

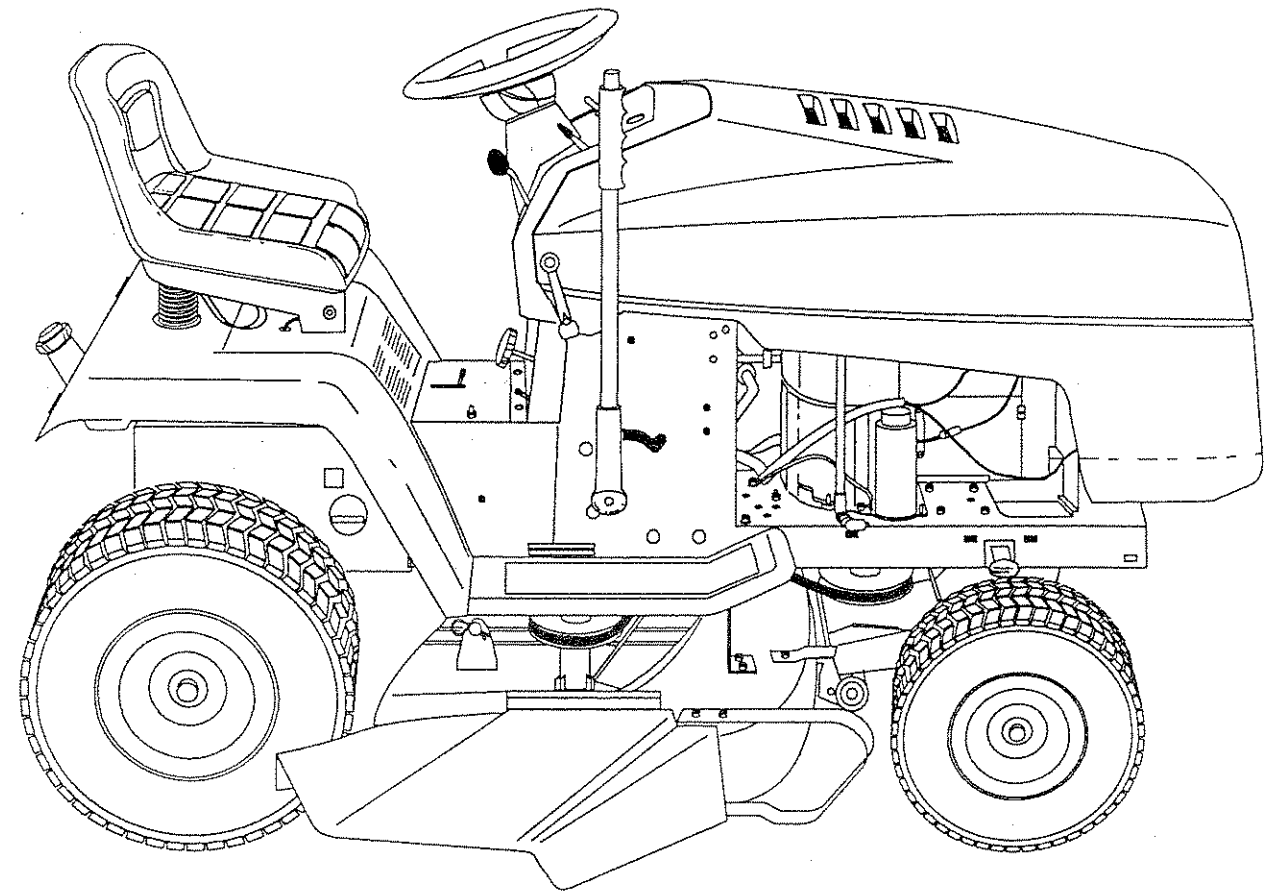
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1989

# OWNER'S MANUAL

14 H.P. HYDROSTATIC YARD TRACTOR  
MODEL NUMBER YTH140AR

ORIGINAL FILE COPY



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123845X*

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Printed in U.S.A.



AMERICAN YARD PRODUCTS INC.

S.C. HWY. 33 AND OLD CAMERON ROAD  
P.O. BOX 1687  
ORANGEBURG, S.C. 29116

## Congratulations

on your purchase of a Riding Tractor. It has been designed, engineered and manufactured to give you dependability and performance. Should you experience any problem you cannot easily remedy, please contact your nearest authorized service dealer. He has well trained technicians and the proper tools and parts to service or repair this unit.

Please read and retain this manual. Following the "Rules for safe operation", "Assembly", "Operation", and "Maintenance" instructions will help you achieve a long, safe service life for your Riding Tractor.

## LIMITED WARRANTY

The Manufacturer warrants to the original consumer purchaser that this product as manufactured is free from defects in materials and workmanship. For a period of two (2) years from date of purchase by the original consumer purchaser, we will repair or replace, at our option, without charge for parts or labor incurred in replacing parts, any part which we find to be defective due to materials or workmanship. This Warranty is subject to the following limitations and exclusions.

1. **Engine Warranty:** All engines on our products have a separate Warranty extended by the individual engine manufacturer. Said warranty must be referred to in the event of a service requirement (pages 44 & 45).
2. **Transaxle/Transmission Warranty:** Some of our products have a Transaxle/Transmission supplied by other manufacturers. Such Transaxle/Transmissions are warranted by that manufacturer and said Warranty must be referred to in the event of a service requirement.
3. **Battery Warranty:** On products equipped with a Battery, we will replace, without charge to you, any battery which we find to be defective in manufacture, during the first year of ownership. Battery must be maintained in accordance with instructions in the product literature.
4. The Warranty period for any products used for rental or commercial purposes is limited to ninety (90) days from the date of original purchase.
5. This Warranty applies only to products which have been properly assembled, adjusted and operated in accordance with instructions found in the product literature for your product. This Warranty does not apply to any product which has been subjected to alteration, misuse, abuse, improper assembly or installation, delivery damage, or to normal wear of the product.
6. **Exclusions:** Excluded from this warranty are belts, blades, blade adapters, normal wear, normal adjustments, standard hardware and normal maintenance.
7. In the event you have a claim under this Warranty, you must return the product to an authorized service dealer.

Should you have any unanswered questions concerning this warranty, please contact:

In U.S.A. contact:  
 American Yard Products Inc.  
 Service Department  
 P.O. Box 1687  
 Orangeburg, S.C. 29116  
 Phone: 800-435-3688

In Canada Contact:  
 AYP (Canada) (Inc.)  
 1040 Jayson Court  
 Mississauga, Ontario L4W 2V5

giving the model number, serial number and date of purchase of your product and the name and address of the authorized dealer from whom it was purchased.

THIS WARRANTY DOES NOT APPLY TO INCIDENTAL OR CONSEQUENTIAL DAMAGES AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE SAME TIME PERIODS STATED HEREIN FOR OUR EXPRESSED WARRANTIES. Some areas do not allow the limitation of consequential damages or limitations of how long an implied Warranty may last, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from locale to locale.

This is a limited warranty within the meaning of that term as defined in the Magnuson-Moss Act of 1975

## ABOUT THE WARRANTY ON YOUR ENGINE

**NOTE: See Back Cover for Statement of Limited Warranty.**

If warranty service is needed, contact your nearest Authorized Briggs & Stratton Service Center. For prompt attention, your Center will need to know the engine model, type and code numbers, the trouble experienced and the total number of hours the engine was run.

BRIGGS & STRATTON WARRANTY covers only DEFECTIVE MATERIAL and/or WORKMANSHIP.

Briggs & Stratton Corporation welcomes the opportunity to make justified warranty repairs by any of its Authorized Service Centers. In most instances, the requests for warranty repair are handled in a quick and routine manner. However, some requests for warranty are received which appear not justified. In these cases, though engine owners may not be aware of it, the premature failure of their engine was caused by abuse or neglect, or the equipment on which it was mounted, rather than the engine.

If you differ with the decision of your Service Center, investigation will be made to determine the applicability of warranty. Ask the Service Center to submit all supporting facts to the Factory for review. If the Factory decides that your claim is justified, you will be fully reimbursed for those items accepted as defective. To avoid misunderstanding which might occur between engine owners and Authorized Briggs & Stratton Service Centers, we list below some of the causes of engine failure that Briggs & Stratton warranty does not cover for repair or replacement.

**NORMAL WEAR:** Engines, like all mechanical devices, need periodic parts service and replacement to perform well. Warranty will not cover repair when normal use has exhausted the life of a part or an engine.

**IMPROPER MAINTENANCE:** Remember that the service life of an engine depends upon the conditions under which it operates and the care it receives. Some applications, such as tillers, trash pumps and rotary mowers, are very often used in dusty or dirty conditions which can cause what appears to be premature wear. Such wear, when caused by dirt, dust, spark plug cleaning grit or other abrasive material that has entered the engine because of improper maintenance, is not covered by warranty.

**WARRANTY DOES NOT APPLY FOR SOME ADJUSTMENTS OR IF ABUSE OR NEGLIGENCE CAUSES ENGINE DAMAGE: SUCH AS**

1. Bent or broken crankshafts that could be caused by striking a solid object with the cutter blade of a rotary lawn mower;
2. Sticking valves or clogged carburetors, fuel pipes or other damage caused by using contaminated or stale fuel (Use clean, fresh, lead-free gasoline.);

3. Parts which are scored or broken because an engine was operated with insufficient lubricating oil, improper grade of lubricating oil, or contaminated lubricating oil in the case of a 4 cycle engine, or operated with incorrect BIA/NMMA certified oil/gas mixture in the case of a 2 cycle engine. (For a 4 cycle engine, check the oil level daily or after 8 hours and refill when necessary. Change oil at recommended intervals. For a 2 cycle engine, use the correct oil/gas mixture.);

4. Parts damaged by overspeeding or overheating caused by dirt, grass or debris plugging the cooling fins and clogging the flywheel area, or caused by operating the engine in a confined area without sufficient ventilation (Clean fins on the cylinder, cylinder head and flywheel at recommended intervals.);

5. Damage or wear to parts caused by dirt which entered the engine because of improper air cleaner maintenance or re-assembly (Clean and re-oil the foam pre-cleaner and clean or replace the paper cartridge at recommended intervals.);

6. Damage or wear to parts caused by grit which entered the engine from spark plugs cleaned on an abrasive blast cleaning machine;

7. Tune-up or adjustment needed by an engine but not caused by defective material nor workmanship (Follow the "Operating and Maintenance Instructions" when making any minor adjustments.);

8. Parts broken by excessive vibration caused by loose engine mounting, loose cutter blades, unbalanced blades or impellers, improperly attaching equipment to engine crankshaft, overspeeding or abuse in operation;

9. Repair or adjustment of associated parts or assemblies such as clutches, transmissions, remote controls, etc., which are not of Briggs & Stratton manufacture;

10. PARTS THAT ARE NOT ORIGINAL BRIGGS & STRATTON PARTS OR PARTS THAT ARE NOT APPROVED BY BRIGGS & STRATTON.

Warranty is available only through service centers which have been authorized by the Briggs & Stratton Corporation. Your nearest service center is listed in the Yellow Pages of your Telephone Directory, under "Engines, Gasoline" or "Gasoline Engines."

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**Superseding Warranty  
BRIGGS & STRATTON ENGINE WARRANTY POLICY  
effective July 1, 1988**

**Replaces all undated previous Warranties and all Warranties  
dated before July 1, 1988**

When warranty repair is justified, Briggs & Stratton Corporation welcomes such repair by any of its Authorized Service Centers.

In most instances, the requests for warranty brought to the attention of our Service Accounts are handled in a prompt routine manner with no question regarding their validity. However, some requests for warranty are received which appear not justified. In these cases, engine owners may not be aware that the premature failure of their engine was the result of abuse or neglect, or that the difficulty which they experience is caused by the equipment rather than the engine.

BRIGGS & STRATTON WARRANTY covers only DEFECTIVE MATERIAL and/or WORKMANSHIP.

**LIMITED WARRANTY**

"For time period shown below from date of purchase, Briggs & Stratton Corporation will replace for the original purchasers, free of charge, any part, or parts of the engine, found upon examination by any Factory Authorized Service Center, or by the Factory at Milwaukee, Wisconsin, to be defective in material or workmanship or both; this is the exclusive remedy. All transportation charges on parts submitted for replacement under this Warranty must be borne by purchaser. For warranty service contact your nearest Authorized Service Center as listed in the 'Yellow Pages' under 'Engines, Gasoline' or 'Gasoline Engines.' THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO ONE YEAR FROM PURCHASE AND TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state."

Briggs & Stratton Corporation  
F. P. Stratton, Jr.  
Chairman and Chief Executive Officer

**WARRANTY PERIOD**

ENGINES	CONSUMER USE*	COMMERCIAL USE*
All 2 thru 18 hp engines on non-lawn mowing equipment.	1 year - engine	1 year - engine
All 2 thru 18 hp engines on lawn mowing equipment and all Sno Gard engines	2 year - engine*** 5 year - Magneton® Ignition***	1 year - engine
All Vanguard and I/C® engines	2 year - engine Lifetime** - Magneton® ignition	2 year - engine Lifetime** - Magneton® ignition

\* For purposes of this warranty policy, "consumer use" shall mean personal residential household use by the original retail consumer. "Commercial use" shall mean all other uses, including use for commercial, income producing or rental purposes. Once an engine has experienced commercial use, it shall thereafter be considered as a commercial use engine for purposes of this warranty policy.

\*\* Lifetime limited warranty of the Magneton® Ignition shall cover parts and labor for the first five (5) years from the date of purchase; thereafter only parts. "Lifetime" shall mean lifetime of the engine in the hands of the original purchaser.

\*\*\* Applies to equipment retailed in the U.S.A. and Canada. In all other countries, the warranty for CONSUMER USE is the same as COMMERCIAL USE.

**NO REGISTRATION (WARRANTY) CARD IS NECESSARY TO OBTAIN WARRANTY ON BRIGGS & STRATTON ENGINES. SAVE YOUR PURCHASE RECEIPT. PROOF OF PURCHASE DATE WILL BE REQUIRED TO OBTAIN WARRANTY.**

BRIGGS & STRATTON ENGINES ARE MADE UNDER ONE OR MORE OF THE FOLLOWING PATENTS:									DESIGN	
2,999,491	3,305,223	3,526,146	3,625,492	3,745,393	3,971,353	4,233,043	3,194,224	3,457,804	3,572,218	D-247,177
3,650,354	3,961,724	4,168,288	4,270,509	3,276,439	3,485,740	3,625,071	3,738,345	3,968,854	4,189,040	OTHER PATENTS PENDING



**LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS - ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.**

**CAUTION: LOOK FOR THIS WORD TO POINT OUT IMPORTANT EQUIPMENT PRECAUTIONS.**



**RULES FOR SAFE OPERATION**

**WARNING:** This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or area laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator. (See REPAIR PARTS for part number identification).

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other States may have similar laws. Federal laws apply on federal lands.

1. Know the controls and how to stop quickly. READ THIS OPERATOR'S MANUAL and instructions furnished with attachments.
2. Do not allow children to operate the machine. Do not allow adults to operate it without proper instruction.
3. Do not carry passengers. Do not mow when children and others are around.
4. Always wear substantial footwear. Do not wear loose fitting clothing that could get caught in moving parts.
5. Keep your eyes and mind on your tractor, mower, and the area being cut. Do not let other interests distract you.
6. Do not attempt to operate your tractor or mower when not in the drivers seat.
7. Always get on or off your tractor from the operator's left hand side. Clear the work area of objects (wire, rocks, etc.) which might be picked up and thrown.
8. Disengage all attachment clutches before attempting to start the engine.
9. Disengage power to attachments and stop the engine before leaving the operator's position.
10. Disengage power to mower, stop the engine, and disconnect spark plug wire(s) from spark plug(s) before cleaning, making an adjustment, or repair. Be careful to avoid touching hot muffler or engine components.
11. Disengage power to attachments when transporting or not in use.
12. Take all possible precautions when leaving the vehicle unattended. Disengage the power-take-off, lower the attachments, shift into neutral, set the parking brake, stop the engine, and remove the key.
13. Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of slopes (not greater than 15°); never across the face. Refer to page 46.
14. Reduce speed on slopes and make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
15. While going up or down slopes, place Gear Shift Control Lever in 1st gear position to negotiate the slope without stopping.
16. Never mow in wet or slippery grass, when traction is unsure, or at a speed which could cause a skid.
17. Stay alert for holes in the terrain and other hidden hazards. Keep away from drop-offs.
18. Do not drive too close to creeks, ditches, and public highways.
19. Exercise special care when mowing around fixed objects in order to prevent the blades from striking them. Never deliberately run tractor or mower into or over any foreign objects.
20. Never shift gears until tractor comes to a stop.
21. Never place hands or feet under the mower, in discharge chute, or near any moving parts while tractor or mower are running. Always keep clear of discharge chute.
22. Use care when pulling loads or using heavy equipment.
  - a. Use only approved drawbar hitch points.
23. Limit loads to those you can safely control.
24. Do not turn sharply. Use care when backing.
25. Use counterweight or wheel weights when suggested in owner's manuals.
26. Watch out for traffic when crossing or near roadways.
27. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the vehicle while in operation.
28. Handle gasoline with care - it is highly flammable.
  - a. Use approved gasoline containers.
  - b. Never remove the fuel cap of the fuel tank or add gasoline to a running or hot engine or an engine that has not been allowed to cool for several minutes after running. Never fill tank indoors, always clean up spilled gasoline.
  - c. Open doors if the engine is run in the garage - exhaust fumes are dangerous. Do not run the engine indoors.
29. Keep the vehicle and attachments in good operating condition, and keep safety devices in place and working.
30. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
31. 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.
32. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease. Do not clean product while engine is running.
33. Except for adjustments, DO NOT operate Engine if air cleaner or cover directly over carburetor air intake is removed. Removal of such part could create a fire hazard.
34. Do not operate without a muffler, or tamper with exhaust system. Damaged mufflers or spark arresters could create a fire hazard. Inspect periodically and replace if necessary.
35. 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.
36. Do not change the engine governor settings or overspeed the engine; severe damage or injury may result.
37. 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.
38. Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the the deflector shield in place.
39. Disengage power to mower before backing up. Do not mow in reverse unless absolutely necessary and then only after careful observation of the entire area behind the mower.
40. Under normal usage the grass catcher bag material is subject to deterioration and wear. It should be checked frequently for bag replacement. Replacement bags should be checked to ensure compliance with the original manufacturer's recommendations or specifications.

To assemble and adjust your Tractor you will need: one 3/4" wrench, one 9/16" wrench, a utility knife, one 1/2" wrench, two 7/16" wrenches, and one 11/16" wrench.

WEAR EYE AND FACE SHIELD.



WASH HANDS OR CLOTHING IMMEDIATELY IF ACCIDENTALLY IN CONTACT WITH BATTERY ACID.

DO NOT SMOKE. FUMES FROM CHARGED BATTERY ACID ARE EXPLOSIVE.

CUT AWAY VIEW

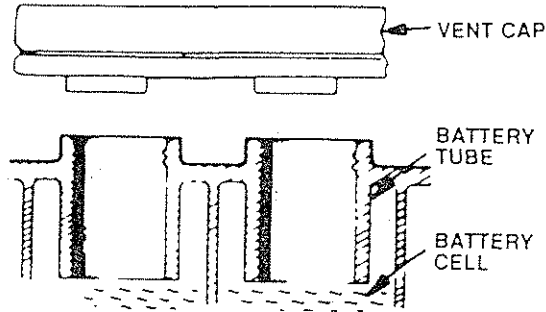


FIGURE 1

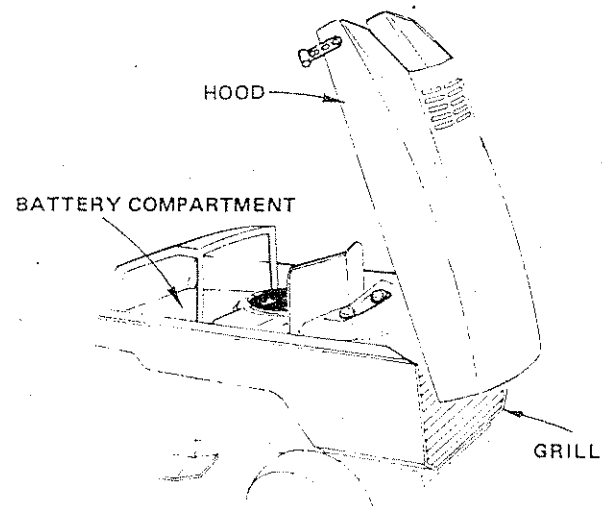


FIGURE 2

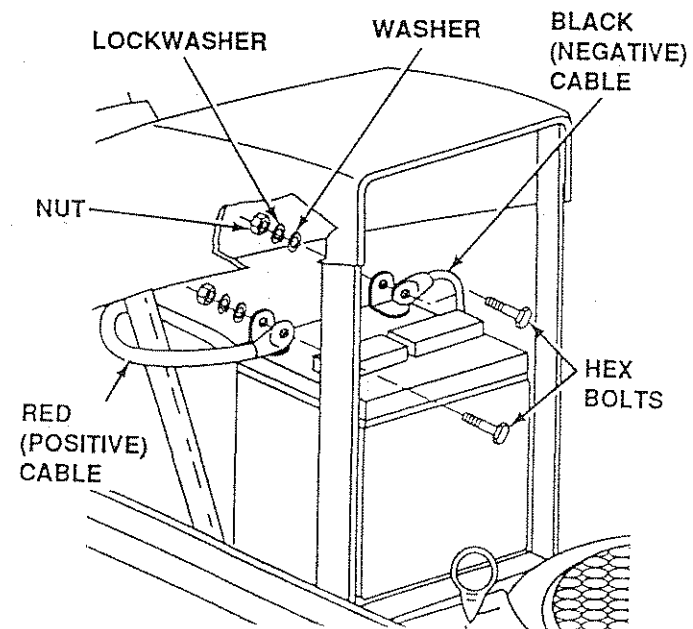


FIGURE 3

## ASSEMBLY

NOTE: RIGHT HAND (R.H.) AND LEFT HAND (L.H.) ARE DETERMINED FROM OPERATOR'S POSITION WHILE SEATED ON THE TRACTOR

1. Remove battery, steering wheel, seat, and bag of parts. Cut down four corners of carton and fold down. Remove banding holder mower deck in place and remove from skid. Disengage parking brake and remove tractor from skid.



READ THE INSTRUCTIONS INCLUDED WITH THE BATTERY VENT CAPS IN THE BAG OF PARTS. ALWAYS WEAR GLOVES, CLOTHING AND GOGGLES TO PROTECT YOUR HANDS, SKIN AND EYES.

2. Prepare Battery

Before installation in Tractor, follow the battery preparation steps below. Refer to detailed instructions found with battery vent caps in bag of parts.

- a. Remove the tape from the battery cells. Fill each cell with acid. Add the acid until it reaches the bottom of the vent tube (Fig. 1). Do not add the acid beyond this level or additional acid can come out when the battery is charged.
- b. Wait 20 to 30 minutes before installing the vent caps. If the level of acid falls below the point as described in step (a), add more acid until the correct level is reached. Install the vent caps. Wash the top of the battery with water to remove any acid, then wipe dry.
- c. Neutralize excess battery acid for disposal by adding it to four inches of water in a five gallon plastic container. Stir with a wooden paddle or plastic paddle while adding baking soda until the addition of more soda cause no more foaming.
- d. Use a 12 volt battery charger. Charge battery at a rate of 6 amperes for 1 hour. Check the acid level after the battery is charged. If the acid has fallen below the correct level, add distilled water.

DO NOT SHORT BATTERY TERMINALS.



BEFORE INSTALLING BATTERY, REMOVE METAL BRACELETS, WRISTWATCH BANDS, RINGS, ETC. FROM YOUR PERSON.

3. Install Battery.

- a. Lift hood from rear sides (Fig. 2).
  - b. Make sure Drain Tube is fastened to Drain Hole in Battery Tray and Battery Tray drain hole is positioned near the edge of Battery Support.
  - c. Place Battery in Plastic Tray (Battery Terminals to rear of Tractor)(Fig. 3).
4. Connect Battery Cables using: two Hex Bolts, two Flat Washers, two Lockwashers and two Hex Nuts (shown full size below) found in Bag of Parts.



POSITIVE TERMINAL MUST BE CONNECTED FIRST TO PREVENT SPARKS FROM ACCIDENTAL GROUNDING.

- a. Connect RED Battery Cable to Positive (+) Battery Terminal with Hex Bolt, Flat Washer, Lockwasher and Hex Nut (Fig. 3). Tighten securely.
- b. Connect BLACK Ground Cable to Negative (-) Battery Terminal with remaining Hex Bolt, Flat Washer, Lockwasher and Hex Nut (Fig. 3). Tighten securely.

## SERVICE NOTES

# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION

ONLY RIDE UP AND DOWN HILL  
NOT ACROSS HILL

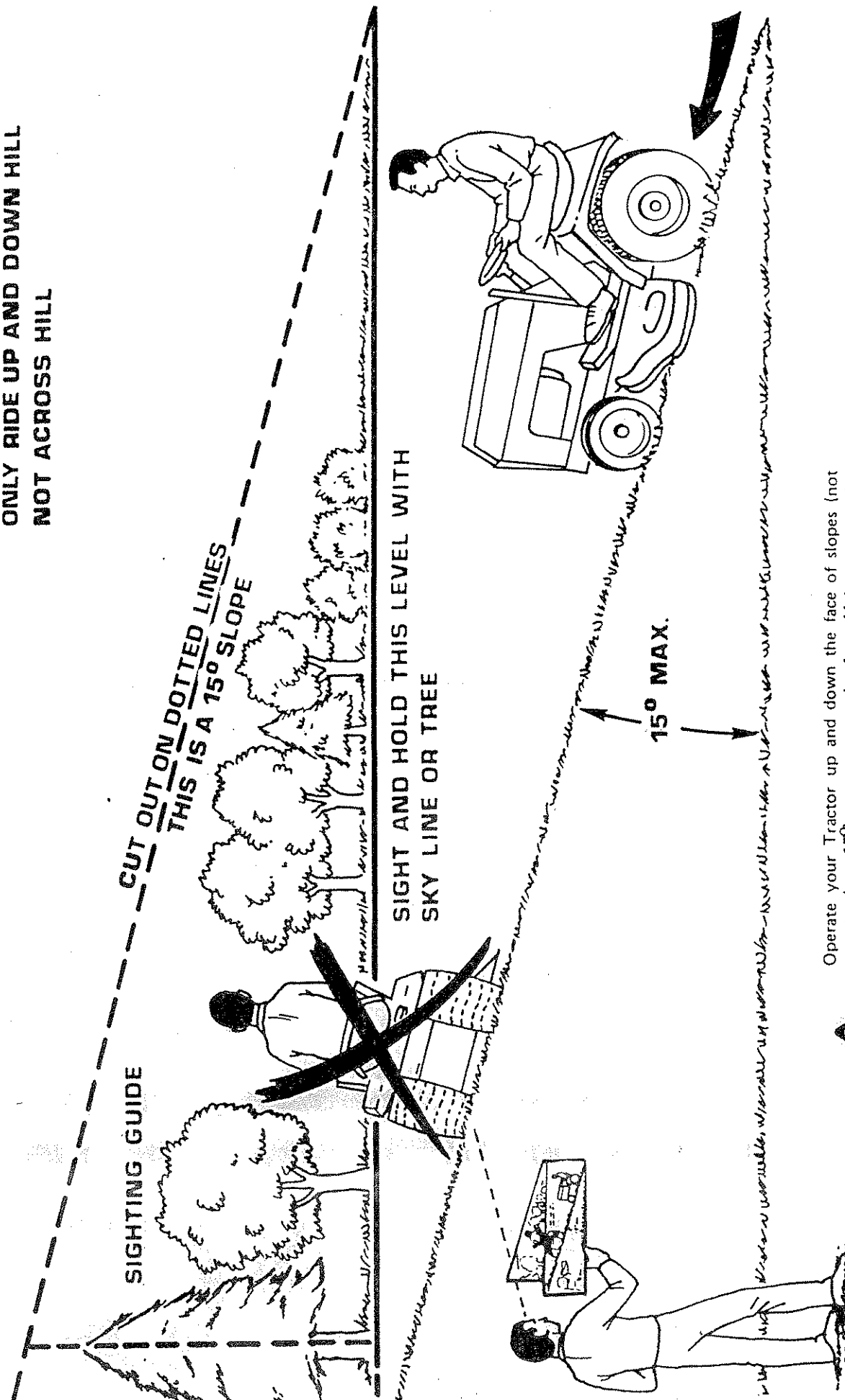
SIGHTING GUIDE

CUT OUT ON DOTTED LINES  
THIS IS A 15° SLOPE

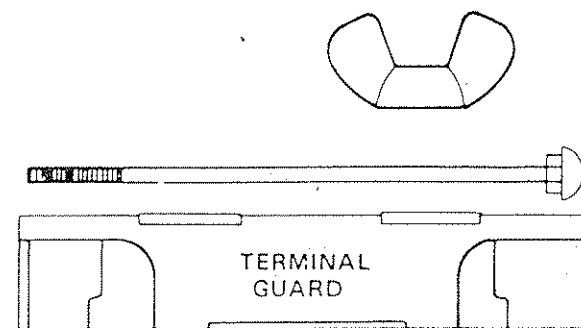
SIGHT AND HOLD THIS LEVEL WITH  
SKY LINE OR TREE

15° MAX.

Operate your Tractor up and down the face of slopes (not greater than 15°); never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.



5. Install Battery using: two Wing Nuts (shown full size below) and two Battery bolts and one Terminal Guard found in Bag



- Using the slotted hole on one side of the Battery Support (Fig. 4) insert one Battery Bolt, head of Bolt down. Fasten the Battery Bolt to the Terminal Guard using Wing Nut as shown in Fig. 4.
- Assemble the remaining Battery Bolt to other side of Battery Support and fasten Terminal Guard to it with remaining Wing Nut. Tighten Wing Nuts securely by hand (Fig. 4).

NOTE: USE TERMINAL ACCESS DOORS (FIG. 4) FOR:

- Inspection for secure connections (tighten hardware).
- Inspection for corrosion.
- Testing battery.
- Jumping (if required).
- Charging (if required).



WHEN NOT IN USE, KEEP TERMINAL ACCESS DOORS CLOSED.

- Install Steering Wheel
 

NOTE: POSITION FRONT WHEELS FORWARD

  - Use 3/4" wrench to remove Hex Nut and 2-1/4" Dia. Washer from Steering Shaft (Fig. 5).
  - Position Steering Wheel over Steering Wheel Adapter.
  - Secure Steering Wheel to Steering Shaft using 2-1/4" Dia. Washer and Hex Nut (Fig. 5). Torque to 50 ft. lbs.
  - Snap Steering Wheel Insert, found in Bag of Parts, in place.
- INSTALL SEAT
 

SEAT POSITION SHOULD BE ADJUSTED FORWARD OR BACKWARD SO THAT THE OPERATOR CAN COMFORTABLY REACH CLUTCH/BRAKE PEDAL AND SAFELY OPERATE TRACTOR. (FIG. 10).

  - Place seat on seat pan. Screw hand adjustment knob, flat washer and lock washer, and shoulder bolt into seat (Fig. 7). Hand adjustment knob, washers and shoulder bolt found in bag of parts.
  - Tighten Shoulder Bolt using a 1/2" wrench (Fig. 7). Note that Shoulder Bolt will be loose in Seat Pan slot.
  - Hand tighten Adjustment knob. (FIG. 7).
  - Place Seat in operating position. Sit on the Seat and press Clutch/Brake Pedal all the way down. If operating position is not comfortable, Adjust Seat.
  - To Adjust: Raise Seat, loosen Hand Adjustment Knob, slide Seat to desired position, tighten Hand Adjustment Knob securely.



THE SEAT HAND ADJUSTMENT KNOB MUST BE TIGHTENED SECURELY TO PREVENT MOVEMENT OF SEAT.

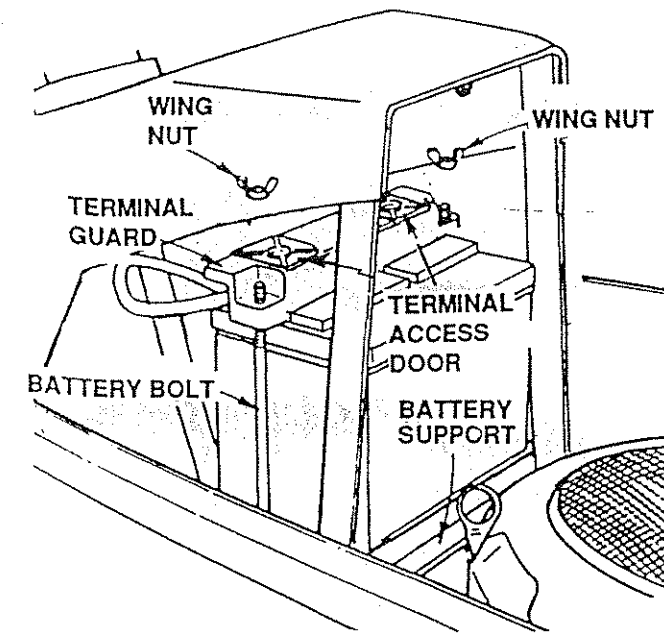


FIGURE 4

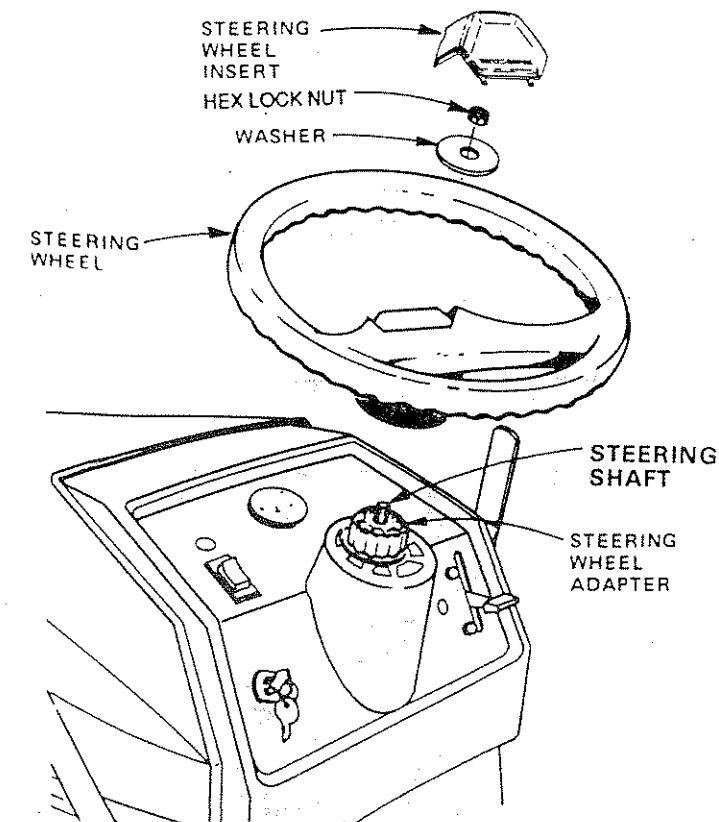


FIGURE 5

NOTE: A SPARK ARRESTER SCREEN (PAGE 26) IS AVAILABLE AS AN ACCESSORY PART FOR YOUR TRACTOR. CHECK LEGAL REQUIREMENTS IN YOUR AREA.



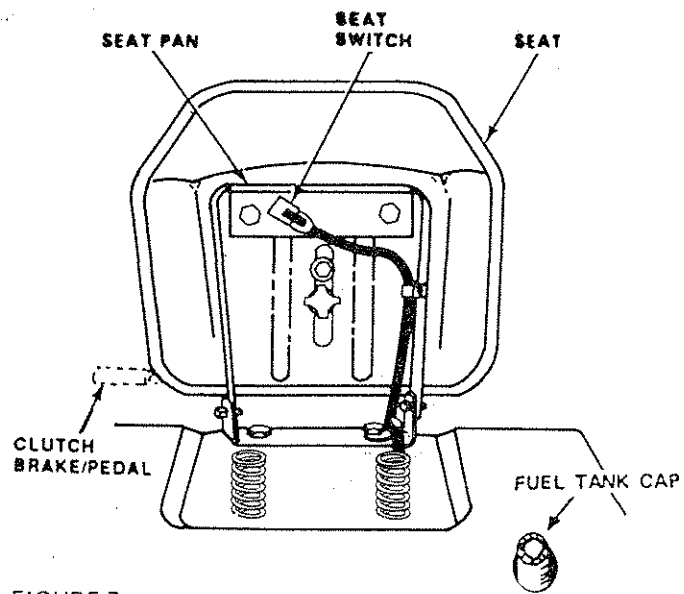


FIGURE 7

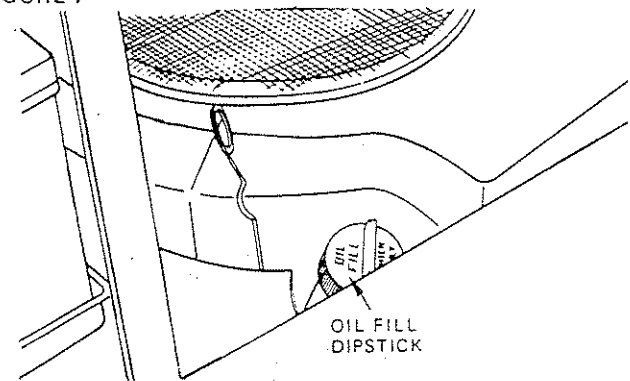


FIGURE 8  
ATTACHMENT CLUTCH SWITCH "ENGAGED" POSITION

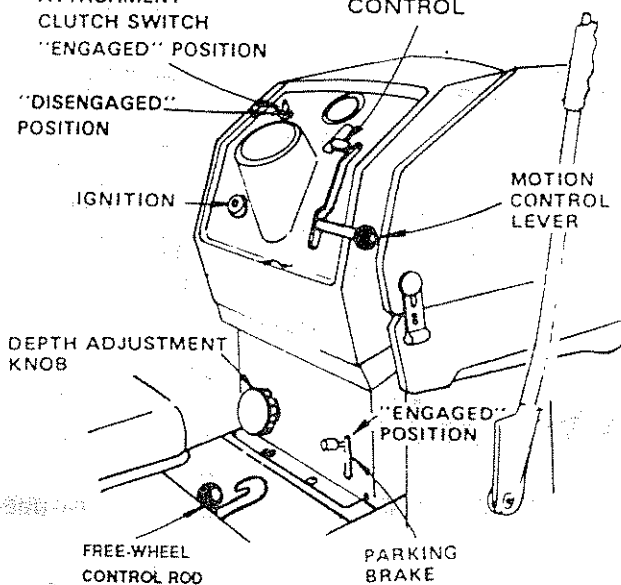
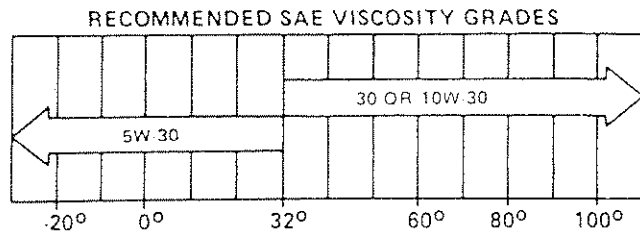


FIGURE 9  
**INITIAL SERVICE**

1. Raise Hood.
2. This engine has been shipped filled with summer weight oil. For cold weather operation, see chart below. Check engine oil level with Tractor on level ground. Wipe Dipstick (Fig. 8) clean, screw it in tight for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark is reached.

NOTE: BE CAREFUL NOT TO ALLOW DIRT TO ENTER THE ENGINE WHEN CHECKING OR ADDING OIL OR



TEMPERATURE RANGE EXPECTED BEFORE NEXT OIL CHANGE. ALL OILS MUST MEET A.P.I. SERVICE CLASSIFICATION SD, SE, OR SF.

Capacity is 3 pints. NOTE: DO NOT OVERFILL. Dipstick assembly must be securely tightened into tube at all times when engine is operating.

3. Fill Fuel Tank (Fig. 7). Use fresh, clean, regular "UNLEADED" automotive gasoline. Use of regular leaded gasoline is not an acceptable substitute. Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life. Capacity is 3-1/2 gallons.

CAUTION: EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

TO AVOID ENGINE PROBLEMS, THE FUEL SYSTEM SHOULD BE EMPTIED BEFORE STORAGE OF 30 DAYS OR LONGER. DRAIN THE GAS TANK, START THE ENGINE AND LET IT RUN UNTIL THE FUEL LINES AND CARBURETOR ARE EMPTY. USE FRESH FUEL NEXT SEASON. SEE STORAGE INSTRUCTIONS FOR ADDITIONAL INFORMATION.

NEVER USE ENGINE OR CARBURETOR CLEANER PRODUCTS IN THE FUEL TANK OR PERMANENT DAMAGE MAY OCCUR.



FILL TO BOTTOM OF GAS TANK FILLER NECK. DO NOT OVERFILL. WIPE OFF ANY SPILLED OIL OR FUEL. DO NOT STORE, SPILL OR USE GASOLINE NEAR AN OPEN FLAME.

4. Reduce tire pressure to 14 PSI in front and 10 PSI in rear tires. (Tires were overinflated for shipping purposes).

## OPERATION



THIS TRACTOR IS EQUIPPED WITH INTERLOCK SWITCHES TO PREVENT STARTING OF THE TRACTOR ENGINE WHILE THE ATTACHMENT CLUTCH SWITCH (FIG. 9) IS IN THE "ENGAGED" POSITION AND/OR THE CLUTCH/BRAKE PEDAL IS IN THE CLUTCH POSITION (FIG. 10). IMMEDIATELY REPLACE SWITCHES THAT ARE NOT IN PROPER WORKING ORDER. DO NOT ATTEMPT TO DEFEAT THE PURPOSE OF THESE SWITCHES.



## CAUTION TO AVOID INJURY

1. Read owners manual.
2. Know location and function of all controls.
3. Keep guards, safety shields and switches in place and working.
4. Remove objects that can be thrown by blades.
5. Do not mow when children and others are around.
6. Never carry children or passengers.
7. Always look behind machine before backing.
8. Do not mow where machine can tip or slip.
9. If machine stops going uphill, stop blade and back slowly down.
10. Be sure blades and engine have stopped before placing hands or feet near the blades.

## REPAIR PARTS

### 14 H.P. HYDROSTATIC YARD TRACTOR

ENGINE--MODEL NUMBER 400707, TYPE NUMBER 1211-01

#### ALTERNATOR AND STARTER MOTOR GROUP

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	94326	Screw - Sem	18	222849	Cover Assembly - Air Guide (Cylinder No. 2)
2	222673	Screen - Flush Rotating	19	222846	Shield, Cylinder
3	230674	Nut - Hex	20	222847	Shield, Cylinder
4	222511	Washer - Spring	22	490421	Starter Drive Group (Inc. Key No's 33, 34 & 36)
5	222674	Cup - Screen Mounting	24	394808	Motor - Starting (Inc. Key No's, 25, 26, 27, 28, 29, 30, 33, 34, 35 & 36)
6	491180	Flywheel and Ring Gear Assembly - Magneto	25	395537	Commutator End Cap Assembly Starter (Inc. Key No. 26)
7	935535	Screw - Sem	26	395538	Brush Set
8	393537	Connector Assembly	27	393825	Housing Assembly
9	392595	Stator - Alternator (Tri Circuit) (Inc. Key No. 8)	28	94003	Thru Bolt
10	93621	Screw - Sem	29	390837	Armature Assembly (Motor)
11	391362	Gear - Flywheel Ring (Includes Mounting Parts)	30	394860	Drive End Cap Assembly - Starter
12	19203	Puller - Flywheel (Optional Accessory)	31	90366	Lockwasher
13	394891	Armature Group (Inc. Key No's, 15, 16 & 40)	32	91162	Screw - Hex Head (5/16 - 18 x 1 - 1/2)
14	93381	Screw - Armature Mounting Sem	33	280104	Gear - Starter
15	221798	Terminal - Ignition Cable	34	398003	Clutch Assembly - Starter
16	394970	Trigger Coil Assembly Magnatron Ignition	35	490467	Pinion Spring Kit (Inc. Key No's, 33 & 36)
17	93163	Screw - Sem	36	94288	Roll Pin
			37	93163	Screw - Sem
			39	222848	Cover Assembly - Air Guide (Cylinder No. 1)
			40	394988	Armature Assembly
			42	280815	Fan - Flywheel
			43	223726	Retainer - Fan

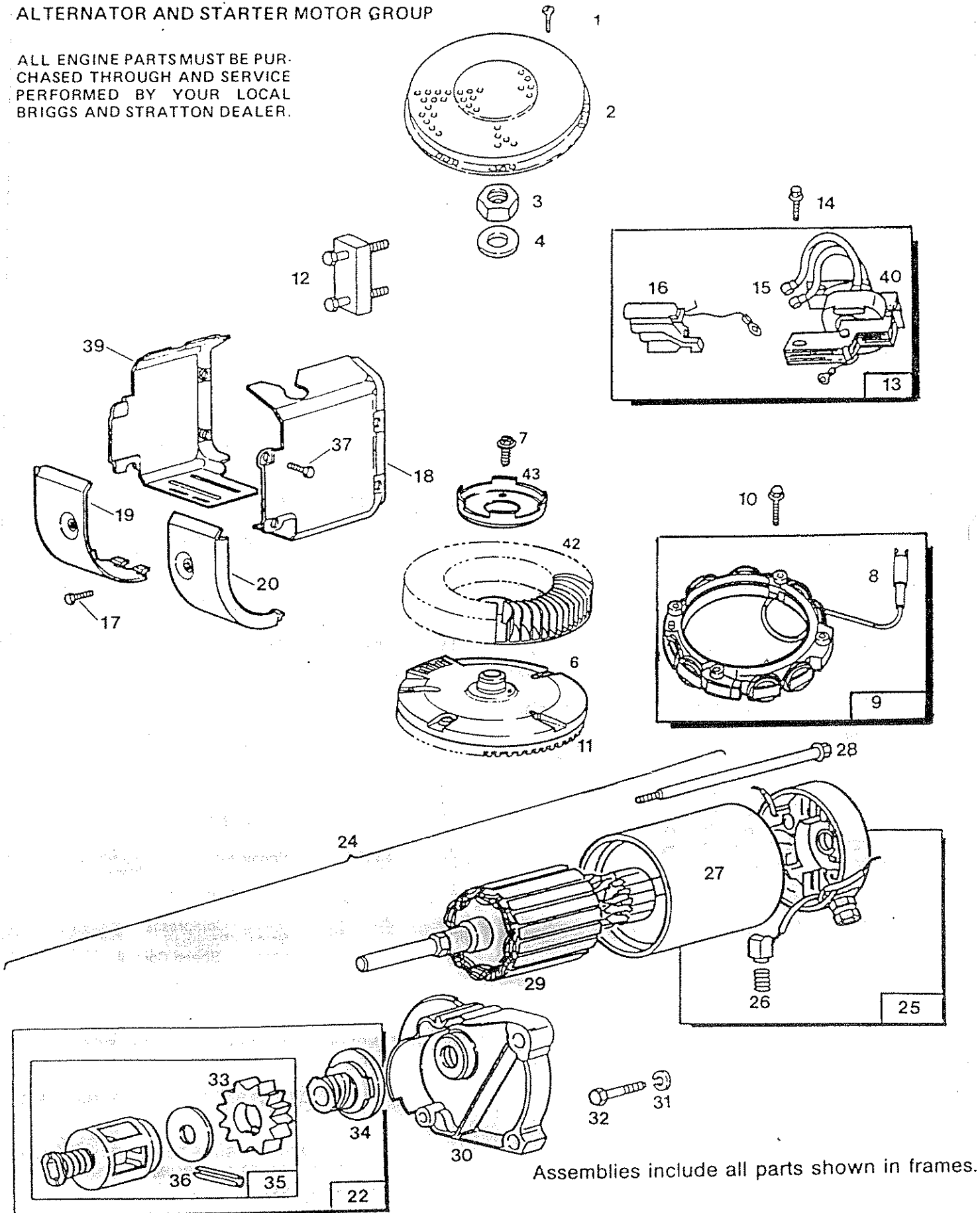
## REPAIR PARTS

### 14 H.P. HYDROSTATIC YARD TRACTOR

ENGINE--MODEL NUMBER 400707, TYPE NUMBER 1211-01

#### ALTERNATOR AND STARTER MOTOR GROUP

ALL ENGINE PARTS MUST BE PURCHASED THROUGH AND SERVICE PERFORMED BY YOUR LOCAL BRIGGS AND STRATTON DEALER.



## STARTING THE ENGINE



LEARN TO START, STOP AND REVERSE YOUR TRACTOR IN A LARGE, OPEN AREA.

**CAUTION:** DO NOT ADD ADDITIONAL WEIGHT TO THE TRACTOR OTHER THAN THE OPTIONAL WHEEL WEIGHTS. EXCESSIVE WEIGHT MAY OVERLOAD AND DAMAGE THE TRANSMISSION.

1. Place Attachment Clutch Switch in "DISENGAGED" position (Fig. 9).
2. Push Clutch/Brake Pedal fully into "BRAKE" position (fig. 10).
3. Place Motion Control Lever in "N" (neutral) position (Fig. 9).
4. Place Parking Brake in "ENGAGED" position (Fig. 9). Pedal should remain locked when released.
5. Pull choke out (Fig. 9).
6. Move Throttle Control to middle position (Fig. 9).
7. Turn Ignition Key to "START" position until Engine starts (Fig. 9). NOTE: DO NOT RUN STARTER CONTINUOUSLY FOR MORE THAN FIFTEEN SECONDS PER MINUTE. If engine does not start after several attempts, move Throttle Control to "F" (fast) position, wait a few minutes and try again. The first time you start the engine, it will take extra cranking time to move fuel from tank to the engine. NOTE: ALLOW ENGINE TO WARM UP FOR A FEW MINUTES BEFORE ENGAGING CLUTCH OF TRACTOR OR ATTACHMENT.

If engine does not start after several attempts, refer to Trouble Shooting, page 14.

## WARMING UP THE ENGINE

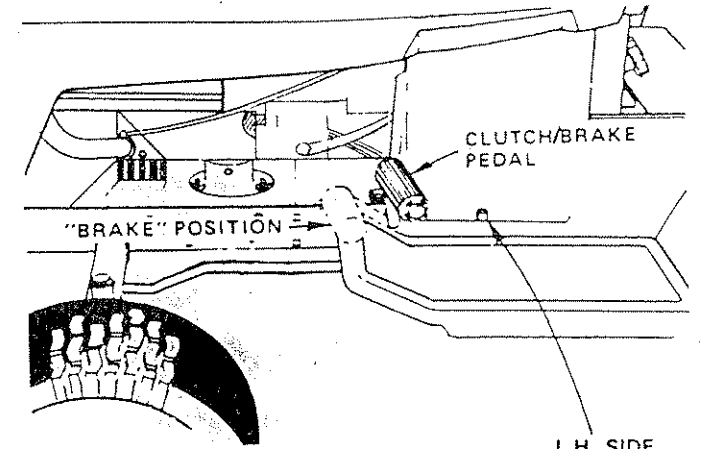
Move Throttle Control mid-way between "F" and "S" positions (Fig. 9). As engine warms up, move Throttle Control Lever to "F" position. NOTE: ALLOW ENGINE TO WARM UP FOR A FEW MINUTES BEFORE OPERATING.

When restarting a warm engine, move Throttle Control mid-way between "S" (slow) and "F" (fast) position. Choke may not have to be used.

## TRACTOR OPERATION

NOTE: THIS TRACTOR IS EQUIPPED WITH AN OPERATOR PRESENCE SENSING SWITCH. ANY ATTEMPT BY THE OPERATOR TO LEAVE THE SEAT WITH THE ENGINE RUNNING AND THE ATTACHMENT CLUTCH SWITCH ENGAGED WILL SHUT OFF THE ENGINE.

1. With engine running and warm, place Throttle Control mid-way between "S" (Slow) and "F" (Fast) positions.
2. Push Clutch/Brake Pedal (Fig. 10) down firmly to disengage parking brake and release Clutch/Brake Pedal slowly.
3. Move Motion Control Lever to desired speed and direction (Fig. 9).
4. If ground travel speed is too slow, move Throttle Control to "F" (FAST) position. Move Motion Control Lever to desired speed.



L.H. SIDE  
PANEL BOLT  
FIGURE 10

NOTE: ALWAYS OPERATE ENGINE AT FULL ENGINE RPM TO ASSURE BETTER PERFORMANCE AND PROPER DISCHARGE OF MATERIAL.

**CAUTION:** BRING TRACTOR TO COMPLETE STOP BEFORE SHIFTING FROM FORWARD TO REVERSE OR VICE VERSA.



NEVER PLACE YOUR HANDS OR FEET IN OR UNDER ANY POWERED ATTACHMENT OR NEAR ANY MOVING PART WHILE TRACTOR OR ANY POWERED ATTACHMENT IS RUNNING.

DO NOT OPERATE THE MOWER WITHOUT THE DEFLECTOR GUARD IN PLACE.

## STOPPING YOUR TRACTOR

**CAUTION:** DO NOT CHOKE CARBURETOR TO STOP ENGINE.

1. Push Clutch/Brake Pedal into full "BRAKE" position.
2. Move Motion Control Lever to "N" (Neutral Position).
3. Place Parking Brake Lever in "ENGAGED" position and release pressure from Clutch/Brake Pedal. Pedal should remain in "BRAKE" position.
4. Place Attachment Clutch Switch in "DISENGAGED" position (Fig. 9) and lower attachment with Attachment Lift Lever (Fig. 10).
5. Move Throttle Control to "S" (slow) position.
6. Turn Ignition Key to "OFF" position and remove key.



REMOVE KEY WHEN LEAVING TRACTOR TO PREVENT UNAUTHORIZED USE. NOTE: MAKE SURE PARKING BRAKE WILL HOLD TRACTOR SECURE.

## TRANSPORTING YOUR TRACTOR

For pushing or towing your Tractor, place Motion Control Lever in "N" (neutral) position (Fig. 9). Move the Free-Wheel Control Rod to "ENGAGED" position (Fig. 9). NOTE: DO NOT TOW YOUR TRACTOR FASTER THAN THREE MILES PER HOUR.

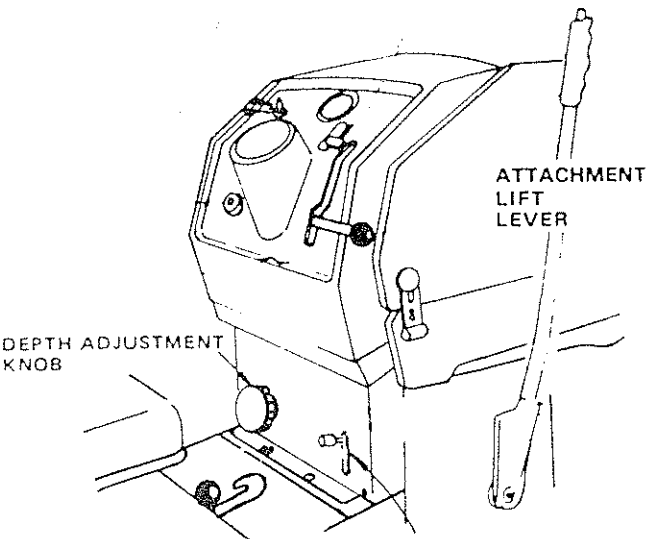


FIGURE 11

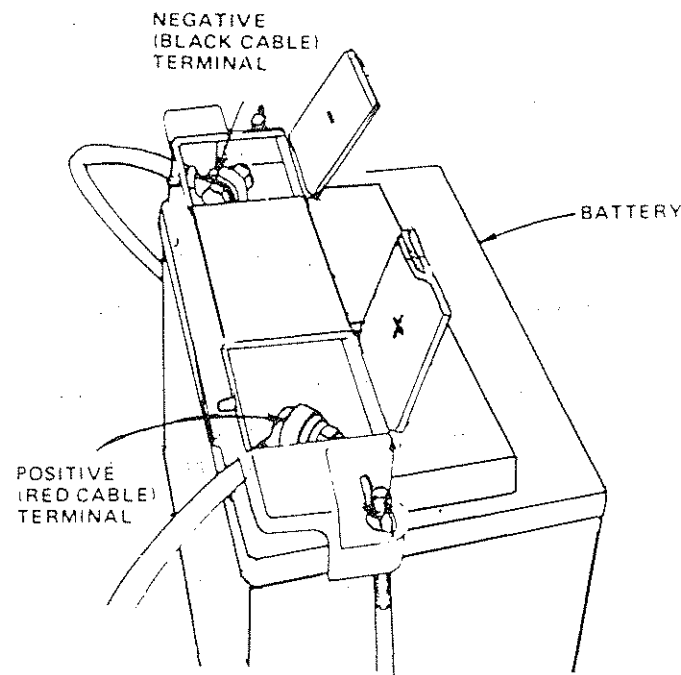


FIGURE 12

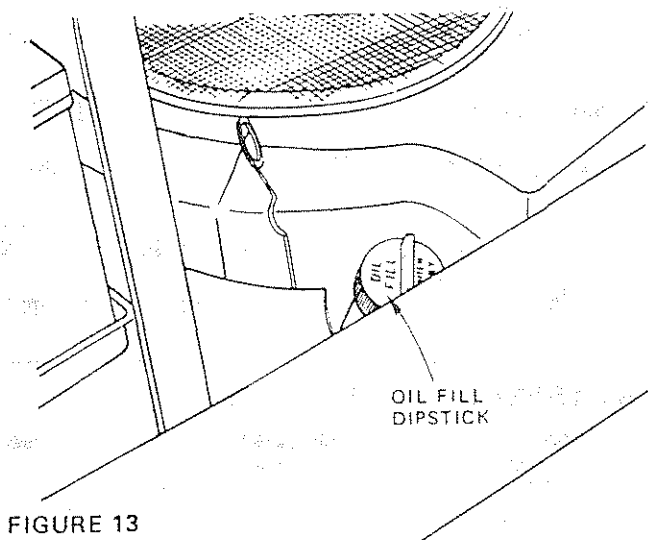


FIGURE 13

## TRACTOR OPERATION ON HILLS

1. Choose the slowest speed BEFORE starting up or down hills.



DO NOT DRIVE UP OR DOWN HILLS WITH SLOPES GREATER THAN 15°, AND DO NOT DRIVE ACROSS ANY SLOPE. REFER TO PAGE 46.

2. AVOID STOPPING OR CHANGING SPEEDS ON HILLS.
  - a. If slowing is necessary, move Motion Control Lever toward "N" (neutral) position or Throttle Control Lever to middle position.
  - b. If stopping is absolutely necessary, push Clutch/Brake Pedal quickly to "BRAKE" position and engage Parking Brake.
  - c. After starting your tractor, disengage Parking Brake and release Clutch/Brake Pedal SLOWLY. To start tractor forward, move Motion Control Lever to desired speed.
3. Make all turns gradually.

## STARTING YOUR TRACTOR WITH A WEAK BATTERY

If your Battery is too weak to start engine, it should be recharged. If "Jumper Cables" are used for emergency starting follow this procedure: NOTE: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT NEGATIVE GROUNDED SYSTEM, THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUNDED SYSTEM.



LEAD-ACID BATTERIES GENERATE EXPLOSIVE GASES. KEEP SPARKS, FLAME, AND SMOKING MATERIALS AWAY FROM BATTERIES. ALWAYS WEAR EYE PROTECTION AROUND BATTERIES.

1. Open Terminal Access Doors (Fig. 12) to expose terminal connection.
2. Connect each end of the RED cable to the POSITIVE (+) terminals of each battery (taking care not to short against chassis) (Fig. 12).
3. Connect one end of the BLACK cable to the negative (-) terminal of fully charged battery.
4. Connect the other end of the BLACK cable to L.H. Side Panel Bolt (Fig. 10). (away from Gas Tank or Battery).
5. Disconnect cables in reverse order:
  - a. L.H. Side Panel Bolt (Fig. 10).
  - b. Negative terminal of fully charged battery.
  - c. Positive terminals.
6. Close Terminal Access Doors (Fig. 12).



DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES. MAKE SURE TERMINAL GUARD ACCESS DOORS ARE CLOSED BEFORE STARTING YOUR TRACTOR.

## REPAIR PARTS

14 H.P. HYDROSTATIC YARD TRACTOR  
ENGINE--MODEL NUMBER 400707, TYPE NUMBER 1211-01

### AIR CLEANER AND CARBURETOR

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	212706	Knob - Air Cleaner	32	262351	Spring - Governor
2	94289	Nut Wing	33	491297	Lever Assembly - Governor (Inc. Key No's. 34, 35 & 37)
3	223579	Cover - Air Cleaner	34	92278	Nut - Hex (10 - 24)
4	271271	Element - Air Cleaner	35	222289	Washer
5	223472	Plug - Welch	36	261563	Spring - Governor Idle
6	94166	Screw - Hex Head	37	93853	Bolt - Governor Lever
7	398826	Body - Air Cleaner	38	261586	Link - Governor
8	491427	Carburetor Assembly (Inc. Key No's 5, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 63 & 63) (Remote Choke)	40	393815	Impulse Line and Clamp Assembly (Inc. Key No. 41)
9	399327	Body Assembly - Upper Carburetor (Inc. Key No's. 11, 12, 14 & 15)	41	93053	Clamp - Fuel Line
10	271411	+ Gasket - Air Cleaner	44	491538	+ Valve Assembly - Carburetor Idle
11	93499	Screw - Throttle and Choke	45	392672	Shaft and Lever - Throttle
12	223534	Valve Mounting Sem	46	271013	+ Washer - Throttle Shaft
13	397882	Valve - Choke	47	26157	Spring - Throttle Adjustment
14	392673	Plug and Seal - Solenoid (Inc. Key No. 66)	48	91920	Screw - Machine Fill. Hd. (8 - 32 x 5/8)
15	271609	Shaft and Lever - Choke	49	270988	x Diaphragm
16	298514	+ Gasket - Carburetor Body	50	261358	x Spring
17	94152	Float - Carburetor	51	221377	x Cap - Spring
18	491531	Screw - Hex Head Sem (10 - 32 x 3/4)	52	261395	x Spring - Pump
19	231209	Body - Lower Carburetor (Inc. Key No's. 11, 19, 20, 45 & 46)	53	223688	Cover - Diaphragm
20	223370	Bushing - Throttle Shaft	54	93829	Screw - Diaphragm Cover
21	271412	Valve - Throttle	55	271025	x Gasket - Carburetor Pump
22	93897	+ Gasket - Carburetor and Intake Elbow	56	270989	x Diaphragm - Damping
23	93971	Screw - Sem	57	280197	Body - Pump
24	280818	Screw - Hex Head (Carb to Manifold)	58	394501	Gasket Set
25	270884	Crank - Bell	59	394019	Cartridge - Air Cleaner
26	93208	+ Gasket - Intake Manifold Mounting	60	224039	NOTE: USE 271197 GASKET BELOW CARTRIDGE
27	93970	Screw - Intake Manifold Mounting Sem	61	223714	Shield Spitback
28	261587	Screw - Hex Head	62	230896	Cartridge Plate - Air Cleaner
29	280319	Link - Throttle	63	394681	+ Pin - Float Hinge
30	213290	Spacer - Carburetor	64	231339	+ Valve - Fuel Inlet
31	93949	Manifold Assembly - Intake	65	280474	Jet - Needle Valve
		Screw - Sem	66	490207	O-Ring
			67	262375	Crank, Bell
			68	393397	Link
			73	491539	Repair Kit - Pump
			74	94298	Carburetor Overhaul Kit
			75	223882	Nut - Square
			76	262337	Washer
			77	94297	Spring - Compression
			78	491282	Screw - Panhead
			79		Bracket - Speed Control

\*INCLUDED IN GASKET SET - PART NO. 394501

+INCLUDED IN CARBURETOR OVERHAUL KIT - PART NO. 491539

xINCLUDED IN CARBURETOR OVERHAUL KIT - PART NO. 491539 AND PUMP REPAIR KIT - PART NO. 393397

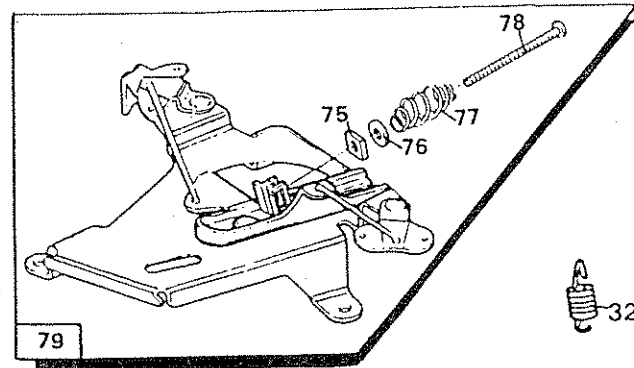


# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR ENGINE--MODEL NUMBER 400707, TYPE NUMBER 1211-01

### AIR CLEANER AND CARBURETOR

ALL ENGINE PARTS MUST BE PURCHASED THROUGH AND SERVICE PERFORMED BY YOUR LOCAL BRIGGS AND STRATTON DEALER.

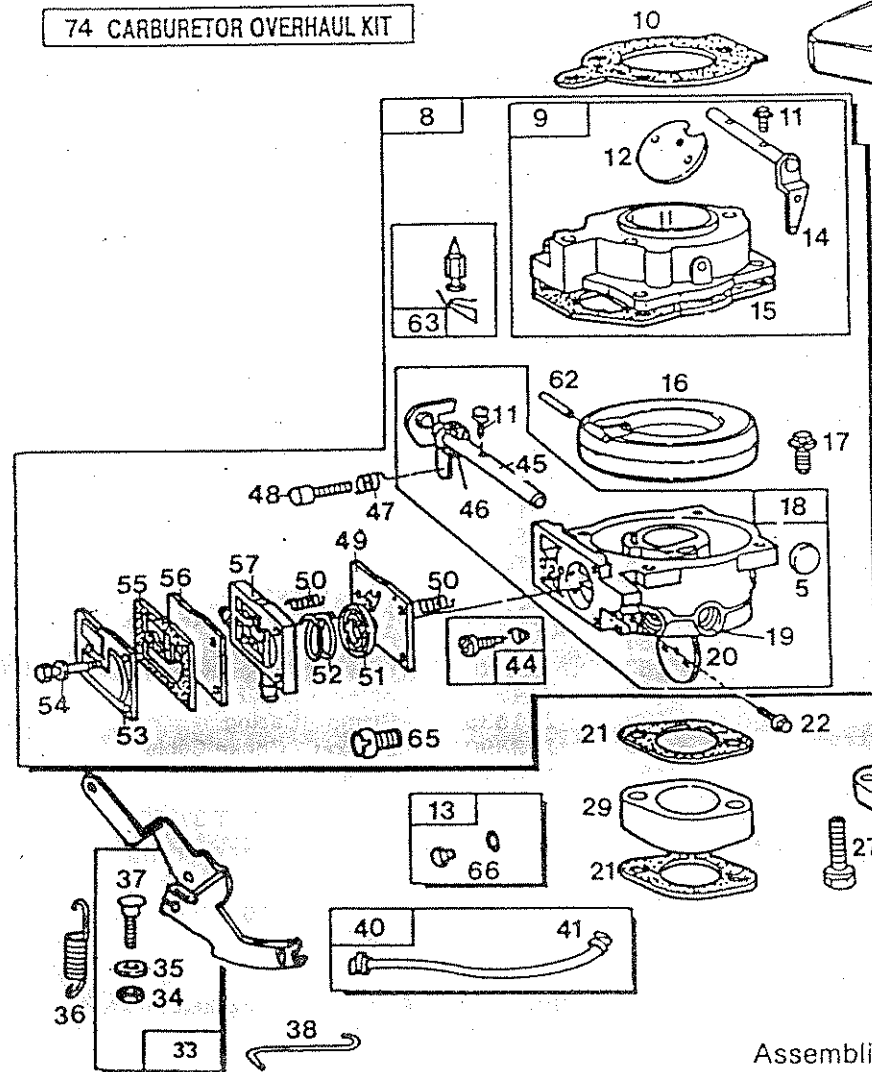
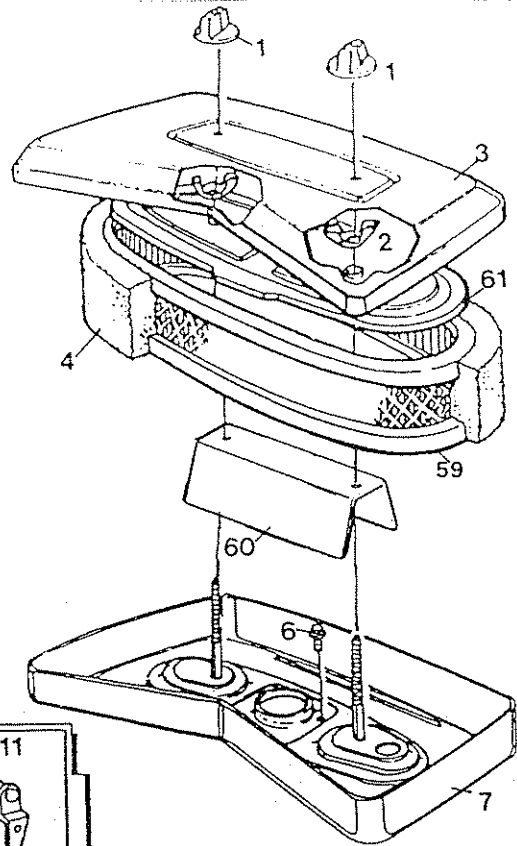


79

58 GASKET SET

73 PUMP REPAIR KIT

74 CARBURETOR OVERHAUL KIT



Assemblies include all parts shown in frames.

# TRACTOR MAINTENANCE INSTRUCTIONS

Mower Maintenance is listed on page 18. To keep your tractor running better, longer, perform necessary service using the following Maintenance Schedule.



DISCONNECT SPARK PLUG WIRES TO PREVENT ACCIDENTAL STARTING BEFORE MAKING ANY INSPECTION, ADJUSTMENT OR REPAIR (EXCEPT CARBURETOR). BE CAREFUL TO AVOID TOUCHING HOT MUFFLER OR ENGINE COMPONENTS.

## DAILY MAINTENANCE

Make sure all nuts and bolts are tight and cotter pins are secure. Observe all safety precautions. Keep Tractor well lubricated (refer to page 15).

## FIRST 2 HOURS

### 1. CHANGE ENGINE OIL

Changing Oil after the first two hours will help eliminate break-in residue which might be damaging to your Engine. NOTE: BE CAREFUL NOT TO ALLOW DIRT TO ENTER THE ENGINE WHEN CHANGING OIL.

- Drain Oil with Engine warm. Loosen Oil Drain Plug (Fig. 14) and remove dipstick (Fig. 13). Catch Oil in a suitable container. Replace Plug.
- Refill Engine Oil. (See chart, page 6) Refill capacity is 3 pints. NOTE: DO NOT OVERFILL. Replace Dipstick.

## DAILY OR EVERY 8 HOURS

### 1. CHECK ENGINE OIL LEVEL

NOTE: DO NOT CHECK ENGINE OIL LEVEL WITH ENGINE RUNNING.

Wipe dipstick (Fig. 13). clean, push it down tight for a few seconds, remove and read Oil Level. If necessary, add Oil until "FULL" mark is reached. (See chart, page 6). NOTE: DO NOT OVERFILL.

## EVERY 25 HOURS

### 1. CHECK BRAKE OPERATION

This Tractor is with an adjustable disc Brake mounted on the right side of the transaxle (Fig. 16).



IF TRACTOR REQUIRES MORE THAN SIX FEET STOPPING DISTANCE AT HIGHEST SPEED THEN BRAKE MUST BE ADJUSTED.

NOTE: A 1/2 INCH WRENCH AND A FEELER GAUGE ARE REQUIRED TO ADJUST BRAKE.

- Depress Clutch/Brake Pedal and engage Parking Brake.
- Measure distance between Brake Operating Arm and Nut "A" on Brake Rod.
- If distance is other than 1-1/2", loosen Jam Nut (Fig. 16) and turn Nut "A" until distance becomes 1-1/2". Retighten Jam Nut against Nut "A".
- Engage Parking Brake and recheck distance. Road test Tractor for proper stopping distance as stated above. Readjust if necessary.

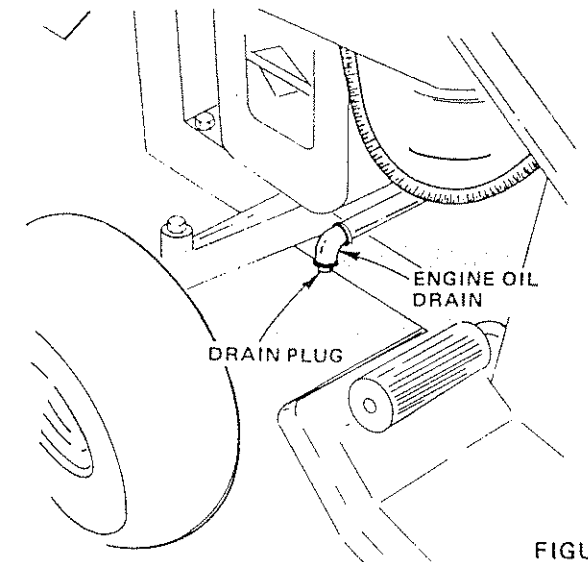


FIGURE 14

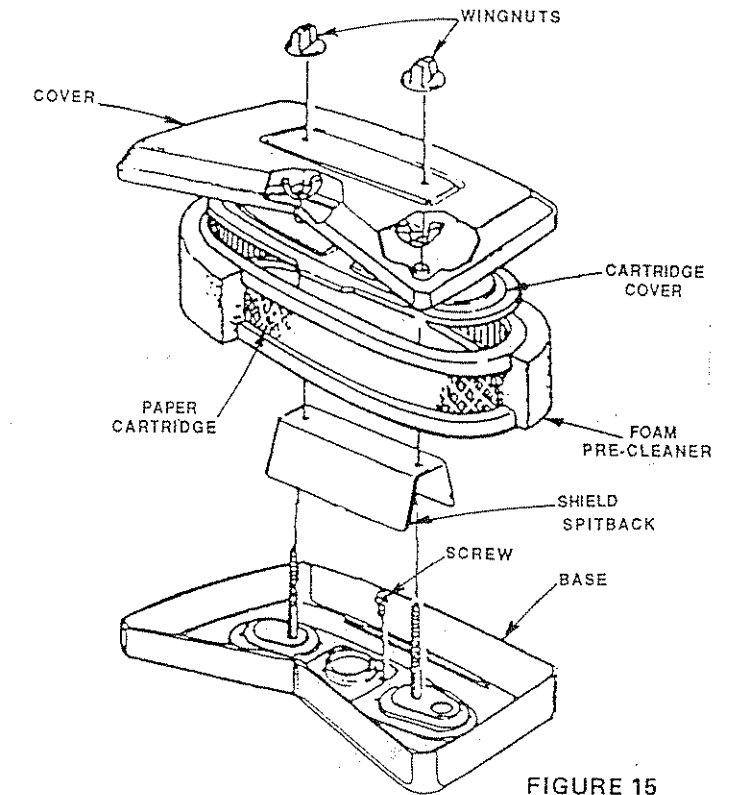


FIGURE 15

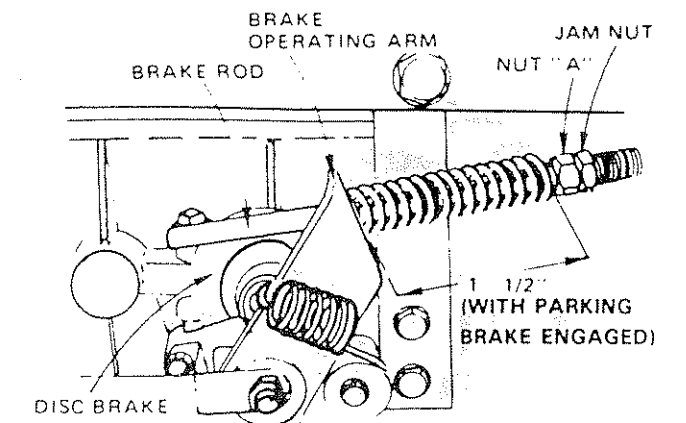


FIGURE 16

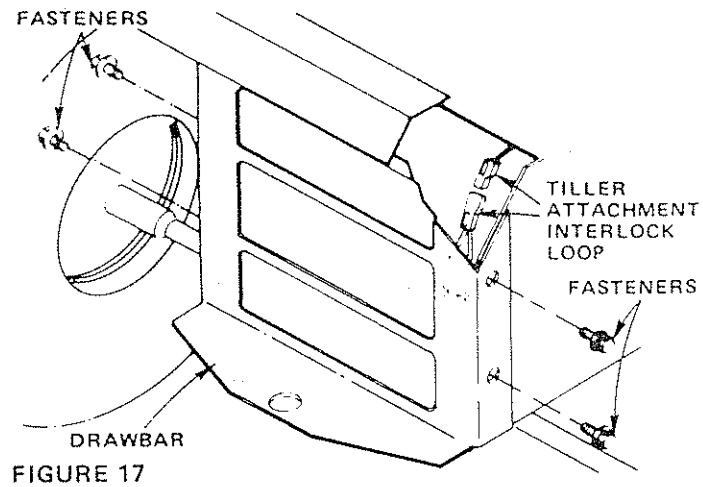


FIGURE 17

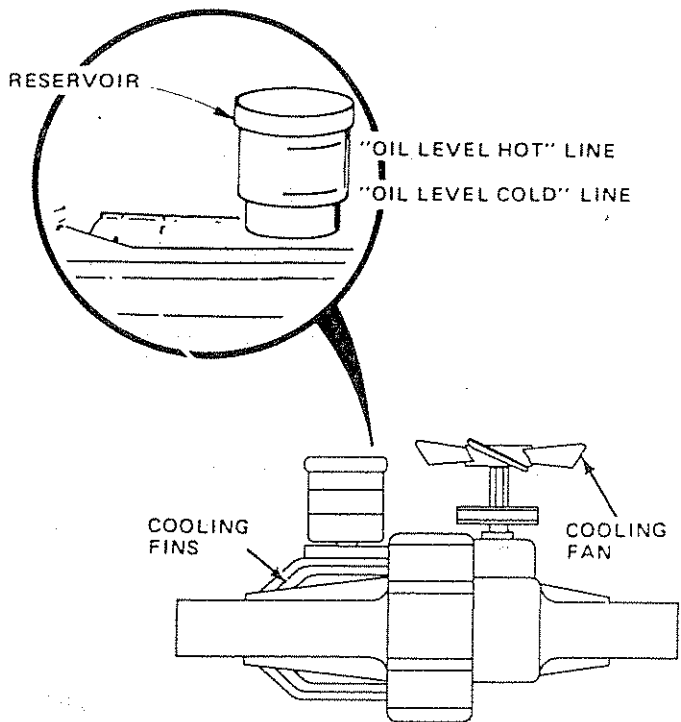


FIGURE 18

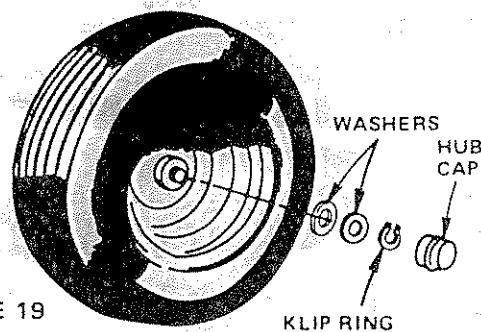


FIGURE 19

**2. CHECK PUMP ASSEMBLY FLUID LEVELS**  
**NOTE: BEFORE CHECKING OIL LEVEL, CLEAN RESERVOIR AND CAP WITH CLOTH TO REMOVE DUST OR GRASS CLIPPINGS.**

- Using a 9/16" wrench to remove 4 fasteners to remove Drawbar (Fig. 17).
- Disconnect Tiller Attachment Interlock Loop (Fig. 17).
- Check for proper fluid level in reservoir.
- Fluid level should be above the "OIL LEVEL COLD" line
- Remove cap on reservoir, and bladder (Fig. 18), and fill to "Oil Level Cold" line with SAE 10W30.  
**NOTE: RESERVOIR CAP IS REMOVED WITH A CLOCKWISE ROTATION.**
- Replace Cap until snug (Do not over tighten).

**3. CHECK HYDROSTATIC TRANSMISSION COOLING**

DO NOT ATTEMPT TO CLEAN FAN OR TRANSMISSION WHILE ENGINE IS RUNNING OR WHILE HYDROSTATIC TRANSMISSION IS HOT.

- Inspect Cooling Fan (Fig. 18) to assure fan blades are intact and clean.
- Inspect Coolings Fins (Fig. 18) for dirt, grass clippings and other material that could hinder fan air from properly cooling transmission.
- Thoroughly clean the Coolings Fins with a cloth, brush or compressed air.

**4. TIRE CARE**

- Maintain tire pressure in front at 14 PSI and rear tires at 10 PSI.
- Keep tires free of gasoline, oil, or insect control chemicals which can destroy rubber.
- Avoid stumps, stones, deep ruts and other hazards that may cause tire damage.
- Removing front wheel for tire repair (Fig. 19).
  - Block up front axle securely
  - Remove Hub Cap, Klip ring and Washer to allow wheel removal
  - Repair tire and reassemble. Replace washers and snap Klip Ring securely in axle groove. Replace Hub Cap.
- Removing rear wheel for tire repair.
  - Block up rear axle securely.
  - Remove Hub Cap, Klip Ring and Washers to allow wheel removal.
  - Repair tire and reassemble. Replace Tire, Washers, Klip Ring and Hub Cap.

**WHEN MOUNTING TIRES, UNLESS BEADS ARE SEATED, OVERINFLATION CAN CAUSE A FATAL EXPLOSION.**

**REPAIR PARTS**

**14 H.P. HYDROSTATIC YARD TRACTOR**

**ENGINE--MODEL NUMBER 400707, TYPE NUMBER 1211-01**

**CYLINDER, CRANKSHAFT AND ENGINE BASE GROUP**

KEY NO	PART NO.	DESCRIPTION	KEY NO	PART NO.	DESCRIPTION
1	90576	Nut - Hex 8 - 32	40	94296	Retainer - E-Ring
4	27803	*Gasket - Valve Cover	41	491287	Foam Seal - Governor Shaft
5	92791	Washer - Lock, Shakeproof	42	261560	Upper Bushing - Governor
6	222892	Cover - Breather Cylinder No. 2	43	262332	Lower Bushing - Governor
7	93722	Terminal - Spade	44	491530	Crank - Governor
8	93394	Screw - Sem	45	220863	Washer - Governor Crank (Inside)
9	222912	Baffle - Air	46	394501	Gasket Set
10	93777	Screw - Hex Head (Back Plate to Cylinder)	47	271157	Seal - Filler Tube
11	93158	Screw - Sem	48	93469	Screw - Hex Head
12	491247	Housing - Blower	49	212968	Gear - Cam
13	93882	Screw - Crankcase Cover Mtg. Sem	50	222875	Clamp - Oil Filler
14	270981	*Gasket - Crankcase	51	280224	Tube - Oil Filler
15	222860	Cover Plate - Crankcase	52	271170	Seal - Oil Filler Cap
16	261463	+ Seat - Intake Valve (Standard)	53	394020	Cap and Dipstick - Oil Filler
17	210940	+ Seat - Exhaust Valve (Standard)	54	394394	Dipstick and Tube Assembly (Inc. Key No's. 47, 48, 50, 51, 52 & 53)
18	212462	Head - Cylinder No. 2	55	390420	Valve - Exhaust
19	93211	Screw - Cylinder Hd. (2 21/32 Lg.)	56	261528	Valve - Intake
21	93686	Screw - Hex Head (10 - 32 x 5/8)	57	231445	Gear - Timing
22	92290	Washer - Lock (No. 10 x 1/16 x 3/64)	59	26828	Spring - Exhaust Valve
23	393415	Oil Slinger Assembly	60	292260	Rotocoil - Exhaust Valve
24	260924	Lock - Piston Pin	61	93630	Retainer - Exhaust Valve Rotocoil [2]
25	394959	Ring Set - Piston (Standard)	62	221596	Retainer - Intake Valve
25	394960	Ring Set - Piston (.010" O.S.)	63	65906	Spring - Intake Valve
25	394961	Ring Set - Piston (.020" O.S.)	64	261368	Tappet - Valve
25	394962	Ring Set - Piston (.030" O.S.)	65	393382	**Crankshaft
26	394955	Piston Assembly (Standard) (Inc. Key No's. 24 & 25)	66	261961	+ Guide - Exhaust Valve
26	394956	Piston Assembly (.010" O.S.)	67	491730	Cylinder Assembly (Inc. Key No's 77&78)
26	394957	Piston Assembly (.020" O.S.)	68	230318	Connector - Impulse Pump
26	394958	Piston Assembly (.030" O.S.)	69	394539	Plug - Spark (Resistor)-Champion RJ-12 or equivalent
27	299691	Pin Assembly - Piston (Standard) (Inc. Key No. 24)	70	66538	Elbow - Spark Plug
27	391286	Pin Assembly - Piston (.005" O.S.)	71	89838	Wrench - Spark Plug
28	394348	Gear - Governor	72	280225	Tube Breather
29	222773	Washer - Thrust	73	394358	Filter - Fuel (In Fuel Line to Tank)
30	393270	Rod Assembly - Connecting (Inc. Key No's. 31 & 32)	74	212461	Head - Cylinder No. 1
31	92909	Screw - Connecting Rod	75	271867	*Gasket - Cylinder
32	223882	Washer, Governor Crank	76	491304	Back Plate Assembly
33	291675	Seal - Oil	77	399265	+ Bearing - Cylinder
34	91084	Plug - Oil Drain	78	391086	Seal - Oil
35	393552	Base Assembly - Crankcase	79	391115	Wire - Ground
36	271868	*Gasket - Cylinder Head No. 2	80	299146	Line - Fuel (Inc. Key No. 81)
37	271142	*Gasket - Crankcase Cover (1/64" thick)	81	93053	Clamp - Fuel Line
37	271188	*Gasket - Crankcase Cover (.005" thick)	82	393370	Breather Assembly No. 1
37	271189	*Gasket - Crankcase Cover (.009" thick)	83	93496	Screw - Hex Hd.
38	222698	Key - Flywheel	84	221535	Clamp - Casing
39	93585	Screw - Hex Hd. Sem	85	223890	Bracket - Choke Cable
			86	491260	Label Kit

\*INCLUDED IN GASKET SET 394501  
 +SPECIAL TOOLS REQUIRED TO INSTALL

\*\*Order 94196 Key for Timing Gear Retaining Device

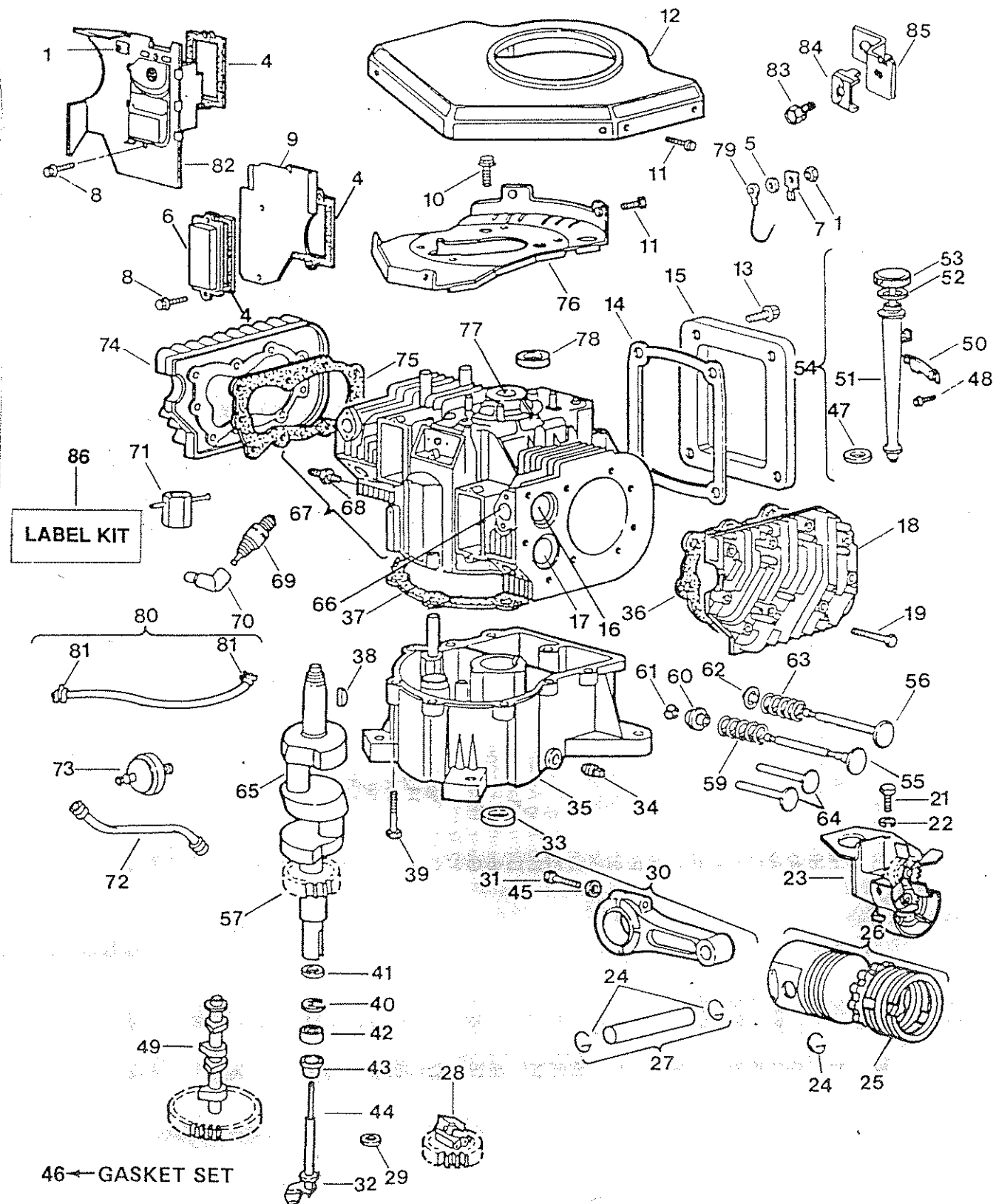
Key 66 NOTE: 231218 Guide Intake (Brass)

# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR ENGINE--MODEL NUMBER 400707, TYPE NUMBER 1211-01

CYLINDER, CRANKSHAFT AND ENGINE BASE GROUP

ALL ENGINE PARTS MUST BE PURCHASED THROUGH AND SERVICE PERFORMED BY YOUR LOCAL BRIGGS AND STRATTON DEALER.



### EVERY 50 HOURS

**WEAR SAFETY GLASSES IF USING COMPRESSED AIR.**

- CLEAN AIR SCREEN**  
Air Screen (Fig. 21) must allow free-flow of air to prevent engine damage from overheating. Clean with a wire brush, compressed air or water pressure to remove dirt, chaff, stubborn dried gum and fibers.
- CLEAN ENGINE COOLING SYSTEM**  
Grass, oil or dirt may clog the air cooling system, especially after prolonged service cutting dry grasses. To avoid overheating and engine damage, remove the Blower Housing and clean the area shown in Fig. 21. (Inset)
- LUBRICATE STEERING AND FRONT WHEELS**  
There is a grease fitting on each front wheel and axle spindle. Using a grease gun: give each grease fitting two shots of Extreme Pressure Lubricating Grease Amdex No. 1 or equivalent (Fig. 22).
- OIL PIVOT POINTS**  
Place several drops of S.A.E. 30 Oil at points where parts move against each other, especially:
  - Hood Hinges
  - Foot Pedal Shaft (both ends)
  - Lift Shaft (both ends)

SEE LUBRICATION CHART, PAGE 15.

- CHECK BATTERY**
  - Battery acid level in each battery cell should be even with bottoms of tubes in cells (Fig. 23). Add distilled water if necessary. **NOTE: DO NOT OVERFILL.**
  - Keep Battery and Terminals clean. Refer to step 6.
  - Keep Battery Bolt tight.
  - Keep Vent Caps tight and small vent holes in Caps open.
  - Recharge at 6 amperes for 1 hour.
- CLEAN BATTERY AND TERMINALS**  
Corrosion and dirt on the Battery and Terminals cause the Battery to "Leak" power and hinders the operation of the charging system.
  - Remove the Battery from the Tractor and wash with four tablespoons of baking soda to one gallon of water. **NOTE BE CAREFUL NOT TO GET THE SODA SOLUTION INTO THE CELLS.** Rinse the Battery with plain water, dry and reinstall on Tractor.
  - Clean terminals and cable ends with a wire brush until bright. Replace Battery Cables. Coat terminal connections with Petroleum Jelly
- CLEAN AIR CLEANER FOAM PRE-CLEANER (FIG. 15). (OPERATING IN DUSTY CONDITIONS MAY REQUIRE MORE FREQUENT SERVICING)**
  - Remove Wing Nuts and Cover.
  - Remove Foam Pre-Cleaner element by sliding it off of the Paper Cartridge.
  - Wash Foam Pre-Cleaner in liquid detergent and water.
  - Wrap Foam Pre-Cleaner in cloth and squeeze dry.
  - Saturate Foam Pre-Cleaner in engine oil. Squeeze to remove excess oil.
  - Install Foam Pre-Cleaner over Paper Cartridge. Reassemble Cover and Screw down tight.

Yearly or every 100 hours, whichever occurs first, remove Paper Cartridge. (Service more often if necessary). Clean by tapping gently on flat surface. If very dirty, replace Cartridge.

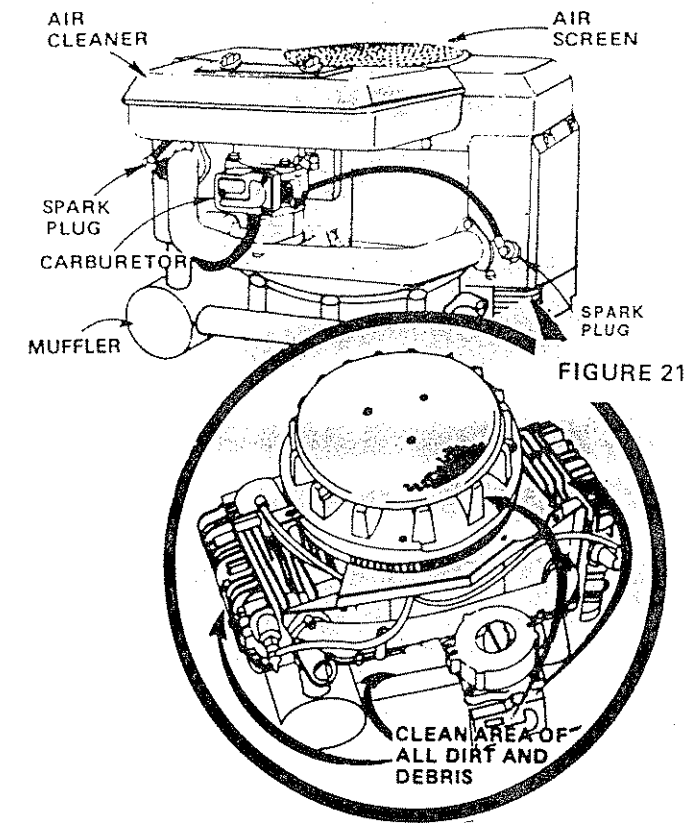


FIGURE 21

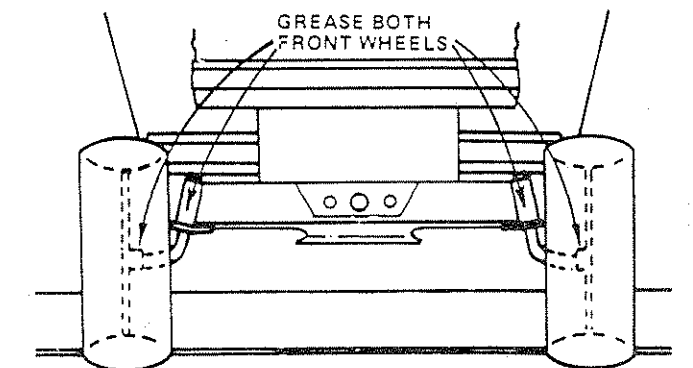


FIGURE 22

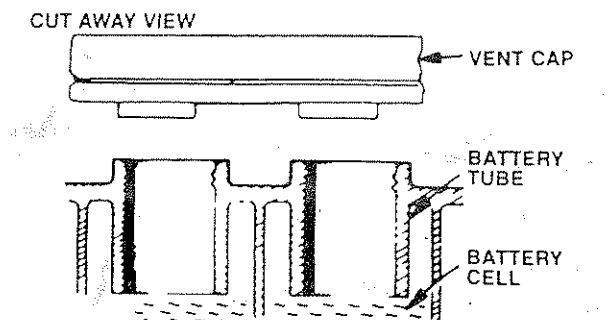


FIGURE 23

**CAUTION: PETROLEUM SOLVENTS ARE NOT TO BE USED TO CLEAN PAPER CARTRIDGE. THEY MAY CAUSE DETERIORATION OF THE CARTRIDGE. DO NOT OIL PAPER CARTRIDGE. DO NOT USE PRESSURIZED AIR.**

**NOTE: NEVER RUN ENGINE WITH AIR CLEANER REMOVED.**

### 8. CHANGE ENGINE OIL

The best time to drain Engine oil is at the end of a day's operation when all dirt and foreign materials are suspended in the hot Oil. See oil chart, page 6.

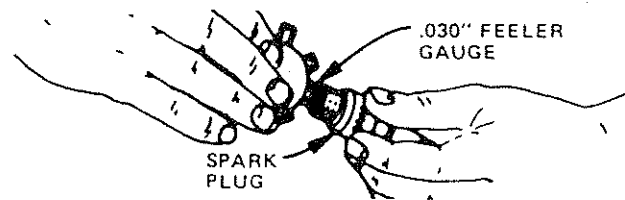


FIGURE 24

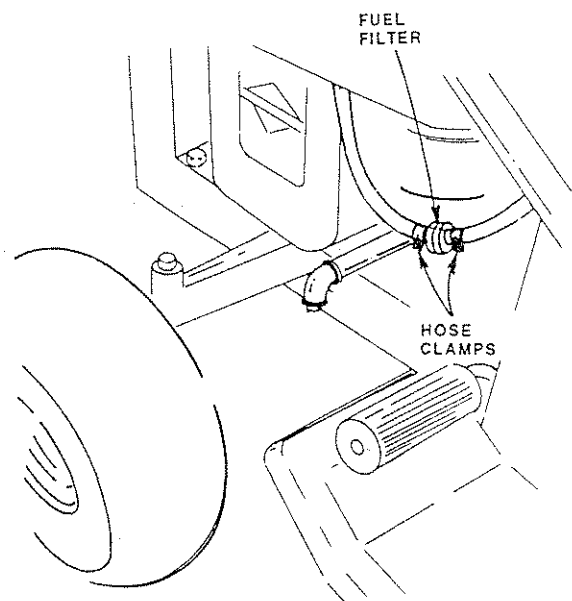


FIGURE 25

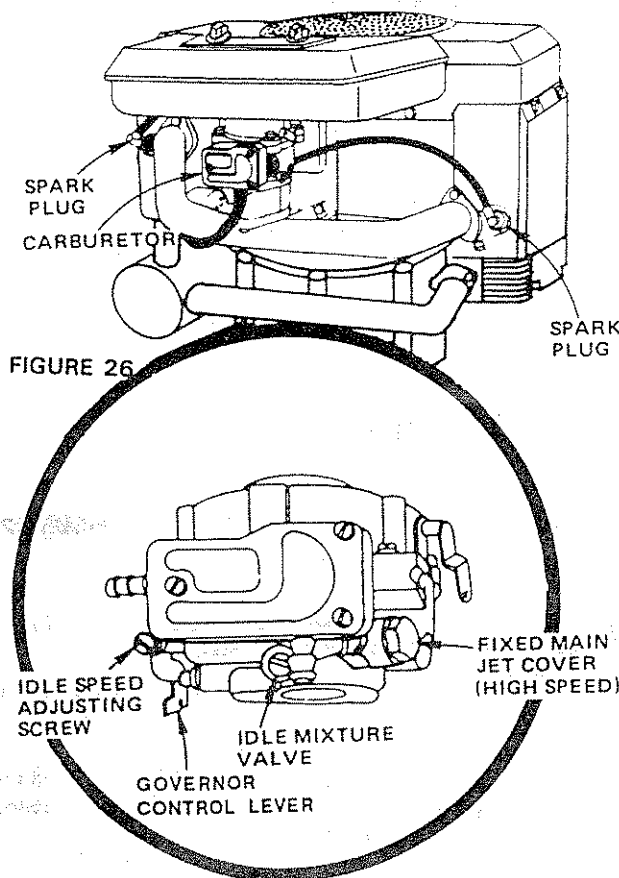


FIGURE 26

**9. MUFFLER**

Do not operate the tractor without Muffler (Fig. 21) or tamper with the exhaust system. Damaged Mufflers or spark arresters could create a fire hazard. Inspect periodically and replace if necessary. If your engine is equipped with a spark arrester screen assembly, remove every 50 hours for cleaning and inspection. Replace if damaged.

**EVERY 100 HOURS**

1. **REPLACE SPARK PLUGS**  
Replace Spark Plugs at the beginning of each season or every 100 hours, whichever comes first. Gap should be set at .030 INCH (Fig. 24).
2. **REPLACE AIR CLEANER PAPER CARTRIDGE**  
Refer to step 7, under Every 50 Hours.
3. **REPLACE AIR CLEANER FOAM PRE-CLEANER**  
Refer to Step 7, under Every 50 Hours.

**EVERY 200 HOURS**

1. **REPLACE IN-LINE FUEL FILTER**
  - a. With Engine cool, remove Hose Clamps from Fuel Lines at Fuel Filter (Fig. 25)
  - b. Remove filter and plug Fuel Line Sections as removed from both ends of Fuel Filter. (Fig. 25)
  - c. Place New Fuel Filter in position with fuel line (arrow on side of filter in direction of Fuel Flow) and reinstall Hose Clamps.

**BE SURE THERE ARE NO FUEL LINE LEAKS AND THAT HOSE CLAMPS ARE PROPERLY INSTALLED.**

**AS NEEDED**

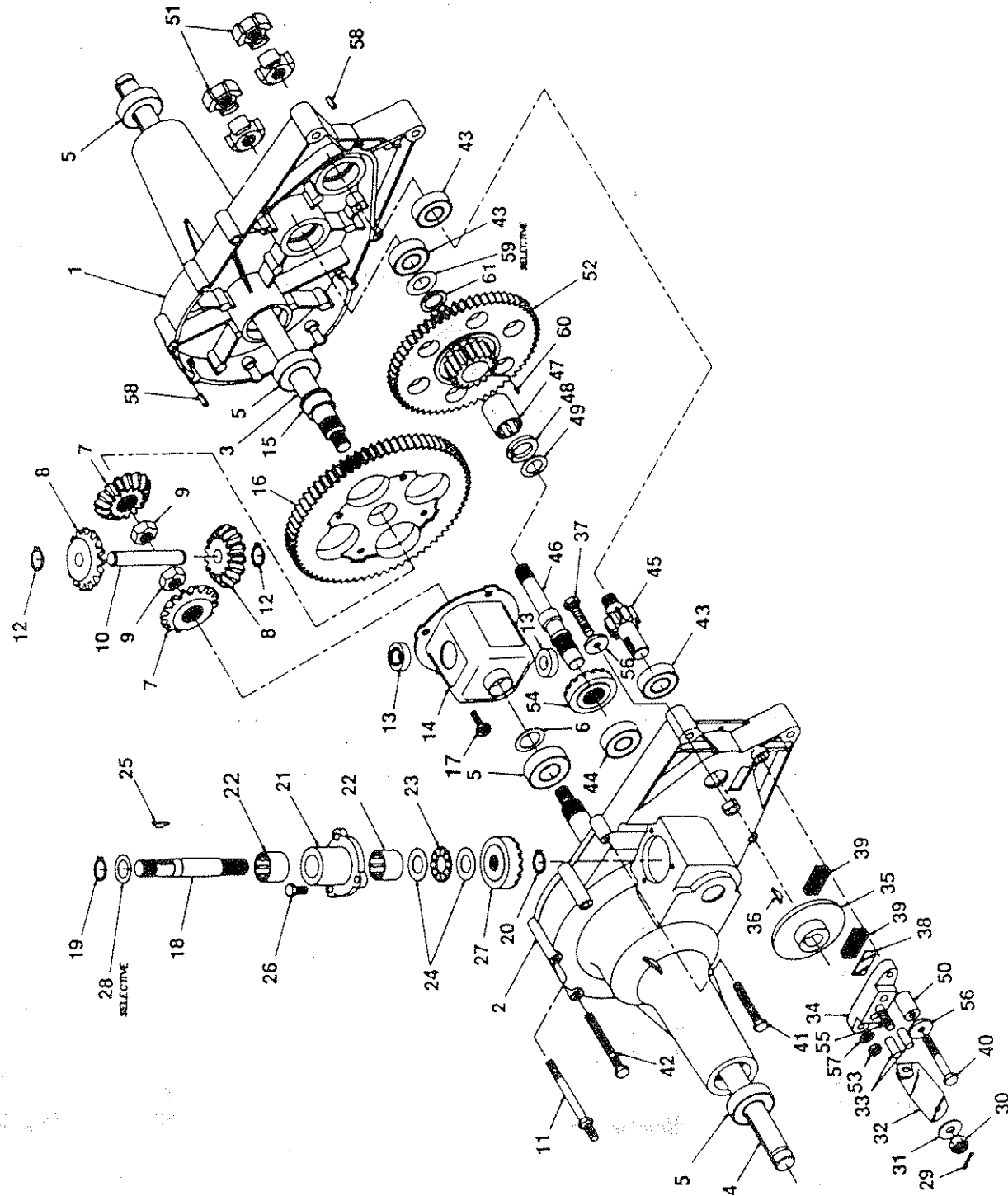
1. **THROTTLE CONTROL CABLE ADJUSTMENT**  
Never attempt to change maximum engine speed. This is preset at the factory (3600± 100 rpm) and should only be changed by a qualified service technician who has the necessary equipment.
  - a. Remove hood, page 21.
  - b. Loosen casing clamp screw until throttle cable is free to move.
  - c. Move throttle control (on the dashboard) to "Fast" position.
  - d. Pull throttle cable tight (until swivel is against side of quarter circle below carburetor.) Retighten casing clamp screw.
2. **CARBURETOR ADJUSTMENT**  
NOTE: ADJUST THROTTLE CONTROL CABLE BEFORE MAKING ANY ADJUSTMENT TO CARBURETOR. AIR CLEANER MUST BE ASSEMBLED TO CARBURETOR WHEN RUNNING ENGINE.  
Minor carburetor adjustments may be required to compensate for differences in fuel, temperature or altitude. Adjust the carburetor fuel mixture as follows:
  - a. Gently turn the idle mixture valve clockwise (↻) Fig. 26 until it just closes and then counterclockwise (↺) 1-1/2 turns. CAUTION: Valve may be damaged if turned in too far.
  - b. Start engine and allow to warm for five minutes. Make final adjustments with engine running and choke pushed in.

**REFER TO "STARTING THE ENGINE" PAGE 7.**

KEY NO.	PART NO.	DESCRIPTION
30	122658X	Nut, Castle 5/16 - 24
31	122659X	Washer, Flat .343 x .88 x .062
32	122660X	Arm, Brake Actuator
33	122662X	Pin, Brake Actuating
34	122663X	Brake, Yoke
35	122664X	Disc, Brake
36	123065X	Key 3/16 x 5/8
37	122666X	Screw, Hex 1/4 - 20 x 1.50
38	122667X	Plate, Puck
39	122668X	Puck, Brake
40	123066X	Screw, Hex W/Patch 1/4 - 20 x 2.00
41	122670X	Screw, Hex Self-Tap 1/4 - 20 x 2.00
42	122671X	Screw, Hex Self-Tap 1/4 - 20 x 3.00
43	122672X	Bearing, Ball
44	122673X	Bearing, Ball
45	122674X	Shaft, Pinion N/11 Tooth Gear
46	122675X	Shaft, Drive
47	123059X	Bearing, Needle
48	123060X	Bronze Thrust Brg. 5/8 x 1-1/4 x 7/64
49	122654X	Washer, Flat .62 - 1.0 x .040
50	122689X	Spacer
51	121839X	Coupling
52	122681X	Gear, 60 & 17 Tooth
53	122682X	Nut, Hex 1/4 - 20
54	122683X	Gear, Drive Pinion 17 Tooth
55	122684X	Bolt, Square Head
56	122685X	Washer 15/16 x .265 x .125
57	122686X	Washer 1/4" Spring Lock
58	122687X	Pin, Roll 3/16" x 1/2" Lg.
59	122687X	Washer, Flat 5/8 x 1 - 1/8 x .060
60	123061X	Washer, Flat 5/8 x 1 x .050
61	123062X	Pin, Dowel 3/32 x 1/4
---	---	Seal, Grease
---	---	Transaxle Assy. Complete
---	---	121431X

**REPAIR PARTS**  
**14 H.P. HYDROSTATIC YARD TRACTOR**  
TRANSAXLE: 486.R121431X

KEY NO.	PART NO.	DESCRIPTION
1	122614X	Housing, Half L.H.
2	122615X	Housing, Half R.H.
3	122616X	Axle L.H.
4	122620X	Axle R.H.
5	122621X	Bearing, Ball
6	122622X	Washer, Flat 3/4 x 1-1/8 x .030
7	122623X	Gear, Miter
8	122624X	Gear, Miter
9	122625X	Nut, hex Jam W/ Patch 1/2 - 20
10	122626X	Shaft, Cross
11	122688X	Screw, Stud
12	122629X	Snap Ring
13	122631X	Bearing, Thrust
14	122633X	Housing Assembly, Differential
15	122634X	Bearing, Flange
16	122640X	Gear, Differential
17	122641X	72 Tooth
18	122642X	Screw, Pan hd. W/Patch 1/4 - 20 x .500 Lg.
19	122643X	Shaft, Input
20	122644X	Snap, Ring
21	122645X	Retaining Ring 7/16"
22	122646X	Housing, Input Bearing
23	122647X	Bearing, Needle
24	122648X	Bearing, Thrust
25	122649X	Washer, Flat 5/8 x 1-1/8 x .030
26	122650X	Key #4, 3/32 x 5/8
27	122651X	Screw, Hex W/Patch 1/4 x 3/4
28	122652X	Gear, Input Pinion 17 Tooth
29	122653X	Washer, Flat .62 - 1.0 x .030
---	---	Washer, Flat .62 - 1.0 x .020
---	---	Washer, Flat .62 - 1.0 x .040
---	---	Pin, Cotter
---	---	122656X



- Move throttle control lever (on the dashboard) to "SLOW" position.
- Hold governor control lever against idle Adjusting Screw and adjust idle speed screw to obtain 1200 to 1400 rpm. (Fig. 26A).
- While still holding the governor control lever against idle stop, turn idle mixture valve slowly clockwise (↻) (lean mixture) until speed just starts to slow. Then turn valve slowly counter-clockwise (↺) (rich mixture) until speed just starts to slow.
- Turn idle mixture valve back to the midpoint between rich and lean.
- Adjust the idle speed screw to obtain 900 to 1200 rpm. Release governor control lever.
- Move throttle control (on the dashboard) to "FAST". If engine hesitates or dies, turn idle mixture valve approximately 1/8 turn counterclockwise (↺) until engine will accelerate as throttle control is moved from "SLOW" to "FAST".

NOTE: ALL ABOVE SPEED AND FUEL MIXTURE ADJUSTMENTS MUST BE DONE WITH THE GOVERNOR CONTROL LEVER HELD AGAINST THE IDLE SPEED SCREW AND AT SPEEDS NOTED, AND CHOKE PUSHED IN.

### 3. REPLACE TRACTOR MOTION DRIVE BELT

Park the tractor on level area. Engage Parking Brake.

NOTE: BELT INSTALLATION DECAL UNDER LEFT FOOT REST

- Remove Mower (See Mower Section) (Page 20).
  - Remove Belt from Stationary Idler (Fig. 27).
  - Pull belt over top of Clutching Pulley.
  - Release Parking Brake. Pull Belt over top of Clutching Pulley (Fig. 27).
  - Place top side of Belt between blades of fan and rotate fan (Fig. 28). Remove Belt from Input Pulley (Fig. 28).
  - Using a 9/16" wrench, remove Clutch Locator (Fig. 27 - Inset).
  - Disconnect Clutch Wire Harness. Rotate Clutch housing and Remove belt from ground drive pulley and belt keepers.
  - Install Belt by reversing above procedure. NOTE: REPLACE ONLY WITH BELT LISTED IN REPAIR PARTS SECTION OF THIS MANUAL.
- ### 4. CLEAN BATTERY AND TERMINALS
- Corrosion and dirt on the Battery and Terminals cause the Battery to discharge.



**LEAD-ACID BATTERIES GENERATE EXPLOSIVE GASES. KEEP SPARKS, FLAME, AND SMOKING MATERIALS AWAY FROM BATTERIES. ALWAYS SHIELD YOUR EYES AROUND BATTERIES.**

- Remove Terminal Guard (Fig. 29).
- Disconnect BLACK Battery Cable first then RED Battery Cable and remove Battery from Tractor. Wash Battery with four tablespoons of baking soda to one gallon of water. NOTE: BE CAREFUL NOT TO GET THE SODA SOLUTION INTO CELLS. Rinse the Battery with plain water, dry, and reinstall on Tractor.
- Clean Terminals and Battery Cable ends with a wire brush until bright. Replace Battery Cables, connecting RED Battery Cable to Positive Terminal first, then BLACK Battery Cable to Negative Terminal (Fig. 29). Coat Terminal Connections with Vaseline.
- Replace Terminal Guard.

### 5. FINISH

Keep tractor finish area and seat free of gasoline, oil, insect chemicals or battery acid (electrolyte). Protect painted surfaces with automotive type wax.

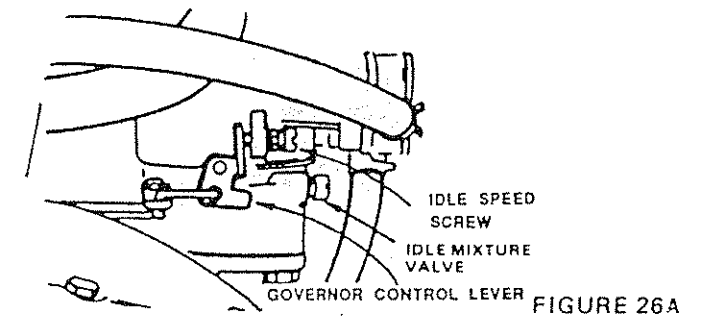


FIGURE 26A

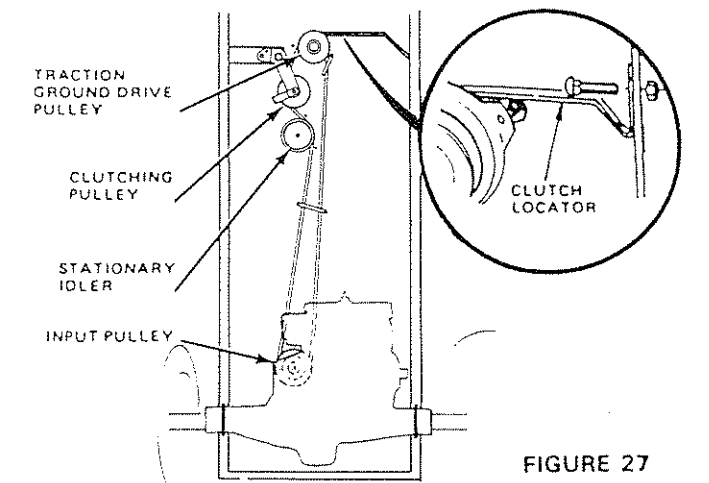


FIGURE 27

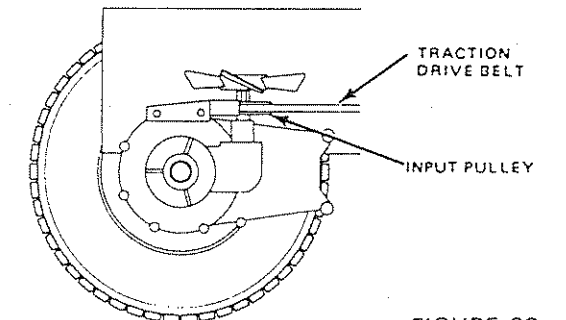


FIGURE 28

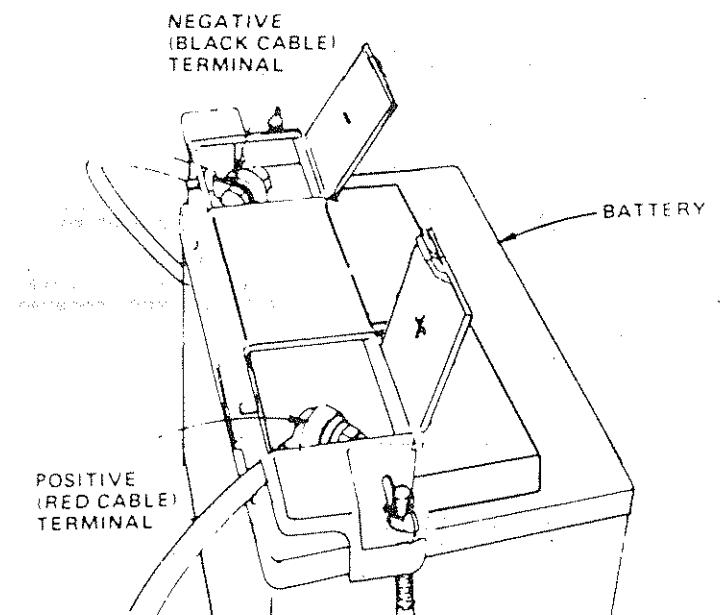


FIGURE 29



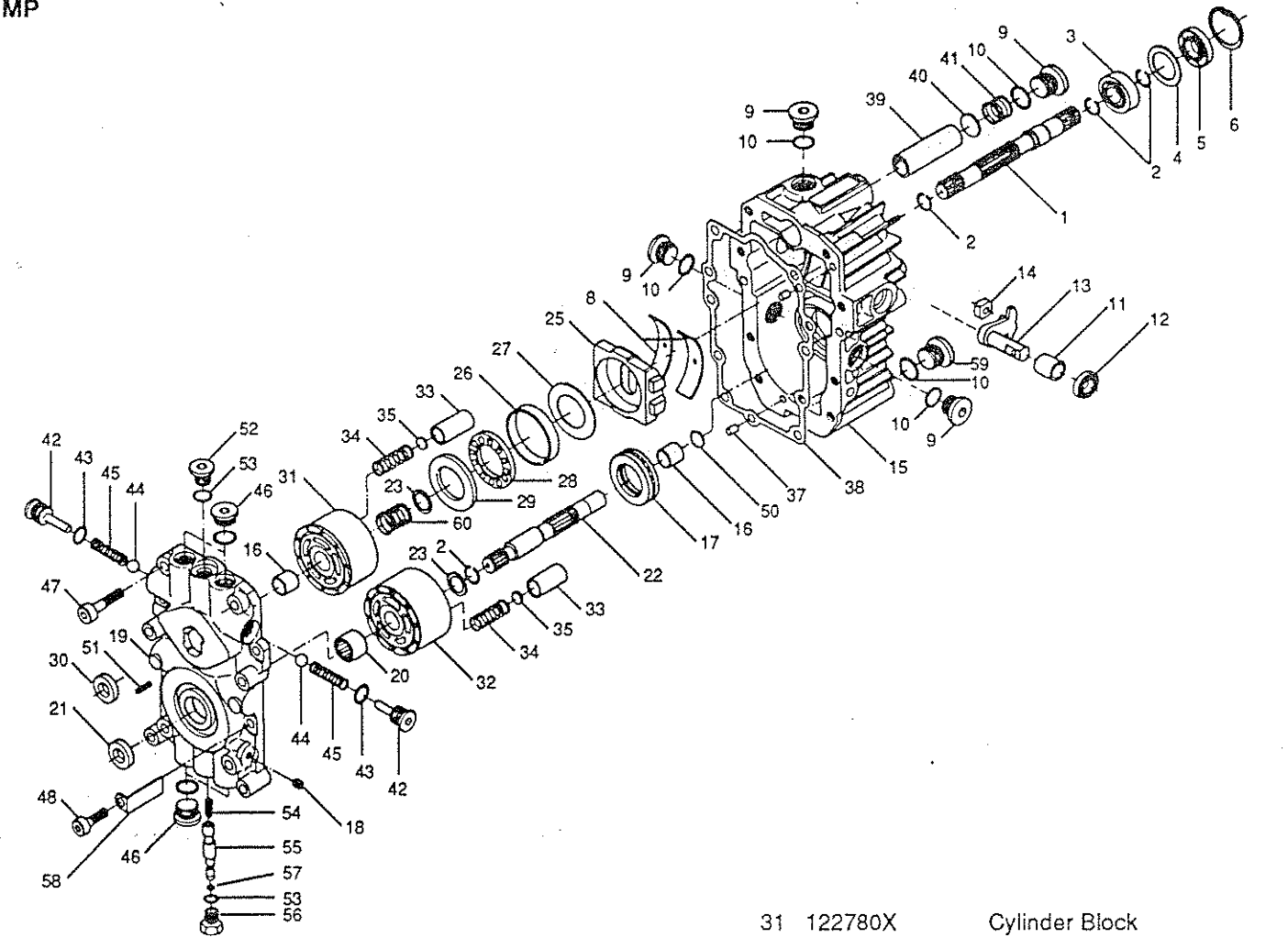
# TROUBLESHOOTING

PROBLEM	POSSIBLE REMEDY
WILL NOT START	Fill Tank with Gasoline. Check Fuel Line and Carburetor (clean if necessary) Replace Fuel Filter. Use Fresh Fuel Recharge or replace Battery Check Wiring Replace Spark Plug(s) and adjust gap Drain and replace oil for proper temperature
WILL NOT TURN OVER	Push clutch/brake pedal into brake position Move attachment clutch switch to "disengaged position" Charge Battery Check fuse for fault and replace Check All Wire Connections Replace Ignition Switch Engage Interlock Switch Replace Interlock Switch Replace Solenoid  Reattach Tiller Attachment Wire Loop
ENGINE CLICKS BUT WON'T START	Clean Battery Terminals Replace Solenoid or Starter Charge or Replace Battery Check all wire Connections and "ground" points.
HARD TO START	Place Throttle Control in "FAST" position and run starter several times to clear out gas Remove and clean Tank and lines. Replace Fuel Filter Remove Air Filter and clean Replace Spark Plug(s) and adjust gap Recharge or replace Battery Check the wiring and Spark Plug(s) Drain Fuel Tank and Carburetor, use fresh fuel and replace Spark Plug(s) Make necessary adjustments to Carburetor Major Engine Overhaul Use proper oil for cold weather conditions.
ENGINE MISSES OR LACKS POWER	Shift to a lower gear or reduce load Check Spark Plug(s) and check for loose wires Replace Spark Plug(s) and adjust gap Remove and clean Air Cleaner Clean Air Screen Drain Fuel Tank & Carburetor, use fresh fuel Replace Fuel Filter Make necessary carburetor adjustments Add or change oil Major Engine overhaul
ENGINE OVERHEATS	Clean Air Screen Add or change oil Clean Engine Cooling Fins Remove and clean Muffler or replace Remove and clean Air Filter Use fresh fuel and adjust Carburetor
NO LIGHTS	Check Fuse, Switch and wire connections. Replace headlight bulbs.
WON'T CHARGE	Check fuse for fault and replace Replace Battery Replace Diode Assembly Replace Alternator
OPERATOR PRESENCE SYSTEM WILL NOT SHUT DOWN ENGINE WHEN OPERATOR LEAVES SEAT NOTE: This tractor is equipped with an operator presence sensing system. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut down the engine.	Engage attachment clutch Check all wire connections Check seat switch Check operator presence relay. Check attachment clutch switch.
TRACTOR WILL NOT ADVANCE	Free Wheel Knob is depressed Add fluid to pump Replace motion control drive belt or correct routing Replace clutch spring for traction drive belt
UNSATISFACTORY MOWER PERFORMANCE UNEVEN DISTRIBUTION OF CLIPPINGS	Check air pressure in tires Check front to rear and side to side mower adjustment Use a slower ground speed Replace mower blades Reinstall mower blades with top of blade up Clean underside of mower deck

# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR

### PUMP

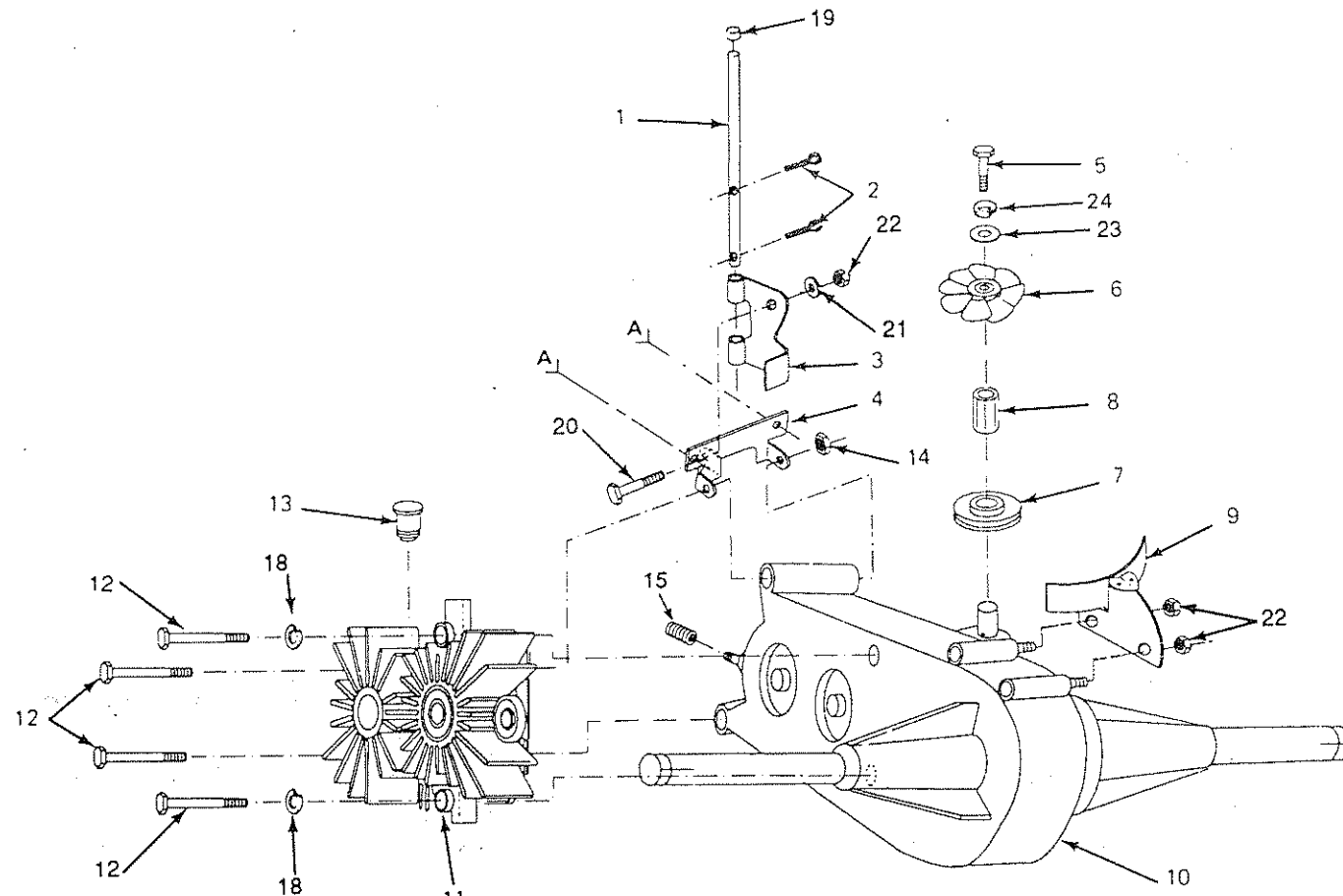


1	122756X	Shaft, Pump Splined 36T	31	122780X	Cylinder Block
2	122716X	Retaining Ring	32	122781X	Cylinder Block
3	122745X	Ball Bearing	33	122782X	Piston
4	122715X	Spacer	34	122784X	Piston, Spring
5	122700X	Seal, Lip, Pump Shaft	35	122785X	Thrust Washer
6	122699X	Retaining Pin	37	122786X	Pin, Std. Hlds.
8	122767X	Cradle Bearing	38	122718X	Gasket
9	122729X	Plug	39	122731X	Filter
10	122746X	O-Ring	40	122730X	Washer, Filter
11	122747X	Journal Bearing - Trunnion	41	122728X	Spring, Filter
12	122717X	Seal, Lip	42	122706X	Plug, Check Valve
13	122748X	Trunnion Arm	43	122705X	O-Ring
14	122749X	Slot Guide	44	122702X	Ball
15	122768X	Housing	45	122704X	Spring, Check
16	122769X	Journal Bearing	46	122787X	Plug, Std. Thd.
17	122770X	Ball Bearing Assembly	47	122752X	Screw, Socket Hd. M8 x 35
18	122771	Plug, Pipe	48	122753X	Screw, Socket Hd. M8 x 20
19	122772X	Center Section	50	122788X	Washer, Thrust
20	122773X	Needle Bearing	51	122789X	Pin, Spiral
21	122722X	Seal, Lip, Motor Shaft	52	122754X	Plug, Std. Thd.
22	122750X	Shaft, Motor Splined 36 Tooth	53	122711X	O-Ring Bypass Valve
23	122774X	Washer	54	122708X	Spring
25	122775X	Swashplate	55	122709X	Bypass Spool
26	122776X	Bearing Guide	56	122712X	Bypass Plug
27	122777X	Thrust Washer	57	122710X	O-Ring, Bypass Valve
28	122778X	Thrust Roller	58	122727X	Nameplate
29	122779X	Thrust Plate	59	122790X	Plug, Plastic
30	122723X	Seal, Lip, Thru Pump Shaft	60	122791X	Spring
				121430X	Pump Assy. Complete

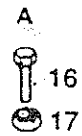
# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR

### DIFFERENTIAL AND PUMP ASSEMBLY

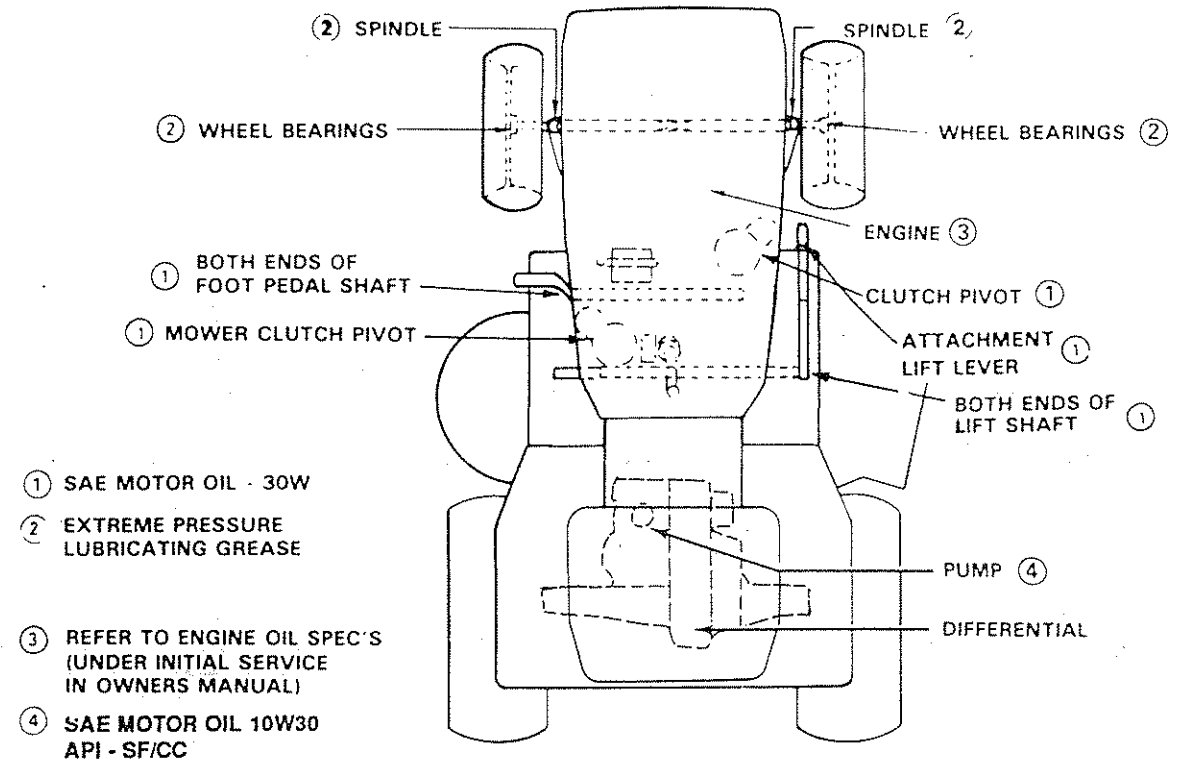


KEY NO.	PART NO.	DESCRIPTION
1	121192X	Rod, Free Wheel Control
2	76020312	Pin, Cotter 3/32 x 3/4
3	121193X	Control, Coast
4	121188X	Bracket, Pnt. Mounting Differential
5	74780412	Bolt, Hex Hd. 1/4" - 20 UNC x 3/4
6	121186X	Fan, Hydro 8"
7	121180X	Pulley, Transaxle
8	121211X	Standoff, Fan Hydro
9	121182X	Guard Assembly, Belt
10		Differential Assembly See pages 44 & 45
11		Pump Assembly See page 43
12	74760572	Bolt, Hex Fin. 5/16 - 18 UNC x 4.5
13	121323X	Reservoir Pump
14	73680500	Nut, Crown Lock 5/16 - 18
15	121250X	Spring, Compression
16	74760612	Bolt, 3/8 - 16 x 3/4
17	73680600	Nut 3/8 - 16 UNC
18	10040500	Lockwasher
19	71673	Cap
20	7605J	Bolt shoulder 1/4 - 20 UNC
21	120529X	Washer, nylon
22	73680400	Nut, Crown lock 1/4 - 20 UNC
23	19092016	Washer 9/32 x 1 - 1/4 x 16 ga.
24	10040400	Washer, Lock 1/4



MOWER BLADES WILL NOT ROTATE	Install new Mower Drive Belt Reinstall Mower Drive Belt Adjust Mower Drive Belt Replace Frozen Mandrel Replace Frozen Idler Pulley
EXCESSIVE MOWER VIBRATION	Replace Bent or Unbalanced Blades Replace Mandrel, Straighten Deck or replace
UNEVEN CUT OR SCALPING	Readjust Mower Replace Blades
WIND ROWING STRIPPING OR DROPPING OF GRASS CLIPPINGS	Let grass dry out Clean underside of Mower Deck Readjust Mower Replace Blades

### LUBRICATION CHART



### STORAGE

#### 1. FUEL SYSTEM

- Drain fuel tank and carburetor by allowing the engine to run out of gasoline.

IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS THE CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE. TO AVOID ENGINE PROBLEMS, THE FUEL SYSTEM SHOULD BE FLUSHED BEFORE STORAGE OF 30 DAYS OR LONGER.

- Dispose of gasoline if not to be used. NOTE: GASOLINE STORED FOR SEVERAL MONTHS LOSES ITS VOLATILITY (ABILITY TO BURN EFFECTIVELY).

#### 2. ENGINE OIL

Drain (with engine warm) and replace with clean engine oil. (See chart, page 6).

#### 3. CYLINDERS

- Remove Spark Plugs.
- Pour one ounce of oil through spark plug holes into cylinders.
- Turn Ignition Key to "START" position for a few seconds to distribute oil.
- Replace with new Spark Plugs.

#### 4. BATTERY

- Remove battery if tractor is not used regularly during winter months. Store in cool, dry place (above 50°F.). CAUTION: A DIRTY BATTERY CAN RUIN A FLOOR. CLEAN BATTERY BEFORE STORAGE.
- Re-charge each month if necessary. NOTE: BATTERIES NOT IN USE FOR SEVERAL MONTHS AND NOT KEPT FULLY CHARGED, PRODUCE SULPHATE DEPOSITS ON PLATES WHICH CANNOT BE REMOVED BY RECHARGING.

#### 5. GENERAL CLEANING

Clean engine, battery, seat, finish, etc. of all foreign matter.

#### 6. STORE IN A CLEAN AND DRY AREA.

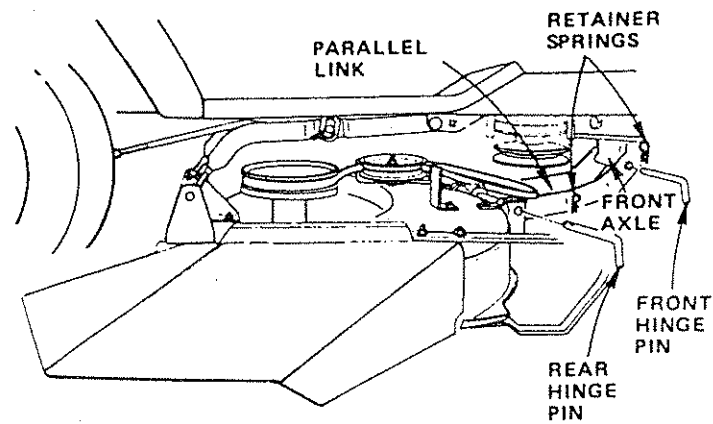


FIGURE 30

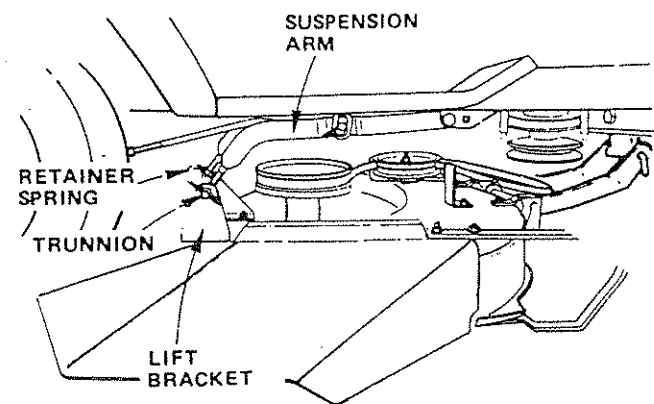


FIGURE 31

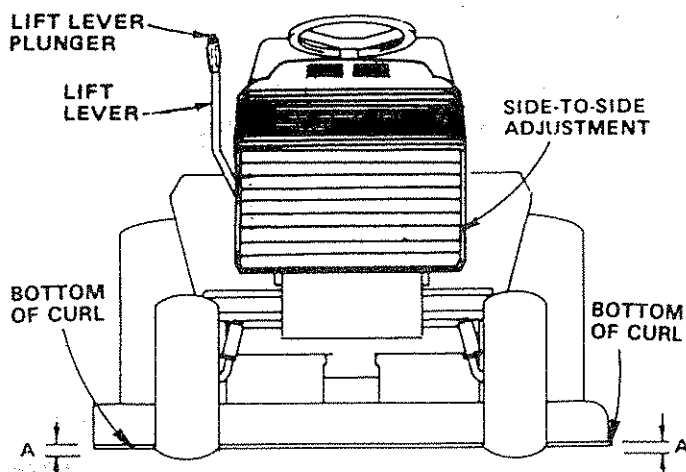


FIGURE 32

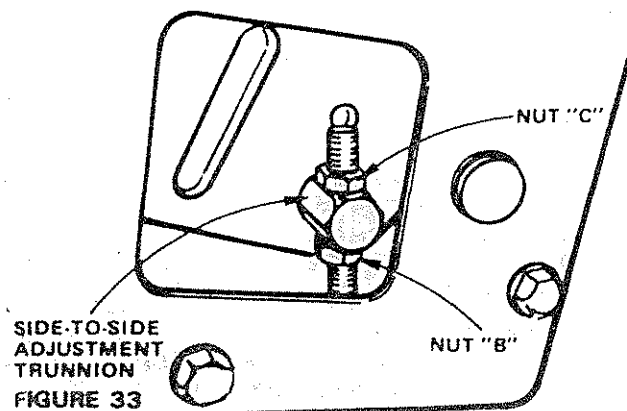


FIGURE 33

## MOWER INSTALLATION

Your 38" Mower installs without the use of tools. Raise Lift Lever to its highest position. Turn Depth Adjustment Knob to lowest position (Fig. 36).

1. Install Front Hinge Pin through Axle and Parallel Link (Fig. 30). Secure with Retainer Spring.
2. Install Rear Hinge pin through Mower Lift Brackets and Parallel Link (Fig. 30). Secure with Retainer Spring.
3. Move Lift Lever forward to lower Suspension Arms. Slide Trunnions through Lift Bracket holes and secure with Retainer Spring (Fig. 31).
4. With belt routed around R.H. Mower Mandrel and Idler Pulley, roll belt over Mower Drive Pulley (Fig. 43) Drive Schematic Decal on Mower Housing.
5. Roll Belt over L.H. Mower Mandrel.
6. Use Lift Lever to raise mower.
7. Turn Depth Adjustment Knob clockwise (↻) to the middle of it's travel.

NOTE: SEE MOWER ADJUSTMENT, BELOW.

### FOR ANY ADJUSTMENTS, INSPECTION OR MAINTENANCE:

1. PUSH TRACTOR CLUTCH/BRAKE PEDAL COMPLETELY INTO "BRAKE" POSITION.
2. MOVE MOTION CONTROL LEVER TO "N" NEUTRAL POSITION.
3. PLACE PARKING BRAKE IN "ENGAGED" POSITION. REMOVE FOOT FROM PEDAL.
4. PLACE ATTACHMENT CLUTCH SWITCH IN "DISENGAGED" POSITION.
5. TURN IGNITION KEY TO "OFF" POSITION.
6. MAKE ABSOLUTELY SURE THE BLADES AND ALL MOVING PARTS HAVE COMPLETELY STOPPED.
7. REMOVE THE IGNITION KEY.
8. DISCONNECT THE SPARK PLUG WIRE FROM THE SPARK PLUG AND KEEP WIRE AWAY FROM THE PLUG TO PREVENT INJURY FROM ACCIDENTAL STARTING. BE CAREFUL TO AVOID TOUCHING HOT ENGINE OR MUFFLER COMPONENTS.

NOTE: BEFORE CHECKING THE SIDE TO SIDE AND FRONT TO REAR ADJUSTMENTS, PAGE 14 AND 16, BE SURE PRESSURE IN FRONT TIRES IS 14 PSI AND PRESSURE IN REAR TIRES IS 12 PSI. IF TIRES ARE OVER OR UNDER INFLATED YOU WILL NOT PROPERLY ADJUST YOUR MOWER.

### DEPTH ADJUSTMENT (Fig. 36)

Adjustment for mower height is made with the Depth Adjustment Knob. Raise mower cutting height by turning Depth Adjustment Knob clockwise (↻). Lower Mower cutting height by turning Depth Adjustment Knob counterclockwise (↺).

### LEVEL MOWER FROM SIDE TO SIDE

(SEE MOWER ADJUSTMENT, ABOVE)

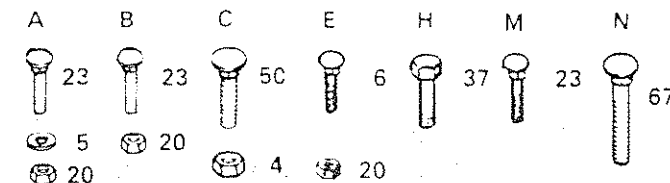
1. Park tractor on level surface. Depress Lift Lever Plunger and use Lift Lever to raise mower to maximum cutting height.
2. Measure height from bottom of curl to ground level at front of mower. Distance "A" should be the same on both side of mower (Fig. 32).
3. If distance "A" needs to be changed, snap out Access hole Cover on L.H. Side above Footrest. Use 9/16" wrench on Nuts "B" and "C" at side-to-side adjustment Trunnion (Fig. 33).

## REPAIR PARTS

### 14 H.P. HYDROSTATIC YARD TRACTOR MOWER

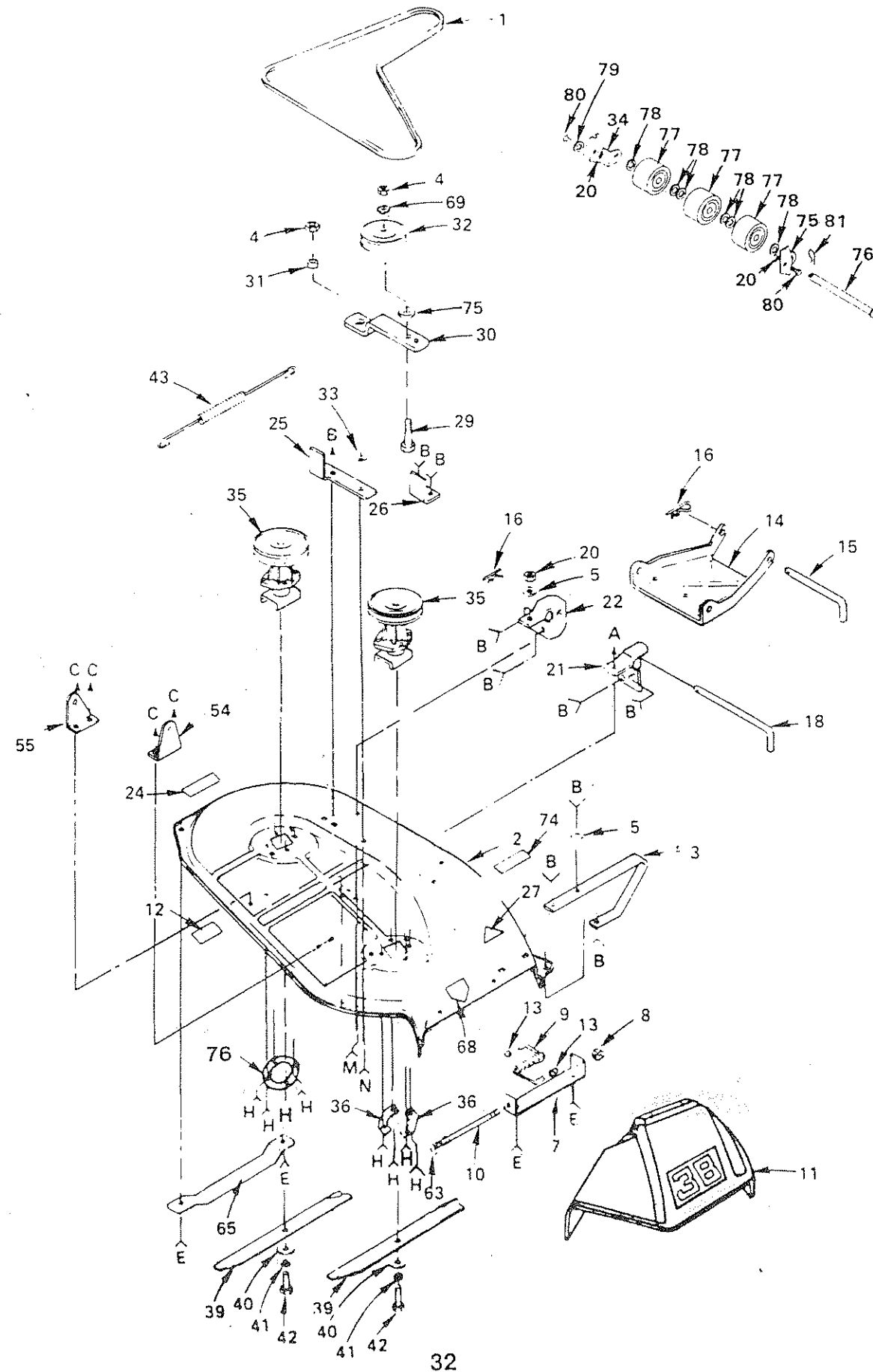
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	106085X	V-Belt	37	17490612	Screw, Hex Washer Hd. 3/8 - 16 x 3/4
2	108672X	Housing	39	121263X	Blade, 38"
3	8417J	Runner, R.H.	40	19132012	Washer 13/32 x 1-1/4 x 12 Ga.
4	73680600	Nut, Lock 3/8 - 16	41	10030600	Washer, Lock 3/8
5	19111216	Washer 11/32 x 3/4 x 16 Ga.	42	74610624	* Bolt, Hex 3/8 - 24 x 1-1/2 Gr. 5
6	72140505	Bolt, Carriage 5/16 - 18 x 5/8	43	102727X	Spring, Extension
7	105896X	Bracket, Deflector	50	72140606	* Bolt, Carriage 3/8 - 16 x 3/4
8	110452X	Nut	54	105857X	Bracket, Susp., Rear, R.H.
9	106734X	Spring, Deflector	55	108673X	Bracket, Susp., Rear, L.H.
10	106735X	Rod, Hinge	63	19111016	Washer 11/32 x 5/8 x 16 Ga.
11	106736X	Deflector, Shield	65	7631J	Runner, L.H.
12	108682X	Decal	67	72140610	Bolt, Carriage 3/8 - 16 x 1-1/4
13	105304X	Cap	68	121349X	Decal - Warning
14	105662X	Link, Parallel	69	19131316	Washer 13/32 x 13/16 x 16 Ga.
15	105744X	Pin - Hinge, Front	75	19131210	Washer 13/32 x 3/4 x 10 Ga.
16	4921H	Spring - Retainer	76	110445X	Plate, Support Mandrel
18	109835X	Pin - Hinge, Rear	77	109776X	Pin, Pivot
20	73680500	Nut, Lock 5/16 - 18	78	109729X	Roller, Nose
21	109598X	Bracket, Lift, R.H.	79	19151610	Washer 15/32 x 1 x 10 Ga.
22	109597X	Bracket, Lift, L.H.	80	19161616	Washer 1/2 x 1 x 16 Ga.
23	72140506	* Bolt - Carriage 5/16 - 18 x 3/4	81	74760512	Bolt, Hex 5/16 - 18 x 3/4
24	109820X	Instruction - Caution Decal	82	76020412	Cotter Pin 1/8 x 3/4
25	109503X	Support Arm	83	73680500	Nut, Lock 5/16 - 18
26	109504X	Stop, Deck, Front	84	109646X	Bracket, Nose Roller L.H.
27	---	** Decal - Safety Standard	85	109647X	Bracket, Nose Roller R.H.
29	74760637	* Bolt 3/8 - 16 x 2			
30	108674X	Arm, Idler			
31	106902X	Spacer			
32	121316X	Pulley, Idler			
33	106513X	Washer, Wear 1/16"			
35	121676X	Mandrel Assembly			
36	100668L	Plate, Support, Mandrel			

\*STANDARD HARDWARE--PURCHASE LOCALLY  
\*\*NOT SERVICED



# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR MOWER



- To raise left side of mower, loosen Nut "B" and tighten Nut "C".
  - To lower left side of mower, loosen Nut "C" and tighten Nut "B".
- NOTE: ONE ROTATION OF ADJUSTMENT NUT IS EQUIVALENT TO APPROXIMATELY 3/16" HEIGHT CHANGE.
- Be sure all Nuts are securely tightened, NOTE: SEE MOWER ADJUSTMENT, FRONT-TO-REAR.

### ADJUST MOWER FROM FRONT TO REAR

- To obtain the best cutting results, your Mower Housing should be adjusted so the Front and Rear Flange distance "D" (Fig. 34) is 1/2" lower in front when the mower is positioned in the highest cutting position. NOTE: MEASURE DISTANCE "D" FROM GROUND LEVEL TO BOTTOM OF CURL ON RIGHT REAR FLANGE AND COMPARE TO DISTANCE "D" ON RIGHT FRONT FLANGE.
- To raise rear of mower, loosen Nut "E" on both Rear Suspension Arms. Screw both Nuts "F" up EQUAL NUMBER OF TURNS (Fig. 35).
- When distance "D" is 1/2" lower at front than at rear, tighten Nut "E".
- To lower rear of mower, loosen Nut "F" on both Rear Suspension Arms an EQUAL NUMBER OF TURNS (Fig. 35).
- When distance "D" is 1/2" lower at front than rear, retighten Nuts "E".

NOTE: WHEN ADJUSTING REAR SUSPENSION TRUNNIONS, ALWAYS ADJUST BOTH EQUALLY SO MOWER WILL STAY LEVEL.

### OPERATION - MOWER

**READ THE "RULES FOR SAFE OPERATION" CAREFULLY BEFORE OPERATING YOUR MOWER.**

THE MOWER MUST BE ADJUSTED PROPERLY FROM FRONT TO REAR AND LEVELED FROM SIDE TO SIDE BEFORE OPERATING. THIS IS NECESSARY FOR LEVEL AND EFFICIENT MOWING. REFER TO PAGES 14 & 15.

- Place Attachment Clutch Switch in "DISENGAGED" position (Fig. 37).
- Push tractor Clutch/Brake Pedal fully into "BRAKE" position.
- Place Motion Control Lever in "N" (neutral) position.

NOTE: CLUTCH/BRAKE PEDAL MUST BE DEPRESSED AND ATTACHMENT CLUTCH SWITCH IN "DISENGAGED" POSITION BEFORE TRACTOR WILL START.

- Start tractor and set engine speed to about 1/3 to 1/2 throttle before engaging mower. After mower is "ENGAGED" and you have started forward travel, set to FULL THROTTLE.

**NEVER "ENGAGE" MOWER EXCEPT WHEN SITTING ON TRACTOR SEAT.**

**NOTE: THIS TRACTOR IS EQUIPPED WITH AN OPERATOR PRESENCE SENSING SWITCH. ANY ATTEMPT BY THE OPERATOR TO LEAVE THE SEAT WITH THE ENGINE RUNNING AND THE ATTACHMENT CLUTCH ENGAGED WILL SHUT OFF THE ENGINE.**

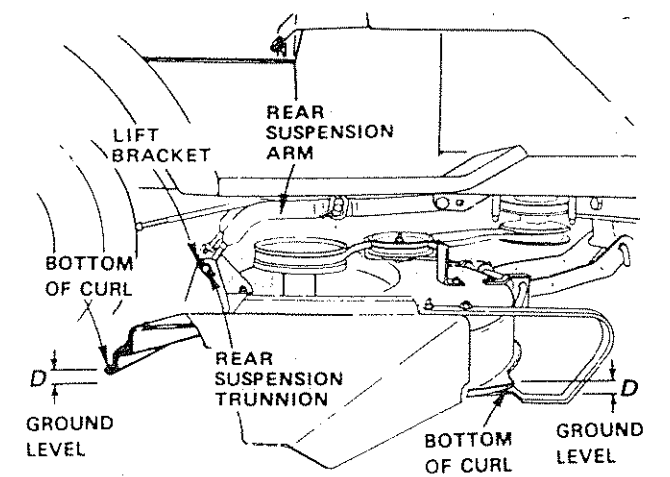


FIGURE 34

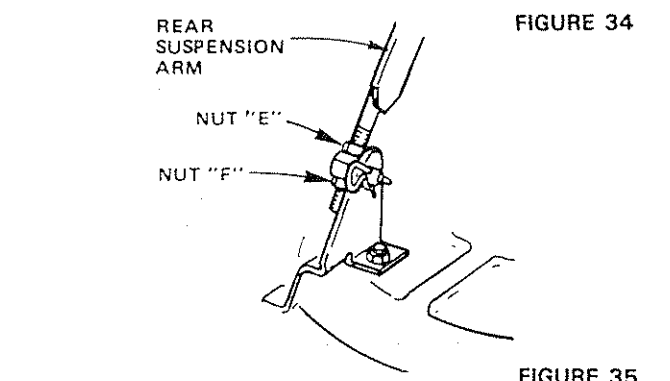


FIGURE 35

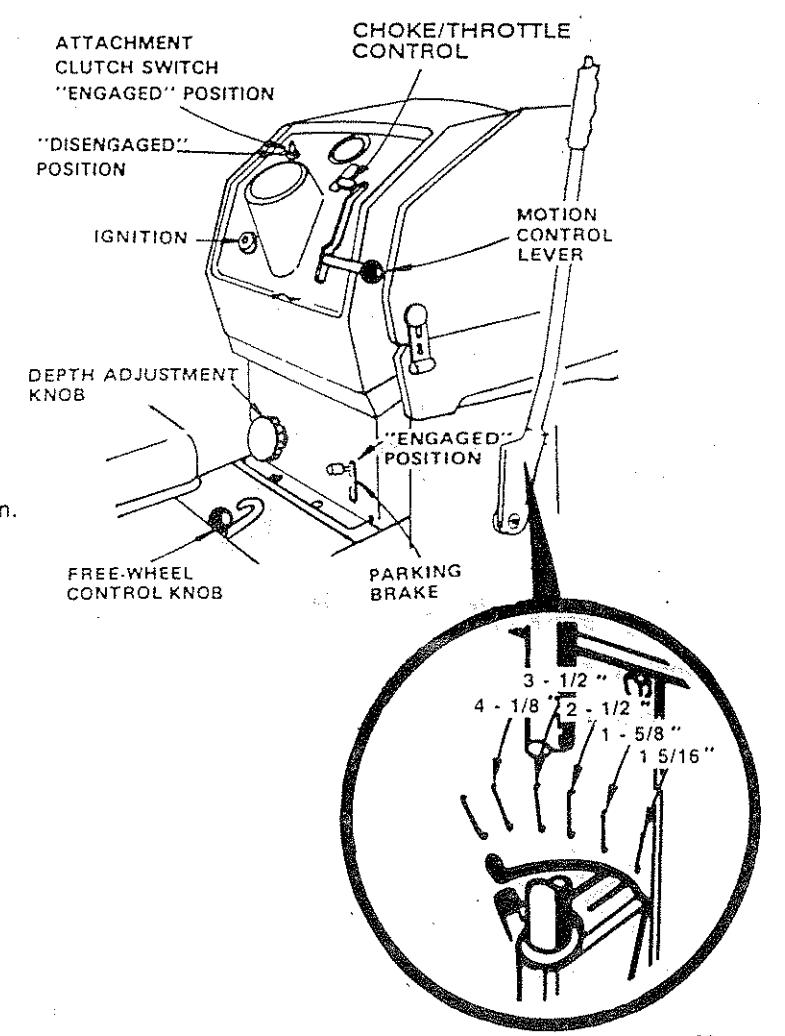


FIGURE 36

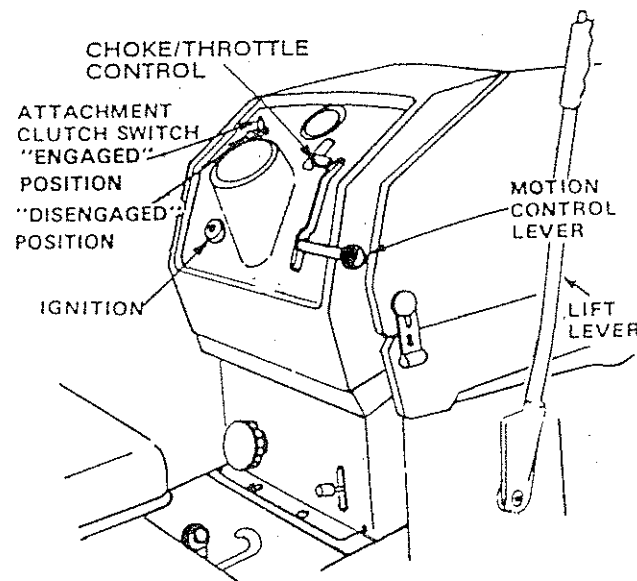


FIGURE 37

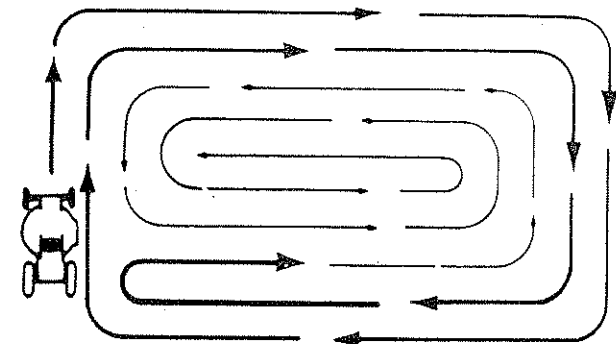


FIGURE 38

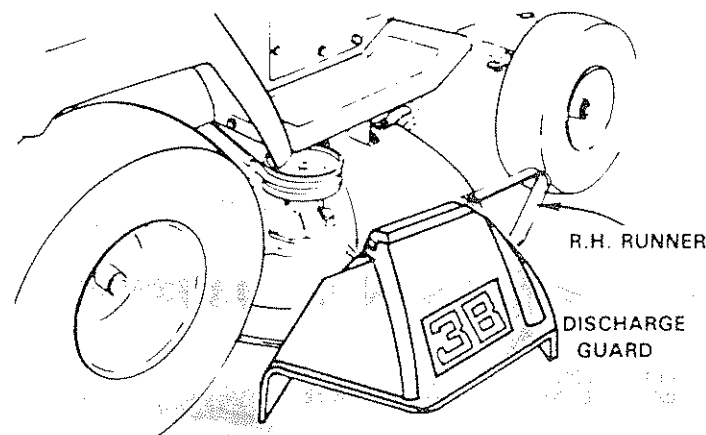


FIGURE 39

NOTE: ALWAYS MOW WITH THROTTLE CONTROL IN "FAST" POSITION. THIS RESULTS IN BETTER GRASS CUT, BETTER ENGINE COOLING, AND BETTER FUEL ECONOMY.

- Use Lift Lever to lower mower into cutting position. Start mowing in the slow speed and increase speed as ground conditions will permit. Average cutting height is approximately 2-1/2 to 2-3/4 inches. Height of cut can be adjusted by means of the Depth Adjustment Knob (Fig. 36). Moving the Knob clockwise (↻) raises the mower (Fig. 36). Moving the knob counterclockwise (↺) lowers the mower.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting. When mowing large areas (Fig. 38) start by turning to the right so that the clippings will be discharged away from shrubs, fences, driveways, etc. After *one or two* rounds, mow in the opposite direction making left hand turns until finished. If grass is extremely tall, it should be mowed twice. The first time cut relatively high. The second time to the desired height. The left hand side of mower should be used for trimming. Use the Runner on the right hand side as guide; the blade cuts approximately an inch outside the runner (Fig. 39).
- Do not mow tall, dry grass over 6 inches tall. It is a fire hazard.

### FLIP-UP DISCHARGE GUARD

Your mower has a flip-up Discharge Guard (Fig. 39) for door or gate clearance when held in raised position.



MAKE SURE ATTACHMENT CLUTCH SWITCH IS IN "DISENGAGED" POSITION AND BLADES HAVE STOPPED BEFORE RAISING DISCHARGE GUARD (DEFLECTOR). NEVER OPERATE MOWER WITHOUT DISCHARGE GUARD IN OPERATING POSITION.

### MAINTENANCE - MOWER

BEFORE MAKING ANY INSPECTION, ADJUSTMENT OR REPAIR:

- PUSH TRACTOR CLUTCH/BRAKE PEDAL COMPLETELY INTO BRAKE POSITION.
- MOVE MOTION CONTROL LEVER TO NEUTRAL POSITION.
- PLACE PARKING BRAKE IN "ENGAGED" POSITION. REMOVE FOOT FROM PEDAL.
- PLACE ATTACHMENT CLUTCH SWITCH IN "DISENGAGED" POSITION.
- TURN IGNITION KEY TO "OFF" POSITION.
- MAKE ABSOLUTELY SURE THE BLADES AND ALL MOVING PARTS HAVE COMPLETELY STOPPED.
- REMOVE THE IGNITION KEY.
- DISCONNECT THE SPARK PLUG WIRES FROM THE SPARK PLUGS AND KEEP WIRES AWAY FROM THE SPARK PLUGS TO PREVENT INJURY FROM ACCIDENTAL STARTING. BE CAREFUL TO AVOID TOUCHING HOT ENGINE OR MUFFLER COMPONENTS.

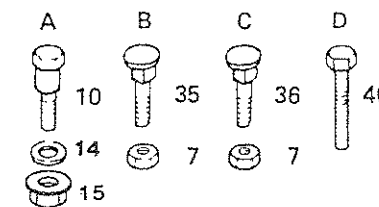
## REPAIR PARTS

### 14 H.P. HYDROSTATIC YARD TRACTOR

#### LIFT ADJUSTMENT

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	121891X	Knob, Depth Adjustment	20	110029X	Link - Lift
2	110807X	*Nut - Hex Special	21	121001X	Shaft - Lift
3	110729X	Rod - Adjust - Lift	22	110448X	Link - Lift - Adjust
4	76020308	Pin - Cotter 3/32 x 1/2	23	110447X	Trunnion - Lift
5	2876H	Spring	24	73710700	Nut - Lock 7/16 - 20UNF
6	19131016	Washer 13/32 x 5/8 x 16 Ga.	25	12000037	Klip Ring
7	73680600	Nut - Lock 3/8 - 16	26	105864X	Bracket - Suspension
8	19151216	Washer 15/32 x 3/4 x 16 Ga.	27	121252X	Upstop - Mower
9	110810X	Trunnion	28	121600X	Arm - Suspension - R.H.
10	105848X	Bolt - Shoulder 3/8 - 16	29	9135R	Retainer - Spring
11	109413X	Grip - Handle	30	106308X	Trunion - Lift - Lower
12	105723X	Plunger - Lever	32	73220800	*Nut - Hex Fin. 1/2 - 13
13	121004X	Lever - Lift (Includes Key No. 17)	33	121601X	Arm - Suspension - L.H.
14	110739X	Spring Washer	34	12000022	E-Ring
15	73980600	Center Lock Flangenut 3/8 x 16	35	72140608	Bolt - Carriage 3/8 - 16 x 1
16	4939M	Retainer - Spring	36	72140608	*Bolt - Carriage 3/8 - 16 x 3/4
17	121006X	Rod - Lever	37	19292016	Washer 29/32 x 1 - 1/4 x 16 Ga.
18	4921H	Retainer - Spring	38	73350600	Nut - Hex Jam 3/8 - 16
19	19171516	Washer 17/32 x 15/16 x 16 Ga.	39	73360700	Nut - Hex Jam 7/16 - 20
			40	74780624	Bolt - Hex 3/8 - 16 x 1 - 1/2

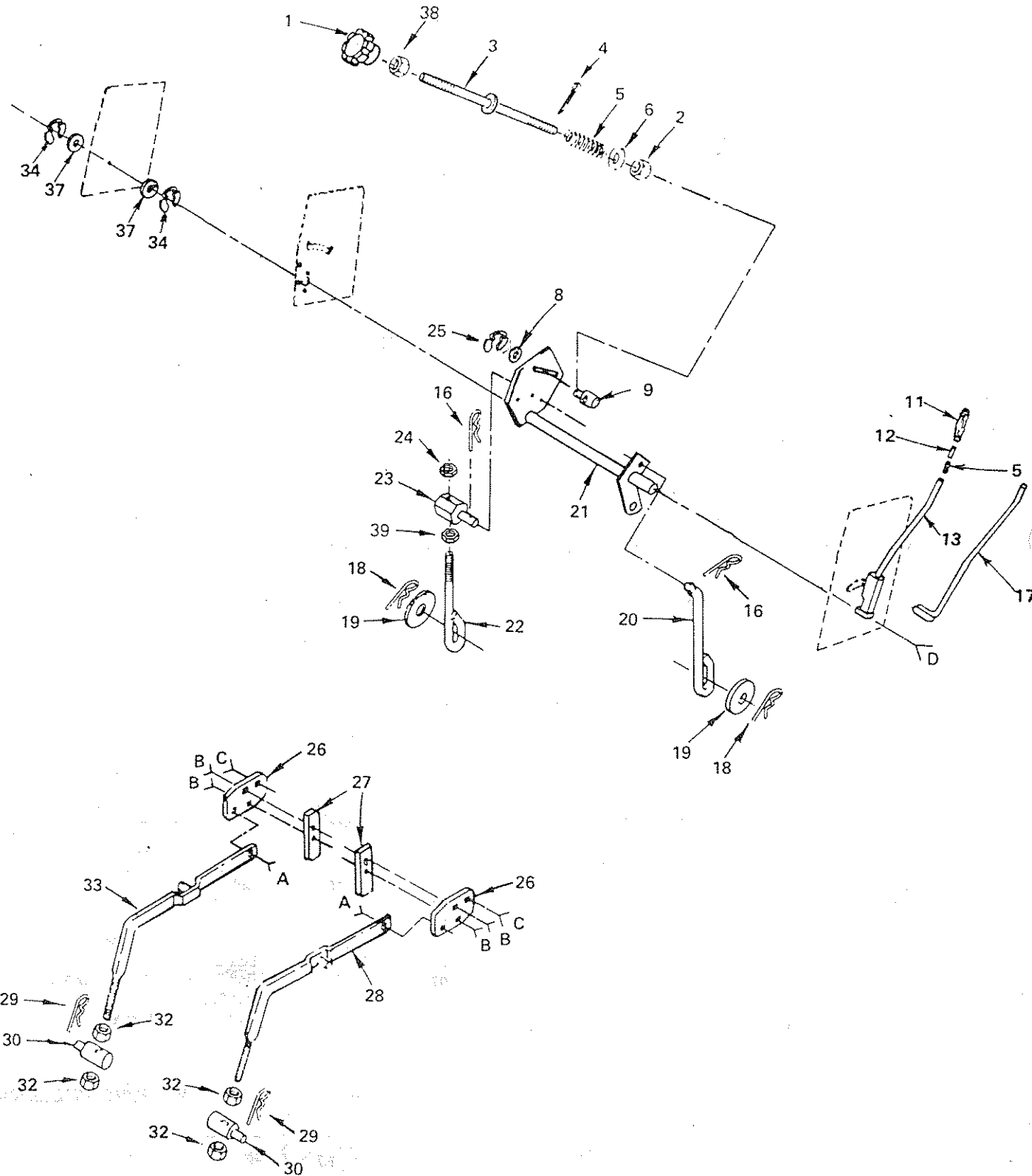
\*STANDARD HARDWARE--PURCHASE LOCALLY





## REPAIR PARTS

### 14 H.P. HYDROSTATIC YARD TRACTOR LIFT ADJUSTMENT



## BLADE CARE

For best results mower blades must be kept sharp. The blade can be sharpened with a few strokes of a file or on a grind wheel. We suggest they be sharpened after every 25 hours of mowing. Do not attempt to sharpen while on mower. If you mow in sandy soil check the blades after each two mowings. The sand wears the blade away rapidly.

1. When grinding, care should be taken to maintain blade balance and the blade should be checked for proper balance before reinstallation on mower. Unbalanced or bent blade will cause excessive vibration when running, and eventual damage to mower or engine. Replace bent, damaged or unbalanced blades.

To check Blade balance, drive nail into beam or wall. Leave about one inch of the straight nail exposed. Place Center Hole of clean Blade over the head of the nail (Fig. 40). NOTE: CENTER HOLE OF BLADE ON NAIL. IF BLADE IS PROPERLY BALANCED, BLADE SHOULD REMAIN IN POSITION SHOWN IN FIG. 40. IF EITHER END OF THE BLADE MOVES DOWNWARD, BLADE IS NOT BALANCED. SHARPEN THE HEAVY END UNTIL BLADE IS BALANCED.

2. To ensure satisfactory operation, it is recommended that before the start of each mowing season, the old blades be discarded and replaced with new blades. Mower blades can be purchased from all Roper dealers.

## DAILY MAINTENANCE

Make sure all nuts on bolts are tight and cotter pins and retainers are secure. Keep blades sharp. Observe all safety precautions. Keep mower well lubricated (refer to page 9).

## CLEANING MOWER

**DISCONNECT SPARK PLUG WIRE TO PREVENT ACCIDENTAL STARTING BEFORE CLEANING. BE CAREFUL TO AVOID TOUCHING HOT MUFFLER OR ENGINE COMPONENTS.**

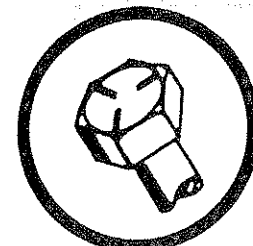
Water pressure from a garden hose will remove fresh clippings from underside of mower. Clean mower after each mowing.

## BLADE REPLACEMENT

Raise Mower to highest position to permit access to Blades or remove mower from tractor (See page 18).

1. Remove Bolt, Lockwasher and Washer (Fig. 41) (turn counterclockwise).
2. Place new Blade between Flanges, (the word "TOP" is stamped on all Blades to assure proper installation), and secure with Washer, Lockwasher and Bolt previously removed. TIGHTEN SECURELY.

**ALWAYS USE GRADE 5 HEAT TREATED BOLTS TO ATTACH BLADES. CHECK BOLTS IN BLADES OCCASIONALLY TO MAKE SURE BOLTS ARE TIGHT. TORQUE BOLTS 30 - 35 FT. LBS.**



A GRADE 5 HEAT TREATED BOLT CAN BE IDENTIFIED BY THREE LINES ON THE BOLT HEAD AS SHOWN AT LEFT.

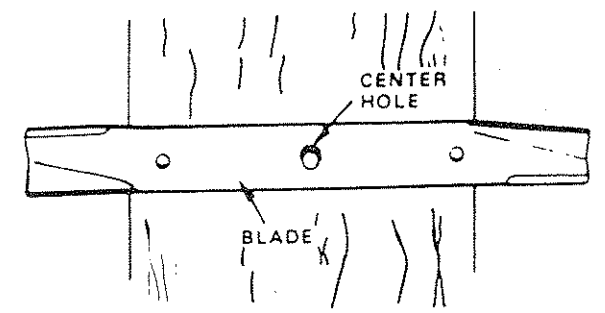


FIGURE 40

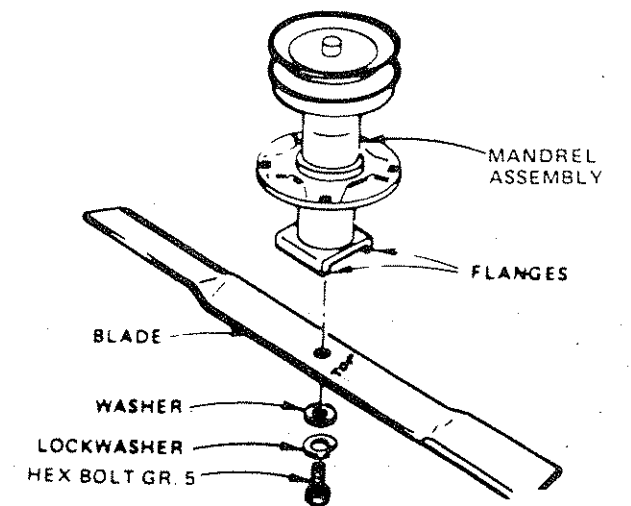


FIGURE 41

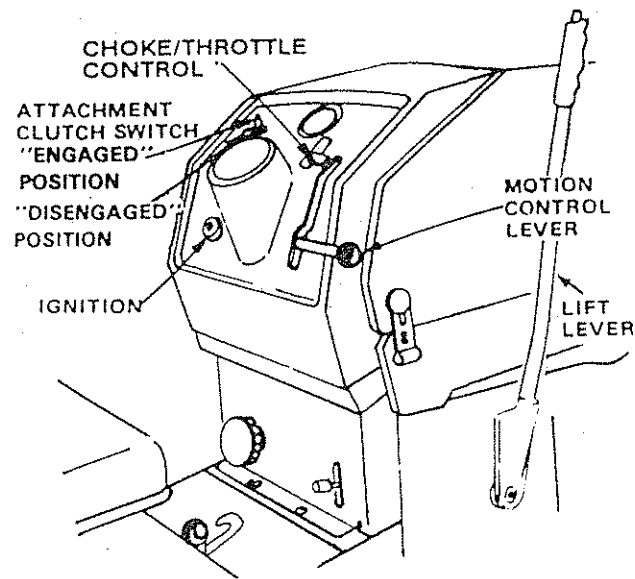


FIGURE 42

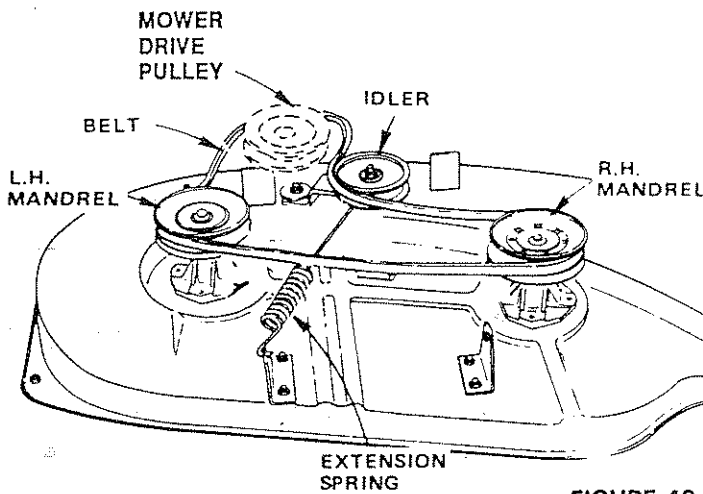


FIGURE 43

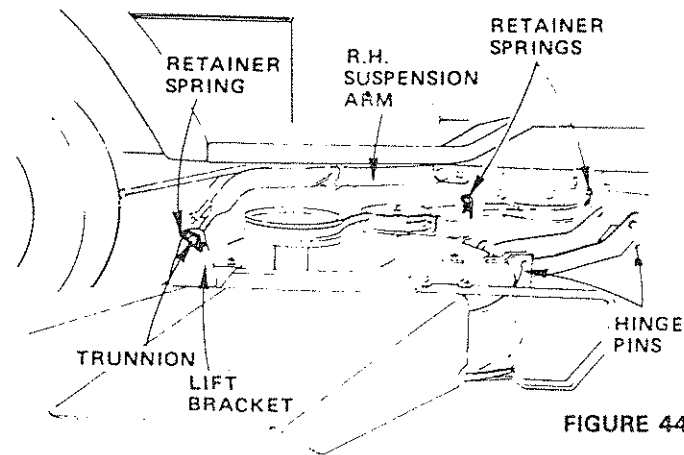


FIGURE 44

### TO REMOVE OR REPLACE MOWER DRIVE BELT

REPLACE ONLY WITH THE BELTS SPECIFIED IN THE MANUAL.

1. Place Attachment Clutch Switch in "DISENGAGED" position (Fig. 42)
2. Turn Depth Adjustment Knob to lowest position. Move Attachment Lift Lever (Fig. 42) forward to lower Mower to its lowest position.
3. Roll Belt off L.H. Mandrel Pulley (fig. 43).
4. Pull Belt off R.H. Mandrel, Idler and Mower Drive Pulley.
5. To replace Mower Drive Belt, reverse above procedure. Make sure Drive Belt is engaged in all Pulleys.

NOTE: REPLACE ONLY WITH BELTS SPECIFIED IN THIS MANUAL.

NOTE: MOWER BELT INSTALLATION DECAL LOCATED ON MOWER HOUSING.

### TO REMOVE MOWER

1. Remove mower belt per instructions under "To Remove Mower Belt", through step 3.
2. Pull belt off the Engine Pulley.
3. Pull Retainer Springs out of Rear Suspension Trunnions. Remove Rear Suspension Trunnions from Lift Brackets (Fig. 44).
4. Pull Retainer Spring out of Rear Hinge Pin. Remove Rear Hinge Pin.
5. Pull Retainer Spring out of Front Hinge Pin. Remove Front Hinge Pin (Fig. 44).
6. Use Lift Lever to raise Suspension Arms. Slide mower out from under tractor.

NOTE: IF AN ATTACHMENT OTHER THAN THE MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, THE L.H. AND R.H. SUSPENSION ARMS (FIG. 44), SHOULD BE REMOVED FROM TRACTOR.

### STORAGE

When mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Give blades and underside of housing a good coat of grease or rust preventative. Store in a clean dry area.

### CLEANING MOWER



DISCONNECT SPARK PLUG WIRE(S) TO PREVENT ACCIDENTAL STARTING BEFORE CLEANING. BE CAREFUL TO AVOID TOUCHING HOT MUFFLER OR ENGINE COMPONENTS.

Water pressure from a garden hose will remove fresh clippings from underside of mower. Clean mower after each mowin

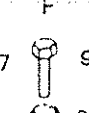
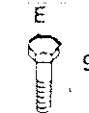
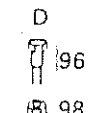
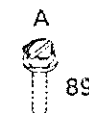
### REPAIR PARTS

#### 14 H.P. HYDROSTATIC YARD TRACTOR

#### STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
2	121584X	Insert - Steering Wheel	48	121334X	Rod - Tie
3	73940800	*Nut - Hex 1/2 - 20	49	73810500	*Nut - Hex 5/16 - 24
4	100712K	Washer	50	105656X	Spindle - L.H.
5	121472X	Wheel - Steering	51	19272016	Washer 27/32 x 1 - 1/4 x 16 Ga.
6	100711L	Adapter - Steering Wheel	52	110438X	Spacer
7	106945X	Tube - Steering Shaft	53	6266H	Hardened Washer
8	106943X	Spacer - Shaft, Steering	54	3366R	Bearing
9	122232X	Control - Choke	55	73901000	Nut - Lock - Flange 5/8 - 11
10	102670X	Spring - Compression	56	108075X	Axle - Front
11	11050600	Washer - Lock, Ext. Tooth 3/8	57	105654X	Spindle - R.H.
12	73610600	*Nut - Hex 3/8 - 24	58	278H	Fitting - Grease
13	104757X	Cap - Hub - Front	59	65139	Stem - Valve
14	121274X	Knob - Control	60	59192	Cap - Valve
15	121201X	Rod - Control	61	9040H	Bearing
16	121631X	Spring - Torsion	62	106732X	Rim - 6" Front
17	108196X	Bracket - Control Rod	63	106222X	Tire - Front
18	109557X	Shaft - Steering	63A	59904	Tube - Tire - Front (not furnished with tractor)
19	2882J	Pin - Drive 3/16 x 1	64	73800600	*Nut - Toplock
20	74580	Spacer	65	108212X	Trunnion
21	71208	Bushing	66	121750X	Rod - Adjustable Control
22	109432X	Bracket - Steering	67	4497H	Clip, Hairpin
23	19212016	Washer 21/32 x 1 - 1/4 x 16 Ga.	71	17490508	Screw - Hex Washer Thread Rolling 5/16 - 18 x 1/2
24	12000029	Klip Ring	73	6855M	Fitting - Grease
25	6266H	Bearing - Thrust	74	121748X	Washer 25/32 x 1 - 5/8 x 16 Ga.
26	108683X	Rod - Steering	77	108685X	Gear - Pinion
27	108972X	Washer - Phenolic	78	109816X	Nyliner, Snap - In
28	108684X	Gear - Sector	79	101930X	Washer - Hardened
29	106126X	Key - Woodruff	80	4921H	Retainer Spring
30	76020412	Pin - Cotter 1/8 x 3/4	81	19131212	Washer, 13/32 x 3/4 x 12 Ga.
31	73680600	Nut - Lock 3/8 - 16	82	121749X	Washer, 25/33 x 1-1/4 x 16 Ga.
32	108200X	Washer - Friction	83	19111216	Washer 11/32 x 3/4 x 16 Ga.
34	108518X	Bolt - Hex Shoulder 3/8 - 16 x 1 - 3/8	84	19151516	Washer 15/32 x 15/16 x 16 Ga.
35	19212016	Washer 21/32 x 1 - 1/4 x 16 Ga.	85	110739X	Washer Spring
36	108201X	Spacer	86	121232X	Cap Spindle
37	121202X	Link - Control	87	121217X	Guide Control
38	108844X	Spring - Compression	88	121216X	Bracket Control Guide
39	19132012	Washer 13/32 x 1 - 1/4 x 12 Ga.	89	17490512	Scr. Hex Wsh. Thdrol 5/16 - 18 x 3/4 TYTT
40	74760648	*Bolt - Hex 3/8 - 16 x 3	90	17021008	Scr. Tap Hex Hd. #10-24 Inc. x 1/2 TYTT.
41	121209X	Arm Assembly - Pump Control	91	19070816	Washer 7/32 x 1/2 x 16 Ga.
42	105663X	Support - Saddle - Rear	92	71011012	Bolt 10 - 24 3/4
43	74761060	Bolt - Hex 5/8 - 11 x 3 - 3/4	93	73661000	Nut 10 - 24
44	105664X	Support - Saddle - Front	94	121204X	Bellcrank
45	105727X	Link Drag	95	121206X	Bracket Bellcrank Pivot
46	10040600	*Lockwasher 3/8	96	100536K	Bolt Shoulder
47	10040500	*Washer - Lock 5/16	97	74760612	Bolt Fin Hex 3/8 Inc. 16 x 3/4
			98	73680500	Nut Crownlock 5/16 - 18
			99	121190X	Keeper, Centerspan

\*STANDARD HARDWARE--PURCHASE LOCALLY



96

97

92

98

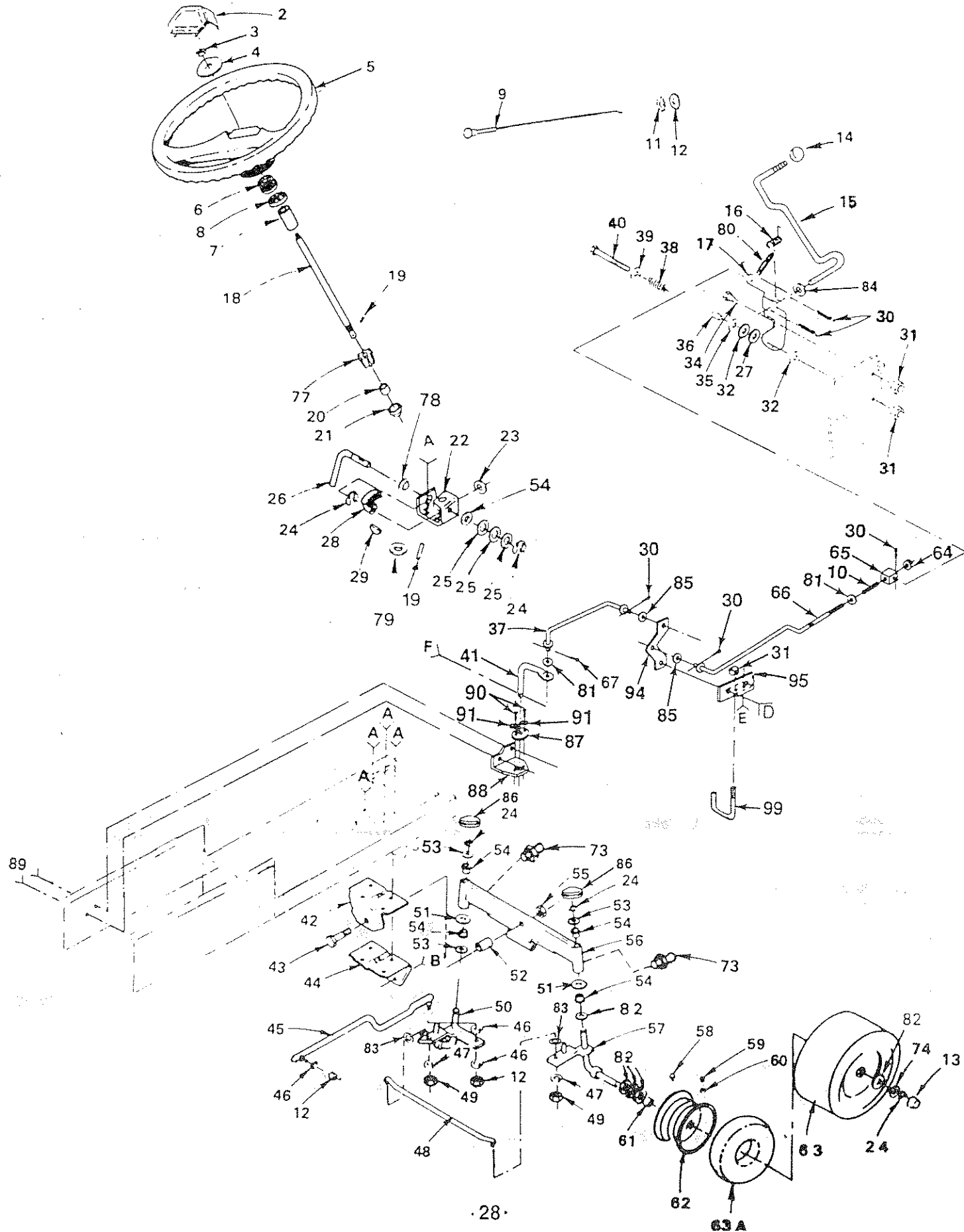
31

93

# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR

### STEERING ASSEMBLY



# SERVICE RECORD

FILL IN DATES  
AS YOU COMPLETE  
REGULAR SERVICE

AS NEEDED  
EVERY 8 HOURS  
EVERY 25 HOURS  
EVERY 50 HOURS  
EVERY 100 HOURS  
EVERY 200 HOURS

SERVICE DATES

Check Engine Oil Level	✓					
Change Engine Oil (see chart, page 6)		✓				
Lubricate Pivot Points		✓				
Check Brake Operation		✓				
Clean Air Screen		✓				
Clean Air Cleaner		✓				
Replace Air Cleaner Paper Cartridge			✓			
Clean Engine Cooling System			✓			
Replace Spark Plug			✓			
Check Battery Level		✓				
Check Tire Pressure	✓					
Replace In-Line Fuel Filter			✓			
Clean Grill and Battery Terminals			✓			
Check Muffler		✓				
Carburetor Adjustment	✓					
Check Reservoir & Pump Fluid Levels		✓				
Check Hydrostatic Transmission Cooling		✓				

# HOOD REMOVAL

- Lift Hood, Disconnect headlight wiring connection (Fig. 47)
- Unscrew one wingnut at rear of each side panel (Fig 48).
- Pivot hood and Side Panel Forward and lift off tractor (Fig. 47)
- To replace, reverse the above procedure.

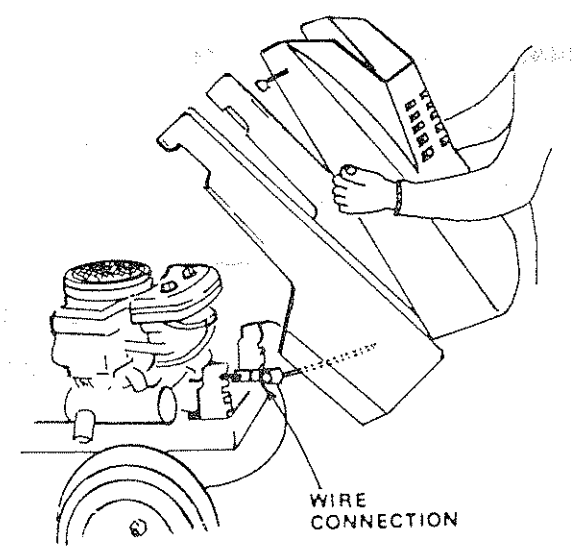


FIGURE 47

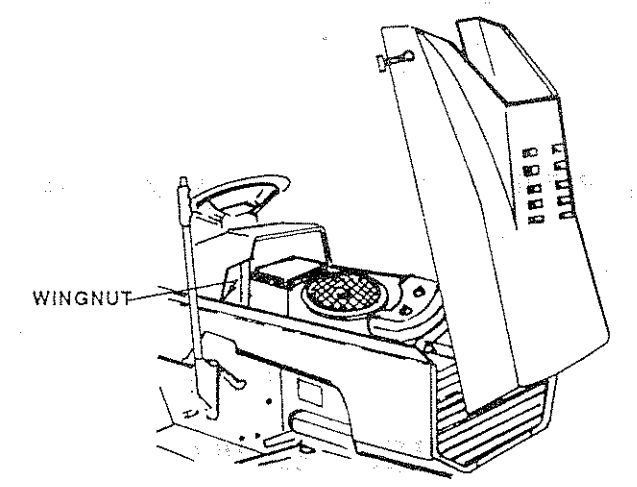
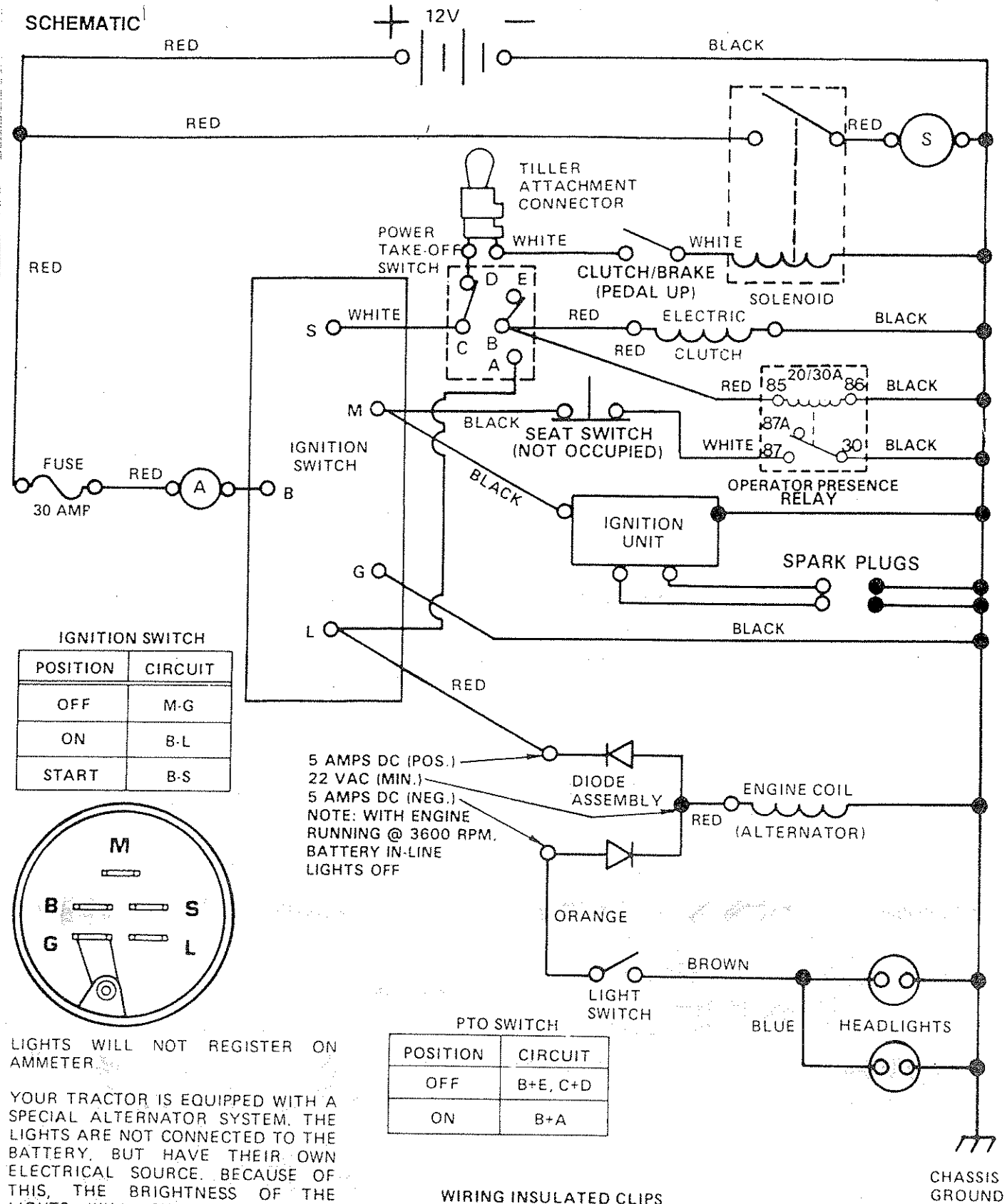


FIGURE 48

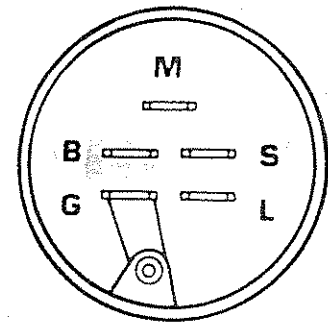
Roper Corporation reserves the right to make any changes in design or improvements without imposing any obligation to install the same upon its items heretofore manufactured.

# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR



IGNITION SWITCH	
POSITION	CIRCUIT
OFF	M-G
ON	B-L
START	B-S



LIGHTS WILL NOT REGISTER ON AMMETER.

YOUR TRACTOR IS EQUIPPED WITH A SPECIAL ALTERNATOR SYSTEM. THE LIGHTS ARE NOT CONNECTED TO THE BATTERY, BUT HAVE THEIR OWN ELECTRICAL SOURCE. BECAUSE OF THIS, THE BRIGHTNESS OF THE LIGHTS WILL CHANGE WITH THE ENGINE SPEED. AT IDLE SPEED THE LIGHTS WILL DIM. AS THE ENGINE IS SPEEDED UP, THE LIGHTS WILL BECOME THEIR BRIGHTEST.

PTO SWITCH	
POSITION	CIRCUIT
OFF	B+E, C+D
ON	B+A

### WIRING INSULATED CLIPS

NOTE: IF WIRING INSULATED CLIPS WERE REMOVED FOR SERVICING OF UNIT, THEY SHOULD BE REPLACED TO PROPERLY SECURE YOUR WIRING.

- Removable Connectors
- Non-removable connections

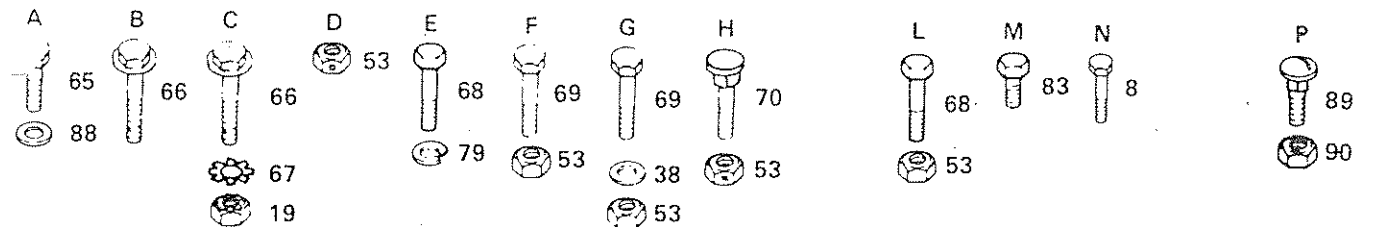
# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR

### DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	110012X	Baffle - Vertical	50	71673	Cap
2	9151R	Grommet	51	105844X	Rod, Brake, Park
3	---	Engine 14 H.P. Model Number 400707 Type Number 1211 - 01	52	105710X	Link, Clutch
4	8545J	Gasket	53	73680600	Nut, Lock, 3/8 - 16
5	108373X	Muffler	54	106499X	Retainer, Belt
6	4497H	Clip, Hairpin	55	12000039	Klip Ring
7	10040400	*Washer, Lock 1/4	56	110812X	Washer, Hardened
8	17210806	Screw - Hex Hd. No. 8 - 32 x 3/8	57	105707X	Bellcrank Assembly (Incl. Key No. 62)
9	13200300	Coupling, Pipe, Std. 3/8 - 18 NPT	58	105709X	Spring, Return, Clutch
10	13280336	Elbow - 90°, 3/8 - 18 NPT	59	105724X	Bracket, Clutch
11	91084	Nipple, Pipe	60	74760624	*Bolt, Hex, 3/8 - 16 x 1-1/2
12	121524X	Plug - 1/4	61	106298X	Pulley, Idler
14	108103X	Control, Throttle	62	105706X	Bearing
15	2751R	V-Belt, Drive	63	121749X	Washer, 25/32 x 1-1/4 x 16 Ga.
16	121187X	Clip	64	2228M	*Key, Woodruff No. 9
17	121191X	Plate, Transaxle Support	65	17080408	Screw, Hex Thread Cut. 1/4 - 20 x 1/2
18	2703J	Bracket, Transaxle	66	17490624	Bolt, Hex Washer Thd. Rolling 3/8 - 16 x 1 - 1/2
19	73510600	Key - Square 1/4 x 2	67	11050600	Washer - Lock Ext, Tooth 3/8
20	121189X	Nut - Keps 3/8 - 16	68	74760612	*Bolt, Hex 3/8 - 16 x 3/4
21	121199X	U-Bolt, 3/8 - 16 x 2-3/4	69	74760616	*Bolt, Hex 3/8 - 16 x 1
22	121748X	Spacer, Split	70	72140606	*Bolt, Carr., 3/8 - 16 x 3/4
23	106108X	Washer, 1-1/32 x 1-5/8 x 16 Ga.	71	76020412	Pin, Cotter, 1/8 x 3/4
24	12000001	Rim - Rear - 8"	79	10040600	*Washer - Lock 3/8
25	104757X	E-Ring	80	122082X	Tire - 20 - 10.00 x 10 Rear
27	65139	Cap, Hub, Rear	80A	7152J	Tube (not furnished with tractor)
28	59192	Stem, Valve	82	108236X	Bracket - Switch
29	74610764	Cap, Valve	83	17021008	Screw - Tap, Hex Hd, No. 10 - 24 x 1/2 Type T
30	19152405	Bolt, Hex 7/16 - 20 x 4	84	110442X	Washer, 15/32 x 1 - 1/2 x 5 Ga.
31	10040700	Washer, 13/32 x 13/16 x 12 Ga.	88	19091016	*Washer 9/32 x 5/8 x 16 Ga.
32	108218X	*Washer, Lock 7/16	89	72140506	Bolt - Rd. Hd. Sq. Nk. 5/16 - 18 x 3/4.
33	109841X	Clutch - Electric	90	73680500	Nut - Lock 5/16 - 18
35	74760644	Pulley - Engine	91	4921H	Nut - Lock 5/16 - 18 Spring - Retainer
36	4859J	*Bolt, Hex 3/8 - 16 x 2-3/4			
37	4470J	Idler, Flat			
38	19131312	Spacer	93	74780412	5/16 - 18 x 1/2 Ty TT Bolt - Hex 1/4 - 20 x 3/4
39	105730X	Washer, 13/32 x 13/16 x 12 Ga.	94	100229L	Tube Assembly - Exhaust
40	121218X	Keeper, Belt			
41	109169X	Keeper, Belt, Engine, L.H.	95	104917X	Baffle - Vertical
44	106888X	Clutch Retainer Assembly	96	110013X	Bracket Heat Shield
45	121200X	Spring - Rod, Brake	97	17490508	Bolt - Hex Thd. Cutting 5/16 - 18 x 1/2
46	8883R	Rod, Brake	98	100091M	Spark Arrester Screen
47	106918X	Cover, Pedal	99	73350600	Nut Hex. Jam 3/8 x 16 UNC
48	109037X	Arm, Brake			
49	1572H	Shaft, Foot Pedal			
		*Pin, Roll, 3/16 x 1			

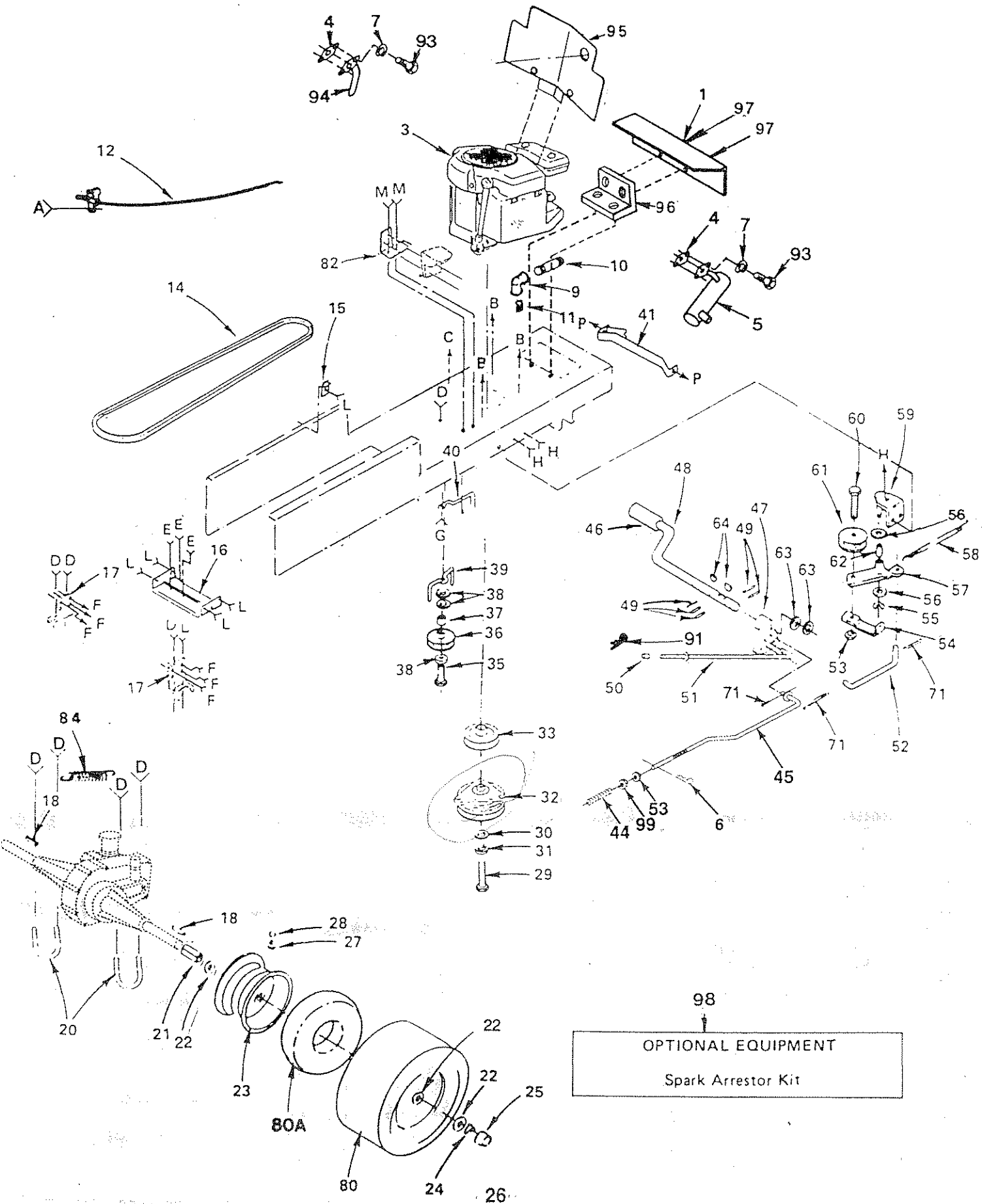
\*STANDARD HARDWARE--PURCHASE LOCALLY



# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR

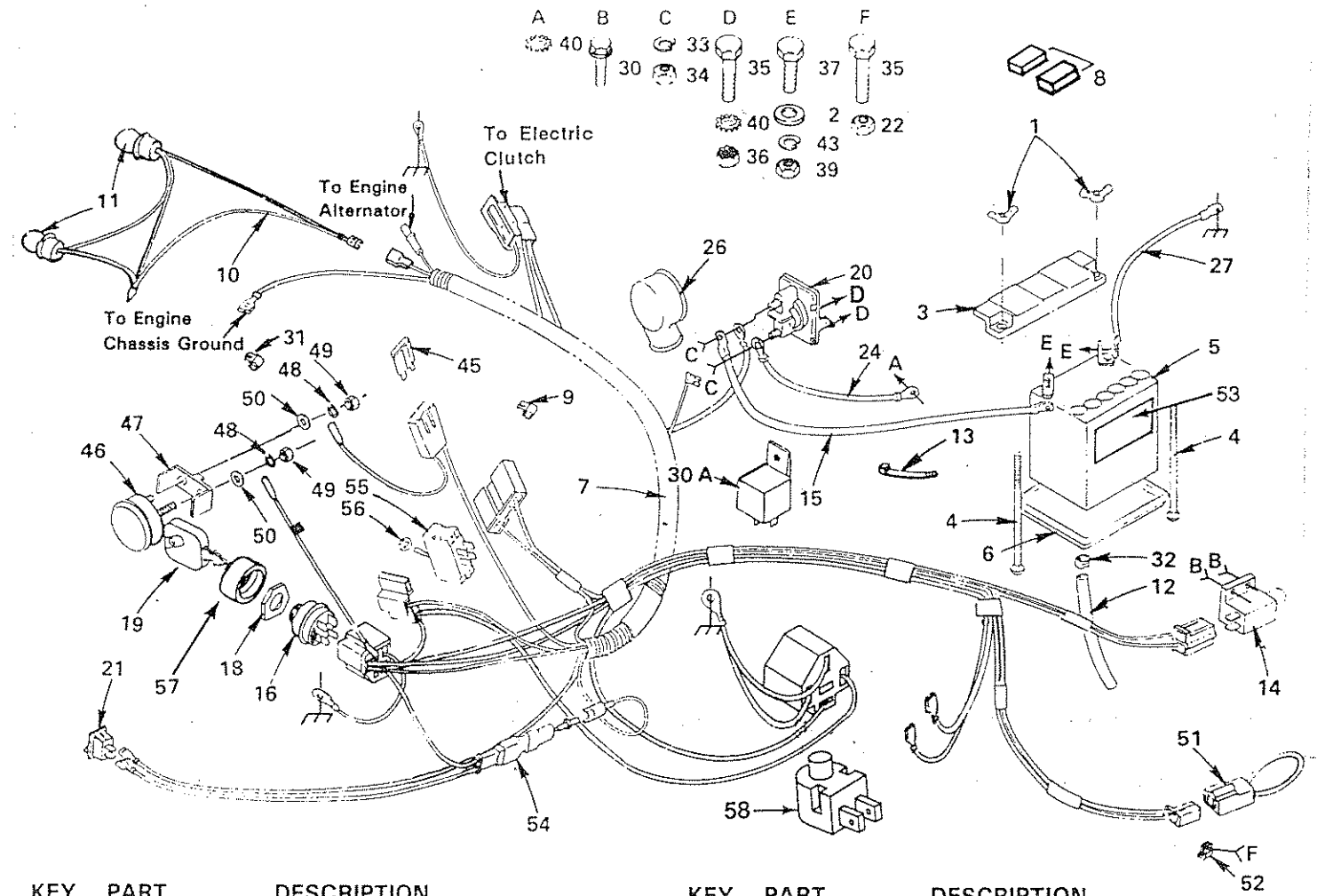
DRIVE



# REPAIR PARTS

## 14 H.P. HYDROSTATIC YARD TRACTOR

ELECTRICAL

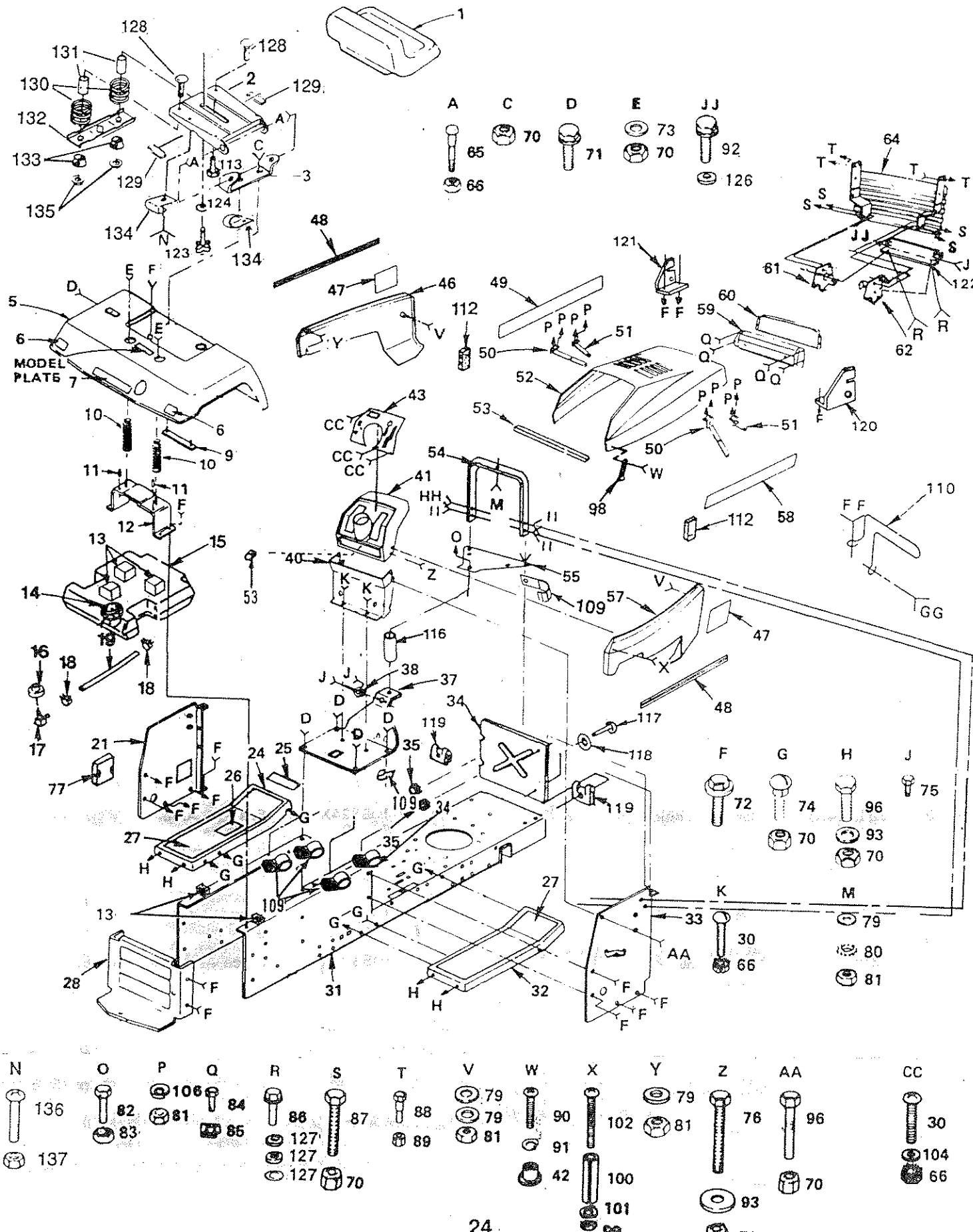


KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	123198X	*Wing Nut 1/4-20	34	73350400	*Nut-Hex Jam 1/4-20
2	19091016	Washer 9/32 x 5/8 x 16 Ga.	35	74780408	*Bolt-Hex 1/4-20 x 1/2 Gr. 5
3	102476X	Guard-Terminal	36	73510400	Nut-Keps, Hex 1/4-20
4	72240460	Battery Bolt (Bolt-Carriage, Rd. Hd. Sq. Neck 1/4-20 x 7-1/2)	37	74760412	*Bolt-Hex 1/4-20 x 3/4
5	121537X	Battery	39	73220400	*Nut-Hex 1/4-20
6	7603J	Battery Tray	40	11050400	Washer-Lock 1/4 Ext. Tooth
7	121534X	Harness-Ignition	43	10040400	*Lockwasher 1/4
8	121264X	Caps, Battery	45	108824X	Fuse-30 Amp.
9	4171R	Insulated Clip	46	9433R	Ammeter
10	110859X	Harness-Light Socket	47	6009J	Bracket-Ammeter
11	7662J	Bulb-Light	48	10101000	Lockwasher No. 10
12	100541K	Tube-Battery Tray	49	73911000	Nut
13	7192J	Cable Tie	50	19070818	Washer 7/32 x 1/2 x 18 Ga.
14	104445X	Switch - Interlock - Clutch	51	102501X	Loop-Wire
15	4206J	Cable-Battery (Battery to Solenoid)	52	235R	Clip-Insulated
16	4406R	Ignition Switch	53	121549X	Decal-Battery
18	109788X	Nut-Ignition	54	106315X	Diode Assembly
19	109434X	Key	55	4021J	Switch PTO
20	109081X	Solenoid	56	4022J	Nut-Hex
21	110712X	Switch-Light	57	109787X	Bezel, Ignition
22	73680400	Nut-Hex 1/4-20	58	121305X	Switch, Seat
24	4799J	Cable-Battery (Solenoid to Starter)		<del>123845X</del>	Sheet-Instruction, Tractor 15° Slope (English)
26	719J	Terminal Cover (For Solenoid)		<del>123846X</del>	Sheet - Instruction, Tractor 15° Slope (French)
27	4207J	Cable-Battery (Battery to Ground)		<del>121609X</del>	Owners Manual (English)
30	17021008	Screw-Tap. Hex Hd. No. 10-24 UNC x 1/2 Type T Relay		<del>121609X</del>	Owners Manual (French)
30A	109748X	Relay			
31	2751R	Clip-Fuel Line			
32	109596X	Clamp-Hose			
33	10090400	Lockwasher 1/4			

\*STANDARD HARDWARE--PURCHASE LOCALLY



**REPAIR PARTS**  
**14 H.P. HYDROSTATIC YARD TRACTOR**  
**CHASSIS AND ENCLOSURES**



**REPAIR PARTS**  
**14 H.P. HYDROSTATIC YARD TRACTOR**  
**CHASSIS AND ENCLOSURES**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	110840X	Seat	70	73680600	Nut - Crownlock 3/8 - 16
2	121247X	Pan - Seat	71	17490608	Screw - Hex Washer Thread Rolling 3/8 - 16 x 1/2
3	105513X	Bracket - Pivot, Seat	72	17490612	Screw - Hex Washer Thread Rolling 3/8 - 16 x 3/4
5	121642X388	Fender	73	19131614	Washer 13/32 x 1 x 14 Ga.
6	106202X	Reflector - Rear	74	72140606	Bolt - Carriage 3/8 - 16 x 3/4
7	121586X	Decal - Fender	75	17431008	Screw - Hex Self Tapping No. 10 - 16 x 1/2
8	121068X	Spring - Compression L.H.			
9	105511X	Strap - Fender			
10	121067X	Spring - Compression R.H.			
11	105531X	Nut - Push			
12	105509X	Bracket - Fender			
13	6431J	Pad - Spacer	77	121794X	Cover - Access
14	121221X	Cap - Fuel	79	19091216	Washer 9/32 x 3/4 x 16 Ga.
15	106020X	Tank - Fuel	80	11050400	*Washer - Lock 1/4
16	3645J	Bushing	81	73220400	*Nut - Hex 1/4 - 20
17	8710J	Stem - Tank, Fuel	82	74780512	*Bolt - Hex 5/16 - 18 x 3/4 Gr. 5
18	6999R	Clamp - Hose	83	73510500	Nut - Keps 5/16 - 18
19	5277J	Line - Fuel	84	17211010	Screw - Hex Head Washer Hd. Tap, No. 10 - 16 x 5/8
20	19143210	Spacer - Washer	85	104755X	"J" Fastener
21	105523X	Panel - Dash, L.H.	86	17490512	Screw - Hex Washer Thread Rolling 5/16 - 18 x 3/4
24	105465X	Footrest - L.H.	87	74760616	Bolt - Hex 3/8 - 16 x 1
25	101892X	Decal - Clutch/Brake (YTH 160CT only)	88	7605J	Bolt - Shoulder 1/4 - 20
26	121215X	Decal - Drive Belt	89	73680400	Nut - Lock 1/4 - 20
27	109864X	Pad - Footrest	90	74191008	Screw - Pan Hd. Machine No. 10-24 x 1/2
28	121306X	Drawbar	91	10071000	Washer - Lock No. 10
29	109219X	Deflector - Debris	92	17190412	Scr. Thrd. Roll 1/4 - 20 x 3/4
30	74180512	Screw - Mach. Cr. Thd. 5/16 - 18 x 3/4	93	19131312	Washer 13/32 x 13/16 x 12 Ga.
31	121278X	Chassis	96	74760612	Bolt - Hex 3/8 - 16 x 3/4
32	105464X	Footrest - R.H.	98	109808X	Latch - Hood
33	110828X	Panel - Dash, R.H.	99	73731000	Nut - Keps 10-24
34	108105X	Baffle - Rear Lower	100	7206J	Spacer - Split 10 x 3/4
35	110436X	Grommet, Split	101	19070818	Washer 7/32 x 1/2 x 18 Ga.
37	121195X	Saddle	102	74981020	Screw - Mach. Cr. Pan 10-24 x 1 - 1/4
38	1554J	Bushing - Steering	104	19111116	Washer 11/32 x 11/16 x 16 Ga.
40	104805X	Dash Assembly - Lower	106	10090400	Washer - Lock 1/4
41	121312X	Dash			
42	2029J	Nut - Weld	109	2751R	Clip
43	121723X011	Plate - Dash	110	108885X	Guard - Muffler
46	108372X388	Panel - Side, L.H.	111	19131616	Washer 13/32 x 1 x 16 Ga.
47	123841X	Decal - Side Panel, 14 HP	112	109459X	Strip - Foam
48	121589X	Decal - Strip, Hood	113	121144X	Bolt - Hex Finish 5/16 x 16 x 1
49	121587X	Decal - Hood, L.H.			
50	106784X	Strap Assembly - Hinge, Rear	116	121236X	Spacer
51	104618X	Strap Assembly - Hinge, Front	117	105751X	Stud 1/4 Turn
52	108370X388	Hood	118	105838X	Retainer 1/4 Turn
53	109458X	Strip - Foam, 18"	119	105839X	Receptacle 1/4 Turn
54	110829X	Support Assembly - Dash	120	110853X	Bracket Assembly R.H.
55	106965X	Plate - Support, Battery	121	110852X	Bracket Assembly L.H.
57	108371X388	Panel - Side, R.H.	122	105419X	Strap - Grill
58	121588X	Decal - Hood, R.H.	123	120068X	Adjustment Knob
59	104613X	Bezel Assembly	124	19171912	Washer 17/32 x 1 - 1/16 x 20 Ga.
60	106395X	Lens	125	11050600	Lockwasher 3/8 Ext. Tooth
61	110855X	Support - Grill, L.H.	126	11030400	Lockwasher 1/4
62	110854X	Support - Grill, R.H.	127	19111216	Washer, 11/32 x 3/4 x 12
63	104634X	Strap - Grill	128	72170410	Bolt, Carr. 1/4-20 x 1-1/4
64	122100X	Grill Assembly	129	121251X	Foam, Strip
65	105529X	Bolt - Shoulder 5/16 - 18	130	121250X	Spring, Compression
66	73680500	Nut - Lock 5/16 - 18	131	121249X	Spacer, Split
			132	121246X	Bracket, Switch
			133	121248X	Bushing, Snap
			134	4171R	Clip, Insulated
			135	73900400	Nut, Lock 1/4 - 20
			136	71031012	Scr. HS. Wash 10 - 32 x 3/4
			137	73951000	Nut, Keps #10 - 32