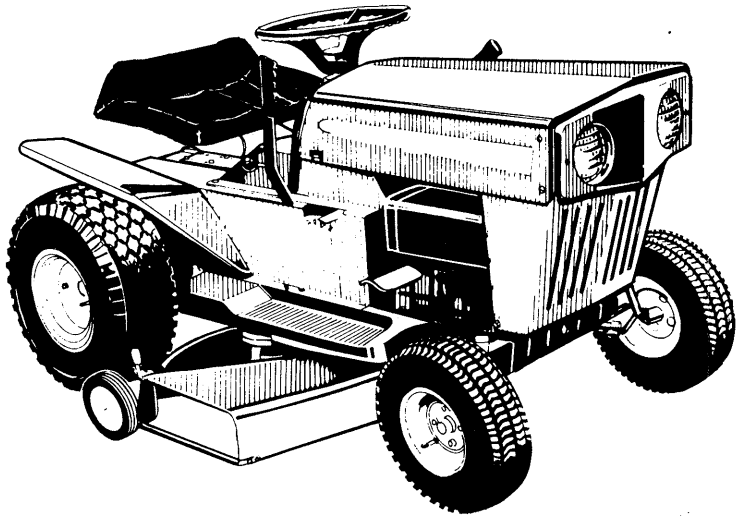
OWNER'S GUIDE

10 CENTS

Model No.
131-480 (Recoil Starter) 34
131-490 (Electric Starter) 34

RIDING MOWER



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.

MTD PRODUCTS INC • 5389 WEST 130TH ST. • P.O. BOX 2471 • CLEVELAND, OHIO 44111

Form No. 770-2901

SAFETY RULES

Your rotary mower is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

1. Remove all sticks, stones wire and other hazardous items from lawn before mowing. Such items are dangerous to both the mower and individuals in the vicinity of the mower.
2. Always disconnect spark plug cable during repair or refueling operations.
3. Always start engine from side opposite discharge chute.
4. **NEVER** place hands or feet under mower or near discharge chute while engine is running.
5. Always stop engine when not cutting grass.
6. Do not fill gas tank while engine is running. Do not spill gasoline on hot engine.
7. Keep childen and pets away from area at all times during mowing operation. Never allow mower to discharge grass toward any person.
8. Do not attempt to start engine while mower is resting in high grass.
9. **Check all nuts and bolts, particularly the blade bolts, for tightness. This is especially important during the initial operation period. Make this same check periodically thereafter.**
10. While operating the mower, if any foreign object is struck, stop the mower and inspect for damage. Do not restart or operate the mower until all damage has been repaired.

WARNING: Should excessive vibration develop, check your blade and blade shaft immediately. Do not operate mower with an unbalanced blade, a damaged blade or a damaged blade shaft.

ASSEMBLY INSTRUCTIONS

ASSEMBLY

The mower is shipped completely assembled with the exception of the steering wheel, seat, seat cover and the battery.

NOTE

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

a. Assembling the Steering Wheel

To assemble the steering wheel to the machine, refer to figure 1 and proceed as follows:

1. Line up the hole in the steering wheel with the hole in the steering column.
2. Drive the roll pin with a hammer.
3. Press the cap on the steering wheel by hand.

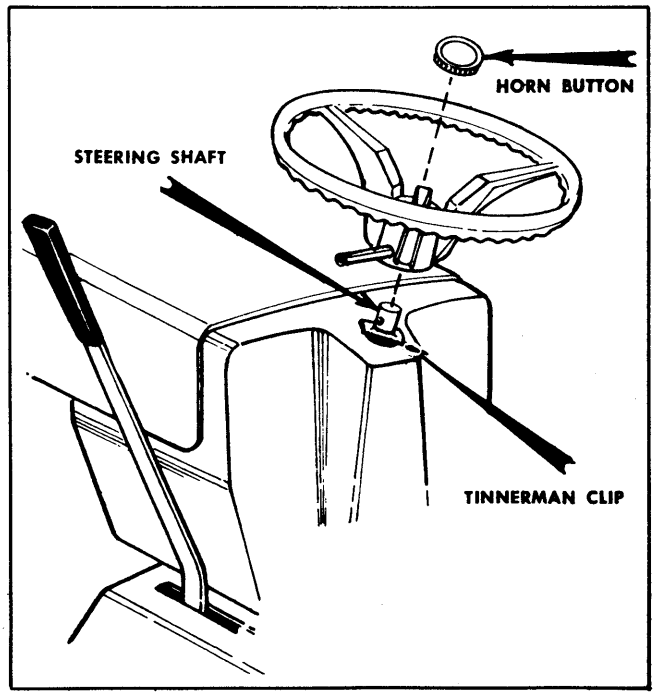


FIGURE 1 STEERING WHEEL ASSEMBLY

INSTRUCTIONS FOR ACTIVATING DRY CHARGED BATTERIES

CAUTION: 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 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.

725-117	Battery Specifications	
32 AMP. HRS. AT 20 HRS. **PLATES PER CELL 9** **ASSEMBLY LEFT HAND** **WEIGHT WET 22 LBS.** **WEIGHT DRY 17 LBS.**	**ELECTROLYTE 2 QUARTS** **SPLASH PROOF VENTS** **TERMINALS (L) TYPE** **1/4 BOLT FOR NEGATIVE** **5/16 BOLT FOR POSITIVE**	**SIZE 7-3/4 X 5-1/8 X 7-17/64** + ⊕ ⊖ −

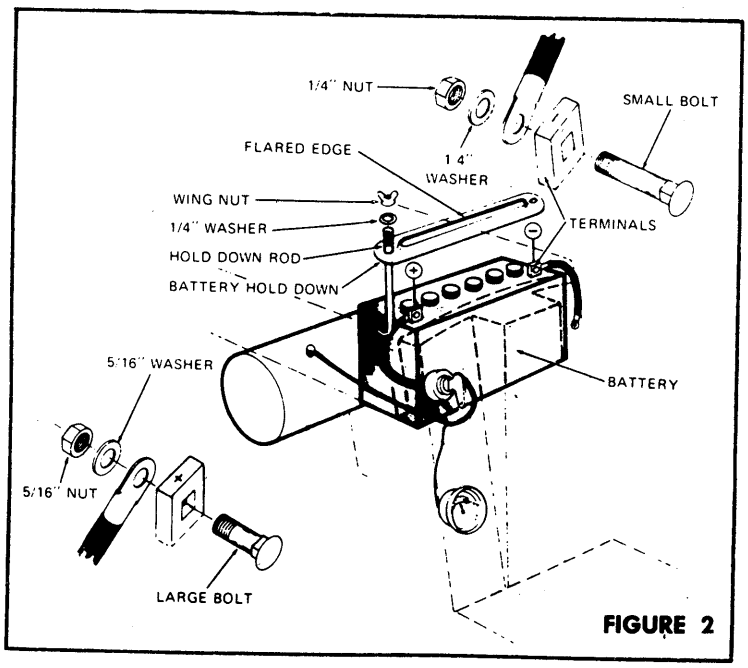


FIGURE 2

PLACING BATTERY IN MOWER

1. Open hood of mower by loosening the black knobs on the side of the hood and lift the hood until it stays up.
2. Place the battery with the terminals to the front of the mower. Hook both hold down rods under the battery case and place the battery hold down over the battery caps with the flared edge up as shown in Figure 2.
3. Place a ¼" washer over the end of each rod and secure with two wing nuts.
4. Attach the negative terminal to the battery post with the ¼" bolt, washer and nut as illustrated in Figure 1.
5. Attach the positive terminal to the battery post with the 5/16" bolt, washer and nut as illustrated in Figure 2.

NOTE: The alternator will not recharge a completely dead battery (one that will not light a headlight). If battery is completely dead, have it recharged at a service station or use a 110-volt plug-in battery charger.

CAUTION: 110-volt plug-in charger will not bring battery up to charge unless cable is disconnected from negative (—) side of battery. Do NOT run engine with battery disconnected unless the fuse is removed from the fuse holder. Failure to remove the fuse can result in electrical sparking and alternator damage.

CONTROLS AND PRELIMINARY CHECKS

CONTROLS

The controls on Models 480 and 490 may be considered as Drive Controls and Cutting Controls, as follows.

The **Drive Control** consists of the throttle control, clutch and brake pedal, cruise control, parking brake, gear shift lever, and the starter switch.

a. The **Throttle Control Lever** actuates the butterfly in the carburetor and may be set at stop, slow, fast or choke to control the speed of the engine.

b. The **Clutch-Brake Pedal** is used to disengage the drive mechanism and apply the brakes. Depressing the pedal stops the mower. Releasing the pedal will allow the pedal to move back and the mower will continue to pick up ground speed until it reaches approximately 8 mph.

c. The **Cruise Control** allows you to set the maximum speed by moving the stop lever to any of the six positions. At any time you can depress the clutch-brake pedal and stop or slow down the mower but it will never go faster than the point where you set the cruise control. (See figure 5).

d. The **Parking Brake** is set by depressing the clutch-brake pedal and pulling the parking brake towards the rear of the rider.

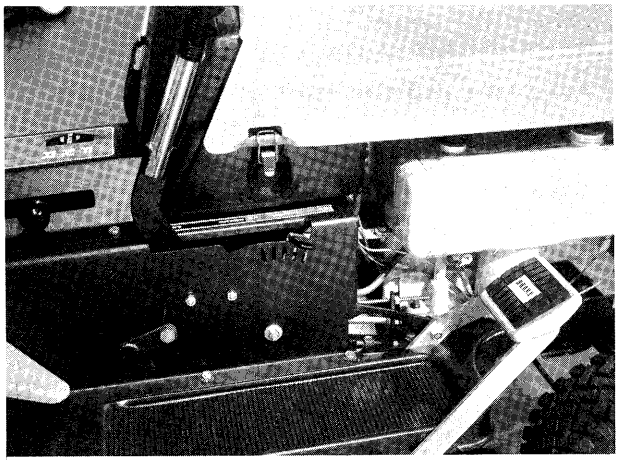


FIGURE 3

e. The **Gear Shift Lever** is used to shift into forward, neutral or reverse.

CAUTION

WHENEVER BACKING, BE SURE AREA IS CLEAR OF PERSONS, PETS OR OBSTRUCTIONS.

NOTE

Depress the clutch-brake pedal completely when you shift gears. Do not shift gears while the mower is in motion.

f. The **Starter Switch** is located on the dash board. Turn the key to the right to start the engine. To shut off the engine move the Throttle Control Lever to the Stop position.

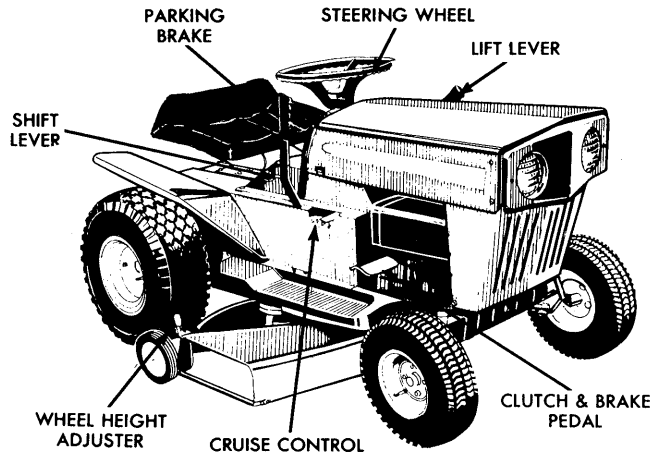


FIGURE 4 CONTROLS
FIGURE 4 CONTROLS

The **Cutting Controls** consist of the wheel height adjuster and the lift lever. The mower is designed to cut grass from 1-1/2 to 3-5/8-inches high. To disengage the power to the blades, move the lift lever back (See figure 4) to the disengage position. The blades will not rotate when the lift lever is in this position.

There are two ways to set the mowing height of your riding mower. One setting is for rough mowing and the other is for normal mowing.

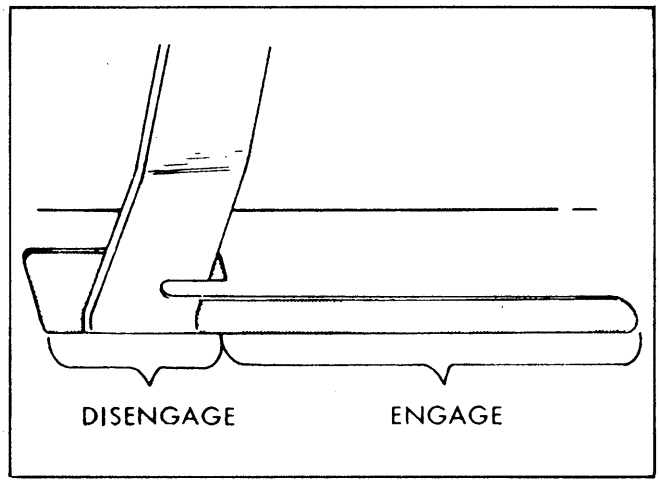


FIGURE 5 LIFT AND DISENGAGEMENT LEVER

a. **Normal Mowing.** Set the mowing height with the wheel height adjusters (See figure 6). Set the lift lever adjustment in the 1-1/2-inch position as shown in (figure 3). Disengage the lift lever and let it move all the way forward. This will allow the deck to float and follow the contour of the ground.

b. **Rough Terrain Cutting.** With the lift lever (figure 5) in the disengaged position, push the stop lever into the right and set it at the desired cutting height position. Move the lift lever into the engaged position. Set the wheel height adjusters so they clear the ground by approximately 1/4-inch to prevent scalping.

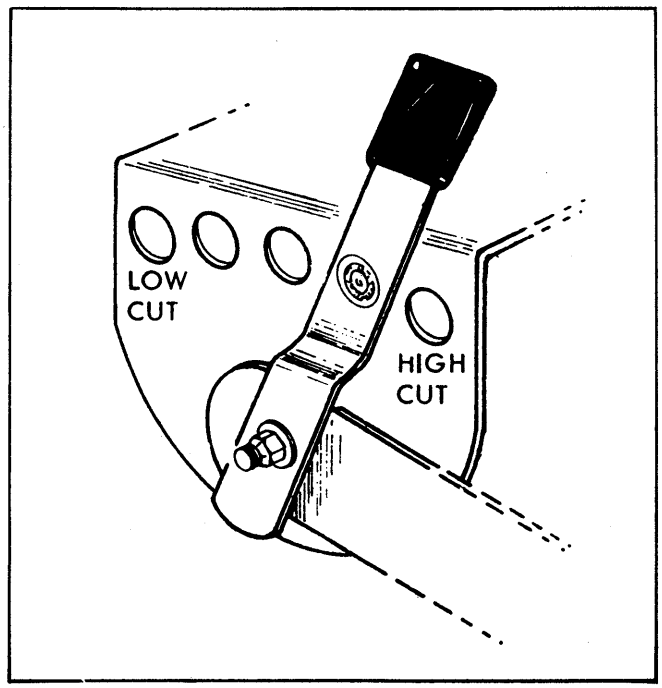


FIGURE 6 MOWING HEIGHT ADJUSTMENT

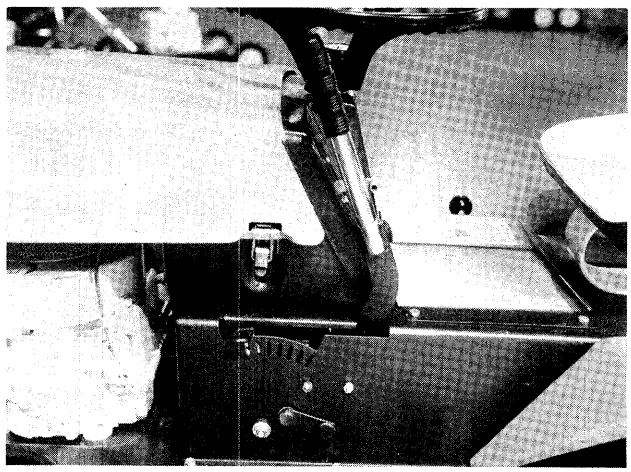


FIGURE 7 LIFT LEVER ADJUSTMENT

CHECKING OIL AND GASOLINE

NOTE

The machine is shipped with oil and gasoline completely drained from the engine. Before starting the engine, oil must be added to the engine crankcase and gasoline to the tank. DO NOT mix oil with gasoline.

a. Oil

With the machine on level ground, remove the oil filler plug (See figure 8) and pour 2-1/4 pints of good quality SAE 30 type MS engine oil into the crankcase. Replace the filler plug. Remove the spark plug and, using the starter handle, crank the engine through several times to lubricate the cylinder wall and connecting rod, then replace the spark plug.

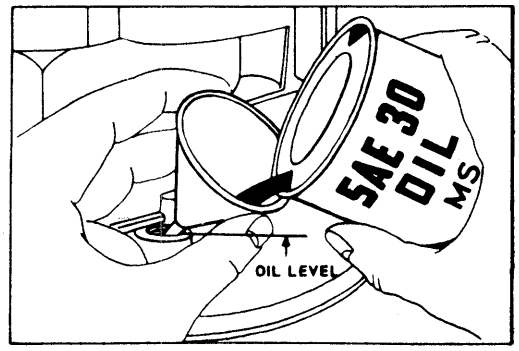


FIGURE 6

b. Gasoline

Remove the gas cap and fill the tank with fresh regular gasoline. Do not use gasoline that has been stored for any length of time.

OPERATING INSTRUCTIONS

STARTING THE ENGINE

Refer to page 5 for information regarding oil and gasoline requirements, check that spark plug wire is connected, then proceed as follows:

1. With the machine set on level ground place gear shift lever in NEUTRAL (See figure 9).

FIGURE 9

2. Place the lift lever in the DISENGAGED position. (See figure 9).

3. **Fuel Shut-Off Valve**—A fuel shut-off valve is located at the side of the carburetor (see figure 10). Shut off the valve when the mower is being stored for a period of time. Turn the valve clockwise to shut off the fuel flow.

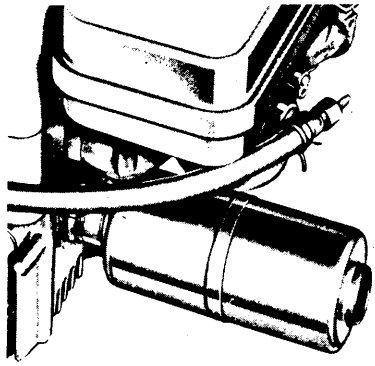


FIGURE 10 FUEL SHUT-OFF VALVE

4. Place the throttle control in the CHOKE position. See figure 11 .

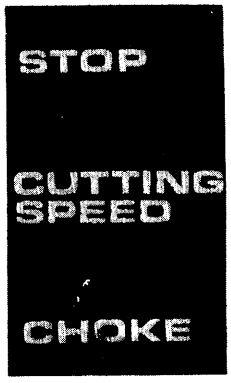


FIGURE 11 THROTTLE CONTROL

5. Turn the starter key to the right to start position.

> **NOTE**
>
> To stop the engine, move the throttle control to the stop position. The starter key will not shut off the engine.

If you start the engine without the battery, wind the starter rope around the pulley in the direction shown by the arrow in figure 12. Pull the rope with a quick full arm stroke.

NOTE: Rope and grip not standard equipment. Ropes are available at your local Briggs and Stratton Dealer.

RECOIL START

1. Be sure the crankcase is filled with oil as recommended in engine manual and put regular gasoline in the fuel tank.
2. Attach wire to spark plug and put lift lever in DISENGAGE position.
3. Put gear shift lever in neutral.
4. Move throttle control lever to START position.
5. Pull the starter rope with a quick steady motion with your right hand.
6. Slowly return the throttle control lever to the running position after the engine has started.

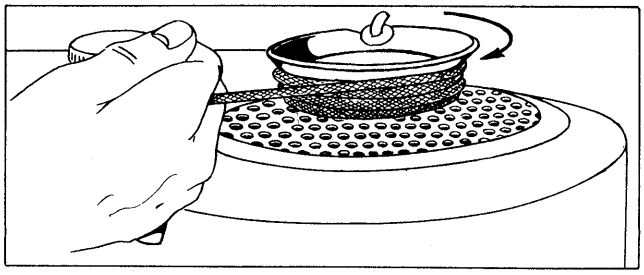


FIGURE 12 ROPE START

7. When the engine starts, gradually move the throttle to the faster position. After the engine warms up (about 2 or 3 minutes) set the throttle at a slower speed.

8. Do not overchoke engine. Repeated cranking with the throttle at choke position will cause gasoline to flood the intake tube and the engine. If after 3 or 4 attempts, the engine fails to start, place the throttle in a faster position, crank the engine several times to clear out the excess fuel, and then proceed with steps 5, 6, and 7.

STOPPING THE ENGINE

To stop the engine, place the throttle control lever in stop position (see figure 11). When the lever is in the stop position, a switch blade is activated to short-circuit the spark plug.

WARNING

WHENEVER THE MOWER IS LEFT UNATTENDED, DISCONNECT THE SPARK PLUG LEAD AND PLACE THE THROTTLE IN STOP POSITION.

OPERATING THE MOWER

Typical operation of the mower is as follows:

1. Set the cutting controls at the desired cutting height as outlined in paragraph 2-1.
2. Set the stop lever (figure 3) at a slow speed.

NOTE

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

Depress the clutch-brake pedal and pull the parking brake into the park position. (See figure 3).

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.

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. DO NOT attempt to change gears while in motion!

The mower is brought to a stop by pressing right foot against the combination clutch and brake 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 rider 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 BLADE, move the lift lever (figure 5) into the disengaged position. The lift lever raises the deck and disengages the blades.

NOTE

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

MAINTENANCE

CRANKCASE OIL

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

a. Oil Check

Check the oil level in the crankcase before each use of the machine and after every two hours of operation.

Oil should be to the over-flowing point at the oil filler plug hole. (See figure 13).

b. Oil Change

After the first two hours of operating a new engine, drain the oil (see figure 13) from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil after every 25 hours of operation. This procedure ensures for minimum wear of engine parts and provides for virtually trouble-free operation. To change the oil, proceed as follows:

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

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

3. Refill crankcase with 2-1/4 pints of SAE 30 engine oil (A.P.I. class MS). Pour the oil slowly to eliminate airlock, then check level with dipstick; oil level should be at the FULL mark.

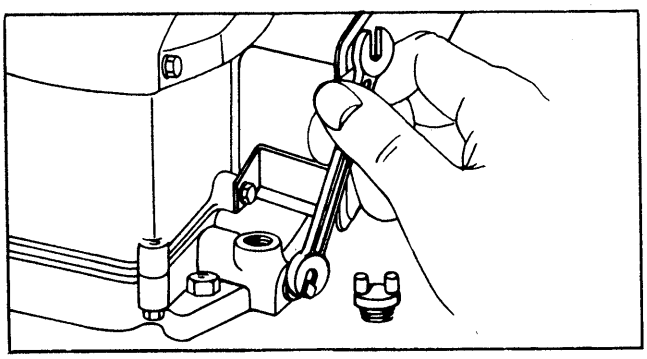


FIGURE 13

LUBRICATION

Periodically apply oil or grease as indicated to points shown in figure 14.

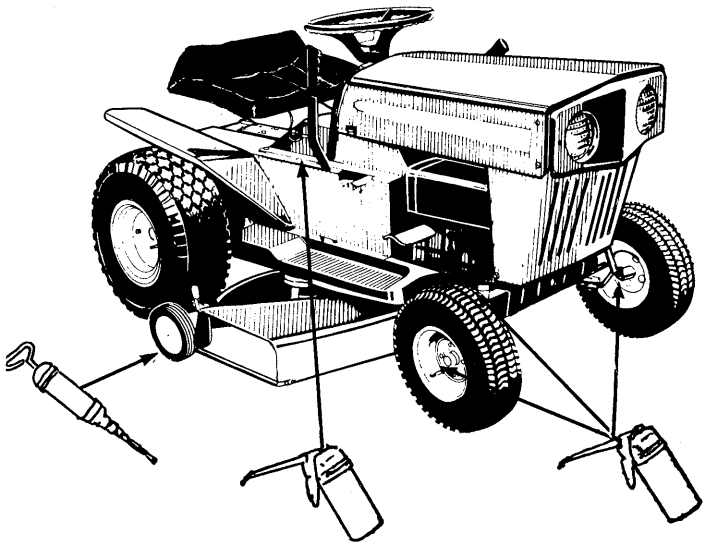


FIGURE 14 LUBRICATION POINTS

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 15).

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

1. Remove two screws and lift off complete air cleaner assembly.
2. Remove screen and spacers from foam element.
3. Remove foam element from air cleaner body.
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 engine oil. Squeeze to remove.
   D — Assemble parts—fasten to carburetor with screw.

SERVICE AIR CLEANER REGULARLY "OIL-FOAM" TYPE

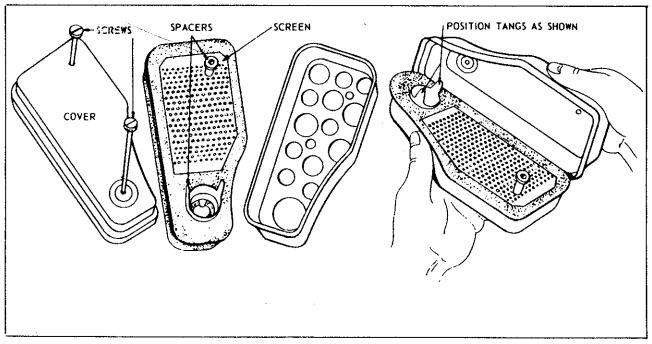


FIGURE 15

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.

NOTE

Remove the engine shroud to make engine cleaning easier.

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 on the blade and mower drive belts by the spring-loaded idler pulleys, and therefore no adjustment is required.

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 16). Spark plug replacement is recommended atthe 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.

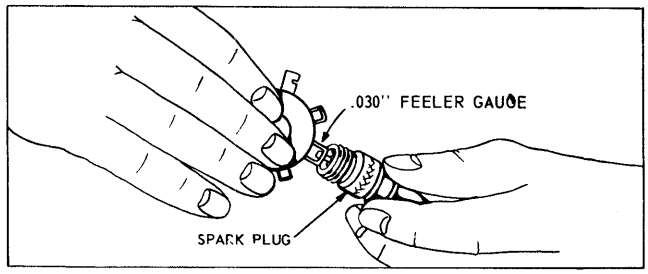


FIGURE 16 SPARK PLUG CLEARANCE

BRAKE ADJUSTMENT

Pedal Adjustment. To take up the adjustment on the brake linkage, tighten the hex nut on the brake rod. This adjustment is usually only needed if the caliper brake has been removed or replaced. Normal wear can be adjusted on the fine brake adjustment.

Fine Brake Adjustment.

1. Remove the cotter pin.
2. Turn the castle nut clockwise to tighten. Turn one quarter revolution.
3. Test brakes. Repeat if necessary.

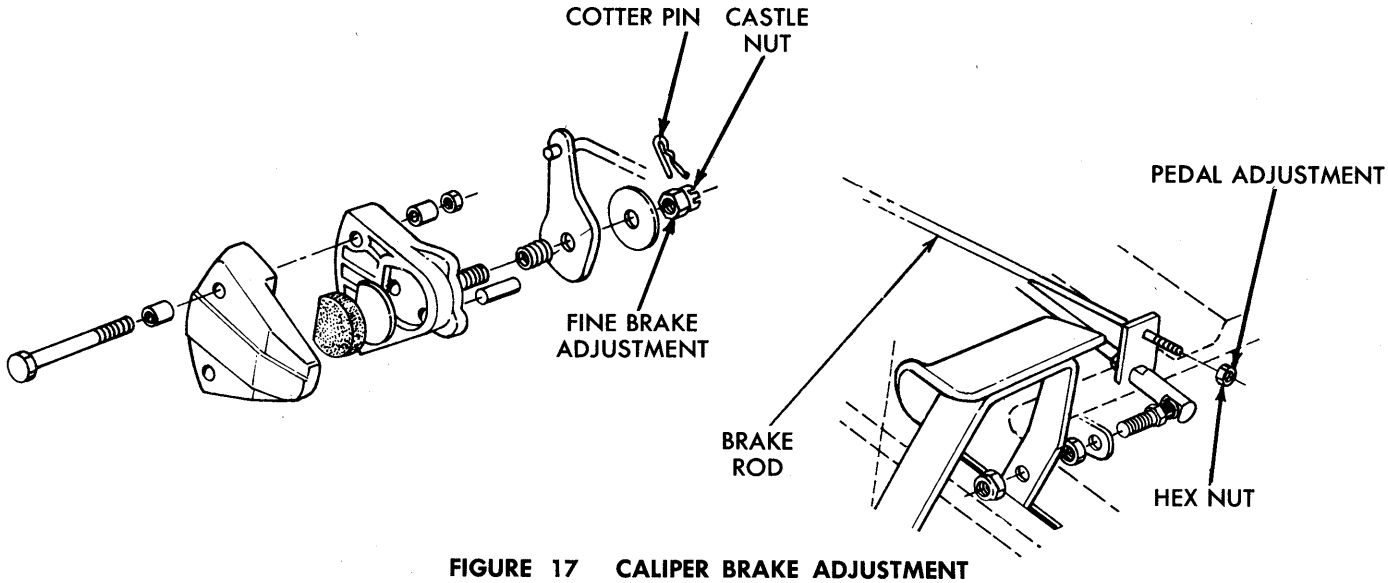


FIGURE 17 CALIPER BRAKE ADJUSTMENT

REPLACING THE MOWING UNIT BELT

To change either belt, engage the parking brake and tip the mower on its rear wheels until it rests on the seat. Disconnect and ground the spark plug wire.

Changing Mowing Unit Belt:

1. Place the lift lever in the ENGAGED position.
2. Remove belt keepers at engine belt guard, by removing two bolts.
3. Remove the deck belt guards by removing the two nuts and bolts on each belt guard.
4. Remove the four **front** linkage arms between the frame of the mower and the cutting deck.
5. Place the lift lever in the DISENGAGED position.
6. Reassemble with the new belt.

REPLACING THE TRANSMISSION DRIVE BELT

1. Set the parking brake.
2. Place the lift lever in the engaged position.
3. Remove the engine belt guard by removing the two front engine bolts and nuts.
4. Place the lift lever in the disengaged position and remove the belt from the engine pulley.
5. Remove the belt guard bracket on the multi-speed pulley belt guard by removing the bolt and nut on each side.
6. Remove the hex nut and lockwasher on the multi-speed pulley.
7. Remove the multi-speed pulley, and both belts.

REPLACING BLADE

WARNING

BEFORE BEGINNING WORK ON THE CUTTER BLADE, REMOVE THE SPARK PLUG FROM THE CYLINDER.

Removing and Sharpening Blades—Remove the bolt (see figure 21) and lockwasher. Pull the blade spindle. The adapter can be removed by removing both the bolts and nuts.

Tie Rod Adjustment—The front wheels should toe-in 1/8 inch. To adjust the toe-in, loosen the hex jam nut, remove the locknut, drop the tie rod end out of the hole in the wheel bracket, and screw the tie rod end in or out to make the adjustment (see figure 18). The distance "B" must be less than "A" by 1/8 inch (see figure 19).

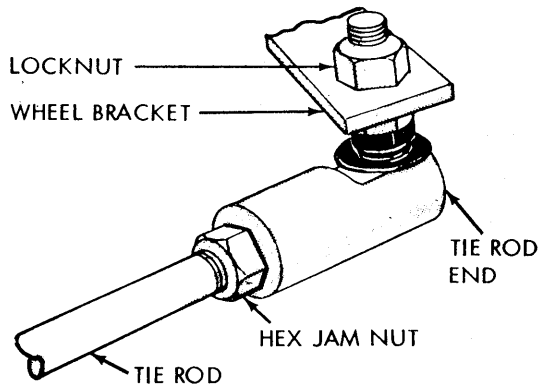


FIGURE 18 TIE ROD ADJUSTMENT

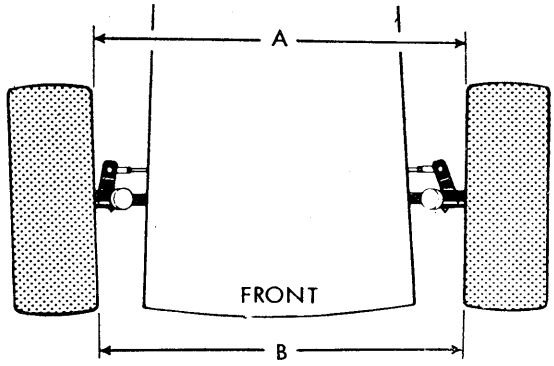


FIGURE 19 TIE ROD ADJUSTMENT CHECK

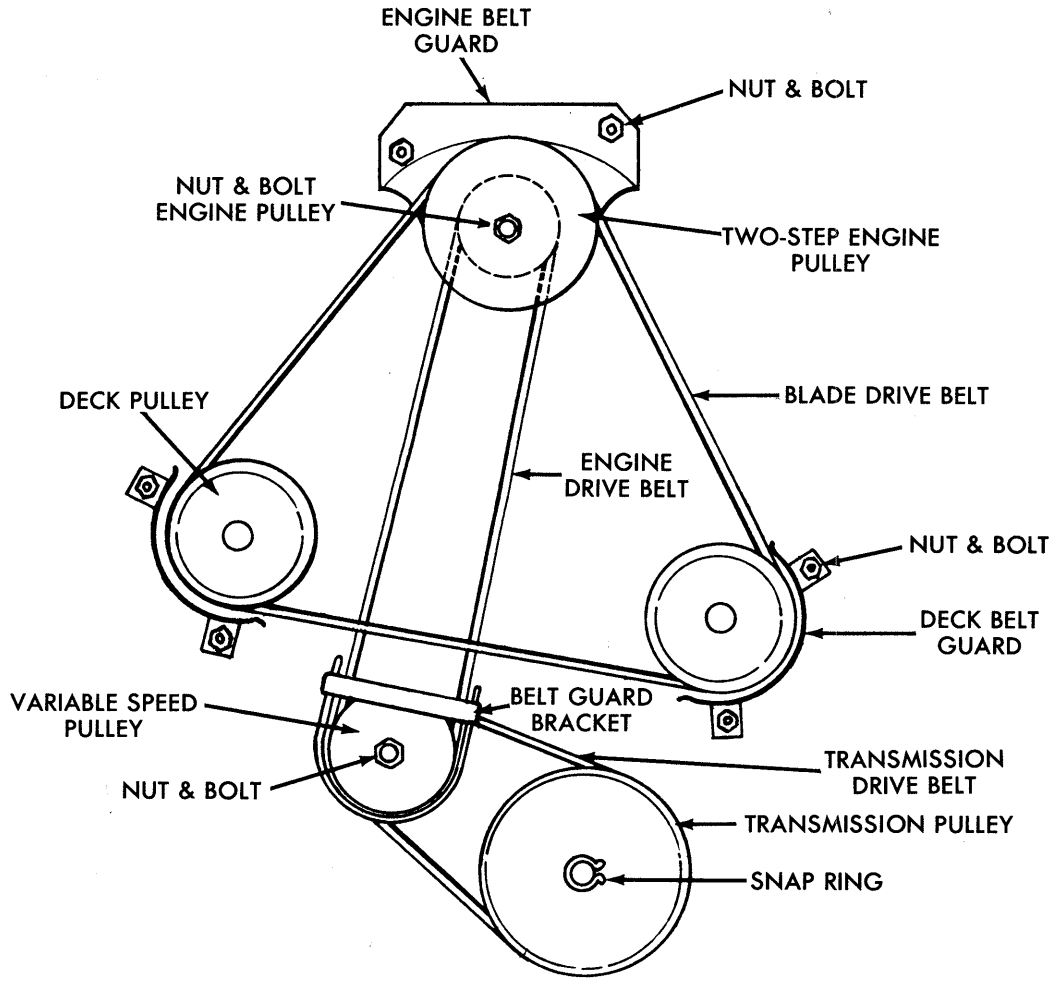


FIGURE 20 BELT SYSTEM

When grinding or filing the blades to sharpen them, remove equal amounts of metal from both edges to keep the blade in balance. The blade can be tested for balance by balancing it on a knife blade. Remove metal from the heavy side until it balances directly over the center hole in the blade. When replacing the blade, be sure that the airfoil is turned up.

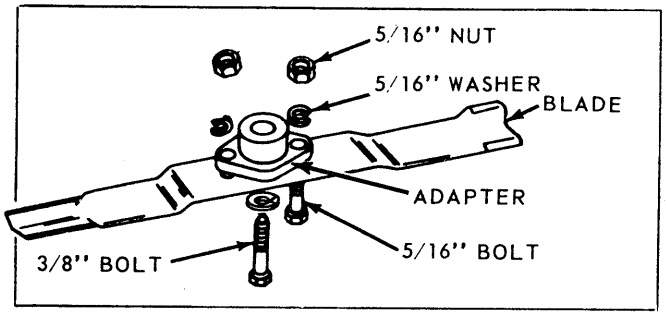


FIGURE 21 BLADE REMOVAL

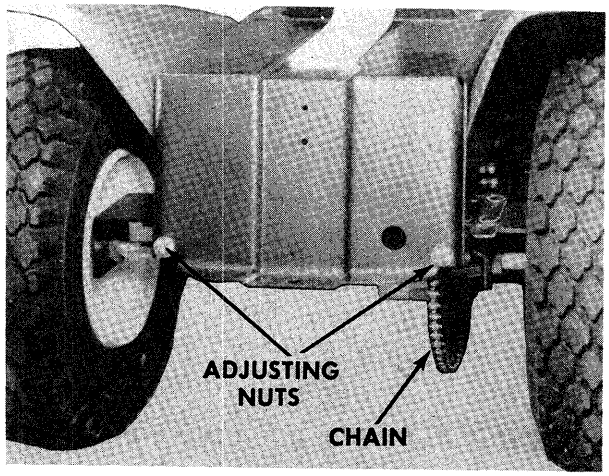


FIGURE 22 CHAIN ADJUSTMENT

ADJUSTING THE DRIVE CHAIN

To tighten the chain, **loosen** the two locking nuts on the rear axle on each side. Tighten the adjusting nuts equally on both sides. Tighten until the chain has 1/2-inch slack between the sprockets. Tighten the four locknuts.

The adjusting nuts can be tightened individually to align the axle sprocket on the chain. (See figure 22).

ADJUSTING THE CARBURETOR

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

To Adjust Carburetor:

Turn needle valve clockwise until it just closes.

Caution: Valve may be damaged by turning it in too far.

Now open needle valve 1-1/8 turns counterclockwise. Close idle valve in same manner and open 1-1/8 turns. This initial adjustment will permit the engine to be started and warmed up prior to final adjustment.

Final Adjustment:

Turn needle valve in until engine misses (lean mixture). Then turn it out past smooth operating point until engine runs unevenly (rich mixture). Now turn needle valve to the mid-point between rich and lean so the engine runs smoothly.

Hold throttle at idle position and set idle speed adjusting screw until fast idle is obtained (1750 RPM). Hold throttle in idle position and turn idle valve in (lean) and out (rich) until engine idles smoothly. Then reset idle speed adjusting screw so that engine idles at 1750 RPM. Release throttle—engine should accelerate without hesitation or sputtering. If engine does not accelerate properly, the carburetor should be readjusted to a slightly richer mixture.

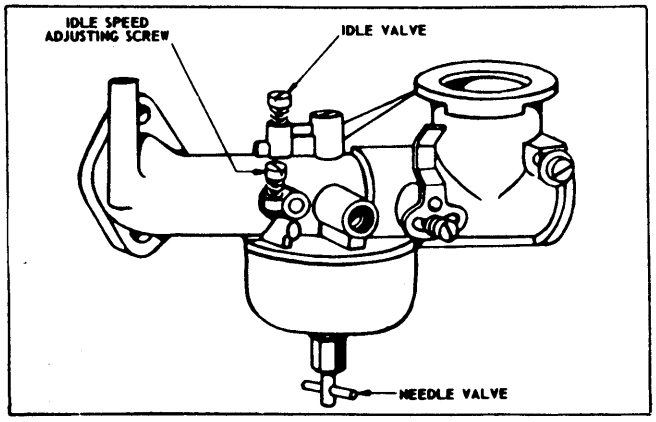


FIGURE 23 FINE ADJUSTMENT

ADJUSTING THE CARBURETOR CHOKE

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

To Check Operation of Choke-A-Matic Controls:

a. Move remote control lever to "Choke" position. The carburetor choke should be closed.

b. Move remote control to "Stop" position. Governor control lever should make full contact with stop switch.

To Adjust:

Place remote 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".

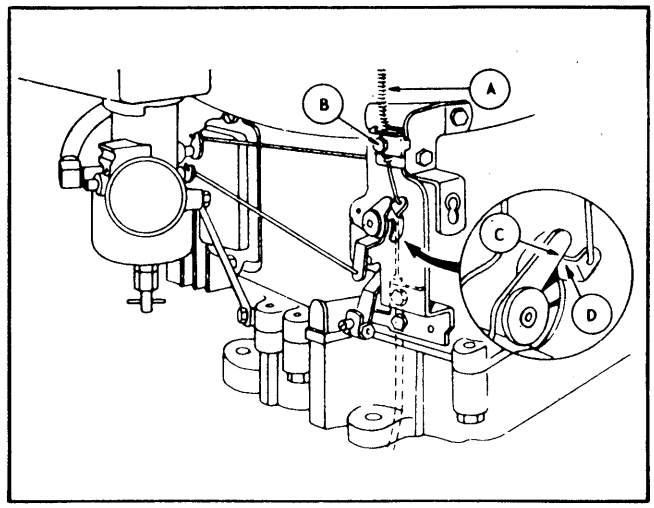


FIGURE 24 CHOKE ADJUSTMENT

MAGNETO AND SPARK PLUG CHECK

WARNING

WHENEVER CHECKING THE MAGNETO OR THE SPARK PLUG FOR AN ELECTRICAL SPARK, USE INSULATED PLIERS TO HOLD THE SPARK PLUG WIRE OR THE SPARK PLUG.

To check the magneto, proceed as follows:

1. Disconnect the spark plug wire from the spark plug, and place throttle control lever in START or FAST position.

2. Using insulated pliers, hold the wire close (1/4-inch distance) to engine block or cylinder, then crank the engine several times. A spark should jump from the wire to the block or cylinder; if a spark does not occur, the wire and the magneto must be checked.

To check the spark plug, proceed as follows:

1. Remove spark plug from cylinder but leave the wire connected, and set throttle at START or FAST position.

2. Using insulated pliers, hold the metal side of the spark plug in contact with the engine block, and crank the engine several times. The spark should jump the gap between the center and side electrode in the plug.

3. If a spark does not occur, check the electrode gap and repeat step 2. If no spark occurs, replace the plug.

DIFFERENTIAL AND TRANSMISSION

The differential and the transmission are permanently lubricated, and will not require lubrication service.

The main rear bearings are also permanently lubricated; however, a light oiling every ten hours of operation will prolong the life of the bearings.

OFF-SEASON STORAGE

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

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 NEAR AN OPEN FIRE.

2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with clean new oil.

3. Disconnect the spark plug 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.

4. Clean the engine and the entire mower thoroughly.

5. Lubricate all lubrication points indicated in figure 14, then wipe the entire machine with an oiled rag in order to protect surfaces.

ENGINE ALTERNATOR

The alternator on your engine is provided with a fuse. The major purpose of this fuse is to protect the alternator in case the battery is installed with reversed polarity. The fuse makes the electrical connection between the alternator and the battery. If the electrical connection to the fuse were to touch ground, electric sparks, or overheating of the wires would occur. (See figure 25).

WARNING

For electrical safety always remove cable from negative (—) side of battery before removing fuse. Replace fuse, then battery cable.

CAUTION

A 110-volt plug-in charger will not bring the battery up to charge unless the cable is disconnected from the negative (—) side of the battery. Do NOT run the engine with the battery disconnected unless the fuse is removed from the fuse holder. Failure to remove the fuse can result in electrical sparking and alternator damage.

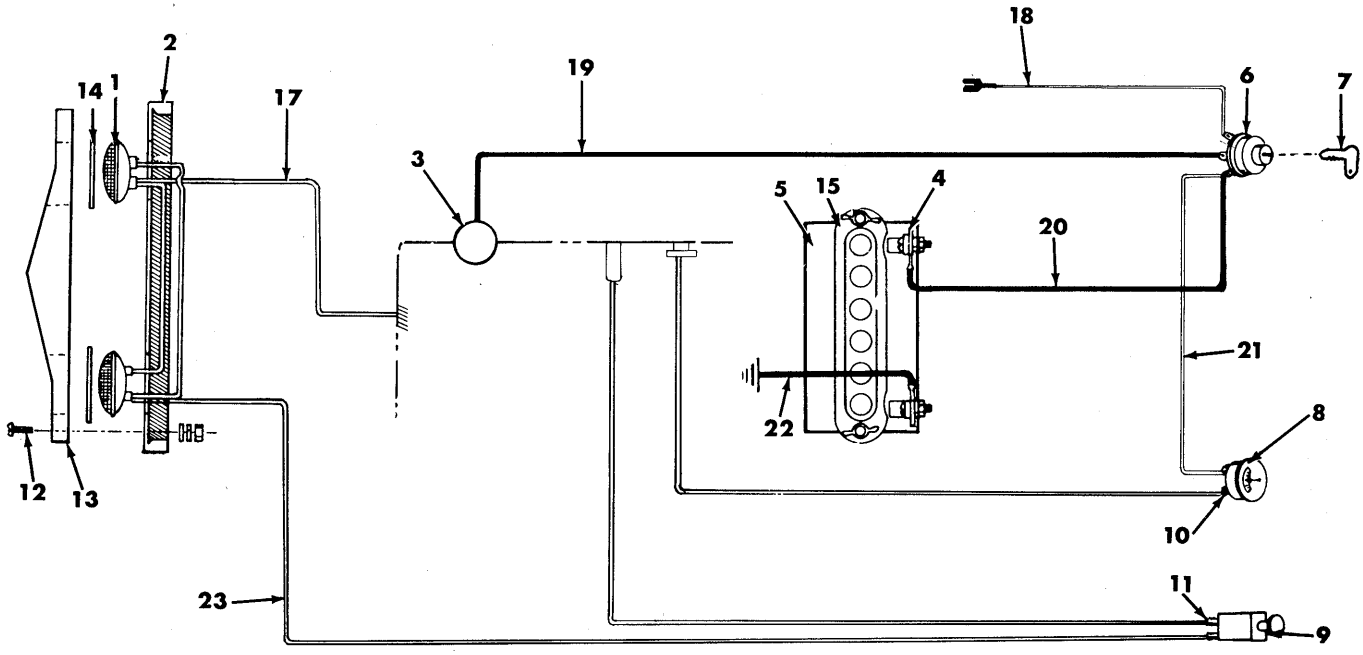


FIGURE 25 ELECTRICAL SYSTEM

Ref. No.	Part No.	Description
1	725-222	Head Lamp
2	—	Grill
3	—	Starter—Briggs & Stratton
4	710-258	Hex Head Screw ¼-20 x ⅝ Lg.
	712-287	Hex Nut ¼-20 Thd.
	736-329	Spring Lockwasher ¼ Thd.
5	725-117	Battery (7¾ x 5⅛ x 7⅝) 32 Amp. Hrs.
6	725-199	Ignition Switch
7	725-201	Key
8	725-119	Ammeter
9	725-202	Head Lamp Switch
10	725-217	Terminal #10
11	725-216	Connector
12	710-346	Screw ¼-20 x 1½ Lg.
	736-463	Flat Washer for ¼ Screw
	736-329	Spring Lockwasher ¼ Screw
	712-287	Hex Nut ¼-20 Thd.
13	347-9984	Head Lamp Bezel
14	721-112	Gasket—Head Lamp
15	321-8821	Battery Hold Down
	711-222	Battery Hold Down Rod
	712-113	Wing Nut
16	725-157	Plastic Tie Downs (Not Shown)
17	725-218	Wire 18 Ga. Black
18	725-220	Wire 18 Ga. Yellow
19	725-159	Wire 6 Ga. Red
20	725-150	Wire 6 Ga. Red
21	725-124	Wire 18 Ga. Red
22	725-122	Wire 6 Ga. Red
23	725-219	Wire 18 Ga. Blue

901-10483 PARTS LIST — DIFFERENTIAL

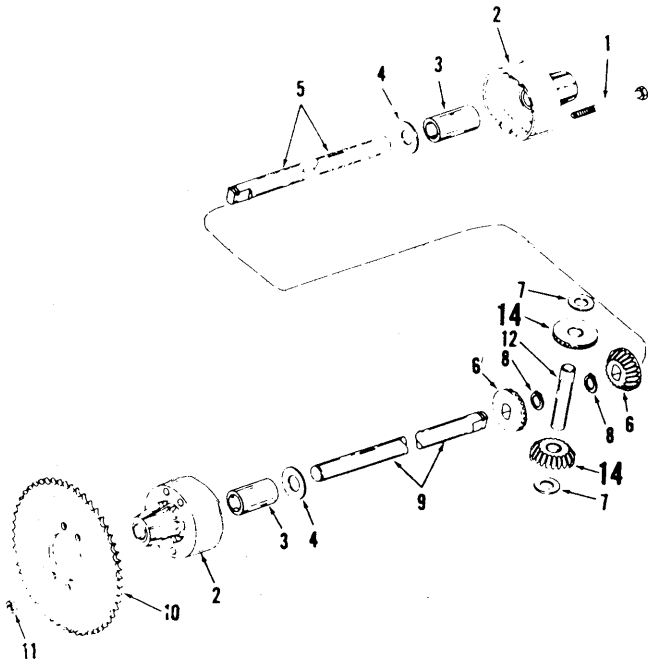


FIGURE 26 DIFFERENTIAL—EXPLODED VIEW

REF. NO.	PART NO.	DESCRIPTION
1	710-363	Hex Head Cap Screw 5/16-18 x 4" lg.*
2	719-150	Differential Housing (2 Req'd)
3	748-169	Sleeve Bearing (2 Req'd)
4	736-188	Washer (2 Req'd)
5	738-131	Shaft
6	748-185	Miter Gear (EA) Double D Hole
7	736-187	Flat Washer (2 Req'd)
8	716-101	Truarc Snap Ring (2 Req'd) USE 715-0247 R11 R
9	738-130	Shaft
10	310-9133	Sprocket
11	712-158	Hex Nut 5/16-18 thd*
12	711-276	Drive Pin
13	715-123	Dowel Pins (Not Shown)
14	748-158	Miter Gear-Round Hole

*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.

PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	A-1098	Ring, Retaining	15	A-1106	Ring, Retaining
2	B-1084	Sprocket, 8T, #41	16	A-1151	Ball, Detent
3	A-1371	Key (Woodruff #4)	17	A-1150	Spring, Detent
4	B-1139	Shaft, Output	18	A-2252	Detent Shaft Ass'y
5	A-1154	Key (Hi-Pro #606)	19	A-1100	Ring, Retaining
6	A-1379	Screw (HH, 1/4-20-5/8)	20	B-1105	Bevel Pinion, 16T
8	A-1392	Lock Nut	21	B-1542	Bearing, Flange
9	A-1143	Bearing, Flange	22	A-1367	Key (Woodruff #2)
10	C-1543	Bevel Gear, 42T	23	B-1131	Shaft, Input
11	C-1555	Clutch Collar	24	A-1099	Ring, Retaining
12	D-1234	Housing Half	25	A-1373	Key (Woodruff #9)
13	D-1234A	Housing Half with Detent Hole	27	B-1489	Bracket, Lever Shift
			28	B-2320	Shifter Lever Ass'y
14	A-1145	Washer	29	A-1318	Knob, Shifter

FOOTE

717-159 REVERSING TRANSMISSION

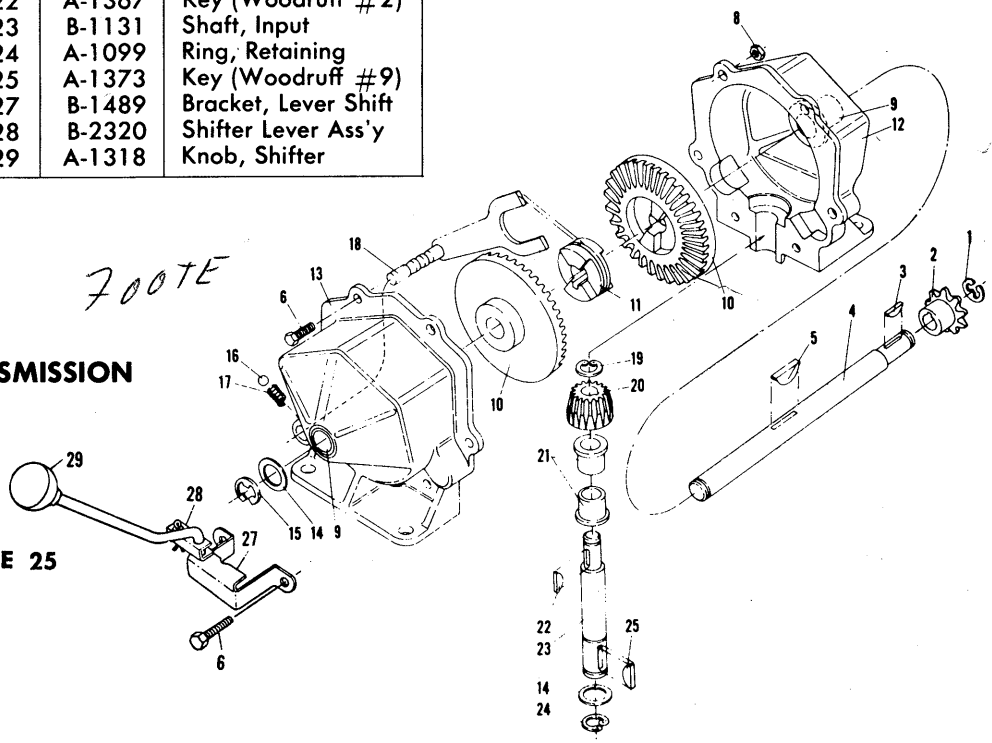


FIGURE 25

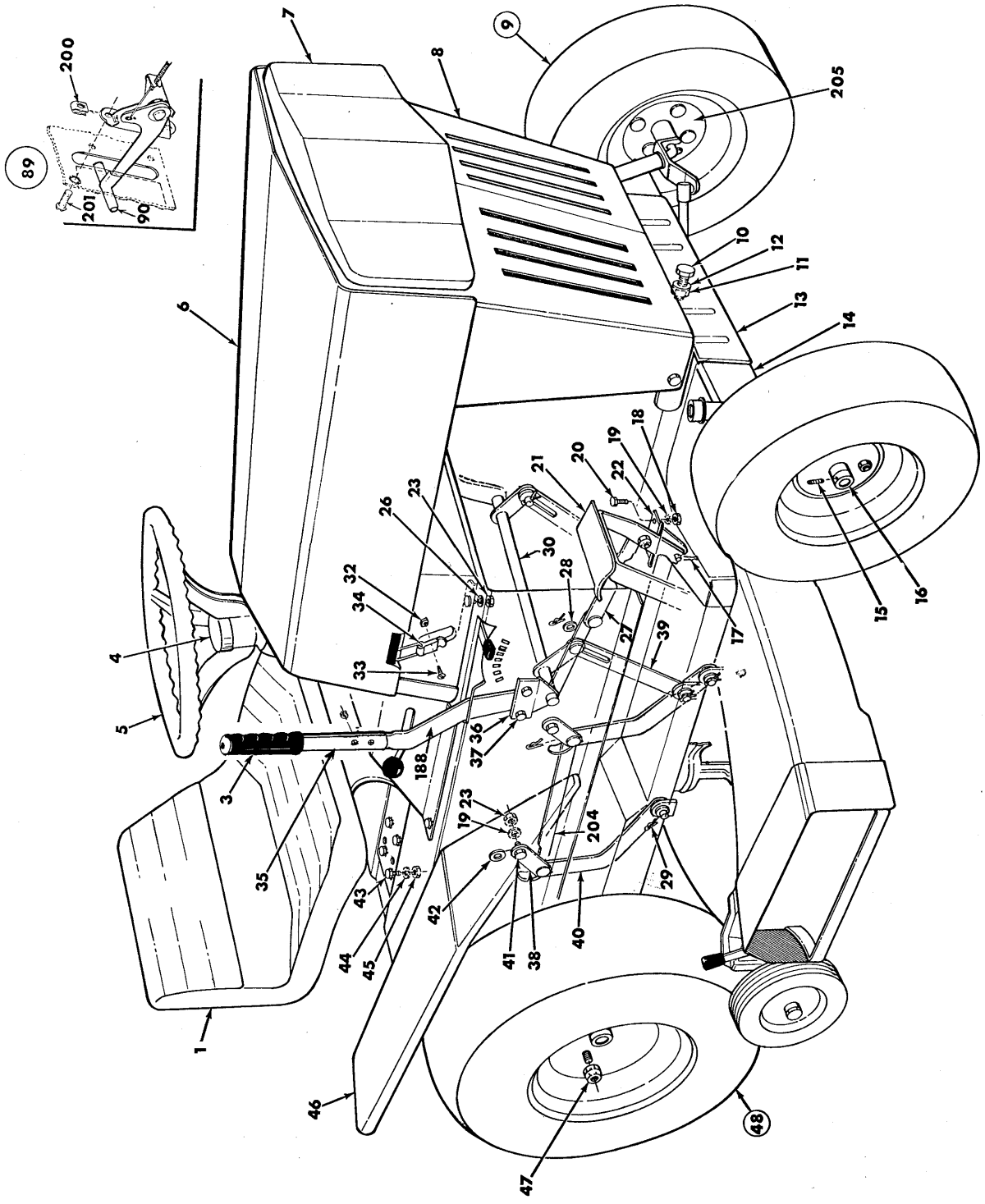


FIGURE 28 RIGHT HAND VIEW

When ordering parts give the following information:

1. Model number
2. Part number
3. Part name
4. Color of part

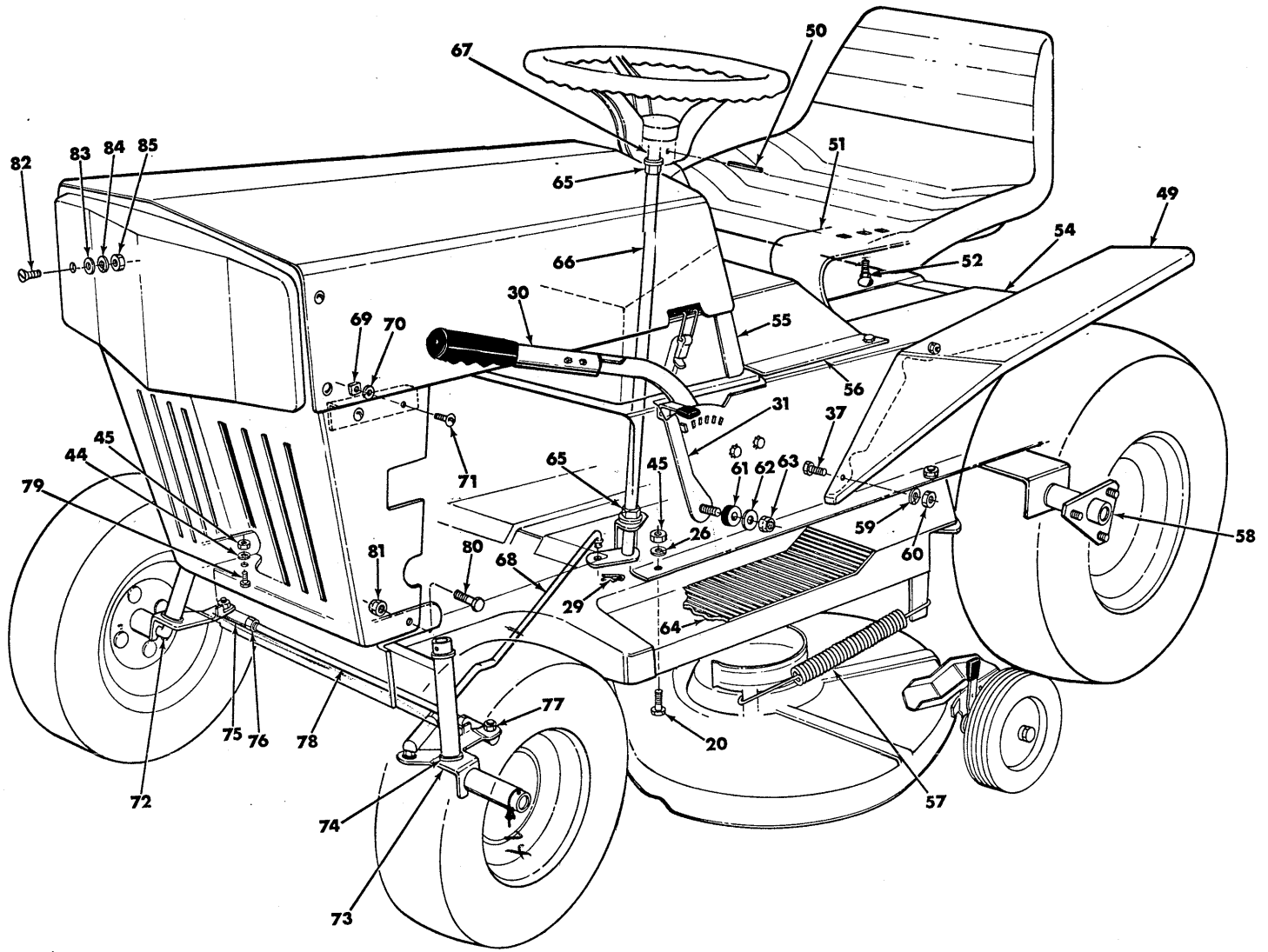


FIGURE 29 LEFT HAND VIEW

RIDING MOWER

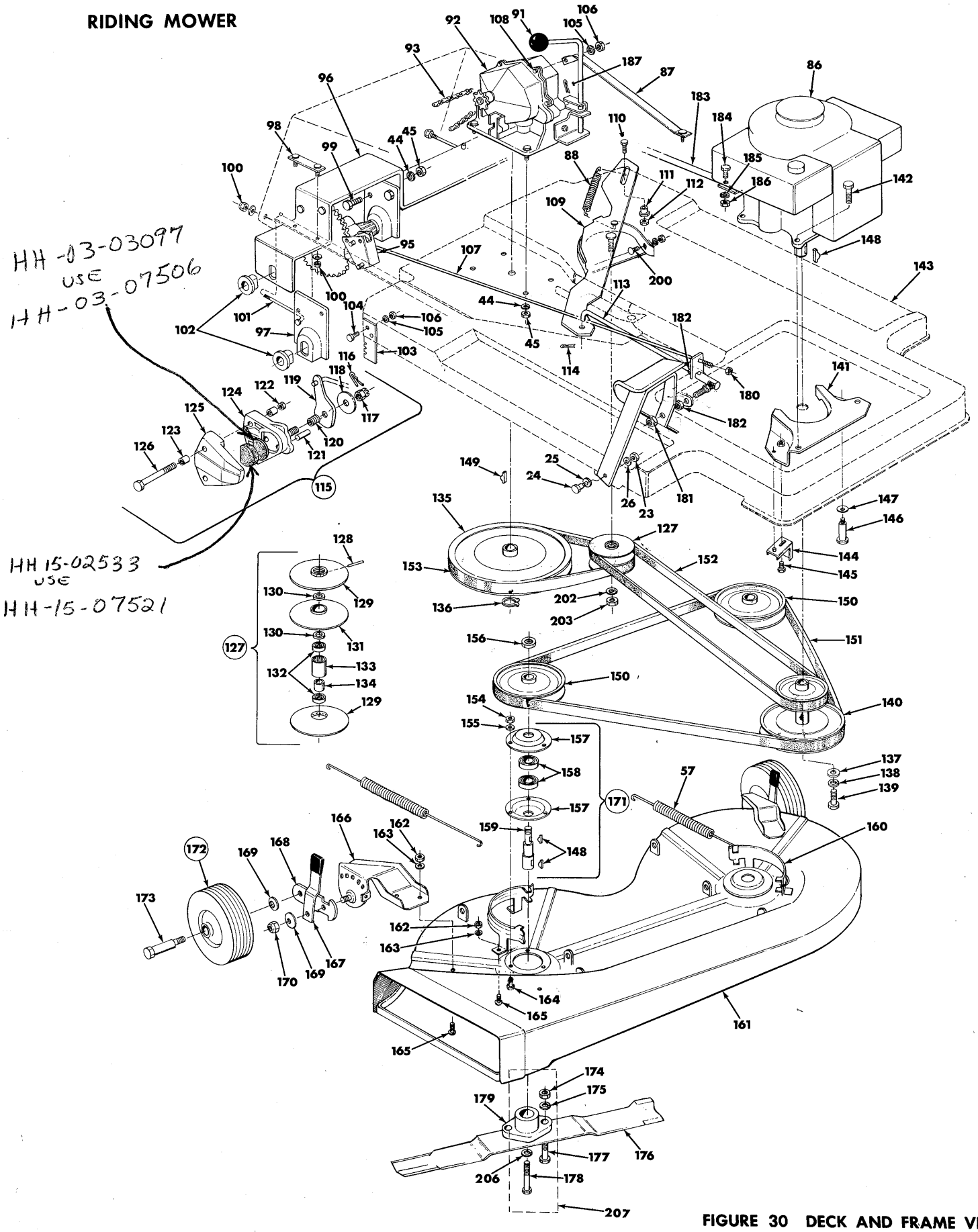


FIGURE 30 DECK AND FRAME VIEW

PARTS LIST FOR 131-480 AND 131-490 RIDING MOWER

REF. NO.	PART NO.	DESCRIPTION
1	757-201	Seat Assembly with Molded Cover
3	305-8118	Grip
4	723-207	Steering Wheel Cap
5	723-204	Steering Wheel
6	312-9992	Hood Front
7	312-10497	Head Lamp Bezel—131-480 Only
	312-9984	Head Lamp Bezel—131-490 Only
8	437-10494	Grille
9	501-10109	Front Wheel Ass'y—Complete
	734-298	Tire Tubeless—12.50 x 4.50-6
10	710-312	Hex Hd. Cap Scw.—⅝-18 x 1.31—Special
11	712-923	Lock Nut—⅝-18—Special
12	736-158	Spring Lockwasher ⅝ Scw.*
13	348-10495	Pivot Bracket
14	348-10555	Pivot Bar Ass'y.
15	710-421	Allen Set Scw. 5/16-18 x ¼ lg.*
16	711-169	Collar—⅝ I.D.*
17	714-507	Cotter Pin—.09 x ¾" lg.*
18	712-267	Hex Nut—5/16-18 Scw.
19	736-119	Spring Lock Washer—5/16 Scw.*
20	710-259	Sems Hex Hd. Scw.—5/16-18 x ⅝" lg.*
21	310-10891	Foot Pedal Ass'y.
22	348-10351	Foot Pedal Support Ass'y.
23	712-267	Hex Nut 5/16-18 Scw.*
24	711-105	Shoulder Bolt—5/16-18—Special
25	736-466	Flat Washer—.53 I.D. x .94 O.D.
26	736-119	Spring Lockwasher—5/16 Scw.*
27	348-10355	Foot Pedal Link Ass'y.
28	736-159	Flat Washer—.34 I.D. x .88 O.D.
29	714-101	Hairpin Cotter—½" Dia.*
30	310-10882	Lift Handle Ass'y.
31	310-10357	Handle Stop Lever Ass'y.
32	712-112	Hex Nut #6-32 Scw.*
33	710-147	Round Hd. Scw. #6-32 x ⅜" lg.*
34	723-209	Hood Latch
35	310-10885	Speed Handle Ass'y.
36	348-10359	Lift Handle Bracket
37	710-289	Hex Hd. Mach. Scw.—¼-20 x ½" lg.*
	736-329	Spring Lockwasher—¼ Scw. for Bolt #37 (not shown)
	712-287	Hex Nut—1/-20 Thd.—For Bolt #37 (not shown)
38	347-9721	Pivot Link Ass'y.
39	348-10346	Lock Out—Link Ass'y
40	348-10349	Deck Link Ass'y.
	348-10904	Deck Link Ass'y.
41	711-118	Shoulder Bolt—5/16-18—Special
42	736-159	Flatwasher—.34 I.D. x .88 O.D.
43	710-198	Sems Hex Hd. Scw.—5/16-18 x ¾" lg.*
44	736-119	Spring Lockwasher—5/16 Scw.*
45	712-267	Hex Nut—5/16-18 Thd.*
46	312-8694	Fender—R.H.
47	712-193	Cone Nut—⅜-24 Thd.*
48	504-9262	Rear Wheel Ass'y.—Complete (131-490)
	734-294	Tire Tubeless—18.00 x 6.50-8 (131-490)
	503-9262	Rear Wheel Ass'y.—Comp. (131-480)
	734-275	Tire Tubeless 16.00 x 6.50-8 (131-480)

REF. NO.	PART NO.	DESCRIPTION
49	312-8695	Fender—L.H.
50	715-121	Spirol Pin—¼" x 2" lg.*
51	723-136	Seat Spring
52	710-365	Carriage Bolt—½-13 x ⅞" lg.*
54	437-10369	Upper Frame
55	348-10035	Dash Panel—Battery Box Ass'y.—131-480 Only
	348-9986	Dash Panel—Battery Box Ass'y.—131-490 Only
56	437-10407	Upper Frame Cover
57	732-191	Extension Spring—11" lg.
58	312-10473	Hub Ass'y—Rear
59	736-329	Spring Lockwasher—¼ Scw.*
60	712-287	Hex Nut—¼-20 Thd.*
61	736-155	Rubber Washer
62	736-159	Flat Washer
63	712-429	Elastic Stop Nut—5/16-18 Thd.*
64	723-241	Foot Pad
65	748-227	Flange Bearing—⅝ I.D.
66	310-10433	Steering Shaft Ass'y.
67	712-222	Tinnerman Push Nut—⅝ I.D.
68	711-449	Steering Rod
69	712-425	Square Nut #10-24 Thd.*
70	736-147	Ext. Lockwasher #10 Scw.*
71	710-473	Truss Hd. Mach. Scw. #10-24 x ½" lg.*
72	348-9095	Axle Ass'y.—Front R.H.
73	348-9098	Axle Ass'y.—Front L.H.
74	748-184	Flange Bearing—Front Wheel—⅝" I.D.
75	723-156	Ball Joint Ass'y.—⅜-24 Thd.
76	712-711	Hex Jam Nut—⅜-24 Thd.*
77	712-214	Elastic Lock Nut—⅜-24 Thd.*
78	711-256	Tie Rod—⅜-24 Thd.
79	710-198	Sems Hex Scw.—5/16-18 x ¾" lg.*
80	710-216	Hex Hd. Scw.—⅜-16 x ¾" lg.*
81	712-430	Elastic Stop Nut—⅜-16 Thd.*
82	710-346	Oval Hd. Scw. ¼-20 x 1.5 lg.
83	736-463	Flat Washer .28 I.D. x .62 O.D.
84	736-329	Spring Lockwasher—¼ Scw.*
85	712-287	Hex Nut—¼-20 Thd.*
86		Engine
87	348-10396	Transmission Support Bracket Ass'y.
88	732-208	Variable Drive Spring
89	746-127	Throttle Control—Complete§
90	722-111	Knob—Throttle Control
91	722-115	Knob—Shift Lever
92	717-159	Single Speed Transmission w/Shift Lever
93	713-137	Chain w/Master Link—#41 x 44" lg.
94	710-198	Sems Hex Scw.—5/16-18 x ¾" lg.*
95	348-10398	Disc Brake Bracket Ass'y.
96	348-10362	Rear Axle Bracket Ass'y.
97	348-10364	Rear Axle Plate
98	348-10360	Axle Bolt Plate Ass'y.
99	710-198	Sems Hex Hd. Scw.—5/16-18 x ¾" lg.*
100	712-429	Elastic Stop Nut—5/16-18 Thd.*
101	710-437	Chain Adjustment Link—5/16-18 Thd.
102	748-151	Flange Bearing—¾" I.D.
103	348-10410	Spring Bracket
104	710-258	Hex Head Cap Scw.—¼-20 x ⅝" lg.*
105	736-329	Spring Lockwasher—¼" Scw.*
106	712-287	Hex Nut—¼-20 Thd.*

NOTE: This instruction manual covers various models and all accessories shown do not necessarily apply to your model mower.

If repairs or service is needed on the engine, please contact your nearest, authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines – Gasoline".

PARTS LIST CONTINUED

REF. NO.	PART NO.	DESCRIPTION
107	711-147	Lockout Rod—Brake—29¼" lg.
108	710-252	Hex Hd. Cap Scw—¼-20 x ¾" lg.*
109	348-10365	Variable Speed Pulley—Bracket Ass'y.
110	710-322	Sems Hex Scw.—5/16-18 x 1" lg.*
111	711-404	Shoulder Nut—5/16-18 Thd.—Special
112	712-372	Hex Center Lock Nut—5/16-18 Thd.*
113	310-10872	Brake Rod Stop Ass'y.
114	714-507	Cotter Pin—.09 x ¾" lg.*
115	723-239	Disc Brake Ass'y.—Complete†
116	05-1863-0000	Cotter Pin†
117	02-1011-0000	Castle Nut†
118	03-1030-0000	Thrust Washer—5/16" I.D.†
119	118-1217-0001	Cam Lever†
120	06-1029-0000	Compression Spring†
121	05-1033-0000	Push Pin†
122	712-375	Hex Center Lock Nut—⅜-16 Thd.†*
123	723-240	Spacer for Disc Brake—⅝ x ⅝" lg.†
124	12-1041-0000	Casting, Carrier Side†
125	12-1039-0000	Casting, Cam Side†
126	710-316	Hex Hd. Scw.—⅜-16 x 3½" lg.†
127	901-10438	Variable Speed Pulley Ass'y.**
128	715-124	Spirol Pin**
129	748-177	Sheave Half**
130	748-179	Bronze Bushing (Order Ref. No. 131)**
131	748-181	Movable Sheave Part**
132	741-139	Ball Bearing**
133	750-144	Steel Tubing**
134	750-146	Spacer**
135	756-143	Transmission Pulley—7" O.D. x ⅝
136	716-115	Snap Ring—Truarc 5100-62
137	310-7386	Flat Washer—.39 I.D. x 1¾" O.D.
138	736-169	Spring Lockwasher—⅜ Scw.*
139	710-152	Hex Hd. Scw.—⅜-24 x 1" lg.—Heat Treat
140	756-157	Engine Pulley—Two Step
141	348-10481	Engine Belt Guard Ass'y.
142	710-442	Engine Bolts—Hex Hd. Cap Scw.—5/16-18 x 1½" lg.*
	736-119	Spring Lockwasher—5/16 Scw.—For Bolt #142 (not shown)
	712-267	Hex Nut—5/16-18 Thd.
143	437-10603	Frame Ass'y.
144	348-10426	Belt Keeper Ass'y.
145	710-259	Sems Hex Hd. Scw.—5/16-18 x ⅝" lg.*
146	738-129	Axle Bolt—½" x 2" lg.—For Engine Pulley Belt Guard
147	736-105	Belleville Washer—.38 I.D. x .88 O.D.
148	714-365	Key Hi-Pro #505
149	714-314	Key Hi-Pro #606
150	310-9956	Deck Pulley
151	754-0151	V-Belt—21/32 x 67.0 lg.—Blade Drive Belt
152	754-147	V-Belt—21/32 x 52" lg.—Engine Drive Belt
153	754-136	V-Belt—21/32 x 31" lg.—Transmission Drive Belt
154	712-267	Hex Nut—5/16-18 Thd.*
155	736-119	Spring Lockwasher—5/16" Scw.*
156	712-923	Lock Nut—⅜-18 Thd.
157	310-8253	Housing‡
158	741-919	Ball Bearing‡
159	711-255	Blade Spindle‡
160	437-10071	Belt Guard—Deck L.H.
	437-10072	Belt Guard—Deck R.H.
161	437-10762	Deck Ass'y.
162	712-287	Hex Nut—¼-20 Thd.*
163	736-329	Spring Lockwasher—¼ Scw.*
164	710-322	Sems Hex Hd. Scw.—5/16-18 x 1" lg.*
165	710-289	Hex Hd. Cap Scw.—¼-20 x ½" lg.*
166	348-9079	Wheel Bracket Ass'y—R.H.
	348-9081	Wheel Bracket Ass'y.—L.H.
167	310-10238	Spring Lever Ass'y. w/Knob
168	310-7492	Wheel Pivot Bar
169	736-105	Belleville Washer—.38 I.D.*
170	712-214	Elastic Lock Nut—⅜-24 Thd.*
171	901-9321	Blade Spindle Assy.—Complete‡
172	501-10233	Deck Wheel Ass'y.—Complete
173	738-119	Axle Bolt—Cutting Deck
174	712-123	Hex Nut—5/16-24 Thd.*††
175	736-119	Spring LockwasherJ5/16 Scw.*††
176	348-10880	Blade 17" (2 Req'd.)
177	710-117	Hex Hd. Cap Scw.—5/16-24 x 1" lg.—Heat Treated††
178	710-459	Hex Hd. Cap Scw.—⅜-24 x 1½" lg.—Heat ††
179	748-189	Blade Adapter (2 Req'd.)††
180	712-324	Elastic Stop Nut—¼-20 Thd.*
181	712-214	Elastic Lock Nut—⅜-24 Thd.*
182	712-711	Hex Jam Nut—⅜-24 Thd.*
183	348-10902	Engine Brace
184	710-259	Sems Hex Hd. Cap Scw.—5/16-18 x ⅝" lg.*
185	736-119	Spring Lockwasher—5/16 Scw.*
186	712-267	Hex Nut—5/16-18 Thd.*
187	714-507	Cotter Pin*
188	310-10834	Lift Handle
200	712-147	Speed Nut
201	710-473	Truss Hd. Mach. Scw.—#10-24 x ½" lg.*
202	736-921	Spring Lockwasher—½" Scw.*
203	712-384	Hex Center Lock Nut—½-13 Thd.*
204	394-9735	Connecting Rod—3/16" x 1" x 11½" lg.
205	312-9156	Front Wheel Hub Ass'y.
206	736-217	Spring Lockwasher ⅜ Scr. Heavy Duty††
207	901-10769	Blade Adapter Kit/Less Blade

*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.

△Part of Throttle Control—Complete 746-127.

Your riding mower may have either tube or tubeless tires. Consult the chart below for ordering service parts.

†Part of Disc Brake—Complete 723-239.

**Part of Variable Speed—Complete 901-10438.

When ordering service parts include all the information on the side wall of the tire such as the size and brand name.

‡Part of Blade Spindle—Complete 901-9321.

§Part of Throttle Control—Complete 746-127.

††Part of Blade Adapter Kit/Less Blade (901-10769)