

OPERATING INSTRUCTIONS FOR RANGE RIDER 21

Before starting mower, read mower and engine operation manual completely and orient yourself on the function of the engine, mower and controls. Manual clutch control can be disengaged for ease in moving this mower about when engine is not running. For operation when engine is running, manual clutch must be engaged in order to propel unit. Throttle control is mounted on front of engine and provides engine choking, engine speed control and engine stop switch. Mower propelling control lever is positioned at left of seat and provides different forward speeds of mower, a neutral position and a reverse propelling drive for mower. The transmission is an automatic variable pitch type and control lever can be moved directly from fastest forward speed to reverse position for braking or stopping the mower instantly.

Unpacking the Mower.

Check the package carefully to see that the following is included with engine instruction manual, mower instruction manual and warranty card: 1-3/8" x 2-3/4" Cap Screw, 1-3/8" x 2-1/4" Cap Screw, 2-3/8" x 1-1/4" Cap Screws and 2-3/8" x 3/4" Cap Screws and 1-Blade Spacer.

Note: Check mower carefully for any damages that might have resulted in shipping. If any are found, notify the carrier immediately since they are liable for all damages.

Assembling the Mower.

Handle. First, remove bolt and washers from top of steering column. Then, remove tape. This tape holds the "half-moon" key in the steering column in shipping. The handle is then placed on the steering column. Make sure that the key way in the handle is in line with the "half-moon" key. The purpose of this key is to keep the handle from turning freely on the column. Place cap screw and washers in place at the top of the steering column and tighten securely.

Seat. The seat is attached to the mower by slipping the shaft through the provided brackets and securing it at both ends with set screws.

Blade. The suction-lift bar blade has been put on the mower at the factory. The blade is set to cut grass at a height of 2 inches. The lowest cut of 1-1/2 inches can be obtained by adding the other aluminum blade spacer. When changing blade cutting height, be sure to use proper length cap screws provided with spacers.

Bolt and Spacer Arrangement for Different Blade Heights

3 Spacers for Lowest Cutting Height

Center Bolt---2-3/4" Long

Outside Two Bolts---2-1/4" Long

② 2 Spacers for Normal Mowing

Center Bolt---2-1/4" Long

Outside Two Bolts---1-3/4" Long

1 Spacer for Mowing Rough Terrain

Center Bolt---1-3/4" Long

Outside Two Bolts---1-1/4" Long

Blade Only (No Spacers) For Mowing Extremely Rough Terrain

Center Bolt---1-1/4" Long

Outside Two Bolts---3/4" Long

NOTE: THREE CAP SCREWS MUST BE USED TO SECURE BLADE PROPERLY TO THE ENGINE.

NOTE: TO PREVENT SERIOUS INJURY, REMOVE THE WIRE FROM SPARK PLUG WHENEVER WORKING ON THE UNDERSIDE OF THE MOWER.

Operation of Manual Clutch.

For ease in moving this mower about when engine is not running, the mower has been provided with a manual clutch. For demonstrating mower, disengage manual clutch located on the rear countershaft by pulling the clutch collar away from pulley and rotate collar 1/4 turn to lock clutch in disengaged position. For operation, manual clutch must be engaged in order to propel unit.

Servicing, Starting and Operating the Mower.Engine Servicing

1. Read engine manual thoroughly before placing mower in operation.
2. Fill Oil Sump with oil. Remove the oil filler plug located on the operator's left at the base of the engine. Mower should be level. Pour oil in the opening until it rises to the top of the filler opening. Replace the oil filler plug. Screw it down tight.
3. Fill Gasoline Tank. Fill with a clean regular grade of gasoline.
NOTE: THIS UNIT IS FURNISHED WITH A TECUMSEH ENGINE AND SERVICE STATIONS ARE AVAILABLE IN MOST CITIES FOR SERVICE OR REPAIR. CONSULT THE YELLOW PAGES OF YOUR TELEPHONE DIRECTORY FOR LOCATION.

Mower Servicing

1. Variable Speed Transmission Must Be Lubricated Before Using. The transmission is lubricated by raising the spring cap on oil cup (located underneath the left rear fender) and filling cup with SAE 30 oil. This oil is the same as that used in the crankcase.
2. Front wheel bearings are lubricated at the factory and require lubrication every 50 hours of operation. Zerk fitting is provided.

Starting Engine After Servicing.

1. Engaging lever must be in neutral position.
 2. Open throttle to choke position. As soon as engine starts, move throttle from choke position to running position.
 3. Place left knee and left hand on seat, check right foot to be sure it is not under mower frame.
 4. Grasp recoil starter grip in right hand and pull sharply upward.
- NOTE: IT IS RECOMMENDED TO START YOUR NEW MOWER ON A CONCRETE DRIVE OR WALK. THIS FACILITATES EASY STARTING, BECAUSE THERE IS NO DRAG ON THE DIRECT CONNECTED BLADE.

Mower Operation.

To Move Forward. Open throttle about half way. Engaging lever should be moved slowly forward to insure smooth performance.

NOTE: ENGAGING LEVER HAS THE SAME FUNCTION AS AN AUTOMOBILE CLUTCH AND SHOULD BE ENGAGED SLOWLY TO ELIMINATE JERKY STARTS. TO STOP MOWER, MOVE ENGAGING LEVER QUICKLY TO REVERSE POSITION. THE TRANSMISSION IS AN AUTOMATIC VARIABLE PITCH PULLEY TYPE AND IS DESIGNED TO PROPEL THE MOWER INSTANTLY FROM REVERSE TO FORWARD OR FORWARD TO REVERSE.

As the engaging lever is moved further forward, the speed of the mower will increase. You will soon become accustomed to the operation of this mower and will know at what speed and throttle setting (not over 3/4 open) to use in mowing your lawn.

Adjustments.

Chain. Check chain tension before mower is put in use. This chain has been set at the factory for proper tension. Should chain become too loose, loosen the two shakeproof nuts so that the bearing and bearing retainer can be moved freely in the provided slots. Then loosen jam nut and turn jack screw in a clock-wise direction. This raises the retainer, thus tightening the chain. The chain must not be extremely tight, but have a little slack. When chain has been tightened once or twice, it will probably be necessary to remove the chain and remove a link from this chain. After making necessary adjustment, tighten jam nut against bracket and nuts.

Belts. Basic adjustments for belt tension for all belts are provided for with spring tension. Drive belt and speed selector belt require no manual adjustments. Should engine to speed selector round belt become loose and slap on pulley, slots are provided in the frame for adjusting it. To make such adjustments, remove left rear fender by removing four screws, loosen three cap screws, slide selector assembly away from engine from 1/8" to 1/4" to give from 10 to 12 lbs. tension on spring. Tighten cap screws, replace fender.

To Replace Reverse Friction Disc. Remove left rear fender. Remove three cap screws which attach reverse friction disc to hub. Remove worn disc. Bolt new disc in place and replace fender.

To Replace Variable Speed Assembly.

1. Remove left rear fender.
2. Remove variable speed reverse friction disc.
3. Place variable speed engaging lever in far reverse position to remove speed selector belt.
4. Move variable engaging lever to far forward position to remove drive belt.
5. Remove cotter key and tension spring on speed selector idler.
6. Remove three cap screws.
7. Remove engine to speed selector round belt from selector assembly.
8. Remove speed selector assembly from frame.
9. Attach variable speed engaging lever to replacement assembly.
Note: Engaging lever is not furnished with replacement assembly.
10. Re-assemble unit in reverse steps as outlined above.