

Operating/Service Instructions

RIDING MOWER

IMPORTANT

SAFE OPERATION PRACTICES FOR RIDING VEHICLES

Model Nos.

133-460 Recoil

133-465 Electric

1. Know the controls and how to stop quickly—**READ THE OWNER'S MANUAL.**
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.
3. Do not carry passengers. **Keep children and pets a safe distance away.**
4. Clear work area of objects which might be picked up and thrown.
5. Disengage all attachment clutches and shift into neutral before attempting to start engine (motor).
6. Disengage power to attachment(s) and stop engine (motor) before leaving operator position.
7. Disengage power to attachment(s) and stop engine (motor) before making any repairs or adjustments.
8. Disengage power to attachment(s) when transporting or not in use.
9. Take all possible precautions when leaving vehicle unattended such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
10. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face.
11. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
12. Stay alert for holes in terrain and other hidden hazards.
13. Use care when pulling loads or using heavy equipment.
 - A. Use only approved drawbar hitch points.
 - B. Limit loads to those you can safely control.
 - C. Do not turn sharply. Use care when backing.
 - D. Use counterweight(s) or wheel weights when suggested in owner's manual.
14. Watch out for traffic when crossing or near roadways.
15. When using any attachments never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
16. Handle gasoline with care—it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
 - C. Open doors if engine is run in garage — exhaust fumes are dangerous. Do not run engine (motor) indoors.
17. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in owner's manual.
18. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
19. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
20. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
21. 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.
22. Do not change the engine governor settings or overspeed the engine.
23. When using the vehicle with mower, proceed as follows:
 - (1) Mow only in daylight or in good artificial light.
 - (2) Never make a cutting height adjustment while engine (motor) is running if operator must dismount to do so.
 - (3) Shut engine (motor) off when removing grass catcher and/or unclogging chute.
 - (4) Check blade mounting bolts for proper tightness at frequent intervals.
24. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.

ASSEMBLY

GRASS CATCHER Model No. 193-015 is available as optional equipment for the mowers shown in this manual.

WARNING

The mower should not be operated without the entire grass catcher or chute deflector in place.

NOTE

Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations. For replacement bags, use only factory authorized replacement bag No. 764-121.

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

The steering wheel and seat, with the necessary hardware, are easily assembled to the machine. On the electric starter models, the battery must be activated and installed as outlined in this section.

NOTE

Reference to right-hand or left-hand side of machine is from the driver's seat facing forward.

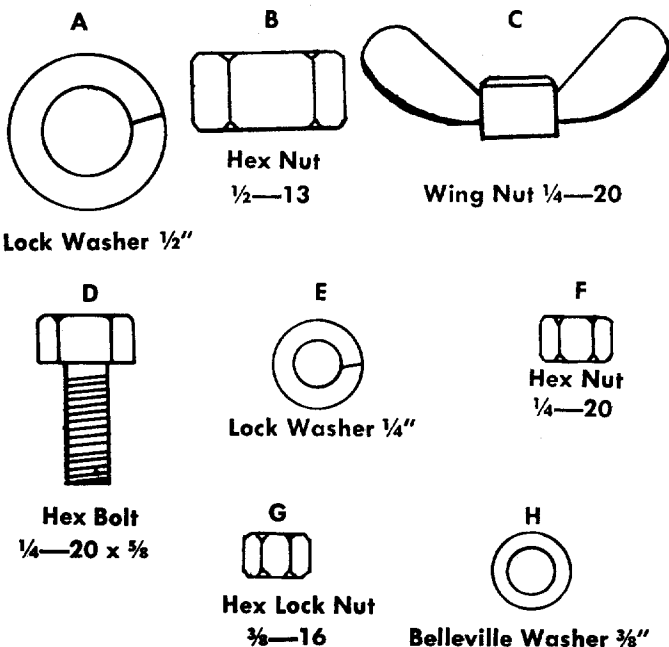


FIGURE 1. HARDWARE SUPPLIED

Step 1. Remove the lawn mower and all parts from the carton. Make certain that all loose parts and literature have been removed before the carton is discarded.

Step 2. Place steering wheel over steering shaft.

Step 3. Secure with Belleville washer and hex nut. See figure 2.

Step 4. Press the cap on the steering wheel by hand. See figure 2.

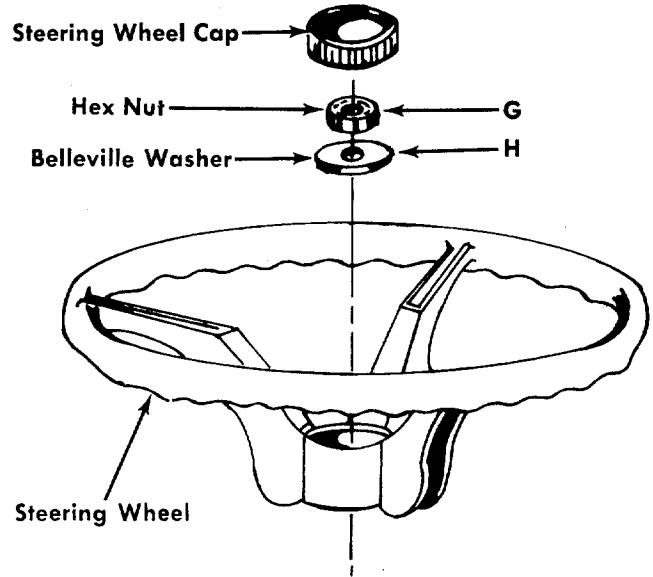


FIGURE 2. STEERING WHEEL ASSEMBLY

Step 5. Your molded seat comes with the mounting bolt molded in the seat.

A. Select one of three hole locations on seat spring.

B. Place seat on spring and secure with lock-washer (A) and hex nut (B). See figures 1 and 3.

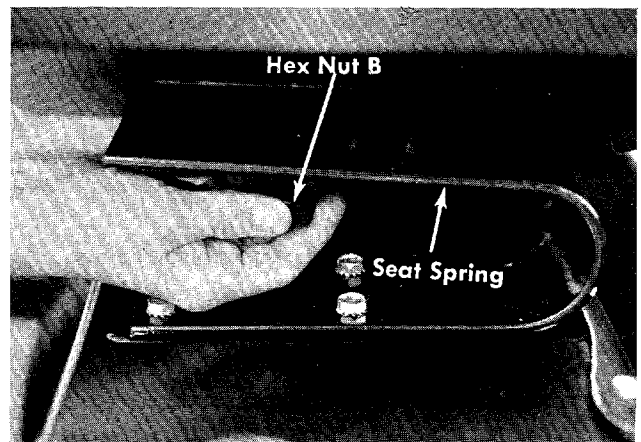


FIGURE 3. SEAT ASSEMBLY

Step 6.

WARNING

Since battery acid is corrosive to metals, do not pour into any sink or drain. Rinse empty electrolyte containers and mutilate before discarding. If acid is accidentally spilled on battery during filling or charging, or on bench or clothing, etc., flush off with clear water and neutralize with soda or ammonia solution.

1. Place battery to be filled on bench or workbench. Never activate battery in mower. Remove vent plugs from all cells.
2. Fill each cell carefully using battery grade 1.250-1.265 specific gravity. Sulfuric acid to $\frac{3}{8}$ " above the top of the separators or to the split ring.
3. Allow battery to set for 20 minutes. Battery can then be installed, however, to have maximum capacity the battery should be placed on a charger after the 20 minutes setting period. Battery can be charged at maximum of 35 amperes until the specific gravity reading is 1.265-1.275.
4. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225 remove battery and recharge.
5. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells. Coat the terminals with a thin coat of grease.
6. If the battery is not going to be used in the winter, remove the battery and store in a cool, dry place. Do not store directly on a concrete floor as this will drain the battery. Recharge whenever the specific gravity is less than 1.225.
7. Install the battery.

- a. Open the hood of the mower.
- b. Place the battery with the terminals to the FRONT in the battery case. See figure 4.
- c. Hook both hold-down rods under the battery case and place the hold down over the battery caps and secure with wing nuts C.

CAUTION

Be sure the flared edge of the hold down is facing up to avoid damage to the battery.

- d. Attach the free end of the positive cable and the small wire from the ammeter, to the positive battery terminal with bolt D, washer E and nut F. The battery terminal is marked +.

- e. Attach the free end of the negative cable to the negative terminal with bolt D, washer E and nut F. Battery terminal is marked -.

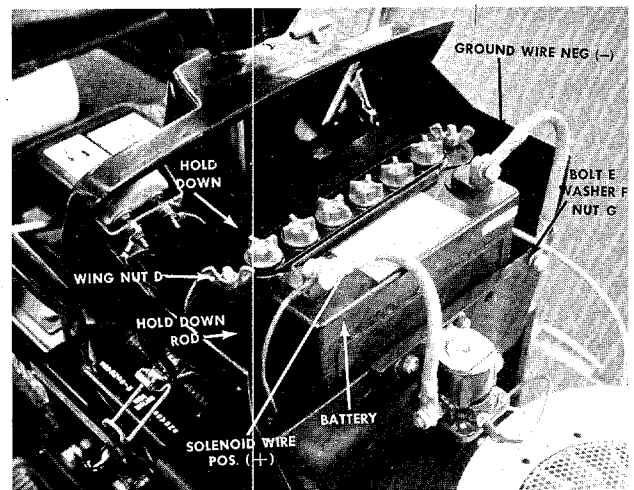


FIGURE 4. INSTALLING THE BATTERY

CONTROLS

CONTROLS

The controls on both models may be considered as the Drive Control and the Cutting Control as follows:

- a. **Throttle Control.** The throttle control is used to regulate the engine speed and choke the engine. The engine should be operated from $\frac{3}{4}$ to full throttle when operating the cutting deck or snow thrower (optional). See figure 5.

Throttle Control

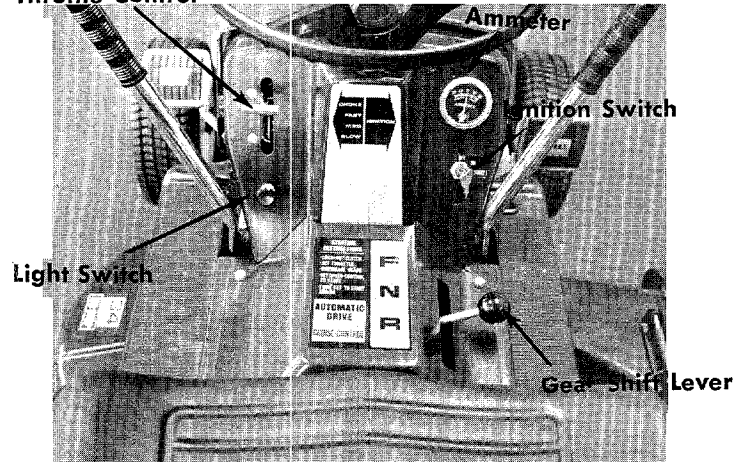


FIGURE 5. CONTROLS

- b. **Gear Shift Lever.** The gear shift lever is used to shift into FORWARD, NEUTRAL or REVERSE. See figures 5 and 6.

- c. **Brake.** The brake pedal is located on the right hand side of the mower and is operated by depressing it with your right foot. See figure 7.

d. Brake Lock. The brake lock is located on the right hand side of the mower. To lock the brake, depress the brake pedal and lift up the lock button. The pedal will stay depressed. To release, depress the pedal. See figure 7

e. Clutch Pedal. The clutch pedal is used to disengage the drive mechanism. Depressing the clutch pedal at any time will slow you down or, if depressed all the way, will stop the mower. See figure 8.

f. Clutch Lockout. When the clutch pedal is depressed all the way it can be locked by placing the clutch lockout in the START position as shown in figure 8. The clutch lockout must be in this position before the engine will start.

g. Stop Lever. The stop lever allows you to regulate the maximum ground speed of the riding mower by setting the stop lever in any one of the five settings. The farther forward the stop lever is set, the faster your ground speed. See figure 8.

h. Ammeter. (Electric Start Model Only.) The ammeter registers the rate of battery charge or discharge. The ammeter should register on the plus side (+) when the engine is running in the fast position until the battery is completely charged. With a fully charged battery or with the engine idling the ammeter will not show a charge See figure 5.

i. Light Switch. (Electric Start Only.) Pull the light switch out to turn on the lights. The lights will only operate when the engine is running. See figure 5.

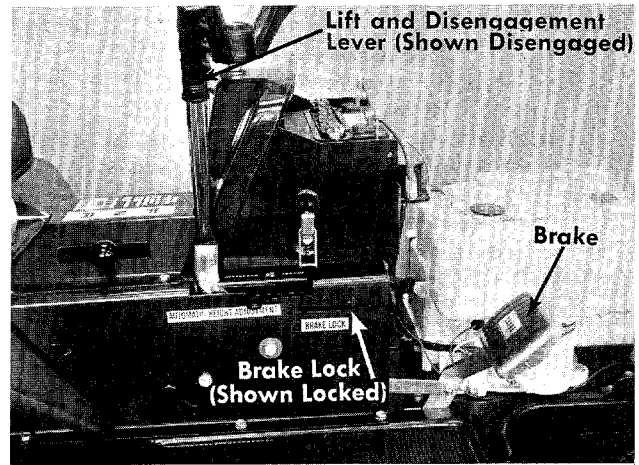


FIGURE 7. RIGHT HAND CONTROLS

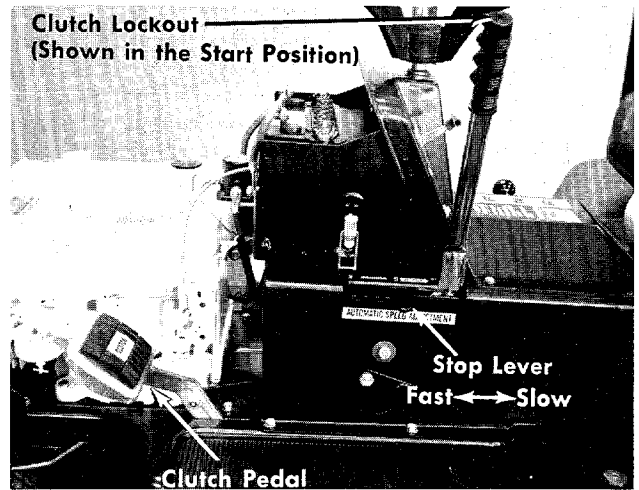


FIGURE 8. LEFT HAND CONTROLS

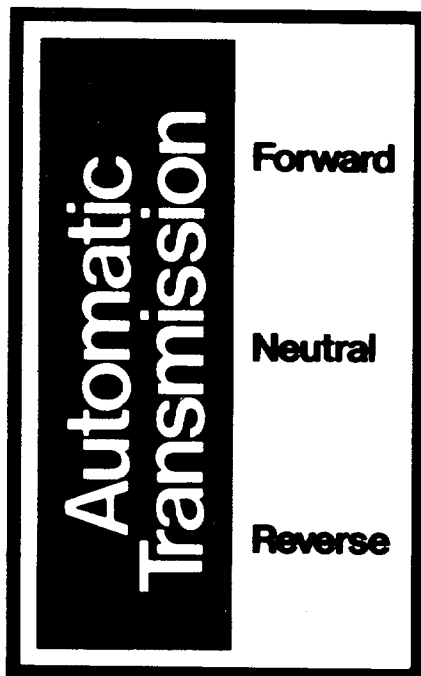


FIGURE 6. SHIFT PATTERN

j. Ignition Switch. The ignition switch is located on the right side of the dashboard.

Recoil Model. See figure 9. Turn the key to the ON position when starting the engine. To stop the engine turn the key to the left to the OFF position and remove the key to prevent accidental starting.

Electric Start. See figure 5. Turn the key to the START position to start the engine. When the engine is running, let the key return to the ON position. To stop the engine, turn the key to the left to the OFF position and remove it to prevent accidental starting.

NOTE

The engine will not start unless the clutch lockout is in the START position and the lift lever is in the DISENGAGED position.

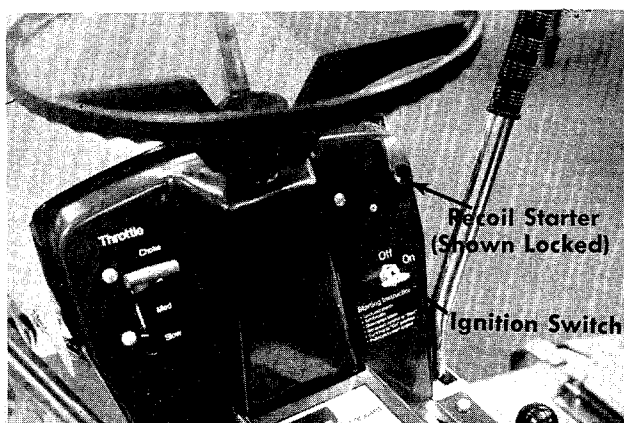


FIGURE 9. RECOIL STARTER

k. **Recoil Starter.** The recoil starter is located on the right side of the dashboard. The recoil starter can either be pulled while seated on the rider or pulled while standing behind the rider. The ignition key must be on before the engine will start. After the engine starts, the recoil starter handle must be returned and locked into the dashboard before the blades or clutch are engaged. The engine will stop if you do not follow these instructions. See figure 9.

l. **Lift and Disengagement Lever.** It is used to raise the cutting deck. Pulling it all the way back and locking it disengages the blades. The engine will not start unless the lift and disengagement lever is in the disengaged position. See figure 7.

m. **Cutting Controls.** The cutting controls consist of the height of cut stop and the wheel height adjusters.

Height of Cut Stop. See figure 10. Lift the stop and set it at the desired cutting height.

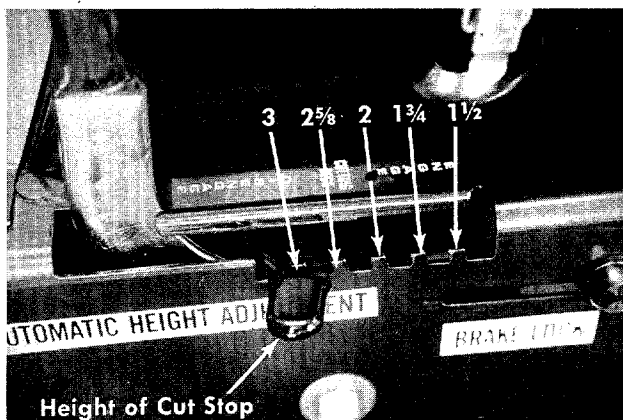


FIGURE 10. HEIGHT OF CUT SETTINGS

Wheel Height Adjuster. See figure 11. Move the lever towards the wheel and set it in the desired cutting height.

The cutting height of the mower can be set in two different ways: FULL FLOAT position where the deck follows the contour of the ground, and the SUSPENDED position where the deck hangs from the frame of the rider. The suspended position is normally used for cutting rough uneven ground.

To set the cutting deck in the full float position, set the wheel height adjusters in the desired cutting height as indicated in figure 11. Set height of cut stop in the 1½ position. See figure 10.

To set the cutting deck in the suspended position, set the height of cut stop in the desired cutting height and then set the deck wheel so they just clear the ground.

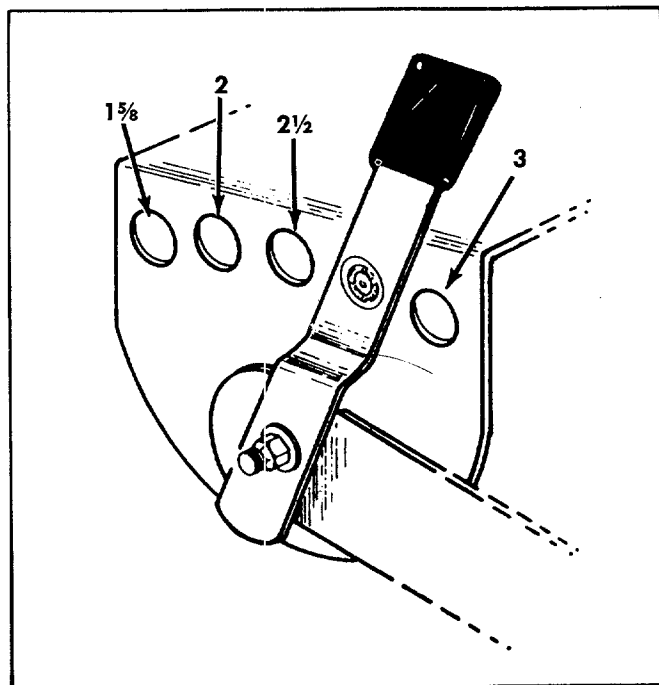


FIGURE 11. WHEEL HEIGHT ADJUSTER

OPERATING INSTRUCTIONS

STARTING THE ENGINE

Be sure to follow the instructions for the oil and gasoline as described in the engine manual.

Step 1. Be sure the fuel shut-off valve is open. See figure 12.

Step 2. Place the clutch lockout in the START position. See figure 8.

Step 3. Place the lift and disengagement lever in the DISENGAGED position. See figure 7.

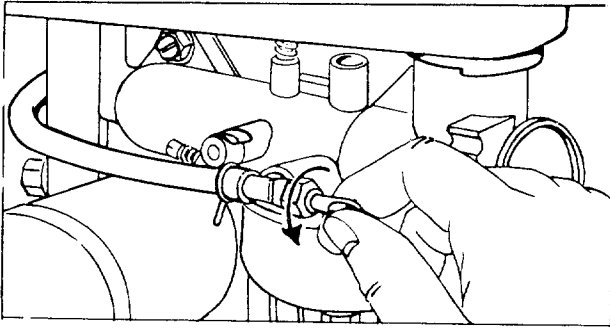


FIGURE 12. FUEL SHUT-OFF VALVE

Step 4. Set the throttle control in the CHOKE position. See figure 5.

Step 5. Recoil Starter.

- a. Turn the ignition key to the ON position. See figure 13.
- b. Grasp the recoil starter, unlock it by twisting it $\frac{1}{4}$ turn and pull it out sharply and hold it in the out position.
- c. Slowly release the recoil starter and lock it into the dashboard as shown in figure 13.

Electric Start

See figure 14. Turn the ignition key to the START position. When the engine is running, let the key return to the ON position.



FIGURE 13. RECOIL STARTER

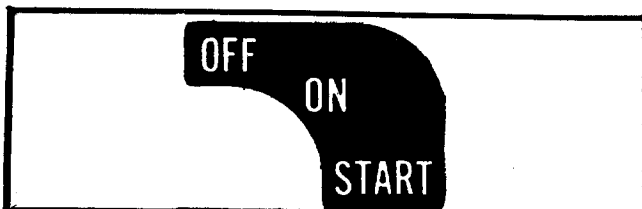


FIGURE 14. STARTER SWITCH

To stop either model, turn the key to the left to the OFF position and remove the key to prevent accidental starting.

NOTE

A brief break-in period is essential to ensure maximum engine and mower life. This consists of running the engine at half speed for a period of time required to use one tank of gasoline. It is also recommended to change crankcase oil after the first 2 hours of operation.

STOPPING THE ENGINE

Turn the ignition key to the left to the OFF position and remove the key to prevent accidental starting.

OPERATING THE MOWER

- Step 1. Set the desired cutting height.
- Step 2. Start the engine as outlined in step 5 under operating instructions.
- Step 3. Set the stop in the slow position. See figure 8.

NOTE

As you become familiar with the operation of the mower you can move the stop lever to a faster position.

- Step 4. While holding down the clutch pedal, move the clutch lockout lever forward.
- Step 5. Put the gear shift lever into either FORWARD or REVERSE.

NOTE

DO NOT force the gear shift lever! If the lever cannot be moved from NEUTRAL to one of the drive positions, release the clutch pedal slowly, depress it again, and then move the gear shift lever as required.

- Step 6. Once the machine is in motion, remove foot from the pedal. The mower will now move ahead or to the rear, and the use of the steering wheel will provide directional control.

- Step 7. The mower is brought to a stop by pressing your right foot against the brake pedal and your left foot against the clutch pedal. The drive belt will be disengaged and the brake will be applied.

CAUTION

Gear changing should be done only after the mower has been brought to a full stop. If the mower is not to be used for a long period, place the gear shift lever in NEUTRAL and stop the engine. DO NOT leave the machine on an incline.

OPERATING THE CUTTER BLADE

The cutting blades may be engaged while the mower is moving or standing still. DO NOT engage the cutting blades abruptly as the sudden belt tension on the pulley may cause the engine to stall.

WARNING

When the blade drive is engaged, keep feet and hands away from the discharge opening and from the blade.

To stop the blades, move the lift and disengagement lever (figure 7) into the DISENGAGED position. This raises the deck and disengages the blades.

NOTE

When the machine is used for other than mowing operations the blade drive should be disengaged.

CRANKCASE OIL

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

Oil Check

Check the oil level in the crankcase before each use of the machine and after every five hours of operation. Oil should be kept between the add and full marks on the dipstick.

After the first five hours of operating a new engine, drain the oil (See figure 15.) from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil every 25 hours of operation. This procedure ensures for minimum wear of engine parts and provides for virtually trouble-free operation. To change the oil, proceed as follows:

Step 1. With the machine on level ground, place a suitable metal container under the oil drain plug, then remove the drain plug. See figure 15.

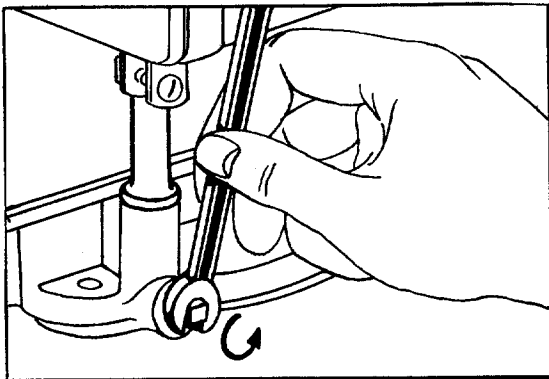


FIGURE 15. OIL DRAIN

Step 2. After the oil has been drained completely from the crankcase, replace the drain plug and tighten.

Step 3. Refill crankcase with 2¼ pints of good quality, type MS, Engine oil into the crankcase. Summer use SAE 30; Winter (Below 40° F) use SAE 5W-20 or SAE 10W.

LUBRICATION

Lubricate the wheel bearings (2 per wheel) and the upper and lower spindle bearings with SAE 30 oil once a season. See figure 16.

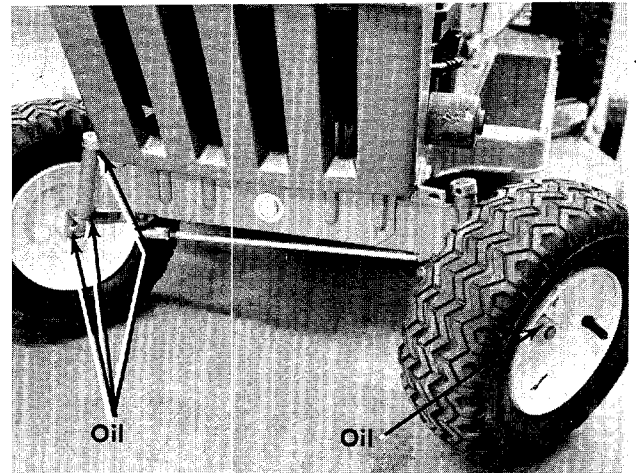


FIGURE 16. WHEEL AND SPINDLE BEARINGS

Lubricate the four rear axle bearings with SAE 30 oil once a season. See figure 17.

The chain can be lubricated by wiping it with an oily rag.

The differential and transmission are sealed at the factory and require no further lubrication.

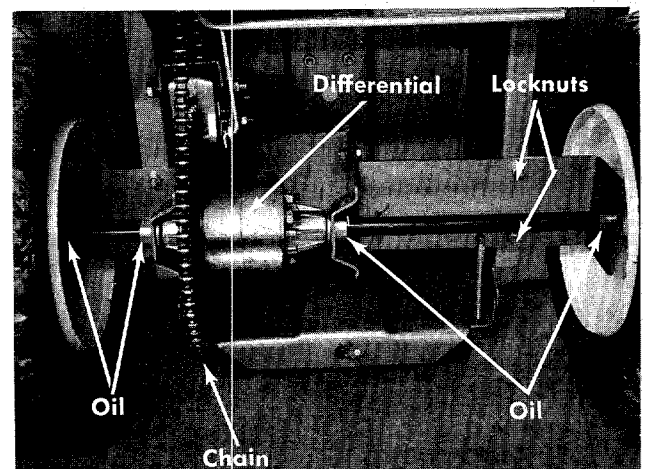


FIGURE 17. REAR AXLE ASSEMBLY

CHAIN ADJUSTMENT

To tighten the chain, loosen two locknuts on each side of rear axle as shown in figure 17.

Tighten the adjusting nuts (figure 18) equally on both sides. Tighten until the chain has $\frac{1}{2}$ inch slack between the sprockets.

The adjusting nuts can be tightened individually to align the axle.

Tighten the 4 locknuts after the adjustment is made.

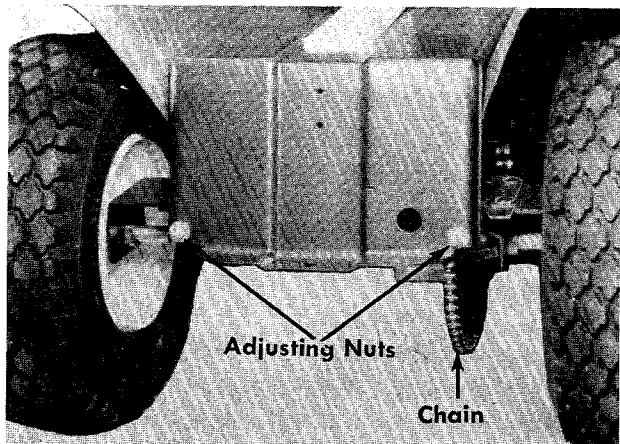


FIGURE 18. CHAIN ADJUSTMENT

AIR CLEANER

Under normal operating conditions, the air cleaner, located on top of the carburetor, must be serviced after every ten hours of use. Under extremely dusty operating conditions the air cleaner must be serviced after every hour of operation. Refer to figure 19.

When assembling the air cleaner, make certain the lip of the foam element extends over edge of the air cleaner body. The foam element will form a protective seal.

- Step 1. Remove two screws and lift off complete air cleaner assembly.
- Step 2. Remove screen and spacers from foam element.
- Step 3. Remove foam element from air cleaner body.
- Step 4.
 - a. Wash foam element in kerosene or liquid detergent and water to remove dirt.
 - b. Wrap foam in cloth and squeeze dry.
 - c. Saturate foam in SAE 30 engine oil, then squeeze out excess oil.
 - d. Assemble parts, fasten to carburetor with screw.

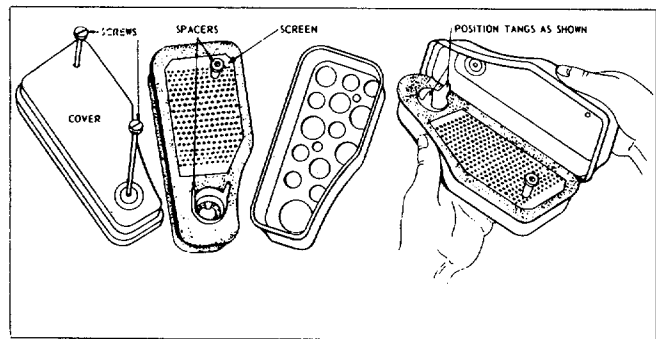


FIGURE 19. AIR CLEANER

CLEANING ENGINE AND BLADE HOUSING

Any fuel or oil spilled on the machine should be wiped off promptly. Grass, leaves, and other dirt must not be left to accumulate around the cooling fins of the engine or on any part of the machine.

Clean the underside of the blade housing after each mowing.

TIRES

The tires should be inflated to 7 to 10 psi. A punctured tire may be repaired in the same manner as an automobile tire.

BELTS

Check that belts are free of oil or dirt. Wipe the belts periodically with a clean rag.

NOTE

Belt tension is automatically maintained by the spring on the variable speed bracket on the drive belts and the belt tension on the deck belt is maintained by the two deck springs.

SPARK PLUG

The spark plug gap should be cleaned and reset to a 0.030-inch clearance every 25 hours of engine operation (See figure 20). Spark plug replacement is recommended at the start of each mowing season; check engine parts list for correct plug type.

NOTE

Whenever the spark plug is removed for cleaning, it is advisable to replace the spark plug gasket with a new gasket.

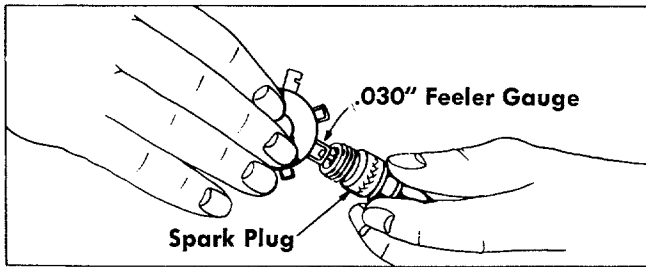


FIGURE 20. SPARK PLUG CLEARANCE

REPLACING BLADE

WARNING

Before beginning work on the cutter blade, remove the spark plug from the cylinder.

Removing and Sharpening Blades. Remove the center bolt and lockwasher. See figure 21. Pull the blade and blade adapter from the blade spindle.

The adapter can be removed from the blade by removing the two adapter bolts, lockwashers and nuts.

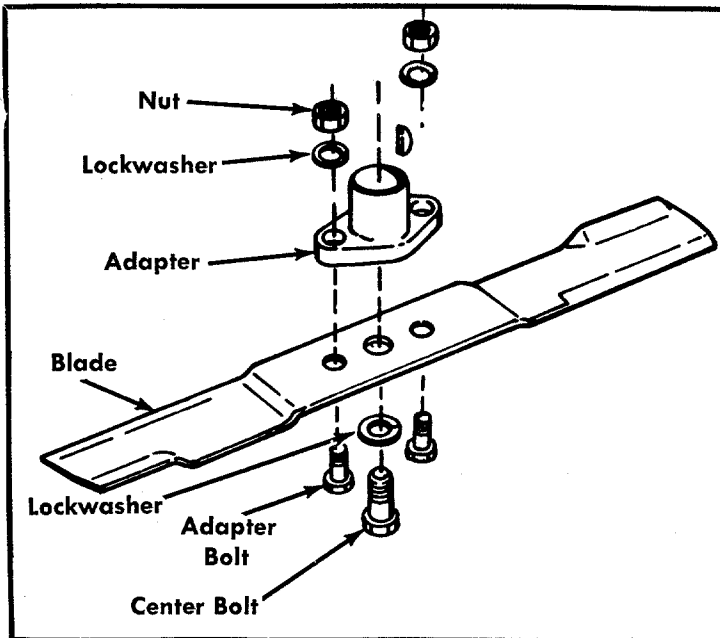


FIGURE 21. BLADE REMOVAL

WHEEL ADJUSTMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) requires no adjustment. Automotive steering principals have been used to determine the caster and camber on the tractor. The front wheels should toe-in 1/8 inch.

To adjust the toe-in follow these steps.

Step 1. Loosen the hex jam nut on one side. See figure 22.

Step 2. Remove the elastic locknut and drop the tie rod end out of the wheel bracket.

Step 3. Adjust the tie rod end in or out to obtain the proper toe-in adjustment as shown in figure 23.

NOTE

Unscrew the tie rod end to toe the wheels in.

Step 4. Reassemble in reverse order.

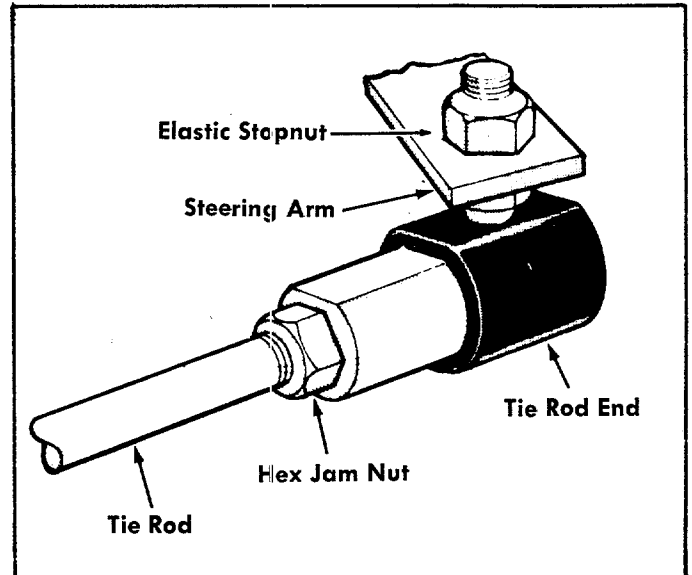


FIGURE 22. TIE ROD ADJUSTMENT

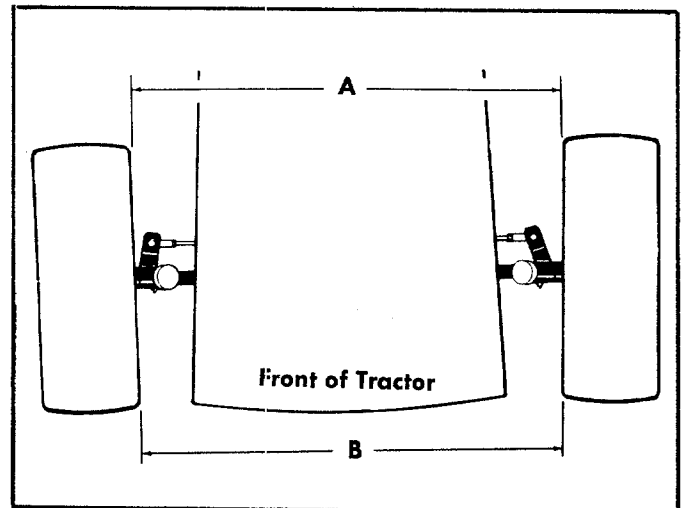


FIGURE 23. TOE-IN DIAGRAM

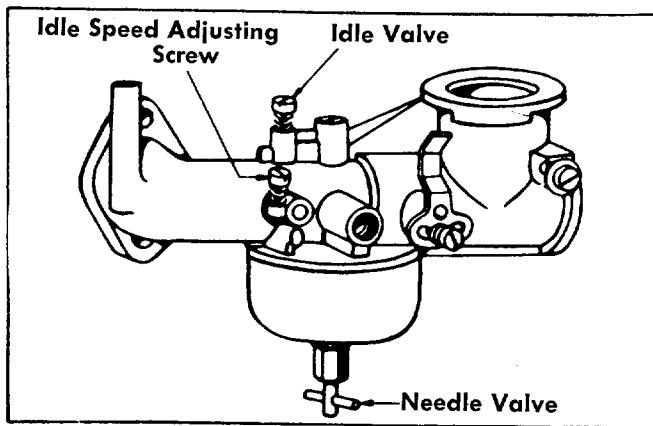


FIGURE 24. CARBURETOR ADJUSTMENT

ADJUSTING CARBURETOR CHOKE

Proper choke operation is dependent upon proper adjustment of remote controls on the powered equipment.

To Check Operation of Choke-A-Matic Controls:

Move control lever to CHOKE position. (See figure 5.) The carburetor choke should be closed.

NOTE

The air cleaner can be removed to check the operation of the choke.

To Adjust:

Place control lever on equipment in FAST (high speed) position. Loosen control casing clamp screw B. Move control casing A and wire until lever D touches choke operating link at C. Tighten casing clamp screw B. See figure 25.

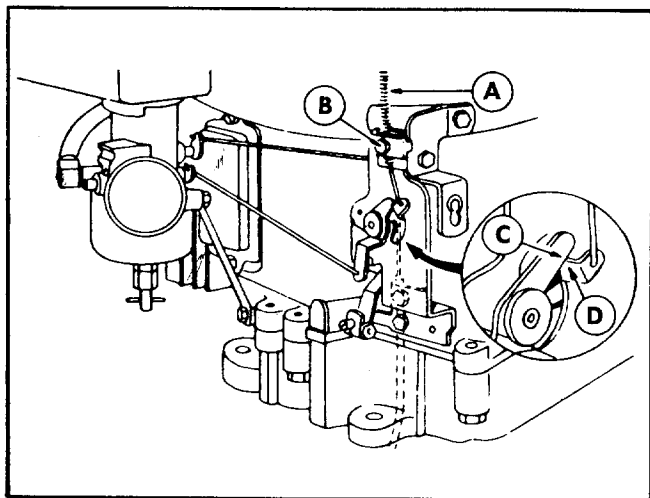


FIGURE 25. CHOKE ADJUSTMENT

PREPARING FOR BELT REMOVAL



Disconnect the spark plug wire and ground it against the engine.

Step 1. Remove the battery.



Disconnect the negative terminal first and connect last when installing the battery.

Step 2. To prevent gasoline from leaking from the engine, remove the gasoline cap, place a piece of thin plastic over the neck of the gasoline tank and screw on the cap.

Step 3. Close the fuel shut-off valve as shown in figure 12.

Step 4. Set the gear shift lever in F or R (See figure 6.) Place your hands under the front axle and lift the unit up until it tips back and rests on the seat.

MOWING UNIT BELT REPLACEMENT

Step 1. Place the lift lever in the disengaged position. See figure 7.

Step 2. Remove the belt keeper and large bolt on the engine pulley. See figure 26.

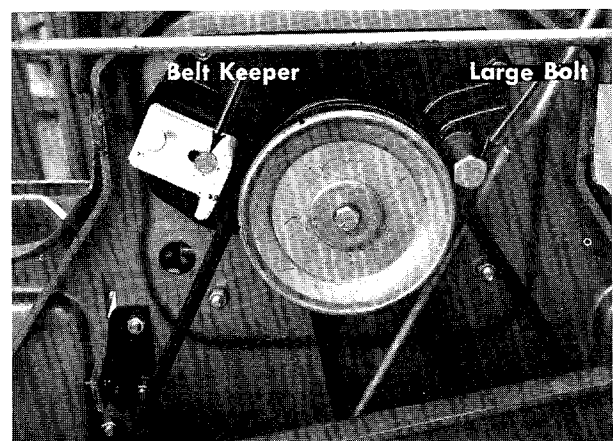


FIGURE 26. BELT KEEPER

Step 3. Unhook the belt from the engine pulley. See figure 27.

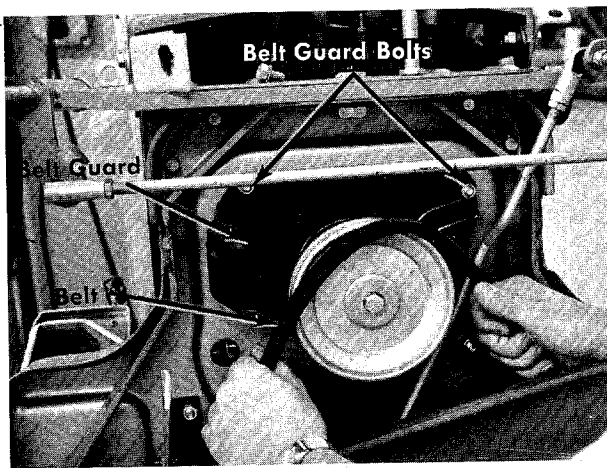


FIGURE 27. REMOVING MOWER BELT

Step 4. Place the lift lever in the engaged position. See figure 7.

Step 5. Unhook the tension springs on both sides of the deck. See figure 28.

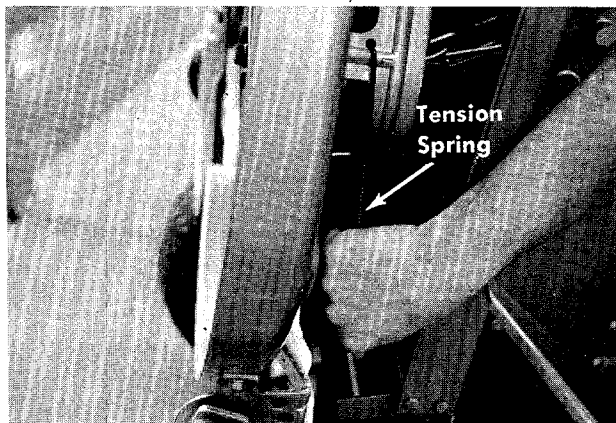


FIGURE 28. REMOVING TENSION SPRINGS

Step 6. Remove the front four deck links from the cutting deck. See figure 29.

Step 7. Remove the belt guards from both deck pulleys. See figure 29.

Step 8. Remove and replace the belt and reassemble.

TRANSMISSION BELTS REMOVAL

Step 1. Place the lift lever in the disengaged position. See figure 7.

Step 2. Remove the belt keeper and large bolt on the engine pulley. See figure 26.

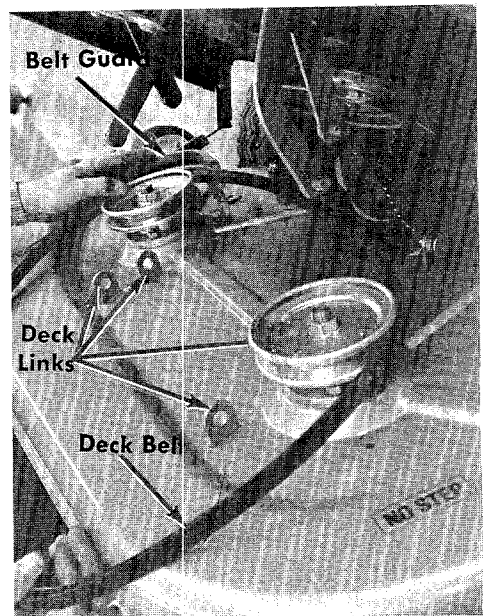


FIGURE 29. DECK LINKS

Step 3. Unhook the belt from the engine pulley. See figure 27.

Step 4. Place the lift lever in the engaged position. See figure 7.

Step 5. Unhook the tension springs on both sides of the deck. See figure 28.

Step 6. Remove the front four deck links from the cutting deck. See figure 29.

Step 7. Tip the deck down as shown in figure 29.

NOTE

Leave the belt attached to the deck pulleys unless you want to replace it.

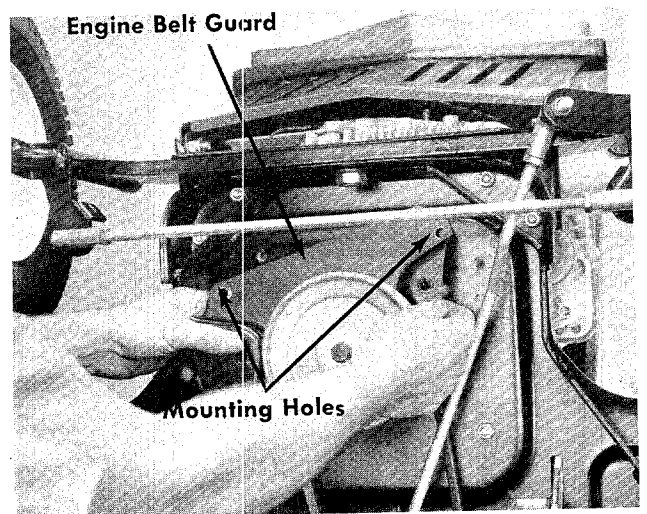


FIGURE 30. BELT GUARD REMOVAL

Step 8. Remove the engine belt guard by removing the two front engine mounting bolts. See figure 31.

Step 9. Place the clutch lockout in the START position. See figure 8.

Step 10. While pushing the variable speed pulley towards the center of the rider, remove the lower belt from the transmission pulley. See figure 31.

Step 11. Slide the movable center section of the variable speed pulley away from the rider and remove the upper belt from the variable speed pulley. See figure 32.

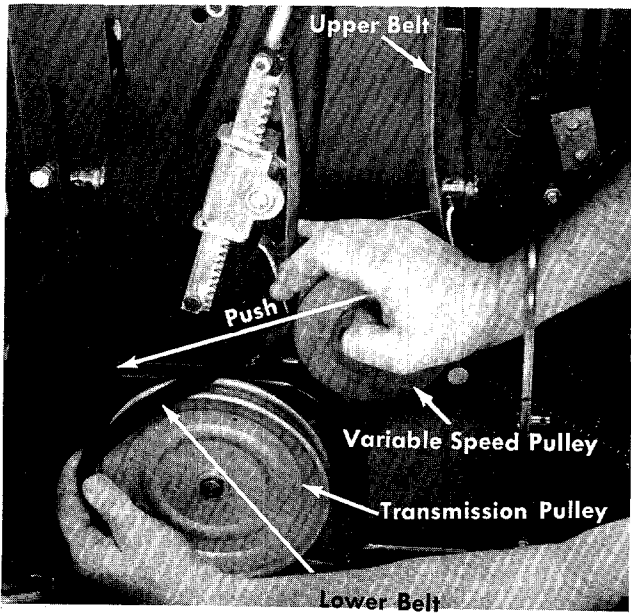


FIGURE 31. LOWER BELT REMOVAL

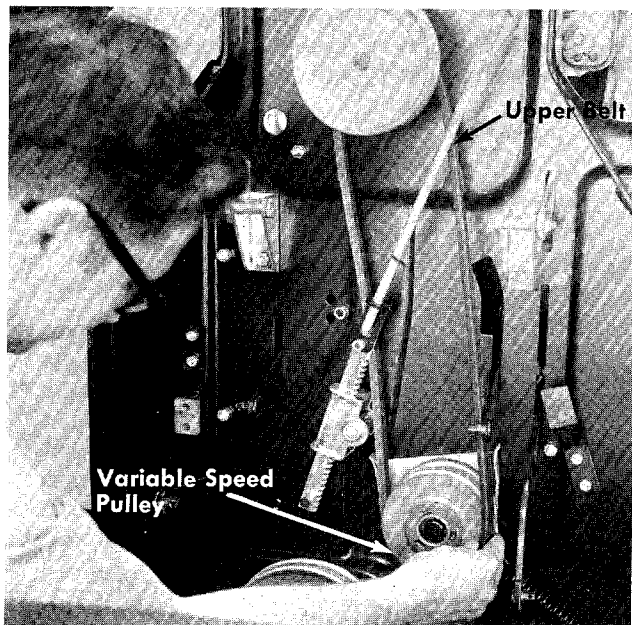


FIGURE 32. REMOVING FROM VARIABLE SPEED

Step 12. Unhook the upper belt from the engine pulley and remove. See figure 33.

Step 13. Reassemble in reverse order with new belts.

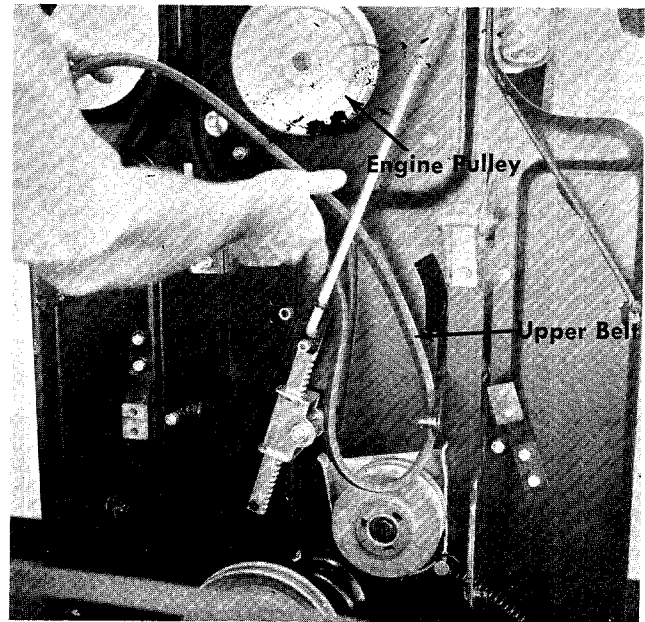


FIGURE 33. REMOVING THE UPPER BELT

BRAKE ADJUSTMENT

To adjust the brake on your rider follow these steps:

Step 1. Depress the brake pedal and lift the brake lock so the pedal stays in the depressed position. See figure 7.

Step 2. Place the clutch lockout in the START position. See figure 8.

Step 3. Try and push the rider. If the rider can be moved tighten the brake adjustment nut as shown in figure 34.

NOTE

The adjusting nut can be reached from the rear of the mower. The transmission cover was removed for the photograph only.

Step 4. Tighten the adjustment nut one turn and test the mower. Repeat if necessary.

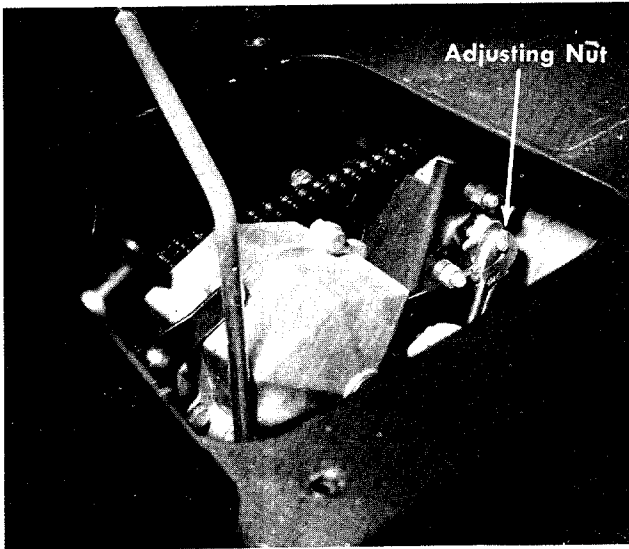


FIGURE 34. BRAKE ADJUSTMENT

OFF-SEASON STORAGE

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

Step 1. Working outdoors, drain all fuel from the fuel tank. Use a clean dry cloth to absorb the small amount of fuel remaining in the tank, then run the engine until all fuel in carburetor is exhausted.

WARNING

Do not drain fuel while smoking, or if near an open fire.

- Step 2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with clean new oil.
- Step 3. Disconnect the spark plug wire and remove the spark plug from the cylinder. Pour about six drops of engine oil into the cylinder, and then pull the recoil starter several times to spread the oil on the cylinder wall. Replace the spark plug, but **DO NOT** connect the wire.
- Step 4. Clean the engine and the entire mower thoroughly.
- Step 5. Lubricate all lubrication points indicated in figures 16 and 17 then wipe the entire machine with an oiled rag in order to protect the surfaces.

IF YOU WRITE TO US ABOUT THIS ARTICLE OR
 IF YOU ORDER REPLACEMENT PARTS ALWAYS
 MENTION THIS STOCK AND MODEL NUMBER

STOCK No. _____ MODEL No. _____

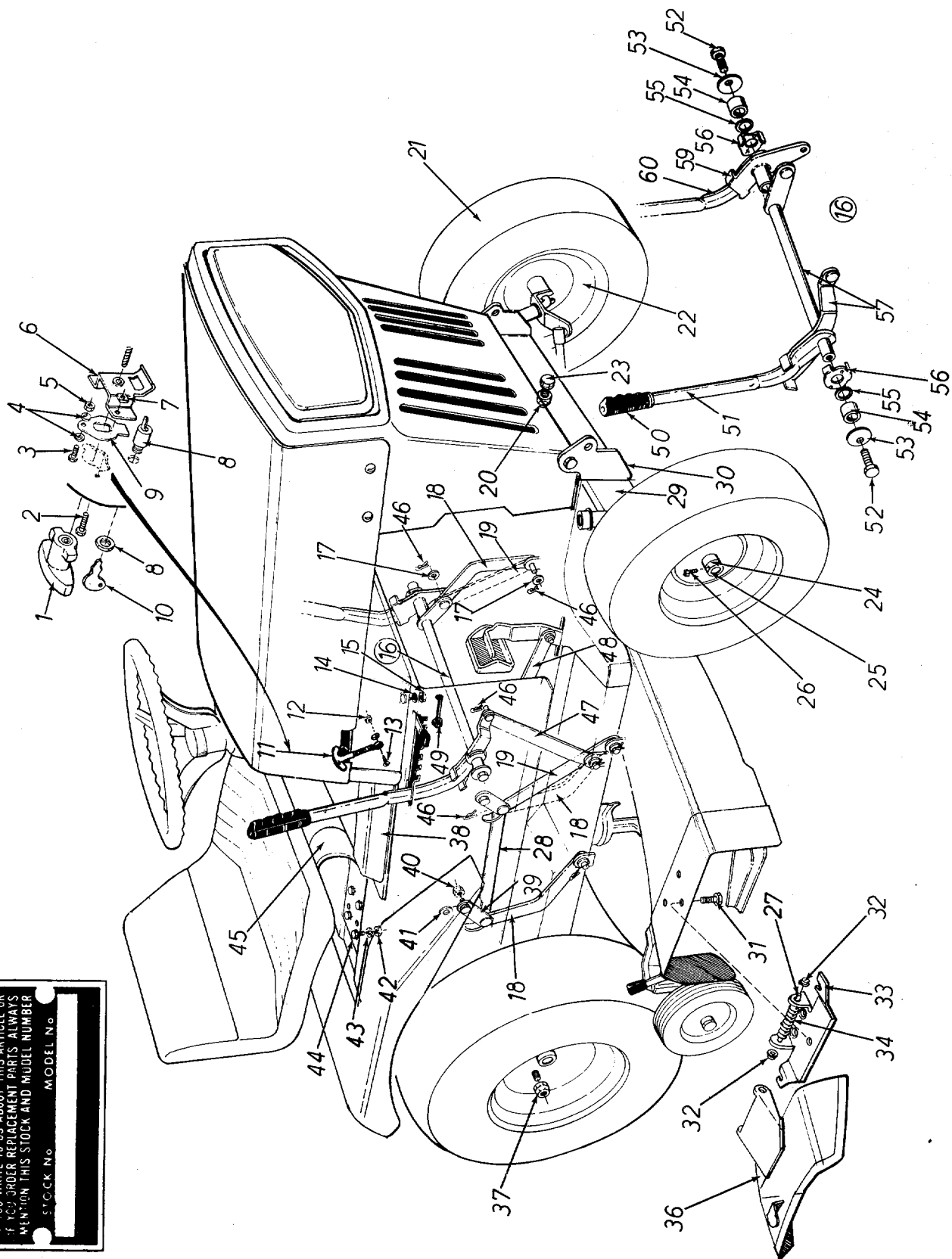


FIGURE 35. RIGHT HAND VIEW

PARTS LIST FOR FIGURE 35 RIGHT HAND VIEW

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	11263		Plastic Handle (133-460)	
2	710-351		Truss Hd. Mach. B-Tapp. Scr. #10 x .50" Lg. (133-460)	
3	710-425		Truss Hd. Mach. Scr. #10-24 x .62" Lg.* (133-460)	
4	736-338		Fiber Washer (133-460)	
5	712-121		Hex Nut #10-24 Thd.* (133-460)	
6	11053		Switch Bracket Ass'y. (133-460)	
7	712-147		Speed Nut #10-24 U-Type (133-460)	
8	725-266		Magneto Ignition Switch (133-460)	
9	732-257		Switch Spring (133-460)	
10	725-128		Ignition Key Only (133-460)	
11	723-296		Hood Lock Ass'y.	
12	712-287		Hex Nut 1/4-20 Thd.*	
13	710-289		Hex Hd. Cap Scr. 1/4-20 x .50" Lg.*	
14	736-119		Spring Lockwasher 5/16" Scr.*	
15	712-267		Hex Nut 5/16-18 Thd.*	
16			See Breakdown	
17	736-192		Flat Washer .531 I.D. x .93 O.D.	
18	10349		Deck Link Ass'y	
19	10346		Lockout Link Ass'y.	
20	712-923		Hex Center Locknut 5/8-18 Thd.	
21	734-494		Front Wheel Ass'y.—Comp. 13.0 x 5.0	N
	734-495		Front Wheel Tire Only	
22	734-520		Front Wheel Rim Ass'y. Only	N
23	710-312		Hex Hd. Cap Scr. 5/8-18 x 1.31" Lg.	
24	711-169		Collar 5/8" I.D.	
25	748-0207		Front Wheel BEARING	
26	710-494		Sq. Hd. Set Scr. 5/16-18 x .38 Cup.	
27	711-571		Pivot Pin	

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
28	9735 *		Connecting Rod 3/16 x 1.00 x 12.5" Lg.	
29	10555	463	Pivot Bar Assembly	
30	10496	463	Front Pivot Bracket	
31	710-195		Hex Hd. Cap Scr. 1/4-28 x .62" Lg.*	
32	726-106		Push-on Flange Palnut	
33	11399		Adapter Plate Ass'y.	
34	732-261		Torsion Spring	
35	11633		Chute Cover Ass'y. Complete	N
36	11574		Chute Cover Ass'y.	
37	712-193		Cone Nut 3/8-24 Thd.	
38	11840	463	Upper Frame Cover	
39	9721		Pivot Link Ass'y.	
40	712-267		Hex Nut 5/16-18 Thd.*	
41	736-264		Flat Washer .344 I.D. x .62 O.D.	
42	712-267		Hex Nut 5/16-18 Thd.*	
43	736-119		Spring Lockwasher 5/16" Scr.*	
44	710-198		Hex Hd. Sems Scr. 5/16-18 x .75" Lg.*	
45	732-255		Seat Spring 4.50" High	
46	714-101		Internal Cotter Pin 1/2" Dia.	
47	10904		Deck Link Ass'y.	
48	11056		Parking Brake—Lever Ass'y.—R.H.	
49	726-121		Push Cap 1/4" Dia.—Black	
50	8118		Grip	
51	11030		Lift Handle R.H.	
52	710-201		Hex Hd. Cap Scr. 3/8-16 x .62" Lg.*	
53	736-219		Belleville Washer .400 I.D. x 1.13 O.D.	
54	748-201		Spacer .635 I.D. x .88 O.D. x .57	
55	736-233		Wave Washer .660 I.D. x .82 O.D. x .029	
56	11029		Handle Pivot Bracket	
57	11032		Lift Handle Bracket Assembly	
59	11034		Clutch Handle Bracket Ass'y	
60	11031		Lift Handle L.H.	
61	736-156		FL WASHER	

*For faster service obtain standard nuts and bolts locally, if these items cannot be obtained locally, order by part number and size as shown on the parts list.

(463—Top Flite Red)

When ordering parts if color or finish is important, use appropriate code shown at left. (e.g.—Top Flite Red—11840 (463).)

PARTS LIST FOR FIGURE 36 LEFT HAND VIEW

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	731-220		Steering Wheel Cap	N
2	712-158		Hex Center Locknut 5/16-18 Thd.	
3	736-219		Belleville Washer .400 I.D. x 1.13 O.D.	
4	731-219		12.0 inch Steering Wheel	N
5	712-222		Push Nut 5/8" Dia.	
6	736-174		Wave Washer .660 I.D. x .88 O.D.	
7	738-200		Steering Shaft	
8	757-241		Seat Assy. Complete—10.0" Back (Mounting Bolt Molded in Seat)	N
9	736-921		Spring Lockwasher 1/2" Scr.*	
10	712-206		Hex Nut 1/2-13 Thd.*	
11	9087—463		Rear Fender	
12	734-527		Rear Wheel Assy. Complete 16.0 x 6.50	
	734-275		Rear Wheel Tire Only 16.0 x 6.50	N
13	734-255		Air Valve—Tubeless	
14	9262		Rear Wheel Rim Assy.	
15	10473		Rear Wheel Hub Assy.	
	710-258		Hex Hd. Cap Scr. 1/4-20 x .62" Lg.*	
16	736-329		Spring Lockwasher 1/4" Scr.*	
17	11027		Handle Stop Bracket Assembly	
	11249		Knob for Handle Stop Bracket	
18	712-267		Hex Nut 5/16-18 Thd.*	
19	736-119		Spring Lockwasher 5/16" Scr.*	
20	723-241		Foot Pad 15.75" Lg. x 4.0" Wide	
21	710-259		Hex Sems Scr. 5/16-18 x .62" Lg.*	
22	9098—463		Front Axle Assy. L.H.	
23	723-156		Ball Joint Assy.	
24	711-169		Collar 5/8" I.D.	
25	710-494		Sq. Hd. Set Scr. 5/16-18 x .38 Cup	
26	711-256		Tie Rod 3/8-24 Threaded Ends	
27	748-184		Flange Bearing .630 I.D.	
28	723-156		Ball Joint Assy.	

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

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
29	9095—463		Front Axle Assy. R.H.	
30	10491—463		Grille—Front (133-460)	
	10793—463		Grille—Front (133-465)	
31	11855—463		Front Hood	N
32	712-287		Hex Nut 1/4-20 Thd.*	
33	736-329		Spring Lockwasher 1/4" Scr.*	
34	710-286		Truss Hd. Mach. Scr. 1/4-20 x .50" Lg.*	
35	712-375		Hex Center Locknut 3/8-16 Thd.	
36	11861—463		Dash Panel Assy. (133-460)	N
	11862—463		Dash Panel and Battery Box Assy. (133-465)	N
37	736-105		Beilleville Washer	
38	710-253		Hex Hd. Cap Scr. 3/8-16 x 1.00" Lg.*	
39	711-548		Steering Rod	
40	—		Steering Assy. Breakdown	
41	735-126		Rubber Washer .33 I.D. x .87 O.D.	
42	712-158		Hex Center Locknut 5/16-18 Thd.	
43	748-228		Hex Flange Bearing .505 I.D. Bronze	
44	11047		Steering Rod Bracket	
45	710-412		Hex Hd. Cap Scr. 1/4-28 x .75" Lg.*	
46	11048		Steering Segment	
47	11074		Steering Housing Assy.	
48	715-120		Spring Pin Spirol 3/16" Dia. x 1.00" Lg.	
49	736-329		Spring Lockwasher 1/4" Scr.*	
50	712-138		Hex Nut 1/4-28 Thd.*	
51	710-412		Hex Hd. Cap Scr. 1/4-28 x .75" Lg.*	
52	710-351		Truss Hd Mach. B-Tapp Scr. #10 x .50" Lg.	
53	746-160		Throttle Control—Complete	
54	712-147		Speed Nut #10-24 U-Type	
55	11861		Dash Panel Assy. (133-460)	N
	11862		Dash Panel and Battery Box Assy. (133-465)	N
56	722-111		Knob Only—Throttle Control	
57	11093—463		Upper Frame	
58	748-203		12 Teeth Spur Gear	

(463—Top Flite Red) When ordering parts if color or finish is important, use appropriate code shown at left. (e.g.—Top Flite Red—11840 (463).)

59 736-134 FL WASHER

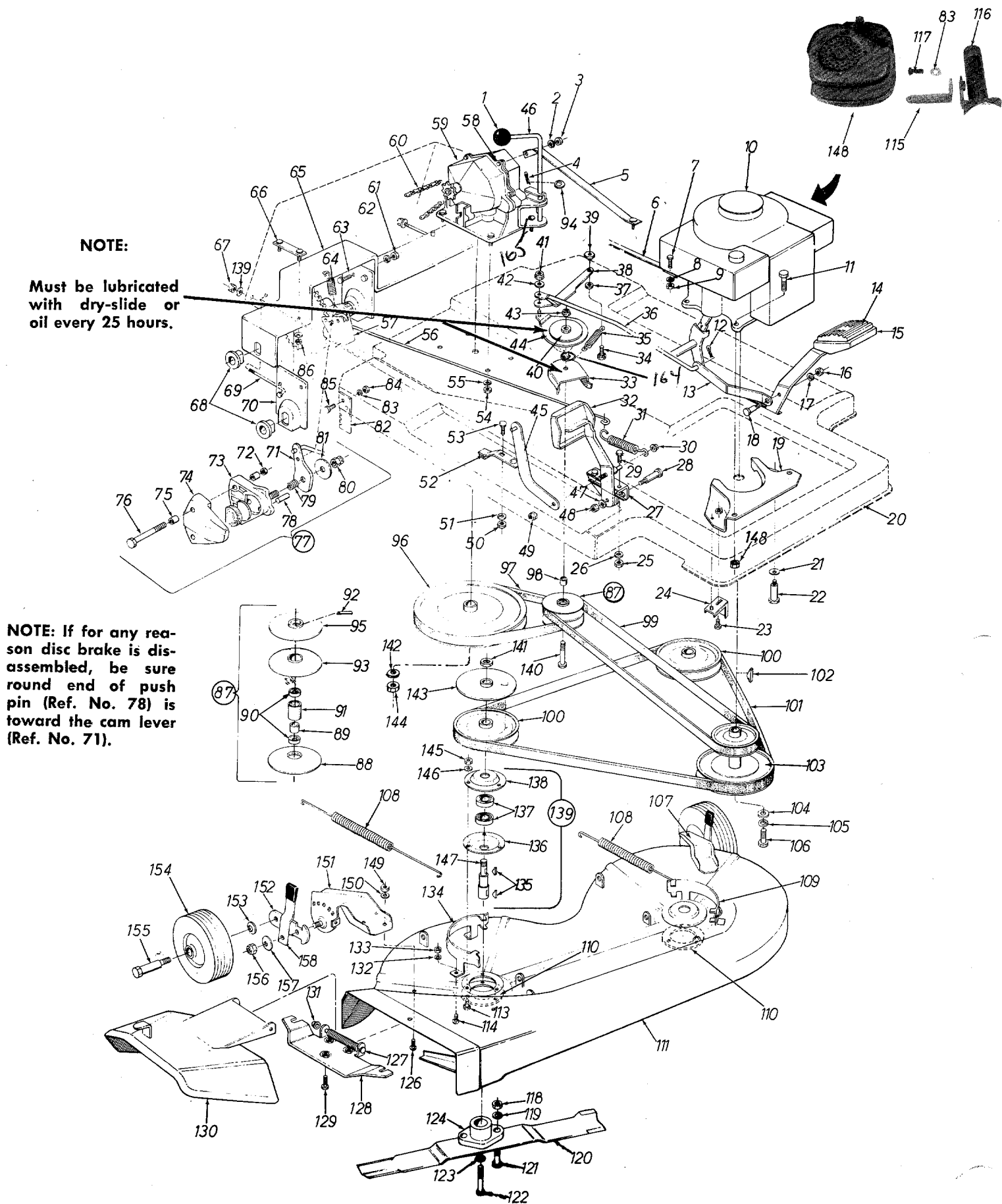


FIGURE 37. DECK AND FRAME VIEW

PARTS LIST FOR FIGURE 37 DECK AND FRAME VIEW

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	722-115		Ball Knob—Black		46	11853		Transmission Shift Lever Ass'y.	N
2	736-329		Spring Lockwasher 1/4" Scr.*		47	736-169		Spring Lockwasher 3/8" Scr.*	
3	712-138		Hex Nut 1/4-28 Thd.*		48	712-798		Hex Nut 3/8-16 Thd.*	
4	714-115		Cotter Pin 1/8" Dia. x 1.00" Lg.*		49	712-429		Hex Inserted Locknut 5/16-18 Thd.	
5	10396		Transmission Support Bracket Ass'y.		50	712-287		Hex Nut 1/4-20 Thd.*	
6	11095		Engine Brace		51	736-329		Spring Lockwasher 1/4" Scr.*	
7	710-259		Hex Sems Scr. 5/16-18 x .62" Lg.*		52	761-147		Blade Brake Ass'y. .88 High	
8	736-119		Spring Lockwasher—5/16" Scr.*		53	710-134		Carriage Bolt 1/4-20 x .62" Lg.*	
9	712-267		Hex Nut 5/16-18 Thd.*		54	712-267		Hex Nut 5/16-18 Thd.*	
10	—		Engine		55	736-119		Spring Lockwasher 5/16" Scr.*	
11	710-442		Hex Hd. Cap Scr. 5/16-18 x 1.50" Lg.*		56	747-106		Brake Rod .25" Dia. x 23.50" Lg.	
12	714-507		Cotter Pin 3/32 Dia. x .75" Lg.*		57	10398		Disc Brake Bracket Ass'y.	
13	11094		Clutch Connecting Bracket		58	710-412		Hex Hd. Cap Scr. 1/4-28 x .75" Lg.*	
14	10614		Pedal Pad Vinyl		59	717-222		Single Speed Transmission Ass'y.	
15	11037		Clutch Pedal Ass'y.		60	713-160		#420 Chain 1/2" Pitch x 87 Links	
16	712-0267		Hex Nut 5/16 x 18 THD			713-154		#420 Master Link 1/2" Pitch Type II	
17	736-0119		Spring Lockwasher 5/16" Scr.*		61	712-267		Hex Nut 5/16-18 Thd.*	
18	738-140		Shoulder Scr. .437 Dia. x .180		62	736-119		Spring Lockwasher 5/16" Scr.*	
19	10480		Engine Belt Guard Assembly		63	710-198		Hex Sems Scr. 5/16-18 x .75" Lg.*	
20	11090—463		Frame Assembly—Lower		64	732-157		Spring .38 O.D. x 3.25	
21	736-105		Belleville Washer 3/8" Scr.		65	10362		Rear Axle Bracket Ass'y.	
22	738-129		Shoulder Scr. .498" Dia. x 2.00" Lg.*		66	10360		Axle Bolt Plate Ass'y.	
23	710-259		Hex Sems Scr. 5/16-18 x .62" Lg.*		67	712-429		Hex Inserted Locknut 5/16-18 Thd.	
24	10426		Belt Keeper Assembly		68	748-151		Flange Bearing with Flats .753 I. D.	
25	712-267		Hex Nut 5/16-18 Thd.*		69	710-437		Chain Adjusting Link 5/16-18 x 4.38" Lg.	
26	736-119		Spring Lockwasher 5/16" Scr.*		70	10364		Rear Axle Plate	
27	11039		Pedal "U"-Bracket Ass'y.		71	18-2770-0000		Cam Lever	
28	738-213		Shoulder Scr. .498" Dia. x 1.450" Lg.		72	712-375		Hex Center Locknut 3/8-16 Thd.	
29	710-198		Hex Sems Scr. 5/16-18 x .75" Lg.*		73	12-1041-0000		Casting, Carrier Side	
30	726-100		Push Nut 3/8" Rod		74	12-1039-0000		Casting, Cam Side	
31	732-245		Brake Spring		75	761-138		Spacer for Disc Brake 5/8 O.D. x 3/8" Lg.	
32	11036		Brake Pedal Bracket Ass'y.		76	710-316		Hex Hd. Cap Scr. 3/8-16 x 3.50" Lg.	
33	11065		Variable Speed—Belt Guard Ass'y.		77	761-137		Disc Brake Assembly—Comp.	
34	710-376		Hex Scr. 5/16-18 x 1.00" Lg.*		78	05-1033-0000		Push Pin	
35	732-208		Variable Drive Spring		79	06-1029-0000		Compression Spring	
36	11064		Clutch Rod—Variable Speed		80	02-1011-0000		Locknut	
37	712-429		Hex Inserted Locknut 5/16-18 Thd.		81	03-1030-0000		Thrust Washer 5/16" I.D.	
38	11072		Variable Speed—Link		82	10410		Spring Bracket	
39	711-404		Shoulder Nut		83	736-329		Spring Lockwasher 1/4" Scr.*	
40	11069		Variable Speed Plate Ass'y.		84	712-287		Hex Nut 1/4-20 Thd.*	
41	712-429		Hex Inserted Locknut 5/16-18 Thd.		85	710-258		Hex Hd. Cap Scr. 1/4-20 x .62" Lg.*	
42	736-264		Flat Washer .344 I.D. x .62 O.D.		86	712-429		Hex Inserted Locknut 5/16-18 Thd.	
43	719-922		Hex Jam Nut 1/2-20 Thd.		87	10438		Variable Speed Pulley Ass'y.	
44	11067		Variable Speed—Eccenter Ass'y.		88	748-177		Sheave Half	
45	11056		Parking Brake—Lever Ass'y. R.H.						

PARTS LIST (CONTINUED)

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PA
89	750-146		Spacer .520 I.D. x .692 O.D.		124	10769		Blade Adapter Kit	
90	741-139		Ball Bearing .50 I.D. x 1.38 O.D.		125	11633		Chute Cover Ass'y. Comp. (Includes Ref. No's. 127, 128, 129, 130 & 131)	N
91	750-144		Steel Tubing					Hex Hd. Cap Scr. 1/4-20 x .50" Lg.*	
92	715-124		Spring Pin—Spirol 5/32" Dia x .62" Lg.*		126	710-289		Pivot Pin	
93	748-181		Movable Sheave Part Ass'y.		127	711-571		Adapter Plate Assembly	
94	736-244		Flat Washer .141 I.D. x .28 O.D.	N	128	11399		Hex Hd. Cap Scr. 1/4-28 x .62" Lg.*	
95	748-177		Sheave Half		129	710-195		Chute Cover Ass'y.	
96	756-174		Transmission Split Pulley .50" I.D.		130	11574		Push Nut 1/4" Rod	
97	754-136		"V"-Belt 21/32 x 31" Lg.		131	726-106		Spring Lockwasher 1/4" Scr.*	
98	711-494		Spacer .510 I.D. x .760 O.D. x .390		132	736-329		Hex Nut 1/4-20 Thd.*	
99	754-138		"V"-Belt 21/32 x 50" Lg.		133	712-287		Belt Guard—R.H. (Deck)	
100	756-124		Pulley 4.75 O.D. (Deck)		134	10072		#6 Hi-Pro Key 5/32 x 5/8" Dia.	
101	754-151		"V"-Belt 21/32 x 67" Lg.		135	714-365		Bearing Housing	
102	714-365		#6 Hi-Pro Key 5/32 x 5/8" Dia.		136	8253		Ball Bearing .787 I.D. x 1.85 O.D.	
103	756-157		Two Step Engine Pulley		137	741-919		Bearing Housing	
104	736-235		Flat Washer .406 I.D. x 1.25 O.D.		138	8253		Blade Spindle Ass'y Complete	
105	736-169		Spring Lockwasher 3/8" Scr.*		139	9321		Hex Hd. Cap Scr. 1/2-20 x 3.50" Lg.*	
106	710-152		Hex Hd. Cap Scr. 3/8-24 x 1.00"		140	710-515		Hex Jam Nut 5/8-11 Thd.	
107	11237		Wheel Bracket Ass'y. L.H. (Deck)		141	712-242		Spring Lockwasher 1/2" Scr.*	
108	732-191		Spring .75 O.D. x 11.0" Lg. (Deck)		142	736-921		Blade Brake Disc	
109	10071		Belt Guard—L.H. (Deck)		143	9322		Hex Jam Nut 1/2-20 Thd.	
110	9164		Deck Reinforcement Plate		144	712-922		Hex Nut 1/4-20 Thd.*	
111	11096		34 inch Deck Assembly		145	712-287		Spring Lockwasher 1/4" Scr.*	
112	11917		34 inch Deck Ass'y.—Comp.		146	736-329		Blade Spindle	
113	710-322		Hex Sems Scr. 5/16-18 x 1.00" Lg.*	N	147	711-255		Lo-Tone Muffler Ass'y. (Order from Briggs & Stratton)	
114	710-289		Hex Hd. Cap Scr. 1/4-20 x .50" Lg.*		148	—		Hex Nut 1/4-20 Thd.*	
115	11857		Muffler Bracket	N	149	712-287		Spring Lockwasher 1/4" Scr.*	
116	751-124		Muffler Extension Assembly	N	150	736-329		Wheel Bracket Ass'y.—R.H. (Deck)	
117	710-289		Hex Hd. Cap Scr. 1/4-20 x .50" Lg.*		151	11236		Wheel Pivot Bar	
118	712-123		Hex Nut 5/16-24 Thd.*		152	10937		Belleville Washer	
119	736-119		Spring Lockwasher 5/16" Scr.*		153	736-105		Wheel Ass'y. 5.0" Dia. (Deck)	
120	742-120		17.0 inch Blade		154	734-295		Shoulder Scr. .625" Dia. x 1.75" Lg.	
121	710-117		Hex Hd. Cap Scr. 5/16-24 x 1.00" Lg. Heat Treated		155	738-119		Hex Inserted Locknut 3/8-24 Thd.	
122	710-459		Hex Hd. Cap Scr. 3/8-24 x 1.50" Lg. Heat Treated		156	712-116		Belleville Washer	
123	736-217		Spring Lockwasher 3/8" Scr. Heavy Duty		157	736-105		Spring Lever Ass'y. with Knob	
					158	10949		Hex Nut 5/16-18 Thd.*	
					159	712-267		Hitch Bracket (Not Shown)	
					160	9963		Vinyl Black Strip for Dash 12.0" Lg. (Not Shown)	N
					161	731-144			

164 736-114 internal lockwasher
 165 11013 shift lever bracket

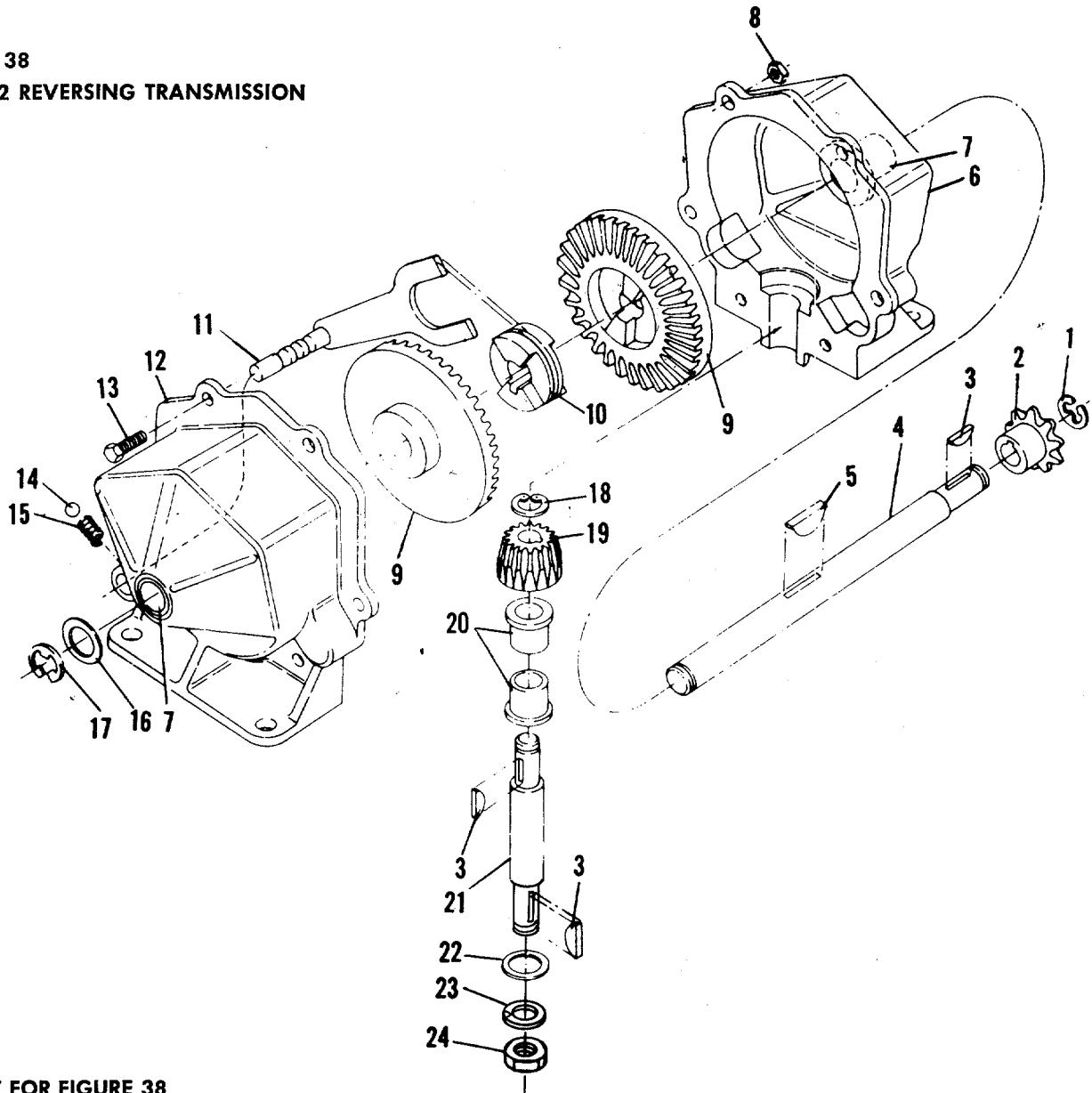
*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally order by part number and size as shown on parts list.

162 713-160 420 chain
 163 713-154 m/l

(463—Top Flite Red)

When ordering parts if color or finish is important, use appropriate code shown at left. (e.g.—Top Flite Red—11840 (463).)

FIGURE 38
717-222 REVERSING TRANSMISSION

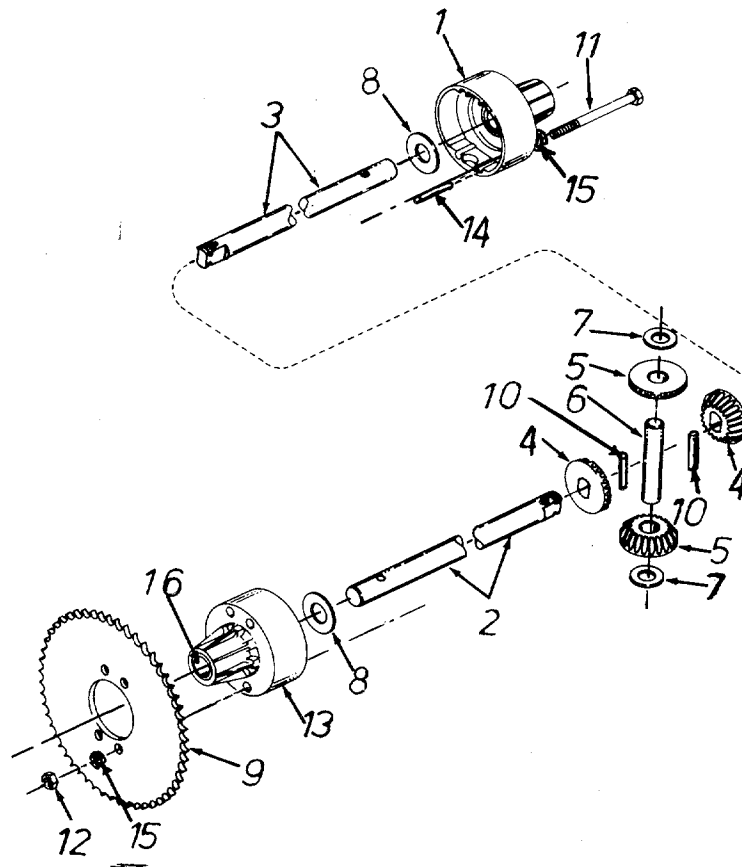


PARTS LIST FOR FIGURE 38

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	716-104		E-Ring for .500" Dia. Shaft		14	741-862		Detent Ball	
2	748-204		#41 Sprocket Center 8 Tooth		15	732-863		Detent Spring	
3	714-129		#4 Hi-Pro Key 3/32 x 5/8" Dia.		16	736-116		Flat Washer .635 I.D. x .93 O.D.	
4	711-854		Output Shaft		17	716-106		E-Ring for .625" Dia. Shaft	
5	714-126		#9 Hi-Pro Key 3/16 x 3/4" Dia.		18	716-865		Snap Ring for .500" Dia. Shaft	
6	717-123		Transmission Case—L.H. Complete		19	748-866		Pinion Gear	
7	748-855		Flange Bearing		20	748-867		Bearing .627 I.D.	
8	712-117		Hex Centerlock 1/4-28*		21	738-159		Pinion Shaft	
9	748-856		Bevel Gear		22	736-192		Flat Washer .531 I.D. x .93 O.D.	
10	748-857		Clutch Collar		23	736-921		Spring Lockwasher 1/2" Scr.*	
11	8583		Shift Yoke Assembly		24	712-922		Hex Jam Nut 1/2-20 Thd.*	
12	717-124		Transmission Case—R.H.—Comp. (With Detent Hole)		25	737-120		Grease—High Temp. 450° F. (5 oz.)	
13	710-195		Hex Hd. Cap Scr. 1/4-28 x .62" Lg.*		26	717-222		Transmission Complete	N

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

FIGURE 39
DIFFERENTIAL 10483



PARTS LIST FOR FIGURE 39

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	719-150		Housing Half (1)	
2	738-130		Shaft—Short (1)	
3	738-131		Shaft—Long (1)	
4	748-185		Gear—Double "D" Hole (2)	
5	748-158		Gear—Round Hole (2)	
6	711-276		Drive Pin (1)	
7	736-187		Flat Washer (2)	
8	736-188		Washer (2)	
9	9133		Sprocket (1)	
10	715-247		Spirol Pin 3/16" Dia. x 1.00" Lg.* (2)	
11	710-526		Hex Hd. Cap Scr. 5/16-24 x 4.00" Lg.* (4)	
12	712-237		Hex Locknut 5/16-24 Thd. (4)	
13	719-150		Housing Half (1)	
14	715-123		Dowel Pin 3/16" Dia. x .62" Lg. (2)	
15	736-119		Spring Lockwasher 5/16" Scr.* (8)	
16	748-169		Flange Bearing (2)	
17	737-120		Grease—High Temp. 450°F. (2 oz.)	N

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

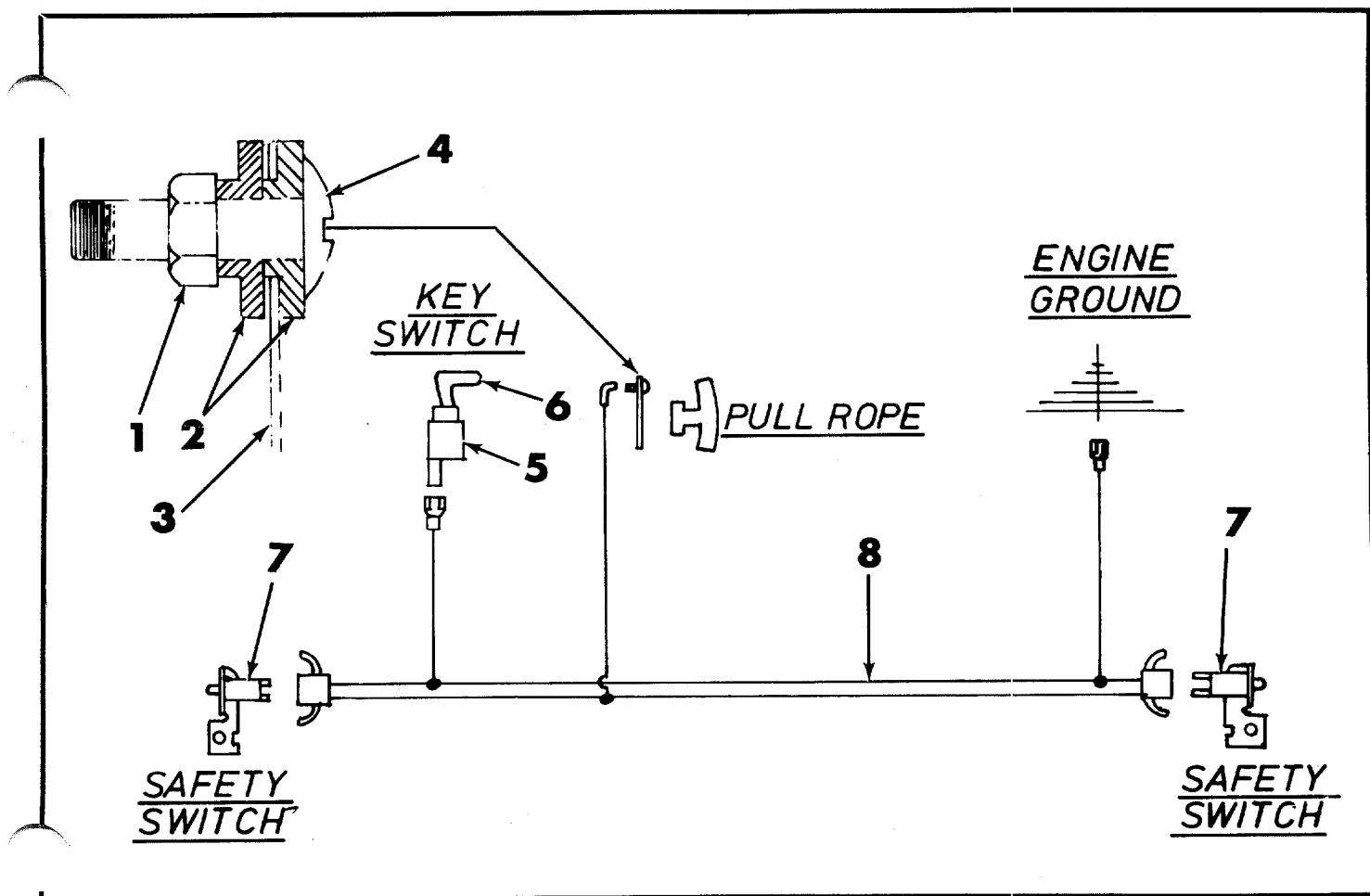


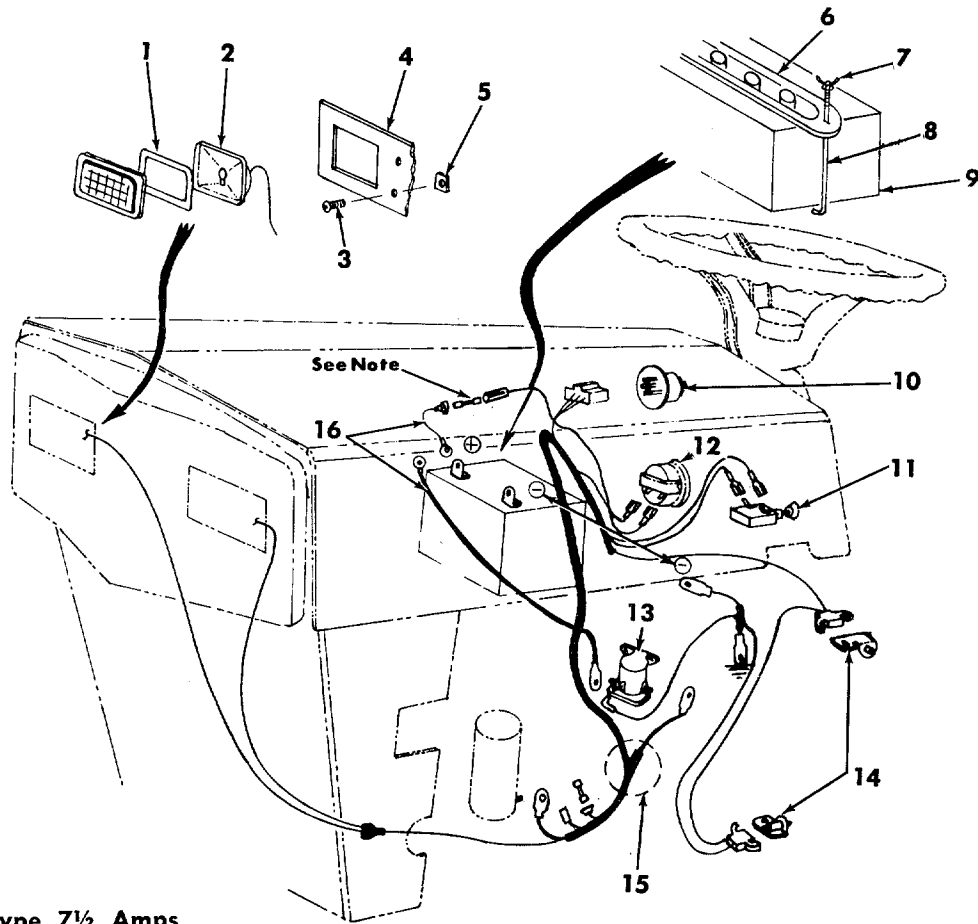
FIGURE 40. ELECTRICAL SYSTEM ON THE RECOIL START MODEL

PARTS LIST FOR FIGURE 40

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	712-121		Hex Nut #10-24 Thd.*	
2	736-338		Fiber Washer	
3	732-257		Switch Spring	
4	710-425		Truss Head Mach. Scr. #10-24 Thd.*	
5	725-266		Ignition Switch	
6	725-128		Ignition Key	
7	725-269		Safety Switch—Red	
8	725-274		Wire Harness	

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

FIGURE 41. ELECTRICAL DIAGRAM



NOTE

Fuse-Standard 3AG Type 7½ Amps. 32 Volts 1¼" Long x ¼" Dia. Available at Most Radio-TV Shops, Service Stations and Automotive Stores. 725-298

PARTS LIST FOR FIGURE 41

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	—		Part of Ref. No. 2		11	725-202		Head Light Switch	
2	725-155		Head Lights		12	725-119		Ammeter	
3	710-286		Truss Head Mach. Scr. ¼-20		13	725-270		Solenoid	
			x 50 Lg.*		14	725-268		Safety Switch	
4	10795		Head Light Retainer		15	725-343		Wire Harness	N
5	712-287		Hex Nut ¼-20 Thd.*		16	725-122		Electric Wire with Fuse Holder	
6	312-8821		Battery Hold Down		17	—		The following will be a list of hardware for battery terminals:	
7	712-113		Wing Nut ¼-20 Thd.					Hex Head Scr. ¼-20 x 5/8" Lg.*	
8	711-222		Battery Hold Down Rod					Hex Nut ¼-20 Thd.*	
9	725-117		Battery					Spring Lockwasher ¼" Scr.*	
10	725-267		Ignition Switch						
	725-201		Ignition Key (Not Shown)						

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

BATTERY WARRANTY CERTIFICATE

The following general warranty policy applies to all batteries sold by IBMA members using this warranty. The nationwide warranty applies only to batteries bearing the IBMA seal of approval.

All new batteries sold by IBMA members carry a warranty against faulty material or workmanship for 90 days from date of purchase. A faulty battery is to be adjusted, repaired or replaced with a new battery by an IBMA member, jobber or dealer only, or the warranty becomes void. An IBMA type battery that is faulty within the 90 day period is to be repaired or replaced with a new battery F.O.B. any IBMA factory supplier or any IBMA authorized dealer, without charge.

Your battery carries a further warranty on a pro-rata adjustment basis covering the number of months determined by the class of service and type of battery. In determining the exchange cost of a new battery, charges will be made for months of service used and the warranty is valid to the original purchaser only.

IBMA approved factory suppliers, as well as all IBMA authorized dealers, are to honor this Warranty. If your IBMA approved battery carries the IBMA seal of approval, this Warranty is to be honored by dealers handling IBMA approved batteries everywhere. (Independent Battery Manufacturers Association, Inc.)

Failures in service that are caused by fire, collision, freezing, abuse, faulty electrical equipment or the use of a battery of a group size smaller or specifications lower than the original battery are not covered by this policy.

BATTERY MANUFACTURER MEMBERSHIP LIST

ALABAMA	Express Bty. Div. Leeth Brothers	Contract Bty. Mfg. Yocam Batteries	Shreveport Central Bty.	Maryland Heights Electro Bty. Mfg.	OREGON	Memphis Central Battery
Birmingham	FLORIDA	ILLINOIS	MARYLAND	Sikeston Electro Bty.	Beaverton Western Bty., Inc.	Laher Bty. Prod.
Southern Bty.	Fort Lauderdale Florida Bty.	Belleville Bell City Bty. Mfg.	Baltimore East Penn Mfg.	NEW JERSEY	Portland Laher Bty. Prod.	Southern Bty.
Yocam Batteries	Hialeah East Penn Mfg.	Chicago Illinois Bty. Mfg.	MASSACHUSETTS	Atlantic City Landis Battery	PENNSYLVANIA	Nashville Electro-Lite Bty.
Mobile	Jacksonville Tropex Batteries	Volta Bty. Corp.	Watertown Atlantic Bty.	NEW MEXICO	Altoona East Penn Mfg.	Southern Bty.
Yocam Batteries	Yocam Batteries	Peoria Red Diamond Bty.	MICHIGAN	Albuquerque Sandia Bty. Mfg.	TEXAS	Dallas Continental Bty.
Montgomery	Miami Tropex Batteries	INDIANA	Detroit Batteries Mfg.	NEW YORK	Erie New Castle Bty.	Reliable Battery
Ebco Battery	Yocam Batteries	Muncie Stout Storage Bty.	Flint ABC Batteries	Buffalo East Penn Mfg.	Lancaster Lancaster Bty.	El Paso El Paso Bty.
ALASKA	Orlando Yocam Batteries	IOWA	Holly Detroit Battery	Lockport Great Lakes Battery	Lyon Station East Penn Mfg.	Houston Texford Bty. Co.
Anchorage	Pensacola Yocam Batteries	Corydon Voltmaster	Detroit Battery	NORTH CAROLINA	New Castle New Castle Bty.	Reliable Battery
Alaska Husky Bty.	St. Petersburg Electro Battery Co.	Council Bluffs Reliance Bty. Prod.	Madison Heights C & W Lektra	Charlotte Yocam Batteries	Philadelphia East Penn Mfg.	San Antonio Reliable Battery
ARKANSAS	Tampa Bilt-Rite Bty. Mfg.	Des Moines Voltmaster	Warren G & M Battery	Thomasville East Penn Mfg.	Pittsburgh Simon Bty. & Res.	Utah Salt Lake City
Hot Springs	Contract Bty. Mfg.	KANSAS	MINNESOTA	Geidel Bty. Div.	El Paso El Paso Bty.	Reliable Battery
Red Diamond Bty.	DeSoto Bty. & Elec.	Kansas City American Batteries	St. Paul Standard Storage Bty.	OHIO	RHODE ISLAND	San Antonio Reliable Battery
CALIFORNIA	Tropex Batteries	Contract Bty. Mfg.	MISSISSIPPI	Akron Crown Battery	Providence Pilof Mfg., Inc.	Reliable Battery
Los Angeles	Yocam Batteries	GEORGIA	Florence Contract Bty. Mfg.	Cincinnati Moore Battery	SOUTH CAROLINA	San Antonio Reliable Battery
Estee Battery	Albany Ebco Battery	Atlanta Ebco Battery	Jackson Central Bty.	Cleveland Crown Battery	Columbia Yocam Batteries	Utah Salt Lake City
Laher Bty. Prod.	Southern Bty. Yocam Batteries	Tampa Bilt-Rite Bty. Mfg.	New Albany Laher Bty. Prod.	New Castle Bty.	TENNESSEE	Utah Salt Lake City
Oakland	Columbus Ebco Battery	Contract Bty. Mfg.	MISSOURI	Columbus Crown Battery	Chattanooga Electro-Lite Bty.	Virginia Arlington
Laher Bty. Prod.	Yocam Batteries	LOUISIANA	Joplin Lead Products	Fremont Crown Battery	Knoxville Southern Bty.	Express Bty. Div. Leeth Bros.
Sacramento	Yocam Batteries	New Orleans Central Bty.				Lynchburg Hydrate Battery
Laher Bty. Prod.	Yocam Batteries	Reliable Bty.				Washington Seattle
San Francisco	Yocam Batteries					Washington Seattle
Amp King Bty.	Yocam Batteries					Washington Seattle
Laher Bty. Prod.	Yocam Batteries					Washington Seattle
Pico Bty. Mfg.	Yocam Batteries					Washington Seattle
Stockton	Yocam Batteries					Washington Seattle
Stockton Battery	Yocam Batteries					Washington Seattle
COLORADO	Yocam Batteries					Washington Seattle
Denver	Yocam Batteries					Washington Seattle
Moore Battery	Yocam Batteries					Washington Seattle
D. C.	Yocam Batteries					Washington Seattle
Washington	Yocam Batteries					Washington Seattle

WARRANTY

For one year from date of purchase, MTD Products Inc will replace for the original purchaser, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. All transportation charges on parts submitted for replacement under this warranty must be paid by the purchaser. This warranty does not include replacement of parts which become inoperative through misuse, excessive use, accident, neglect, improper maintenance or alterations by unauthorized persons. This warranty does not include the engine, motor, battery, battery charger or any component parts thereof. For service on these units refer to the applicable manufacturer's warranty.

The above warranty will apply only to the original owner and will be effective only if the warranty card has been properly processed. It will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. **UNDER NO CIRCUMSTANCES WILL THE RETURN OF A COMPLETE UNIT BE ACCEPTED BY THE FACTORY UNLESS PRIOR WRITTEN PERMISSION HAS BEEN EXTENDED.**

PARTS INFORMATION

DEFECTIVE OR MISSING PARTS must be reported to the factory immediately. Such claims must include your model number and date of purchase.

MOWER, TILLER, SNOW THROWER, TRACTOR, TRAIL BIKE AND MUD BUG PARTS

Mower, tiller, snow thrower, tractor, trail bike and mud bug parts are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, de-

scription of parts and the quantity of each part required.

BRIGGS & STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

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

A 1 Engine & Mower Co.

327 East 9th Street
Salt Lake City, Utah 84102

American Electric Ignition Co.

124 N. W. 8th Street
Oklahoma City, Oklahoma 73102

Auto Electric & Carburetor Co.

2625 4th Avenue, S.
P. O. Box 1948
Birmingham, Alabama 35233

Automotive Equipment Service Co.

3117 Holmes Street
Kansas City, Missouri 64109

Bailey's Rebuild Inc.

1325 E. Madison Street
Seattle, Washington 98102

Brown Equipment Distributor Inc.

110 Beech Street
Corydon, Indiana 47112

Bullard Supply

2409 Commerce Street
Houston, Texas 77003

Catto & Putty, Inc.

P. O. Box 2408
510 Soledad Street
San Antonio, Texas 78205

Center Supply Company

6867 New Hampshire Avenue
Takoma Park, Maryland 20012

Charles B. Wright Co.

309 4th Avenue, South
Nashville, Tennessee 37201

W. B. Clements

400 Salem Avenue
Roanoke, Virginia 24016

Morton B. Collins Co.

300 Birnie Avenue
Springfield, Massachusetts 01107

Dixie Sales Company

P. O. Box 1408
327 Battleground Avenue
Greensboro, North Carolina 27402

East Point Cycle & Key Shop

1617 Whiteway
East Point, Georgia 30044

Gamble Distributors

West End Avenue
Carthage, New York 13619

Garden Equipment Co., Inc.

6600 Cherry Avenue
Long Beach, California 90805

Henzler, Inc.

2015 Lemay Ferry Road
St. Louis, Missouri 63125

Frank E. Ives & Son

1101 Lincoln Avenue
Prospect Park, Pennsylvania 19076

J. W. Jewett Co.

981 Folsom Street
San Francisco, California 94107

Kenton Supply

8216 North Denver Avenue
Portland, Oregon 97217

Kimber's Inc.

115 W. Geddes St.
Syracuse, New York 13204

The Lawnmower Shop

1340 El Camino Real
San Carlos, California 94070

Marr Brothers

423 E. Jefferson
Dallas, Texas 75203

Mathews Auto Electric Co.

420 East 2nd Street
Tulsa Oklahoma 74120

McClure Lawn & Garden Supply

1114 Lexington Avenue
Mansfield, Ohio 44907

Memphis Cycle & Supply Co.

421 Monroe Avenue
Memphis Tennessee 38103

Mox-All of Florida, Inc.

365 Greco Avenue
Coral Gables, Florida 33146

National Central, Div. of

Joe Sterling, Inc.
Drawer "D" 687 Seville Rd.
Wadsworth, Ohio 44281

Power Equipment Distributor

36463 So. Gratiot Avenue
Mt. Clemons, Michigan 48043

Parts & Sales Inc.

2101 Industrial Pkwy.
Elkhart, Indiana 46514

Parts & Sales Inc.

335 West St. Charles Road
Villa Park, Illinois 60181

Power Lawn & Garden Equip. Co.

2551-2571 J. F. Kennedy Road
Dubuque, Iowa 52001

Raub Supply Company

James & Mulberry Sts.
Lancaster, Pennsylvania 17604

Radco Distributors

2403 Market Street
P. O. Box 3216
Jacksonville, Florida 32206

Richmond Battery & Ignition

P. O. Box 25369 — 957 Myers St.
Richmond, Virginia 23260

Smith Hardware Company

515 N. George Street
Goldsboro, North Carolina 27530

South Denver Lawn Equip. Co.

527 West Evans
Denver, Colorado 80223

Suhren Engine

8330 Earhart Blvd.
New Orleans, Louisiana 70118

Sutton's Lawn Mower Shop

Route 4, Box 343
North Little Rock, Arkansas 72117

Warner Equipment

7520 Lyndale Avenue, So.
Minneapolis, Minnesota 55423

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in material and workmanship, defects which are not detected at the time of manufacture.

Our aim is to build into our product quality and reliability. Considerable emphasis is placed on quality control in order to assure our customer of satisfactory product performance. To achieve this goal, it is necessary to gain the cooperation of all concerned, MTD, our sales force and our customers.

MTD's responsibility is to build a quality product and to back up that product. MTD must build this quality product at a competitive price. This cannot be achieved without production in quantity. Quantity production is mass production. In mass production it is always possible for undetected defects to be present when the product reaches the customer. Our warranty is extended to assure the customer that any such defects will be corrected.

Use and maintenance are the responsibility of the customer. MTD cannot assume responsibility for conditions over which it has no control. MTD's responsibility does not cover misuse, excessive use, accident neglect, improper maintenance or alterations by unauthorized persons. Satisfactory product performance can only result when a manufacturer provides and backs up a quality product and the customer follows through with proper use and proper maintenance of that product. When both the manufacturer and the customer recognizes and assumes his responsibility, satisfactory product performance and customer satisfaction are assured.