



SERVICE BULLETIN

---IN WITH THE NEW

HERE IT IS — the first issue of the John Deere Service Bulletin for Lawn and Garden Products.

This new bulletin will be published as required. It will be devoted exclusively to service information on lawn and garden products.

Complete identification appears at the top of the first page of each bulletin, just above the bulletin heading. On the left-hand side is the date (January, 1966). In the center is the type of bulletin - Lawn and Garden Products. On the right-hand side is the bulletin number (this bulletin is number L&G 66-1).


File this bulletin and all future "L&G" bulletins in your new Lawn & Garden Parts and Service Binder.

Any bulletins your branch house issues on lawn and garden products will be numbered similarly, except that the part of the bulletin number after the dash will be a letter of the alphabet rather than a number. For example, the first branch bulletin on lawn and garden products will be L&G 66-A.

File the branch bulletins in the Lawn & Garden Parts & Service Binder behind the same divider as your John Deere Service Bulletins.

The Parts and Service Binder also has dividers for parts catalogs, parts prices, flat rate manual, and service manuals. Please remove the parts cata-

Lawn & Garden Products



SERVICE BULLETIN

Agricultural Tractors & Power Units

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Agricultural Implements

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Industrial Tractors & Equipment

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logs and parts prices from your present John Deere Lawn and Garden Equipment Binder and place them behind the respective dividers in the Lawn & Garden Parts & Service Binder.

Also, file your 110 Tractor Flat Rate Manual (FRM-103) behind the Flat Rates divider in the Parts and Service Binder.

As service manuals for lawn and garden products are received, insert them behind the service manual divider.

With all of these items in the Parts and Service Binder, all of your lawn and garden parts and service information will be in one place, for quick and easy reference. Also, the Lawn and Garden Equipment Binder will contain only sales information. This is a very logical way to divide the information so it can be available at all times to salesmen as well as parts and servicemen.

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NEUTRAL START SWITCH BRACKET REPLACEMENT

110 Lawn and Garden Tractors

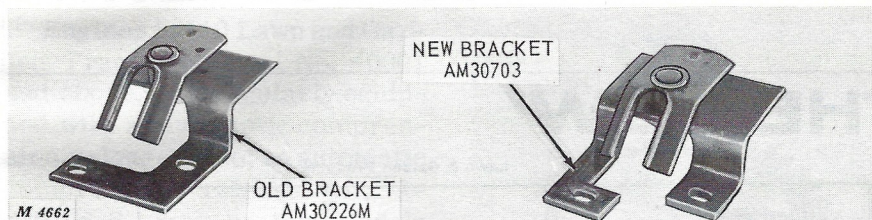


Figure 2A—Old and New Neutral Start Switch Brackets

Install the new AM30703 Neutral Start Switch Bracket whenever replacement of the AM30226M Bracket is required on 110 Lawn and Garden Tractors below Serial No. 15000.

The sturdier AM30703 Bracket, which has been substi-

tuted for the older bracket, is made of heavier gauge steel and has two mounting legs rather than one (Figure 2A).

The AM30703 Bracket is assembled in the same manner and uses the same hardware and switch as the old bracket.

SHIFTING PROCEDURE

110 Lawn and Garden Tractors

Do your customers understand the shifting procedure of a tractor transaxle? Most transaxles fail due to "shifting on the go." Be sure your customers recognize that these are not synchromesh gears. They require selection of speed before starting. Stopping to shift is essential to prevent tractor damage and expensive repair jobs.

INCORRECT LINKAGE ADJUSTMENT

110 Lawn and Garden Tractors

An error appears in the linkage adjustment instructions on page 31 of operator's manual OM-M40832 for 110 Lawn and Garden Tractors, Serial No. 15001 through 40000.

The incorrect portion of the instructions is as follows (Figure 2B):

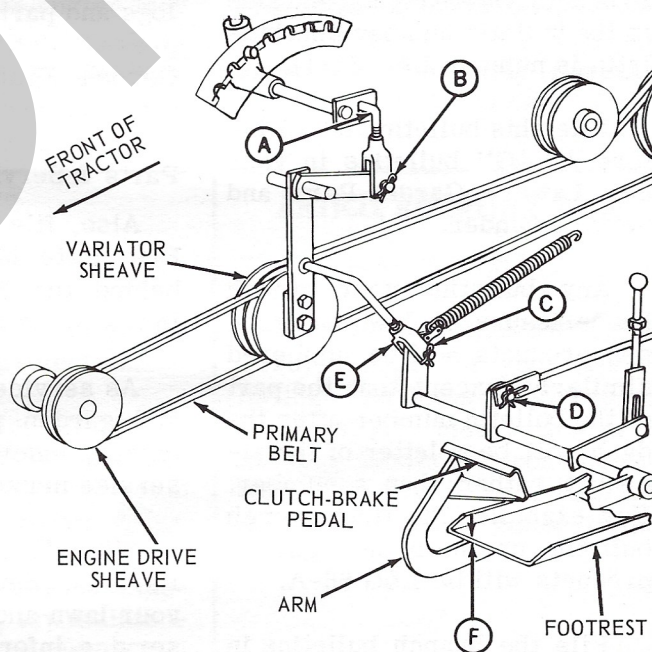
3. Remove spring locking pins at "B," "C," and "D."

Pin "C" should not be removed at this time, as this will prevent spring return and proper positioning of the V-belts in the variator. Incorrect adjustment of the variable speed drive can result. **Change instructions to read:**

3. Remove spring locking pins at "B" and "D."

4. Disconnect spark plug cable and turn engine several revolutions with key starter. Then disconnect pin "C."

The remainder of the instructions in the manual are correct as stated.



M 4381

Figure 2B—Linkage Adjustment Procedure

NOTE: It is recommended that all copies of the above operator's manual in your service department be revised as shown to prevent incorrect adjustments.

ACTIVATING, CHARGING, AND CHECKING BATTERIES

Lawn and Garden Tractors

Following the simple rules given below will assure a good start and long life for lawn and garden tractor batteries.

1. Always remove the battery from tractor to activate and charge. This will prevent damage to tractor from electrolyte spilling or boiling out of the battery.
2. On tractors with 7LU batteries, just cover the plates with electrolyte. On tractors with the later model LU-A8 battery, add the electrolyte to where it is just visible in the bottom of the anti-spew tube. DO NOT completely fill at this time.
3. Always charge a new battery at 7 amps for 30 minutes or 10 amps for 15 minutes.
4. After charging, add enough electrolyte to fill halfway between the plates and the filler ring in 7LU batteries. In LU-A8 batteries add enough so electrolyte is halfway up the anti-spew tube.
5. *IMPORTANT: Wash away all spilled electrolyte with plenty of water.*
6. Install battery on the pad in tractor with the tail of pad between battery and the gas tank. To prevent damage to battery case, DO NOT overtighten the hold down clamps.
7. Always connect positive terminal first, then the negative terminal. Coat both with petroleum jelly. Carefully position the rubber cap over the positive terminal.
8. Explain battery care to customer. A healthy battery will consume up to 1 tablespoon of water per cell per month. Add water (distilled preferred) as required to maintain level about halfway up in the visible area.

A temperature corrective hydrometer is still the best way to check for a healthy battery. A well charged battery should have a specific gravity reading (temperature corrected) of 1.250 or higher. If the cells test 1.220 or below, a charge is necessary. If the difference between the high and low cell is 0.025 or greater the battery should be checked since a bad cell may be indicated.

A chart showing the temperature corrected relationship of specific gravity to percent of charge is given below:

Specific Gravity	Percent of Charge
1.260	100%
1.230	75%
1.200	50%
1.170	25%
1.140	Very little useful capacity
1.110	Discharged

SELECTING RIGHT GASOLINE FOR FASTER STARTS

110 Lawn and Garden Tractors

Use premium grade gasoline for faster winter starts? — NEVER!

Never use premium grade gasoline in small tractor engines. The compression ratio (6.5 to 1) is not high enough to require the premium grade and it can cause a severe buildup of lead deposits in the engine. The deposits will rob power and may shorten the life of the engine.

A good regular grade of gasoline is all that's required. Naturally, it should be fresh and from a supply blended for the area in which it is to be

used. Summer blends held over for winter use will not vaporize properly at lower temperature and may be the real reason for slow starts.

Unless you're sure of its quality, white gas should never be used because of a lack of clean burning properties under compression.

If a tractor is being stored, drain the fuel completely from the system. Loosen the carburetor bowl nut to permit complete drainage of the bowl and needles. Failure to do this may permit severe gum deposits to form from the fuel.

CHECKING COMPRESSION OF AUTOMATIC COMPRESSION RELEASE ENGINES

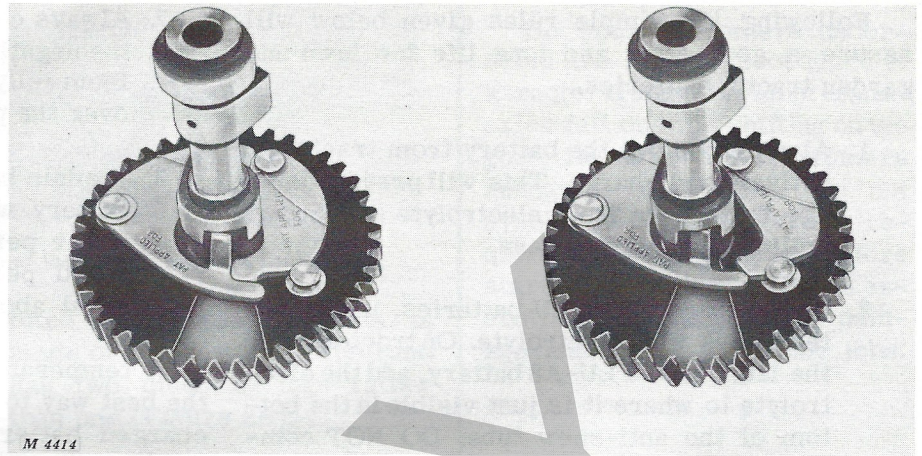
110 Lawn and Garden Tractors

Engines in 110 Lawn and Garden Tractors, Serial No. 40001 and above, are regularly equipped with an automatic compression release. Also, an automatic compression release kit, A-230155-S, may be installed in any K161S or K181S engine in 110 Tractors prior to Serial No. 40001.

To check the compression of these automatic compression release engines, first feel for compression.

Rotate the flywheel backward against the power stroke. Resistance should be felt. If little or no resistance is felt, check further with a compression gauge.

Crank the engine electrically in the normal manner. The engine will reach a sufficient speed or rpm level to disengage the automatic compression re-



Starting Position

Running Position

Figure 4A—Automatic Compression Release Mechanism

lease (Figure 4A), and will then slow down slightly. When this occurs, normal readings can be obtained.

If the reading is below 100 psi, wind the rope on the flywheel pulley so the engine may be cranked in reverse direction. Hold the throttle in the wide open position to permit full air intake and crank the engine. The

reading should be normal, since the engine develops full compression when the power stroke is reversed.

NOTE: To obtain an accurate reading, cycle the engine more than once. If satisfied with the final compression reading, analyze the results and if necessary service the engine.

WHY USE AM30710 AND AM30730 OILS?

Lawn and Garden Tractors

Although the engines in lawn and garden tractors have in common with modern automobile engines the NEED for proper lubrication, attention should be given to important differences between the two, namely, the system which lubricates engine parts and the lubricant that should be used.

Single grade or multi-viscosity engine oils found at the corner service station are made for modern automobile engines with oil filtering systems. Since small, air-cooled engines do not have and do not require such a filtering system, it is even more important to use lubricants

which minimize wear and insure adequate overall protection.

John Deere AM30710 (Winter Grade) and AM30730 (Summer Grade) oils have been selected to fulfill these needs. When coupled with proper maintenance of the air cleaner and adequate oil changes, low maintenance and efficient operation will result.

Besides helping to insure proper lubrication of your customers' lawn and garden tractors, selling these oils will also develop and encourage continuing store traffic.

ARTICLE REFERENCE PAGE

Included with this bulletin is a ruled page for your use in listing "Articles Referred to Frequently." Insert this page in your binder in front of the bulletins. Use it as a help for finding specific articles in the future.

Litho in U.S.A.