP Leisure Products Inc	420 Marcellus St 13204
NORTH CAROLINA	GOLDSBORO
NORTH CAROLINA Smith Hardware Co	515 N George St 27530
	GREENSRORO
Dixie Sales Company	327 Battleground Ave. 27402
	CARROLL
	Box 366-71 High St 43112
Stebe s Mid-State Mower Supply	CIEVELAND
Bleckrie Inc	CLEVELAND 7900 Lorain Ave 44102
5.00	WADSWORTH
National Central	687 Seville Rd 44281
Burton Supply Co	301 Logan Ave. Box 929 44501
OKLAHOMA	ADA
Ada Auto Supply	301 E. 12th St 74820
	MUSKOGEE
Victory Motors, Inc	605 S. Cherokee 74401
	OKLAHOMA CITY
Forest Sales Inc	1039 NW 63rd St 73116
OREGON Kenton Supply Co	PORTLAND
Kenton Supply Co	8216 N. Denver Ave 97217
PENNSYLVANIA	CHESTER
Stull Equipment Corp	742 W. Front St 19013
EECO Inc	HARRISBURG
Thompson Rubber Co	PHILADELPHIA
Thompson Aubber Co	PITTSBURGH
Bluemont Co	11125 Franketown Rd 1522***
TENNESSEE	KNOXVILLE
Master Repair Service	2000 Western Ave 3792
	MEMPHIS
Memphis Cycle & Supply Co	421 Monroe Ave 38103
American Sales & Service, Inc	1922 Lynnbrook 38116
TEXAS	DALLAS
Marr Brothers, Inc	423 E. Jefferson 75203
	FORT WORTH
Woodson Sales Corp	1702 N. Sylvania 76111
Bullard Supply Co	<b>HOUSTON</b> 2409 Commerce St 77003
	SAN ANTONIO
Catto & Putty, Inc	414 l ive Oak 78208
UTAH	SALT LAKE CITY
UTAH A-1 Engine & Mower Co	437 E. 9th St 84111
VERMONT	BURLINGTON
VERMONT Vermont Hdwe. Co. Inc	180 Flynn Ave 05401
VIRGINIA	RICHMOND
RBI Corp	963 Myers St 23260
WASHINGTON	SEATTLE
Bailey's Inc	1414 14th Ave 98102
WEST VIRGINIA Young's, Inc	CHARLESTON
WISCONSIN	233 Virginia St., E 25301 <b>APPLETON</b>
Automotivo Supply Co	APPLETON 123 S. Linwood Ave 54911

#### WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

### CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

- 1. Replacement of Missing Parts on new equipment.
- 2. Replacement of Defective Parts within the warranty period.
- 3. Repair of Defects within the warranty period.

- All claims MUST be substantiated with the following information:
- 1. Model Number of unit involved.
- 2. Date unit was purchased or first put into service.
- Date of failure.
- 4. Nature of failure.