Minneapolis Moline

Operator's Manual

108 & 110

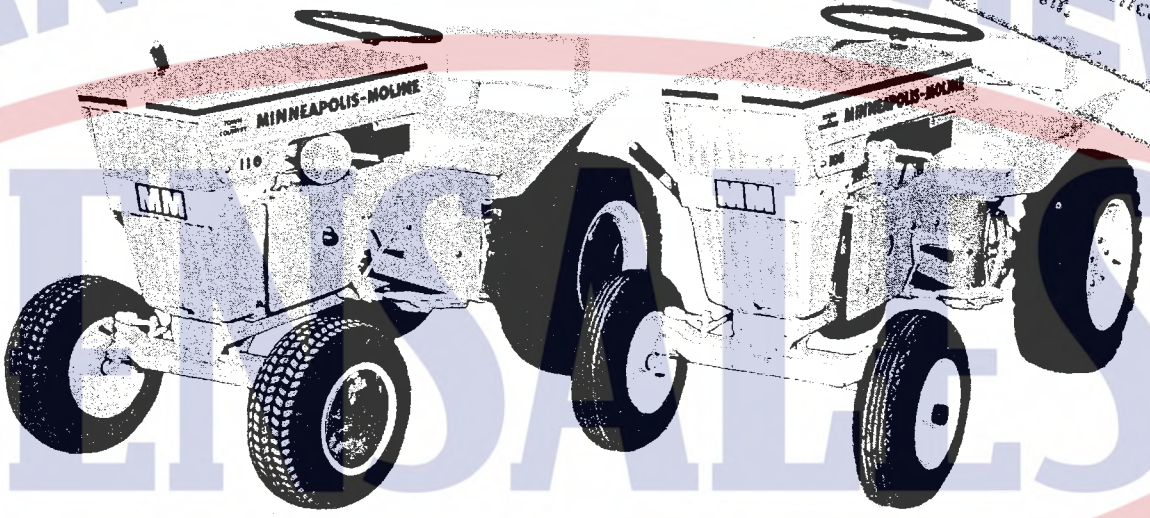
Lawn & Garden Tractors

Operator's Manual

MM-O-108 LGT+

S-424

OPERATOR'S MANUAL



MODEL 108-8 H.P.
MODEL 110-10 H.P.

TOWN and COUNTRY TRACTORS

MM
MINNEAPOLIS-MOLINE
World's Finest Tractors

MINNEAPOLIS-MOLINE, INC.
HOPKINS, MINNESOTA

MM-O-108 LGT

SPECIFICATIONS (CONT'D)

CLUTCH ..... V-Belt Idler Clutch - coupled with brake pedal. Clutch is automatically disengaged when pedal is depressed.

NET WEIGHT ..... 465 lbs.

WHEELS - YOUR OPTION:

Front ..... 4.80/4.00x8 Two Ply Rib Tread Pneumatic, 16" dia.
or
6.50x8 Two Ply Rib Tread Pneumatic, 16" dia. (wide base)

Rear ..... 6.00x12 Two Ply Rib Tread Pneumatic, 22" dia.
or
8.00x12 Two Ply Studded Tread Pneumatic, 22" dia. (wide base)
or
6.00x12 Two Ply Chevron Tread Pneumatic, 22" dia.

TRANSMISSION ..... Automotive Type - Reduction Gears and Differential in one oiltight, compact unit. Three speeds forward and one reverse.

REDUCTIONS

1st Gear Total	111.24:1
2nd Gear Total	68.90:1
3rd Gear Total	31.26:1
Reverse Total	88.99:1
Engine to Transmission (V-Belt Drive)	2.1:1

BRAKE ..... Two Wheel (rear) Brake: Brake band operating on transmission - pinion shaft.

STEERING ..... Automotive - 4.5:1 Gear Reduction.

HITCH ..... Fixed for easy coupling of tools.

LIFT HANDLE..... Nine Different height selections for height adjustment of attachments from driver's seat.

SEAT FENDER AND TOOL BOX ..... Vinyl covered, foam rubber seat and backrest cushions, steel fenders and closed tool box.

(SPECIFICATIONS AND DESIGN SUBJECT TO CHANGE WITHOUT NOTICE.)

OPERATOR'S MANUAL

TABLE OF CONTENTS

GENERAL INFORMATION

OPERATING INSTRUCTIONS

MAINTENANCE AND LUBRICATION

ADJUSTMENTS

TRACTOR STORAGE

SAFETY TIPS

SPECIFICATIONS

ASSEMBLY INSTRUCTIONS

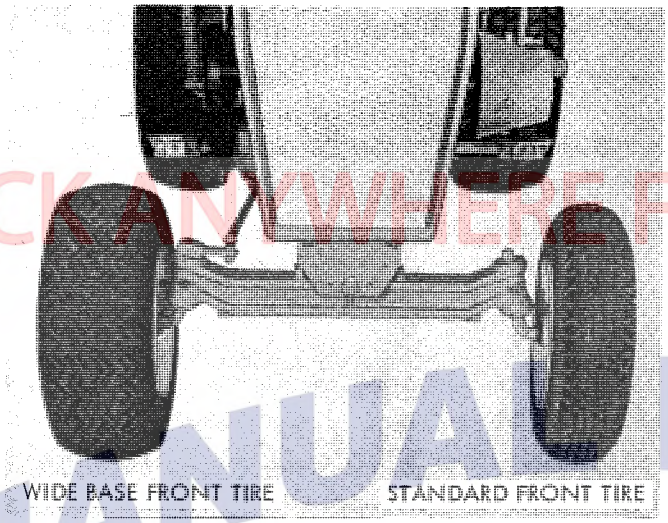


Figure 11.

Figure 12.

added traction, and have considerably less tendency to mark turf or sink into such surfaces as loose soil, soft sand, etc. They also provide a somewhat softer and smoother ride on rough terrain.

Standard tires have less area in contact with the ground, which contribute toward easier steering. In certain applications, such as operating with implement that is mounted beneath or in front of the tractor, standard tires are not as apt to interfere with full steering motion of the front wheels.

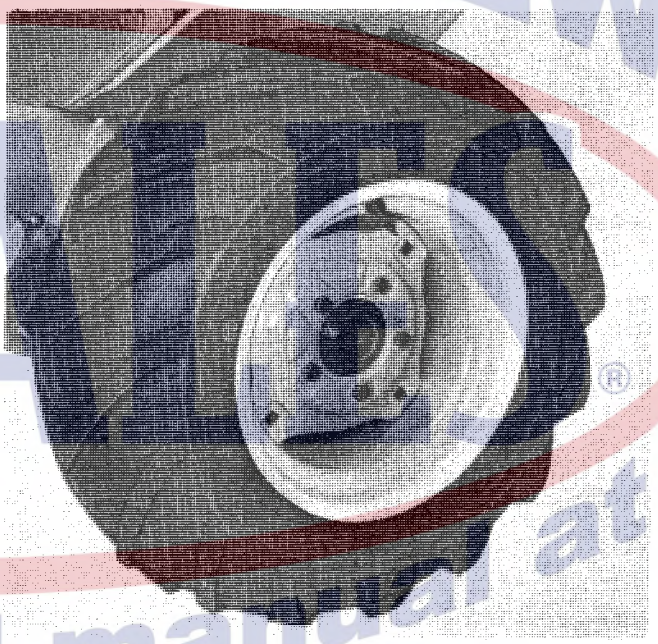


Figure 13.

OPERATING INSTRUCTIONS

OPERATING SAFETY INSTRUCTIONS

Before getting off tractor, or permitting anyone to unclog or work on machine, perform the following:

1. Put shift lever in neutral.
2. Declutch attachment.
3. Set parking brake.
4. Shut off engine.

PREPARING TRACTOR FOR OPERATION

The operating speed and throttle setting will be determined by the implement being used as well as individual conditions encountered in the work being performed. The Operator's Manual supplied with each implement should be consulted for detailed operating instructions.

It is important to become thoroughly familiar with the handling characteristics of your tractor and with the instructions contained in this manual BEFORE attempting to use your tractor for the various operations which it can perform. Drive the tractor without operating an implement until you become familiar with its controls.

1. Check the fuel supply and fill tank if necessary. Open the fuel shutoff valve. (Fig. 14)

2. Check the engine crankcase oil level, using the dipstick. (Fig. 15) If oil is required, add oil of proper grade as instructed in Engine Owner's Manual.

3. Make a general inspection of the items beneath the hood and around the tractor. Check for loose hardware, frayed wires, oil or fuel leaks, loose connections, etc. In case such conditions are de-

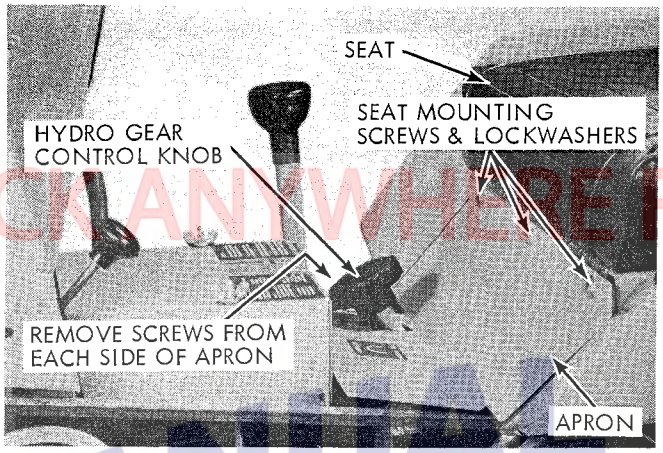


Figure 50.

WARNING

During adjustment with the engine running, keep hands away from all moving parts! Be cautious of loose garments getting into moving parts.

5. Start the engine and move the throttle to the "Idle" position. If the raised wheels do not move, the speed arm is in neutral position. If the raised wheels turn in either direction, proceed as follows:

   a. Loosen the 5/16" square head screw on the arm control as shown in Figure 51.

   b. Move the arm control fore and aft slowly until the rear wheels stop turning.

   c. Tighten the 5/16" square head screw and torque to 12 foot pounds. A tool as shown in Figure 51 may be used to make the adjustment, or a 5/16" socket with an extension may be used.

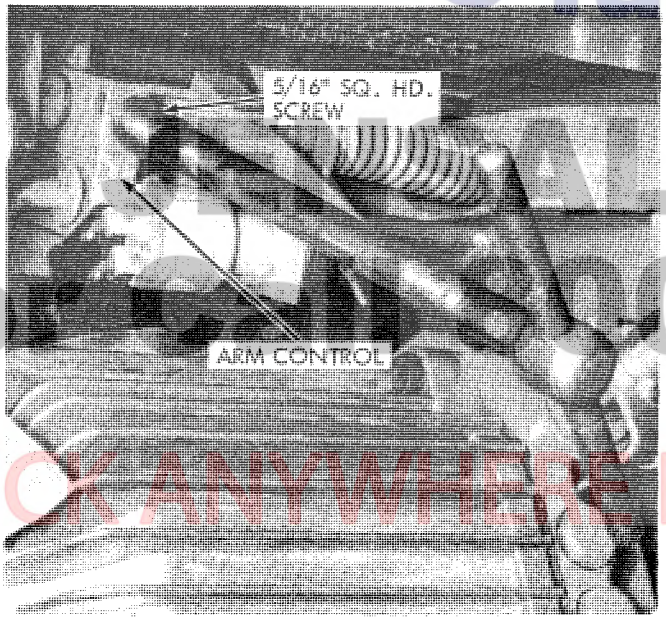


Figure 51.

4-SPEED TRANSMISSION TRACTION DRIVE BELT REPLACEMENT

NOTE

The left rear wheel may be removed to ease and simplify removal of the rear drive belt, if desired.

1. Remove the left hand foot rest from tractor.

2. Remove the two acorn nuts and the slot-headed screw, Figure 34. Remove the traction drive belt shield.

3. Lift power drive control handle from spring loaded stub shaft.

4. Lift the clutch retainer spring from the power drive housing, Figure 46, to permit removal of the traction drive belt.

5. Remove the front belt shield from around the engine drive pulley by removing the mounting screws from the top and bottom of the shield.

6. Fully depress the clutch-brake pedal and set the parking brake.

7. Refer to Figure 52 and loosen the square-head set-screw which secures the rear input pulley to its shaft. Slide the pulley out on the shaft far enough so that the belt will clear the upper and lower traction drive belt retainers.

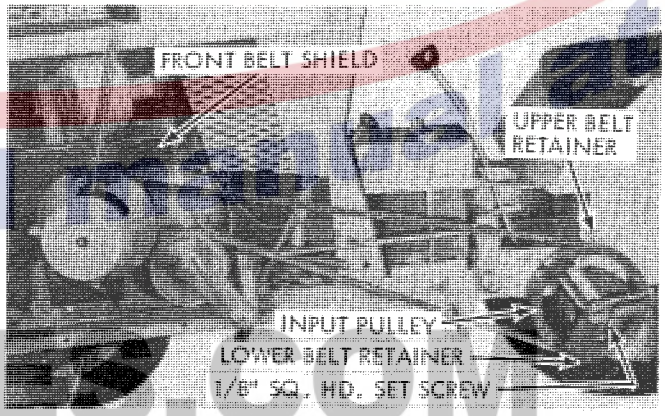


Figure 52.

8. Remove the traction drive belt from the rear input pulley; then remove it from the engine drive.

9. If the traction drive belt is being replaced, install a new belt. Replace parts in reverse order. Tighten input pulley set screw securely.

10. After installing a new traction drive belt, it will be necessary to readjust the traction drive belt and clutch-brake pedal assembly as instructed on Page 17.

BELT ADJUSTMENT AND REPLACEMENT

The main drive belt (B) of the tractor is the power link between engine and transmission. It is important that this belt be kept in proper operating condition at all times. See belt adjustment. The correct tension of the generator drive belt is achieved when a ten pound pressure will depress the belt approximately 1/4 inch. (A) Check generator drive belt at regular intervals for proper tension and belt condition.

Replace worn or frayed belts immediately for peak tractor performance.

TO REMOVE AND REPLACE MAIN DRIVE BELT

a. Remove front and rear guards.

b. Remove bushing reducer from input shaft - unscrew.

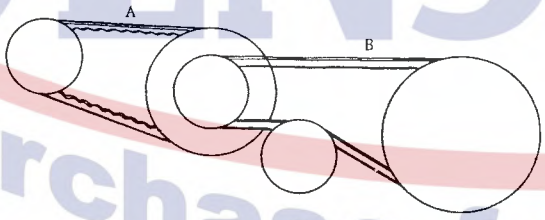
c. Loosen set screw on rear pulley wheel and move out on shaft until belt clearance is allowed between pulley and guard.

d. Depress clutch pedal and remove belt.

e. Install new belt.

f. Push pulley in to proper location. Tighten set screw securely. Reinstall bushing reducer with grease fitting.

g. Adjust as explained under belt and brake adjustment. Reinstall belt guards.



GENERATOR DRIVE BELT (8 H.P. TRACTOR)

1. To Adjust Generator Drive Belt:

   a. Loosen top and bottom generator screws.

   b. Move generator back or forward until proper tension is achieved.

2. To Remove and Replace Generator Drive Belt:

   a. Loosen screw at top of generator.

   b. Loosen screws at bottom generator bracket.

   c. Move generator back until belt can be freed from pulley wheels. NOTE: Main drive belt must be removed to remove or replace generator drive belt.

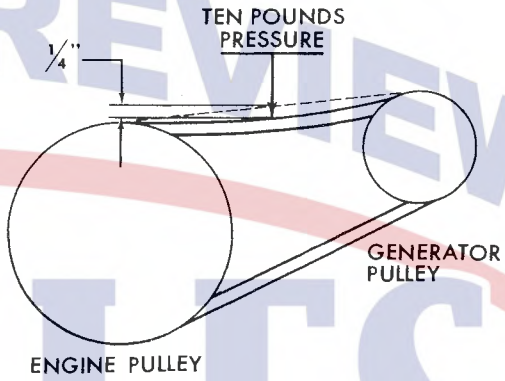
GENERATOR DRIVE BELT (10 H.P. TRACTOR)

1. To Adjust Generator Drive Belt:

   a. Remove belt guard.

   b. Loosen top and bottom generator mounting screws.

   c. Move generator back or forward until proper belt tension is achieved. The correct belt tension is when a ten pound pressure in the center will depress the belt approximately 1/4". See illustration.



   d. After adjustment has been made, tighten generator mounting screws securely and reinstall belt guard.

NOTE: Periodic inspection of the generator drive belt should be made to maintain proper belt tension. Proper belt tension insures a long belt life.

2. To Remove and Replace Generator Drive Belt:

   a. Remove belt guard.

   b. Loosen top and bottom generator mounting screws.

   c. Move generator to back until belt can be removed.

   d. Replace with new belt. Refer to instructions C and D under "To Adjust Generator Drive Belt" for belt adjustment.

STORING AND HOUSING YOUR TRACTOR

When your tractor is not to be used for some time, it should be stored in a dry and protected place. Leaving your tractor outdoors, exposed to the elements, will result in materially shortening its life.

PREPARATION FOR STORING

Follow the procedure outlined below when your tractor is placed in storage, and repeat steps 1, 5, and 6 every six months thereafter. We also recommend that caution be practiced in starting an engine that has been in storage.