

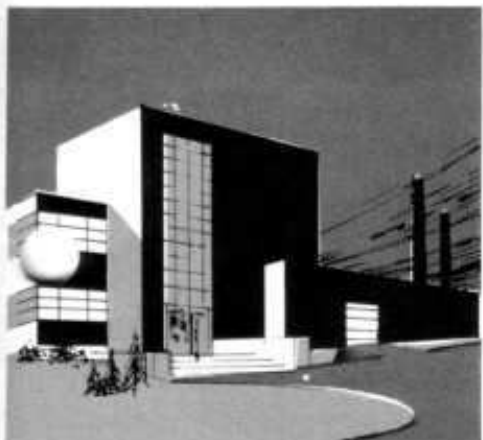
# **BOLENS HUSKYS**



**HUSKY TRACTOR  
Model 1556**



## **OWNER OPERATION & MAINTENANCE MANUAL**



## CONGRATULATIONS

On your purchase of a Bolens Husky, one of the finest available. Please take a few moments to review this manual to familiarize yourself with the unit, its features and its operation. To obtain maximum performance and life, carefully follow all instructions and maintenance recommendations. This manual serves this purpose with easy-to-follow instructions, illustrations and charts.





## HUSKY TRACTOR Model 1556

### TABLE OF CONTENTS

	Page:		Page
General Safety Precautions .....	2	Preventive Maintenance .....	10
Engine Cautions .....	3	Adjustments .....	11
Serial Number .....	4	Power Take Off (PTO) .....	14
Specifications .....	5	Maintenance Guide .....	15
Controls .....	5	Lubrication Chart .....	16
Pre-Operational Checks .....	7	Lubrication .....	17
Break-In Period .....	7	Wiring Diagram .....	18
Starting the Engine .....	7	Storing Your Husky Tractor .....	19
Stopping the Engine .....	8	Minor Trouble Shooting Guide .....	19
Operation .....	8		

#### For best results:

Both the tractor and engine have been fully tested by the factory and your dealer prior to its delivery. However, so that you may become familiar with your unit before operating it, **READ THIS MANUAL** carefully. . . if you have any questions that are not answered in the manual, ask your dealer. Keep this manual handy for ready reference. **NEVER** force any control.



## GENERAL SAFETY PRECAUTIONS

Preventing accidents is the responsibility of every equipment operator. The following general safety precautions *must* be fully understood and followed by every operator of this tractor and its attachments. Review them frequently and NEVER TAKE CHANCES. BE CAREFUL BEFORE, DURING AND RIGHT AFTER USE OF ANY POWERED EQUIPMENT. ACCIDENTS CAN BE PREVENTED.

1. Mount vehicle, place travel pedal in NEUTRAL, PTO lever in OFF position, and set parking brake prior to starting engine, to prevent unit from being started in gear.
2. Do not mount or leave vehicle while it is in motion or in actual operation, nor leave vehicle unattended while engine is running. Injury to the operator or a tractor runaway could occur.
3. Always shut off engine, remove ignition key, place travel pedal in NEUTRAL, and set parking brake whenever vehicle is to be left unattended. Lower all attachments to the ground with P.T.O. lever in OFF position when leaving the unit unattended to prevent injury to children or other persons.
4. Attachments must be lowered to the ground when storing tractor to prevent the attachment from being dropped accidentally and causing injury.
5. Do not tow vehicle. Damage to the vehicle could occur.
6. When moving the vehicle, place travel pedal in NEUTRAL to prevent damage to the transmission.
7. Do not carry passengers. The passengers could fall off vehicle receiving injuries.
8. Do not start or operate vehicle in an inside area, unless area is well ventilated. Exhaust gases carry carbon monoxide fumes which are poisonous. They can cause serious illness with side effects or death.
9. Keep tractor and attachments free of excess grease and oil. The unit will operate cooler, be easier to maintain and safer to operate.
10. Engine must be stopped, and PTO disengaged when cleaning, servicing, adjusting, repairing, or installing attachments on tractor. This is necessary to avoid possible injury from moving parts.
11. Always disconnect ground (-) battery cable from battery before doing any work on the electrical system, and reconnect last. In doing this you will avoid the possibility of a short.
12. Study your manual. Know your tractor before operating it. Take time to operate the unit in the safest manner.
13. Always follow manufacturer's operational suggestions.
14. Children shall not be allowed to operate vehicle at any time. The average child is not capable of coping with the intricacies of operating a power tool.
15. Do not allow adults to operate vehicle without proper instruction including all safety instructions. In doing so you will be sure they know how to operate unit properly and also are aware of all the safety precautions.
16. Do not fill gasoline tank while engine is running or hot. Add gasoline only outdoors (using funnel) and when engine is cool. KEEP SMOKERS AND FLAMES AWAY FROM UNIT WHILE FUELING. This will help eliminate the possibility of fire and/or explosion from spilled gasoline or fumes.
17. Refuel tractor from the Left side, the side which the fuel tank is on. This will prevent reaching over tractor with fuel can preventing shorting the can on the electrical system and the possibility of fire.
18. Store fuel in approved container out of reach of children. Do not store fuel in the house. Gasoline is highly flammable and the fumes highly explosive.
19. Never operate tractor with mower, snow caster, or any other attachment having moving parts, when any child or other person is in travel path or discharge area. No other person shall be allowed in or near working areas when equipment is being used. Items or objects such as wire, stones, small toys and etc. can be ejected at high velocity out of the discharge chute.
20. Always make certain no one is in the way before using reverse. This will avoid the possibility of running over any bystanders or pets who might be in the area in back of the vehicle.
21. Study all attachment manuals thoroughly before using attachments with tractor, to be aware of both the tractor and attachment capabilities when used as a unit, also the safest manner in which to operate them.
22. Never wear loose clothing when operating unit. Loose clothing can get caught in moving parts and cause severe injuries.
23. Before starting unit check to be sure all guards and safety devices are in place and in working condition and PTO is in "off" position. This will help assure you against possible injury.
24. Do not drive this unit on a public thoroughfare at any time. The operator is risking injury from passing vehicles. Most local ordinances prohibit operating a unit such as this on a public thoroughfare.
25. Do not drive too close to a creek or ditch also be alert for holes and other hazards. If you would drive into any of the above you could lose control of the unit.
26. Be careful on steep slopes, reduce speed and avoid sharp turns to prevent tipping or loss of control.
27. Wear substantial footwear at all times to help ensure you of as much protection as possible.
28. Avoid high ground speeds when towing heavy loads. Never tow any trailer or other device which is too heavy to be safely controlled.

## ENGINE CAUTIONS

1. Check oil level at regular intervals, at least after every 8 hours of operation, (see Engine Manual for proper level) oftener under severe operating conditions or when slight leak is detected. Before removing dipstick for checking, clean the area around the dipstick thoroughly of all dirt and debris. This material could accidentally drop into the crankcase and contaminate it causing damage to the engine.
2. Change engine crankcase oil at intervals specified in engine manual, oftener under severe operating conditions. This will help assure proper lubrication to the internal parts of the engine and also keep the level of oil contamination low.
3. Before starting the engine, check and clean engine flywheel screen and cooling fins of dirt and debris. It is good practice to also check and clean the screen frequently during operation under severe dirt conditions. Grass particles and foreign debris are inclined to build up in the engine cooling channels. At frequent intervals the cooling shroud should be removed and the cooling fins and screen thoroughly cleaned of all dirt, debris and oily film, to prevent overheating and/or engine damage. **DO NOT AT ANY TIME OPERATE ENGINE WITH COOLING SHROUD REMOVED AS THIS WOULD PREVENT PROPER COOLING OF ENGINE.**
4. Check air cleaner for dirt and debris regularly, daily under severe operating conditions, and clean. When reinstalling be sure that it is securely positioned to prevent any leaking of air. See Engine Manual for proper procedure and interval. A dirty air cleaner can cause damage to the engine.
5. When stopping engine, especially after it has been working hard, let the engine idle at reduced throttle for approximately 3 to 5 minutes. This will allow engine temperatures to normalize more rapidly preventing overheating.
6. Do not operate engine at full throttle to hurry warm-up after starting, but idle at reduced throttle a few minutes; this will give the oil a chance to circulate through the engine.
7. On units with a gasoline strainer, the strainer should be inspected and cleaned frequently. If water is present in the bottom of the tank, remove the fuel line and drain until droplets of water are gone. If dirt is noticed at bottom of the tank remove the tank and clean it thoroughly.
8. The spark plug should be cleaned inside and out and regapped every 100 hours or once each year whichever occurs first. Check engine manual for correct gap setting. Replace plug whenever necessary. See engine manual for correct plug specifications.

### CAUTION

*CLEANING OF SPARK PLUGS IN CLEANING MACHINES THAT USE ABRASIVE GRIT IS NOT RECOMMENDED. SPARK PLUGS SHOULD BE CLEANED BY SCRAPING OR WIRE BRUSHING AND WASHING WITH A COMMERCIAL SOLVENT.*

## TO THE OWNER

This is an operational and general maintenance manual only and does not cover major repair. All major repair work must be performed by an authorized **BOLENS DEALER** or the factory warranty is void. Bolens equipment is carefully engineered to give good performance if properly operated and maintained. Keep your equipment clean and lubricate it as prescribed in this manual. Periodically inspect your unit and perform any upkeep maintenance necessary.

Your dealer is obligated by the factory to completely assemble and service new equipment prior to first delivery, and thoroughly explain and demonstrate its operation. He will repair or replace any parts which fail due to defective material and/or workmanship during the warranty period, and also provide future repair service and supply genuine factory repair parts.

**IN EVENT OF ANY PROBLEM OR PARTS REQUIRED ALWAYS CONTACT YOUR DEALER. DO NOT RETURN PARTS TO THE FACTORY. WE REQUIRE PRIOR FACTORY APPROVAL ON RETURNS, AND APPROVALS ARE ISSUED ONLY TO BOLENS DEALERS OR DISTRIBUTORS.**

**READ YOUR WARRANTY (YELLOW) STATEMENT AND BE SURE TO MAIL THE POSTPAID WARRANTY REGISTRATION (WHITE) CARD TO THE FACTORY.**



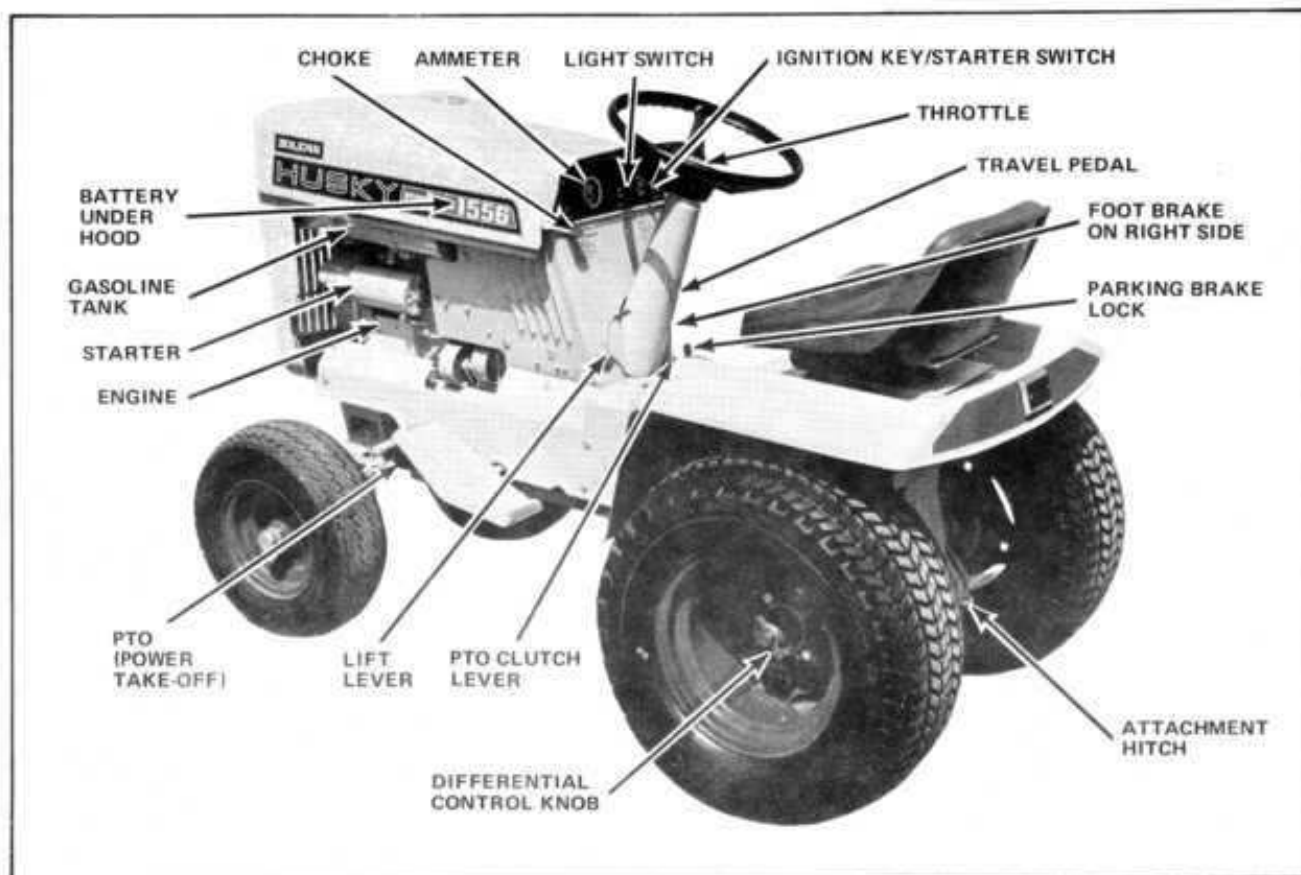


Figure 1

## SERIAL NUMBER

To ensure prompt service when repairs or adjustments are required, your Bolens Dealer must have the following information. For your own personal reference, fill in the spaces provided below.

1. Model number of Tractor. \_\_\_\_\_
2. Serial number of Tractor. \_\_\_\_\_
3. Model number of engine. \_\_\_\_\_
4. Serial and Spec. number of engine. \_\_\_\_\_

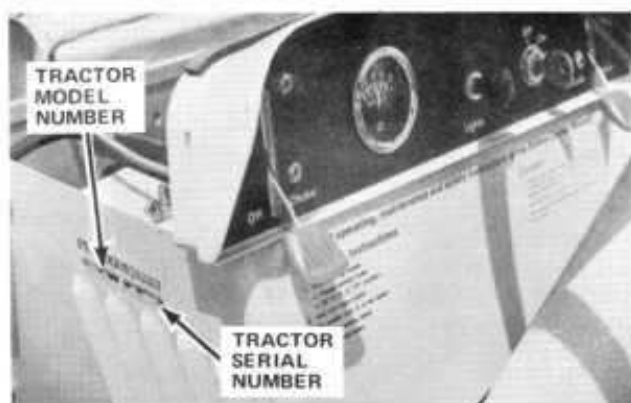


Figure 2

Your Bolens dealer has a Parts List for your unit. He can identify any parts you may require and furnish genuine factory replacements.

When ordering engine component parts, consult the Engine Manufacturer's Manual, or consult an authorized representative of the Engine Manufacturer.

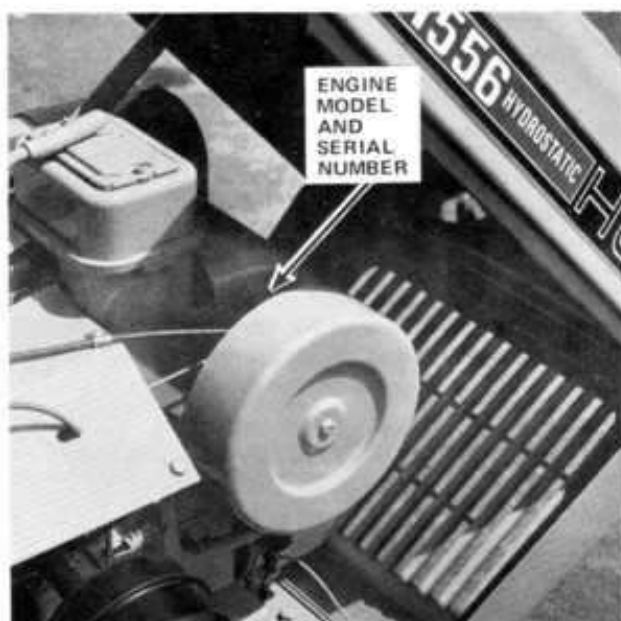


Figure 3

## SPECIFICATIONS

Engine	Tecumseh electric starting, 15 HP at 3600 RPM
Type	4 cycle, single cylinder, air cooled - counter balanced
Fuel capacity	5 quarts
Oil capacity	3 pints
Air cleaner	Heavy duty dry type (see Engine Manual)
Drive	Hydrostatic transmission
Speed	Infinitely variable. Forward approx. 8 mph. Reverse approx. 4 mph.
Power to attachments	Farm tractor type (PTO) direct drive with universal joints and splined shaft.
Tires	Front: 16 x 6.50-8. Rear: 23 x 10.50-12.
Height	40 inches
Width	34 inches
Length	63 inches
Wheelbase	43 inches
Turning radius	40 inches
Ground clearance	7 inches
Shipping weight	680 pounds
Standard equipment	PTO assembly, hydrostatic drive, fenders and seat cushion, hydraulic lift cylinder.
Location of tractor model and serial number	On upper Left Hand side panel, to the left of battery. See Fig. 2.
Location of engine model and serial number	Tecumseh Engine, Right Hand side of front engine shroud. See Fig. 3

## CONTROLS

For efficient operation of the tractor, study the accompanying illustration (see Figure 4), together with the brief descriptions given here, until you are thoroughly familiar with the location and function of each control.

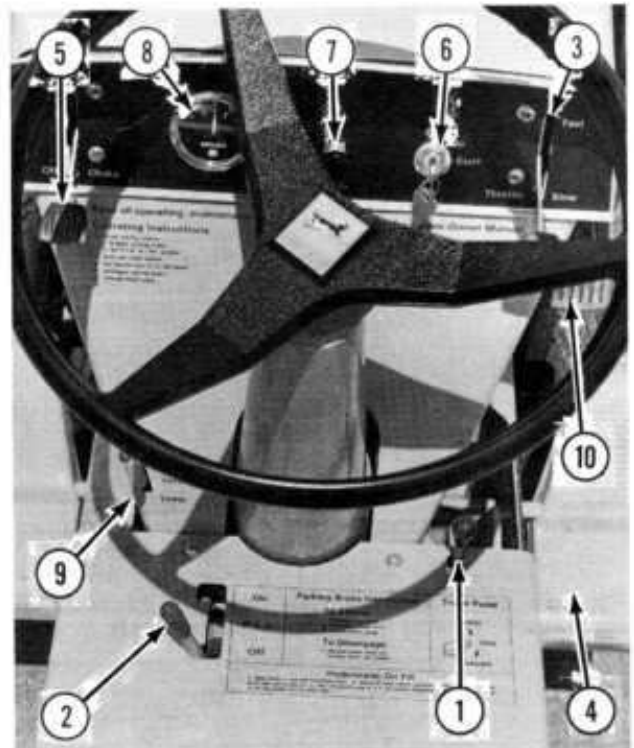


Figure 4

**1. PARKING BRAKE** — To engage "Parking Brake" depress foot brake pedal and lift parking brake knob to latch the brake pedal in the park position. To release the "Parking Brake" depress the brake pedal until the latch is released and knob drops downward.

**2. POWER TAKE OFF CLUTCH (P.T.O.)** — Push lever forward, away from operator, to engage P.T.O. — Pull lever, toward operator, to disengage P.T.O. Always be sure to lock lever in slots provided when P.T.O. is engaged or disengaged.

**3. THROTTLE** — Move throttle lever up one-half way for starting. More or less throttle may be required due to grade of fuel and temperature variations. Allow engine to warm up, then adjust throttle to full engine RPM while operating under load.

### NOTE

*OPERATE TRACTOR AT FULL THROTTLE AT ALL TIMES AFTER BREAK IN.*

**4. TRAVEL PEDAL** — With heel and sole of foot firmly on pedal, depress toe end of pedal for forward motion and depress heel end of pedal for reverse motion. Provide speed regulation by varying pedal position, and braking by reversing direction of transmission with travel pedal.



## IMPORTANT

SEE HYDROSTATIC DRIVE PAGE 9.

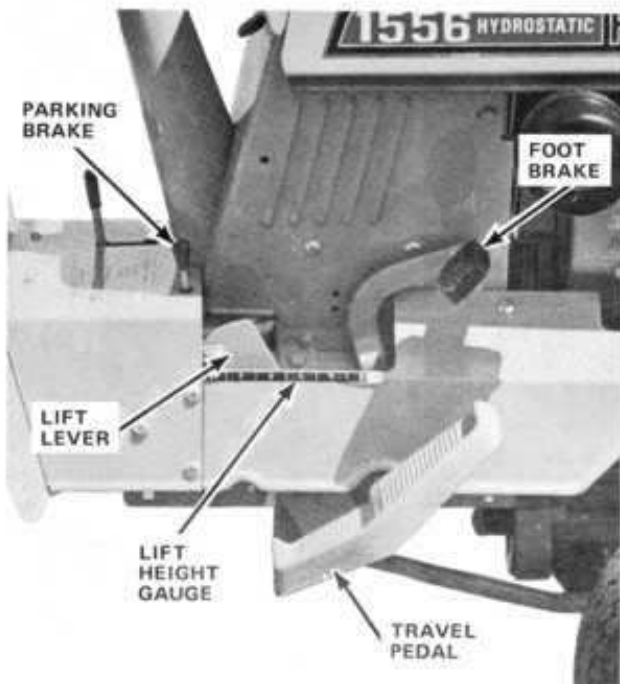


Figure 5

5. **CHOKE** — When starting engine move lever up to choke on, moving lever down as engine warms up. A warm engine requires less choke when starting.

6. **IGNITION KEY — STARTING SWITCH** — Turn ignition key to the right to start engine. Release when engine starts.

### CAUTION

*DO NOT HOLD KEY IN START POSITION FOR MORE THAN 30 SECONDS AT ONE TIME. ALLOW TWO MINUTES BETWEEN STARTING ATTEMPTS.*

7. **LIGHT SWITCH** — Pull knob out for lights on, push knob in for lights out.

### NOTE

*IGNITION KEY MUST BE TURNED TO THE ON POSITION BEFORE LIGHTS WILL OPERATE.*

8. **AMMETER** — Indicates rate of charge and rate of discharge from battery.

9. **HYDRAULIC LIFT LEVER** — Lift lever to raise attachment, press down on lever to lower attachment. Releasing lever will automatically center valve placing lift in hold position. When operating or transporting attachment in a raised position there will be a small amount of drift down of attachment. Periodically readjust height of attachment with lift lever.

10. **FOOT BRAKE** — When foot is removed from travel pedal, use foot brake to stop. When engaging parking brake (1), Figure 4, or when disengaging parking brake, depress foot brake.

When travel pedal is in neutral the tractor will free wheel and it will be necessary to use the foot brake to stop the tractor.

### CAUTION

*USE THE TOE OF THE FOOT TO APPLY BRAKE. IF YOU USE THE INSTEP OR HEEL, THE SOLE OF YOUR SHOE OR BOOT WILL CONTACT THE MUFFLER AND BECOME BURNT. SEE FIGURES 6 AND 7.*



Figure 6



Figure 7



## PRE-OPERATIONAL CHECKS

The operator should become familiar with the following pre-operational check list prior to starting or operating the HUSKY.

1. Check for proper level of engine oil. See Engine Manufacturer's Manual.

### NOTE

*THIS TRACTOR WAS SHIPPED WITH OIL IN THE ENGINE CRANKCASE. AFTER THE FIRST TWO HOURS OF OPERATION, DRAIN THE CRANKCASE AND REFILL CRANKCASE WITH BOLENS 4-CYCLE ENGINE OIL. SEE ENGINE MANUAL FOR THE CORRECT GRADE OF OIL.*

2. Refer to battery tag for recommendations on:

- A. Proper electrolyte level.
- B. Clean cables.
- C. Clean terminals.

3. Check gasoline tank for sufficient gas supply.

### DANGER

*KEEP SMOKERS AND FLAMES AWAY WHEN REFUELING. BE CAREFUL NOT TO SHORT FUEL CAN ON ELECTRICAL CONNECTIONS.*

4. Check and clean engine cooling fins, hydrostatic cooling fins, flywheel screen and air cleaner of dirt and debris frequently, regularly and thoroughly.

5. Visually check for loose nuts, screws, and electrical wiring, and retighten if necessary.

6. Check for 8 lbs. tire inflation. TIRE INFLATION SHOULD NOT BE LESS THAN 8 LBS. NOR MORE THAN 12 LBS.

## BREAK-IN PERIOD

As with a new car your new tractor should receive special attention. The engine should be run in for a few hours before operation. It is best to vary the engine speed between 3/4 and full throttle during the first few hours of operation. Your tractor would then be ready for operation.

Avoid quick starts and stops and working in close quarters until you've become well acquainted with your tractor.

## STARTING THE ENGINE

### IMPORTANT

*READ THE SEPARATE, ENCLOSED ENGINE FOLDER TO BECOME ACQUAINTED WITH ITS OPERATION AND MAINTENANCE REQUIREMENTS.*

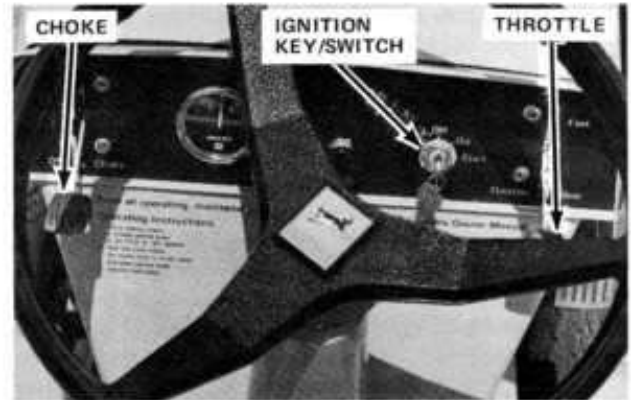


Figure 8

### ELECTRIC STARTING

1. THE ENGINE WILL START ONLY WHEN PTO CONTROL LEVER IS IN "OFF" POSITION AND PARKING BRAKE IS IN "PARK" POSITION.

2. Move choke lever all the way up (choke on). Experience will indicate need for more or less choking due to variations in temperature, grade of fuel, etc.

3. Move throttle lever up about half-way until after engine has started. More or less throttle may be required due to grade of fuel and temperature variations.

4. Insert ignition key and turn to the right to start engine. Release when engine starts.

### CAUTION

*DO NOT HOLD KEY IN START POSITION FOR MORE THAN 30 SECONDS AT ONE TIME. ALLOW TWO MINUTES BETWEEN STARTING ATTEMPTS.*

5. Choke should be partially on (lever moved down) as soon as engine starts and then gradually pushed all the way down as the engine warms up. In normal operation, choke lever should be in off (down) position for best engine efficiency and fuel economy. Move throttle lever up to full speed while operating.

6. To stop the engine, bring engine back to idle, set parking brake and place PTO lever in "OFF" position and turn ignition switch off. REMOVE THE IGNITION KEY WHEN THE TRACTOR IS NOT IN USE, OR LEFT UNATTENDED. If engine has been running a long time, let it idle several minutes before shutting it off for storage of tractor.

## EMERGENCY STARTING

In the event of electrical failure, get in touch with your DEALER for assistance in locating the trouble. Do not attempt to jump across terminals with a jumper wire. Damage to the solid state ignition system would result.

Should the battery be too low on power to start the unit, it is always best to remove it and have it recharged. However, should jumper cables be used the following CAUTIONS must be observed.

REMOVE CELL CAPS WHEN USING JUMPER CABLES.

1. When using jumper cables, connect ends of one cable to positive (+) terminal of each battery. Connect one end of other cable to negative (-) of "good" battery. Connect other end of cable to engine block on vehicle being started. (NOT TO NEGATIVE TERMINAL OF BATTERY.)

2. Check PTO clutch (must be in OFF position) and parking brake set.

3. Follow procedure outlined under starting the engine page 7.

## STOPPING THE ENGINE

1. If the engine has been operating under a heavy load and is hot, do not stop it abruptly. Allow the engine to idle for approximately three to five minutes at low RPM. This will allow the engine temperatures to normalize more rapidly preventing overheating.

2. Turn ignition switch off.

## OPERATION

BEFORE DRIVING THE HUSKY, THE OPERATOR SHOULD BE FAMILIAR WITH THE LOCATION AND FUNCTIONS OF ALL CONTROLS. THE ENGINE WILL START ONLY WHEN PTO LEVER IS IN OFF POSITION AND PARKING BRAKE SET. SEE FIGURE 11.

Setting the parking brake locks the travel pedal in its centered or neutral position, to prevent use of the travel pedal.

The hydraulic lift lever can be maneuvered while vehicle is at rest or in motion. Lift lever to raise and push down on lever to lower attachments. When the lever is released, it will automatically return to NEUTRAL position and hold. Consult your attachment manual for correct lift lever position. See Figure 9.

## CAUTION

BE SURE ATTACHMENTS ARE COMPLETELY HOOKED UP BEFORE USING HYDRAULIC LIFT LEVER.

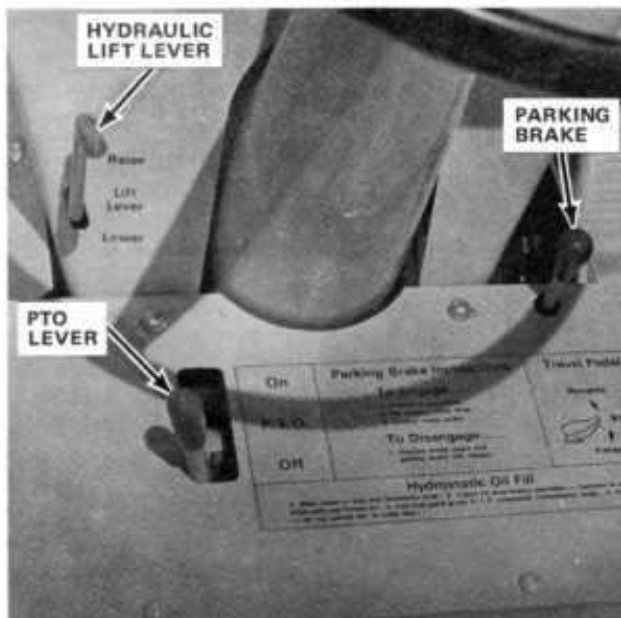


Figure 9

## NOTE

THE HYDRAULIC LIFT LEVER SHOULD ALWAYS RETURN TO THE NEUTRAL POSITION AFTER RAISING OR LOWERING OPERATIONS. IF LEVER DOES NOT RETURN FREELY, CHECK FOR BINDING OF THE LIFT LEVER OR THE LINKAGE.

The PTO and hydrostatic transmission are separate systems, therefore, the PTO can be engaged or disengaged as desired by the operator.

## IMPORTANT

DO NOT ENGAGE PTO WITHOUT AN IMPLEMENT ATTACHED. ALWAYS REMOVE "U" JOINTS FROM PTO SHAFT AFTER ATTACHMENT IS REMOVED. SERIOUS DAMAGE WILL RESULT IF "U" JOINTS ARE LEFT ON.

The hydrostatic transmission gives the operator a choice of infinitely variable speeds from 0 to approximately 8 mph forward, and 0 to approximately 4 mph in reverse. Avoid excessive HIGH travel speed whenever possible. Low travel speeds are best for jobs such as snow casting or mowing tall grass.



## HYDROSTATIC DRIVE

For optimum control and power, the hydrostatic should be operated at constant **FULL-THROTTLE ENGINE SPEED**. Complete control of forward, reverse, dynamic braking, and travel speed of the vehicle is accomplished through the use of the travel pedal. When operating the vehicle under varying load conditions, there will be a noticeable change in ground speed. It should be noted that when ground speed is reduced due to greatly increased loads, the travel pedal should be **DIRECTED TOWARD NEUTRAL POSITION** in order to increase the torque to the rear wheels. For example, if the engine starts to "lug" down while attempting to maintain a given speed when encountering a hill or other increased load, it is important to move the travel pedal toward neutral rather than toward full travel pedal.

This would be the same as shifting down to a lower gear with a typical mechanical transmission. Try to vary the foot pedal to maintain full engine speed. Do not increase travel speed to a point where engine lugs down in speed. Prolonged lugging or full travel-pedal operation that overloads the engine will raise engine and transmission oil temperatures. If the vehicle has been performing under these heavily loaded conditions, allow it to operate at a lower ground speed (lighter load but at full engine RPM) for a few minutes so that normal temperatures will again be established.

### IMPORTANT

**THE TRANSMISSION COOLING FINS SHOULD BE CLEANED FREQUENTLY TO ALLOW PROPER COOLING OF TRANSMISSION.**

#### CAUTION

If tractor loses power, shut down immediately and check for oil leaks in hydraulic system and repair. Also if oil leak appears do not operate tractor but repair leak immediately. Failure to correct the above conditions will result in damage to the transmission. The travel (control) pedal provides complete control of travel speed. To slow down from forward simply ease up on toe pressure; releasing toe pressure completely allows the tractor to return to neutral. To slow down or stop from reverse travel simply ease up on pressure of the heel and the tractor will shift into neutral. The rate of change of speed is directly controlled by the rate at which the pedal position is changed.

### IMPORTANT

**OPERATOR MUST KEEP FOOT ON THE TRAVEL-PEDAL FOR MAXIMUM CONTROL OF THE TRACTOR. MOVING TRAVEL-PEDAL MANUALLY TO NEUTRAL TO OBTAIN DESIRED DECELERATION BY MEANS OF DYNAMIC BRAKING IS THE PRINCIPLE INTENDED IN HYDROSTATIC TRANSMISSIONS.**

## NOTICE IMPORTANT

**DUE TO THE SELECT FITS IN THE HYDRO-STATIC IT IS A PACKAGE EXCHANGE ITEM. IT SHALL NOT BE TAKEN APART UNDER ANY CIRCUMSTANCES OR WARRANTY ON IT WOULD BE VOID. CONSULT YOUR DEALER FOR SERVICE OR REPLACEMENT.**

## CONTROLLED DIFFERENTIAL

By turning the control knob, located on the hub of the left rear wheel as shown in Figure 10 you can vary the degree of differential traction up to nearly straight axle drive. For jobs such as plowing, or snow casting, turn the knob clockwise (as viewed from left side of tractor, facing end of axle) until desired degree of drive to both wheels is obtained. For mowing, or other lighter jobs, be sure to have control knob in standard differential position (that is, turn the control knob counterclockwise until it stops).

This is necessary to avoid gouging or scuffing the tires, which would be caused by having both wheels driving on turns. The differential can be adjusted from the driver's seat.

#### CAUTION

1. Do not adjust posi-traction knob while tractor is in motion.
2. NEVER TIGHTEN WITH A WRENCH OR HAMMER!



Figure 10



## PREVENTIVE MAINTENANCE

Engine — To obtain long life and best service from your engine, certain normal maintenance must be performed. Follow the instructions outlined in the brochure furnished by the ENGINE MANUFACTURER.

### CAUTION

*THIS ENGINE IS EQUIPPED WITH SOLID STATE IGNITION. ALWAYS HAVE ELECTRICAL REPAIRS OR ADJUSTMENTS MADE BY AN AUTHORIZED DEALER TO AVOID POSSIBLE ELECTRICAL DAMAGE TO IGNITION SYSTEM.*

**BATTERY** (Figure 11) — Keep cables and terminals clean and apply a light coat of petroleum jelly or oil for protection. Check battery bracket for corrosion and keep clean. The battery terminal boot supplied on the positive battery cable *must* be installed over the battery terminal after the cable is secured to the positive battery post. This is to prevent accidental shorting. See Figure 11.

Check level of battery electrolyte. The electrolyte (acid and water) in each cell should be at triangle level at all times to prevent battery failure. When the electrolyte is below this level, *add pure, distilled water.*

Under no circumstances add any special battery "dopes," solutions or powders or exotic additives; this voids warranty.

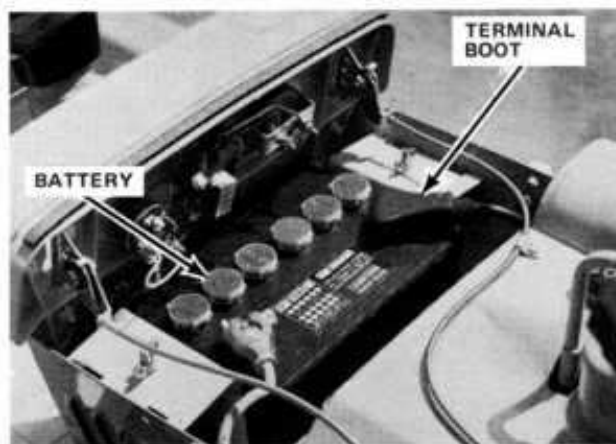


Figure 11

### CAUTION

*The battery in this tractor contains SULFURIC ACID. In case of acid contact with skin, eyes or clothing, FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER. Get medical attention.*

Electric storage batteries give off highly inflammable and explosive hydrogen gas when charging and continue to do so for some time after receiving a steady charge. Do not under any circumstances allow an electric spark, lighted cigarettes, or an open flame near the battery. Do not lay

tools across battery terminals as this may result in a spark or short circuit which may cause an explosion. When using battery in an enclosed space, provide ventilation. Be careful to avoid spilling any electrolyte on hands or clothing. **REMOVE CELL CAPS WHEN CHARGING.**

Never loosen hold-down clamps until you have removed battery cables from the battery post. Always remove ground (-) cable first. When removing battery, loosen bolts through terminal clamps and use a terminal puller to remove clamps. If terminal puller is not available, be sure to spread clamps before prying them off the battery posts.

When reinstalling a battery; 1. Place battery clamps flat side toward battery. 2. Hold down rods in notches of battery lugs. 3. Tighten wingnuts *FINGER TIGHT ONLY* to avoid possible damage to battery case.

### IMPORTANT

*WHEN REINSTALLING BATTERY OR INSTALLING NEW BATTERY, WINGNUTS ON BATTERY HOLD-DOWN SHOULD ONLY BE TIGHTENED FINGER TIGHT. DO NOT USE A WRENCH OR PLIERS TO TIGHTEN. DAMAGE TO THE BATTERY CASE COULD RESULT.*

When installing battery, **NEVER** hammer terminal clamps onto battery posts when connecting battery cables. To do so could result in severe damage to the battery.

### IMPORTANT

*WHEN REINSTALLING BATTERY, ALWAYS POSITION CABLE TERMINALS AS SHOWN IN FIGURE 11.*

**FUEL TANK** (Figure 12) — Fill with clean fresh gasoline of regular grade. **DO NOT MIX OIL WITH GASOLINE.** Check to see that vent hole in fuel tank cap is not plugged.

### BEWARE

*AVOID SMOKING OR OPEN FLAME WHEN REFUELING AS GASOLINE AND ITS FUMES ARE HIGHLY FLAMMABLE AND EXPLOSIVE.*

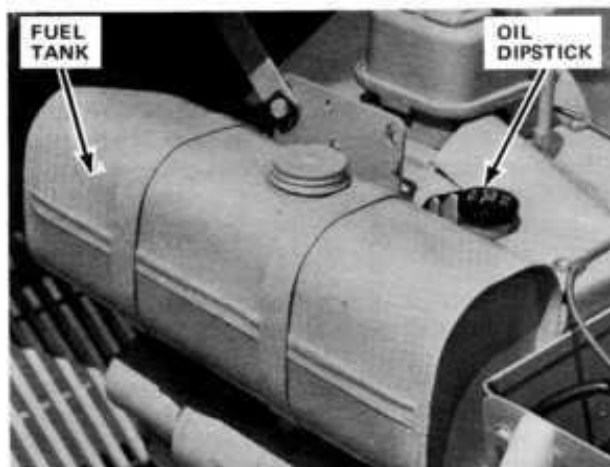


Figure 12

**AIR CLEANER** (Figure 13) — Dry Type should be cleaned regularly. A dirty air cleaner could cause engine damage. Refer to engine booklet for instructions.

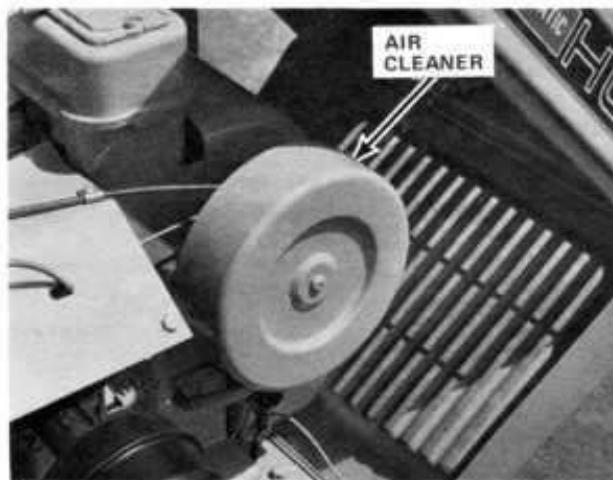


Figure 13

**SPARK PLUG** — Clean area around spark plug before removing plug. The spark plug should be cleaned inside and out and regapped every 100 hours or once each year whichever occurs first. Replace plug whenever necessary. The correct gap setting is .030 inch. Refer to enclosed Engine booklet for replacement specifications.

#### CAUTION

*CLEANING OF SPARK PLUGS IN CLEANING MACHINES THAT USE ABRASIVE GRIT IS NOT RECOMMENDED. SPARK PLUGS SHOULD BE CLEANED BY SCRAPING OR WIRE BRUSHING AND WASHING WITH A COMMERCIAL SOLVENT.*

**PNEUMATIC TIRE PRESSURES** — Maintain pressure in tires as recommended in chart. Ideal pressure will depend upon load carried. Heavier loads require higher inflation. Check pressures with a low pressure gauge having one-pound graduations. Operating with pressures below pressures given here may damage tires.

TIRE	SIZE	PRESSURE (lbs./sq. in.)
FRONT	16 x 6.50-8	8 PSI
REAR	23 x 10.50-12	8 PSI

Tire pressure must be the same on one side as the other, or else the tractor will not ride level. Remember, also, that tire pressure, weight of the operator, or a combination of the two will affect the riding height of the tractor and this, in turn, will affect the cutting height and the leveling of the rotary mower.

## ADJUSTMENTS

### BELT ADJUSTMENT AND REPLACEMENT

#### TO REMOVE PTO BELTS

1. Loosen belt guides from PTO support and remove PTO belts from pulley.
2. Loosen the two capscrews that hold the belt guide to the engine, and remove the guide.
3. Pull the idler pulley away from the belt, and temporarily secure in this position. See Figure 14.
4. Remove the drive belts from the engine pulley.
5. Remove the PTO belts.

To install PTO belts, reverse the above procedure. Be sure all parts removed are replaced in their original position.

#### TO REMOVE DRIVE BELTS

1. Loosen belt guide under the driven pulley.
2. Pull the drive belt idler away from the belts and secure in this position. See Figure 14.
3. Slip belts off bottom pulley then engine pulley and out thru the bottom.
4. To install belts reverse above procedure.

### TRANSMISSION DRIVE BELT ADJUSTMENT

The transmission dual drive belts require no adjustment. There is constant belt tension applied at all times.

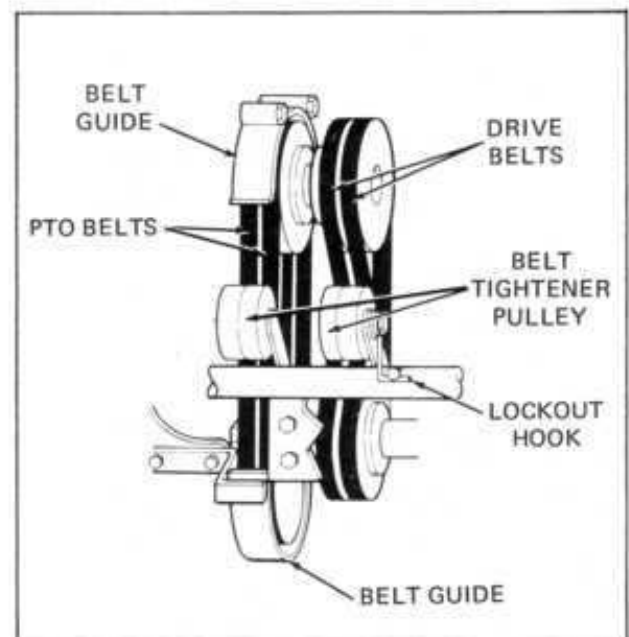


Figure 14



## PTO BELT ADJUSTMENT

The PTO belts can be adjusted by loosening the three capscrews that hold PTO support casting to axle support casting. Raise or lower PTO support casting to obtain proper adjustment.

If belts are properly adjusted (as described above) and still drag, check adjustment of lower belt guide. There should be approximately 1/8" clearance between pulley and belt guide all the way around.

## TO MOVE UNIT ABOUT MANUALLY

Release parking brake. You can now push tractor by hand in either the forward or reverse direction. **PUSH TRACTOR SLOWLY TO PREVENT TRANSMISSION FROM LOADING UP.**

The most convenient location would be to push on the right handside so foot brake can be operated by hand if necessary.

### CAUTION

*TO AVOID POSSIBLE DAMAGE TO THE TRACTOR, DO NOT PUSH OR PULL TRACTOR WITH ANOTHER VEHICLE.*

## SEAT ADJUSTMENT

To adjust seat, loosen the two hex nuts securing seat to fender. Slide seat either forward or backward until desired adjustment is achieved. Tighten nuts to secure seat in its new position.

## INTERLOCK SWITCHES

There are two interlock switches on this unit, one on the "Brake Linkage" and one on the "Power Take Off" control.

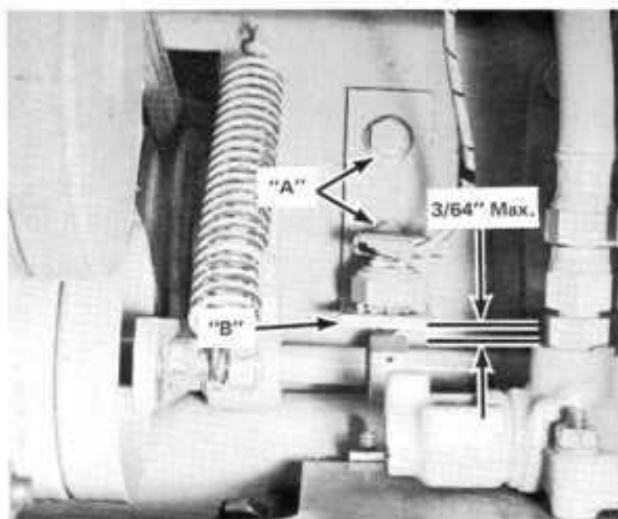


Figure 15

If the interlock switch on the "Power Take Off" needs adjustment refer to Figure 15. With PTO lever in off position, loosen hex nuts "A" slightly. Then move bracket "B" either towards or away from PTO lever cam to obtain from 3/64" maximum to 1/64" minimum clearance between the switch housing and the cam. After adjustment is made securely tighten nuts "A" and recheck clearance. If clearance has changed repeat above procedure.

Interlock switch on the "Transmission Linkage" is located as shown in Figure 16.

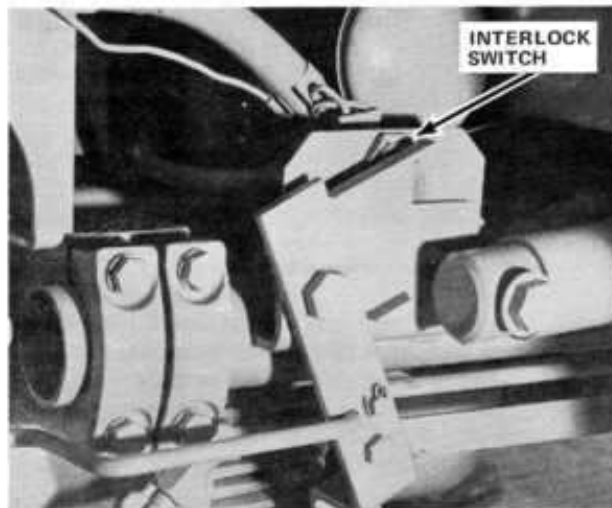


Figure 16

## TRAVEL PEDAL

The "Travel Pedal" was adjusted at the factory with tip of the pedal approximately 45° forward of the vertical center line. If the operator would prefer to either increase or decrease this angle for his personal comfort the pedal can be adjusted as follows. Refer to Figure 20. Loosen hex nut "A." Remove cotter pin "B" from trunion "C." Remove trunion "C" from lever "D." Turn rod "F" into rod end "E" to increase the pedal angle. Turn rod "F" out of rod end "E" to decrease the pedal angle. After adjustment has been completed reinstall trunion "C" and cotter pin "B." Lock hex nut "A" securely against rod end "E."

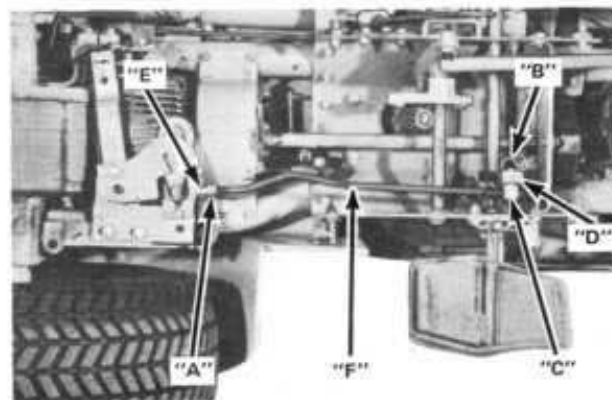


Figure 17



## FOOT BRAKE ADJUSTMENT

If it only requires light foot pressure to latch the parking brake, or if the parking brake does not hold the tractor when the brake pedal is latched, the brake system requires adjustment.

With the parking brake released, proceed as follows:

1. Measure the distance between the front of the brake arm and the cutout of the tractor skirt; this should be 1 inch when brake is latched. See Figure 18A. If this dimension is not 1 inch, loosen the two hex head capscrews holding the latch bracket to the tractor frame. Slide bracket either forward or backward to achieve the 1 inch dimension. Securely retighten capscrews after adjustment is achieved.
2. Turn hex lock nut "A", Figure 18 clockwise to tighten until 15 to 25 pounds pressure on the foot pedal is required to latch the parking lock.

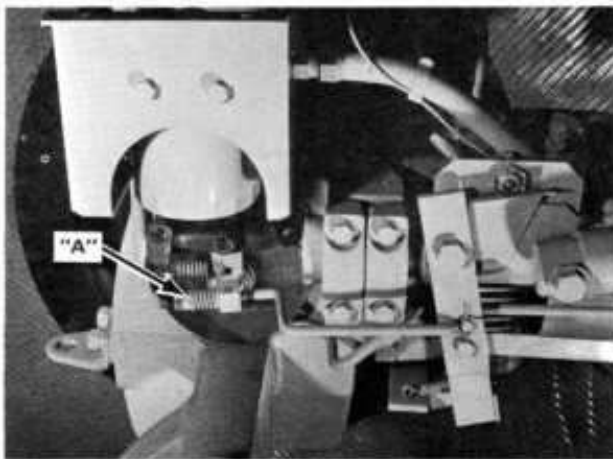


Figure 18

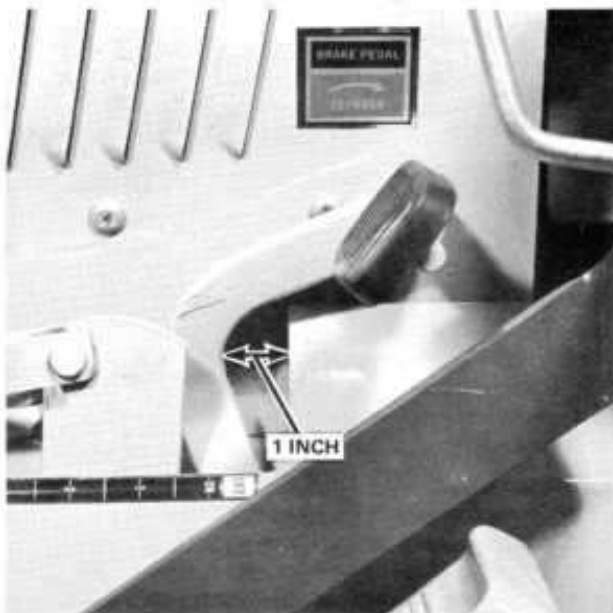


Figure 18A

## HYDROSTATIC NEUTRAL ADJUSTMENT

The "Hydrostatic" neutral is adjusted at the factory; if the transmission would need adjustment the following procedure should be used.

With the transmission cold and engine off, check the fluid in transmission reservoir. It should be to the level indicated on dipstick.

Refer to Figure 19. Start engine and release parking brake. If the tractor creeps "Forward" or "Backward" the "Neutral" position needs adjustment.

Adjust Neutral as follows:

1. With the engine off, release parking brake and place travel pedal in full reverse position. Pin "A" Figure 19 should be tight in corner "B" of lever "C" Figure 19. If adjustment is necessary loosen capscrew "D" and adjust lever "C". Securely retighten capscrew "D" after adjustment is achieved.
2. Securely block up rear of tractor, just so the rear wheels clear the ground.
3. Start the engine and set throttle to about 1/4 open.
4. Loosen capscrews "E" Figure 19. Hold neutral arms "F" firmly in contact with pin "K", carefully move plate "G" toward front of tractor, if tractor is creeping forward, and toward rear of tractor if tractor is creeping backward, until Hydrostatic noise ceases and wheels no longer creep.
5. Securely tighten capscrews "E" and recheck. Plate "G" must be kept parallel to casting "H".

### IMPORTANT

*WHEN NEUTRAL IS PROPERLY ADJUSTED PIN "A" MUST ENTER SLOT "J" FREELY WITHOUT HITTING THE SIDES OF SLOT "J". IF PIN HITS THE SIDE OF SLOT "J" LOOSEN CAPSCREW "D" AND READJUST LEVER "C". SECURELY RETIGHTEN CAPSCREW "D" AFTER CORRECT ADJUSTMENT IS ACHIEVED.*

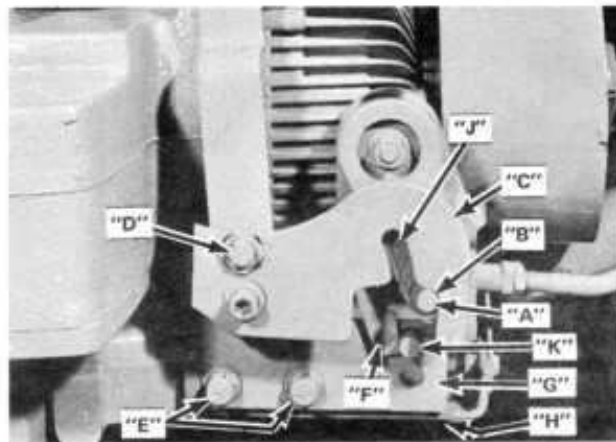


Figure 19

### CAUTION

*WHILE ENGINE IS RUNNING BE CAREFUL NOT TO REACH AROUND FAN GUARD INTO FAN AS SEVERE INJURY FROM THE FAN WOULD RESULT.*

#### HYDRAULIC LIFT LEVER

When the hydraulic lift lever is moved either to its up or down position, with the engine running at normal speed, the cylinder should move smoothly to the end of its stroke without noting a squeal from the control valve. If the valve squeals when the lever is moved either up or down with the cylinder in motion it should be adjusted as follows. Refer to Figure 20. Loosen screws "B" enough to allow pillow block "C" to be moved slightly. Move pillow block "C" either direction until lift lever "A" is in center of slot, hold lever and tighten screws "B." With engine running move lift lever to move the cylinder through its up and down cycle. If while the cylinder is moving there is a squealing noise the centering adjustment must be rechecked. If a squeal occurs on the up stroke the pillow block must be moved slightly to the rear and if the squeal occurs on the down stroke move the pillow block slightly forward. When the lift lever is properly adjusted the lever should reach either end of the slot at the same time that the lift valve spool reaches the end of its stroke.

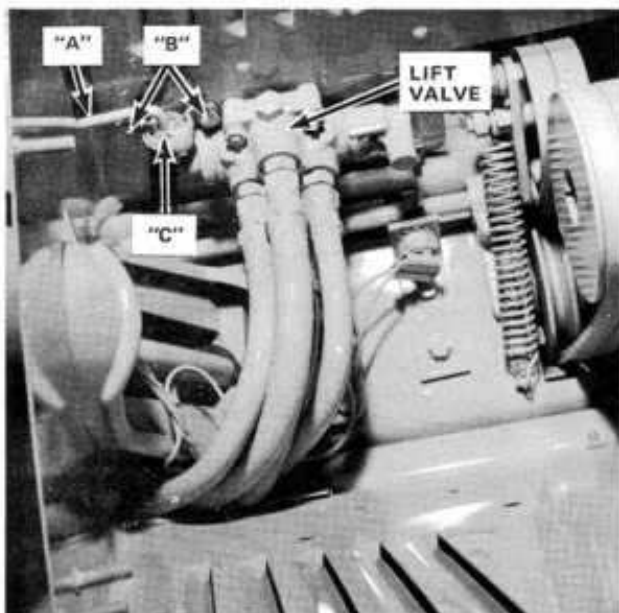


Figure 20

After proper adjustment has been made, securely tighten capscrews "B." Recheck adjustment.

### NOTE

*IF LIFT LEVER IS NOT RELEASED WHEN CYLINDER REACHES THE END OF ITS STROKE IN EITHER DIRECTION THE VALVE WILL ALSO SQUEAL DUE TO THE OIL PASSING THROUGH THE PRESSURE RELIEF VALVE.*

#### POWER TAKE OFF (PTO)

##### FAST-SWITCH POWER-LOCK HITCH (NOT BELTS)

Drive shaft delivers power directly from power take off (PTO) to attachment — front, rear and center-mounted. (See Figure 21.)

### CAUTION

*ALWAYS REMOVE UNIVERSAL JOINT FROM POWER TAKE OFF SHAFT WHEN ATTACHMENTS ARE REMOVED FROM TRACTOR. IF THE UNIVERSAL JOINT IS NOT REMOVED AND THE POWER TAKE OFF IS ENGAGED, MECHANICAL DAMAGE OR PERSONAL INJURY WOULD OCCUR.*

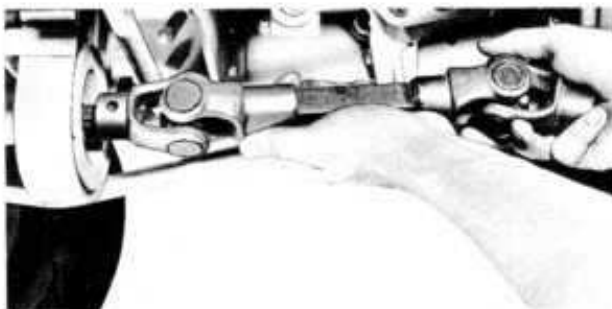


Figure 21

### MAINTENANCE CHART

	AFTER EVERY 8 HOURS OF OPERATION	AFTER EVERY 25 HOURS OF OPERATION	AFTER EVERY 50 HOURS OF OPERATION
Check battery water level		X**	
Check air in tires (page 7)		X	
Check engine crankcase oil	X**		
Drain engine crankcase oil and refill with correct grade of Bolens 4-cycle engine oil.			X**
Check SAE-90 gear oil in differential and add Bolens No. 16021 gear lube to level of upper filler plug as needed.		X**	
Check and clean cooling air screen	X*		
Lubrication points (see lubrication chart)	X		
Clean transmission cooling fins	X*		
Air cleaner - service as instructed in separate Engine manual.	X*		
Check hydrostatic oil (add to coldmark on dipstick with cap turned down).	X**		
Check generator-starter mounting bolts and tighten if necessary.		X	
Check for belt wear			X
Brake adjustment			X**
<p>*More often under extreme dusty conditions  **More often under extreme load conditions.</p>			



### LUBRICATION CHART

LOCATION	TYPE OF LUBRICATION	AMOUNT OF LUBRICATION	FREQUENCY OF LUBRICATION
1. Wheel Bearings	Bolens #16020 Grease	As required	8 hrs.
2. Front Wheel Spindles	Bolens #16020 Grease	As required	8 hrs.
3. Front Axle Pivot	Bolens #16020 Grease	As required	8 hrs.
4. P.T.O. Housing	Bolens #16020 Grease	As required	8 hrs.
5. Differential	Bolens No. 16021 gear lube	To fill plug level	8 hrs.
*6. Engine Crankcase	See Engine Manufacturer's Manual		
7. Tie Rod Ends and Drag Links	Oil	Coat bearing surface	8 hrs.
8. Hood Hinge	Oil	Coat Bearing surfaces	8 hrs.
9. Starter	No Lubrication Required		
10. Lower Steering Shaft	Bolens #16020 Grease	As required	8 hrs.
*11. Hydrostatic Transmission	Automatic Transmission Fluid - Type A	Add to cold mark on dipstick	Check once a week or 8 hrs.
*12. Transmission Filter			Change every 500 hrs. or once a year
*13. Travel Pedal Pivot Shaft & Brg's	Oil	Coat bearing surfaces	8 hrs.
14. Brake Linkage	Oil	Coat bearing surfaces	8 hrs.
*More frequent if application demands.			
<p>NOTE: The Bolens No. 16023 hand type grease gun with a flexible hose to which Bolens No. 16020 grease in collapsable tubes can be attached is recommended when greasing your unit. This type grease gun can be purchased from your Bolens Dealer. <i>Hi-pressure type grease guns</i> could cause damage to the fittings and bearing seals. Lubricate all linkages, levers and pins (not equipped with grease fittings) with an oil can once a week, or oftener depending on operating conditions.</p>			

## LUBRICATION

Proper Lubrication and regular maintenance will increase the operating life of your HUSKY and attachments. Negligence on the part of the operator in regard to lubrication or general maintenance can depreciate the durability of this vehicle. It is necessary that the lubrication recommendations in this manual be followed. A lubrication schedule prepared by the operator would be beneficial.

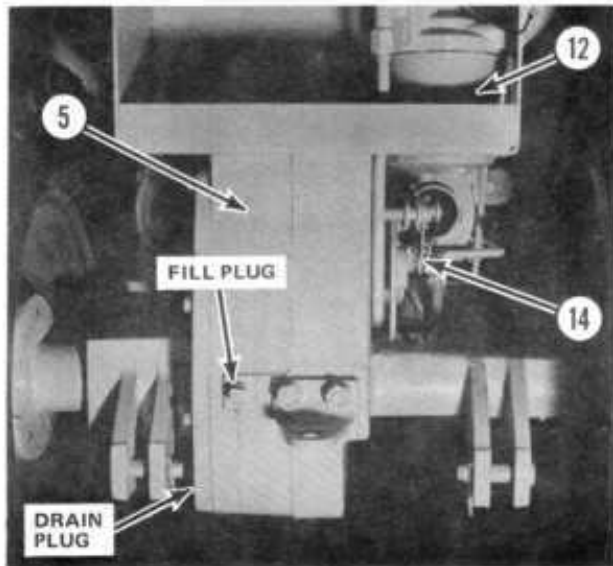


Figure 22

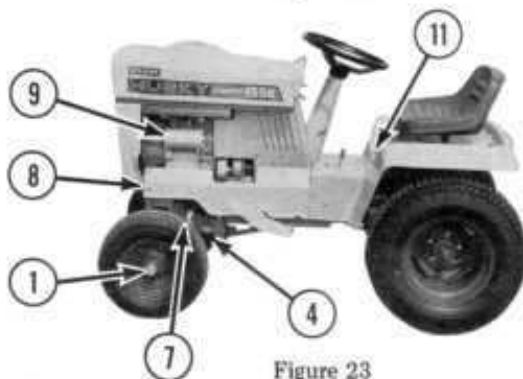


Figure 23

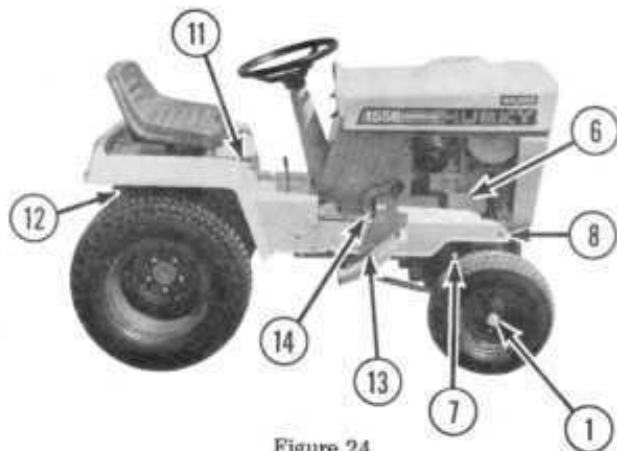


Figure 24

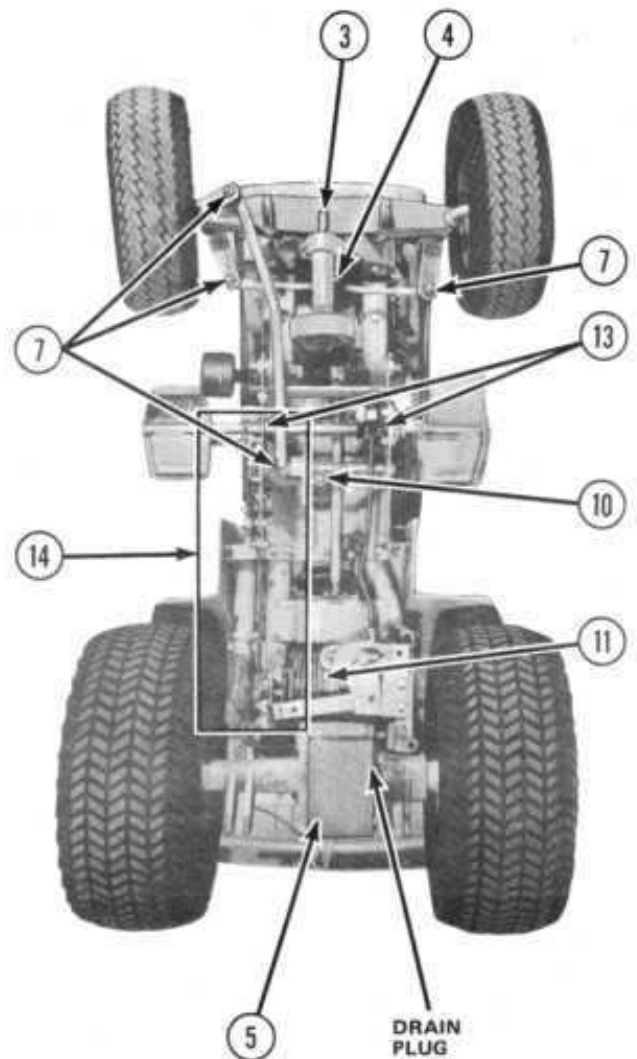


Figure 25

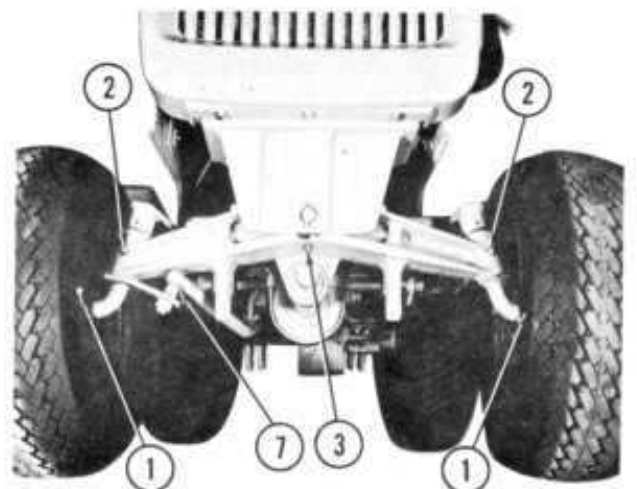
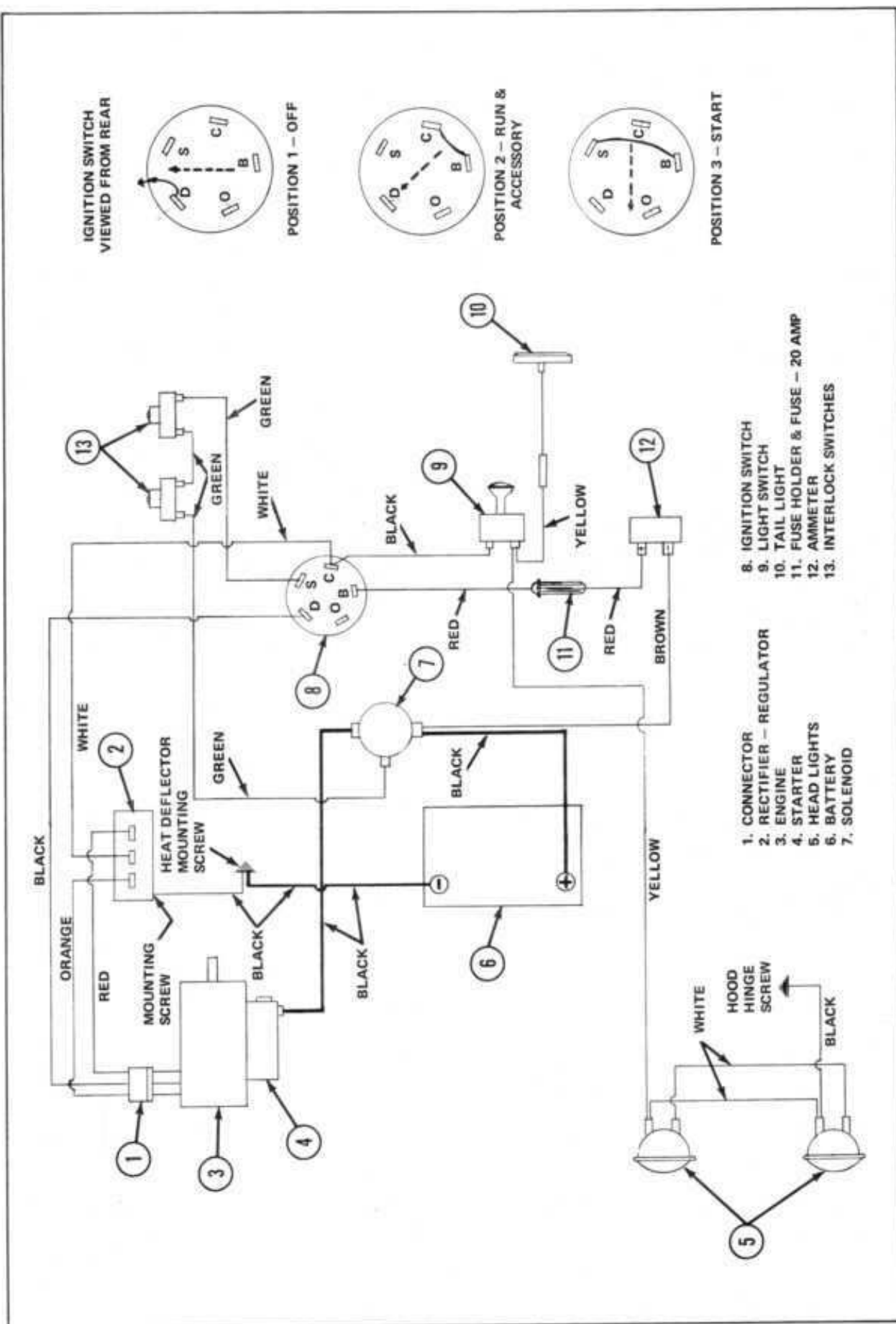


Figure 26





## STORING YOUR HUSKY TRACTOR

Always keep your HUSKY tractor in a dry, protected place when not in use to prolong its usefulness and appearance. With year 'round use, it is not necessary to "store" the tractor but when it is not to be used for some time, it should be prepared for storage in the following manner:

1. Completely clean all accumulated dirt or trash from all parts of tractor.
2. Wipe oil or a rust preventative on any parts that may be damaged by rust.
3. Drain gas tank and carburetor.
4. Remove spark plug, clean and regap and put a small amount of oil (S.A.E. 30) into cylinder.
5. Without starting the tractor, crank the engine to fully lubricate the cylinder walls, valve seats and valve stems.
6. Replace spark plug.

7. Keep tractor covered, and store in a dry, well ventilated area.

8. BATTERY — Remove battery from tractor. Keep terminal posts cleaned of corrosion salts and coat with petroleum jelly or grease. Keep cables clean. Stored battery must be kept fully charged and with all cells filled to triangle. Store at cool temperature 20° to 50°. Check each two months and charge as necessary.

### NOTE

*REMOVE CELL CAPS WHEN CHARGING. STORE BATTERY OUT OF REACH OF CHILDREN.*

9. The air cleaner should be cleaned and sealed off with a plastic bag or facsimile, for the duration of the storage period.

10. If tractor is stored with an attachment mounted on it, the attachment MUST be lowered to the ground, the PTO lever put in OFF position.

## MINOR TROUBLE SHOOTING GUIDE

	CLEAN OFF ENGINE FINS	FLY-WHEEL SCREEN (CLEAN)	FAULTY IGNITION*	FAULTY SPARK PLUG	EMPTY FUEL TANK	BATTERY	CARBURETOR	IDLE ADJUSTMENT	OIL	AIR CLEANER (CLEAN)	CHOKE	SEE YOUR BOLENS DEALER	CHECK CONTROL SETTINGS	CHECK INTERLOCK SWITCHES
Engine will turn over but won't start			X	X	X		X				X	X		
Engine will not turn over						X						X	X	X
Starts only after repeated tries			X	X			X				X	X		
Stalls in a few seconds					X		X	X				X		
Stalls when hot			X	X	X		X	X		X		X		
Idles rough			X	X				X			X	X		
Engine overheats	X	X	X	X			X		X	X		X		

\*See Engine Manual or your Bolens Dealer.

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Bolens reserves the right to change specifications, add improvements or discontinue the manufacture of any of its equipment without notice or obligation to purchasers of its equipment.

Bolens' approval of the use of attachments manufactured by other manufacturers is limited to assurance that such use will not void Bolens warranty on the Bolens equipment to which the outside manufactured attachments are adapted. The responsibility for the design, performance, durability safety in operation, service repair availability, and warranty obligation remain with the outside manufacturer. Bolens specifically excludes from its warranty obligation all such outside manufactured attachments.

Bolens warranty will be voided if unapproved attachments are adapted to use with Bolens equipment and are so used.

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# LUBRICATION AND MAINTENANCE RECORD

DATE PERFORMED	DESCRIPTION OF MAINTENANCE	HRS. RUN

