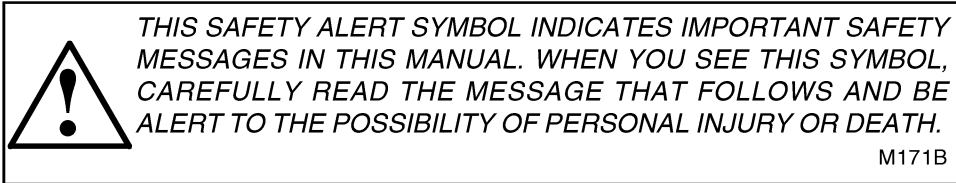


**HM-250 Cultivator
McCormick**

Parts Manual

1006912r3








If Safety Decals on this machine use the words **Danger, Warning or Caution**, which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation which if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- **WARNING:** Indicates an potentially hazardous situation which if not avoided, will result in serious injury. The color associated with Warning is ORANGE.
- **CAUTION:** Indicates an potentially hazardous situation which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

If Safety Decals on this machine are ISO two panel Pictorial, decals are defined as follows:

- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW.
- Prohibition symbols such as   and  if used, are RED.

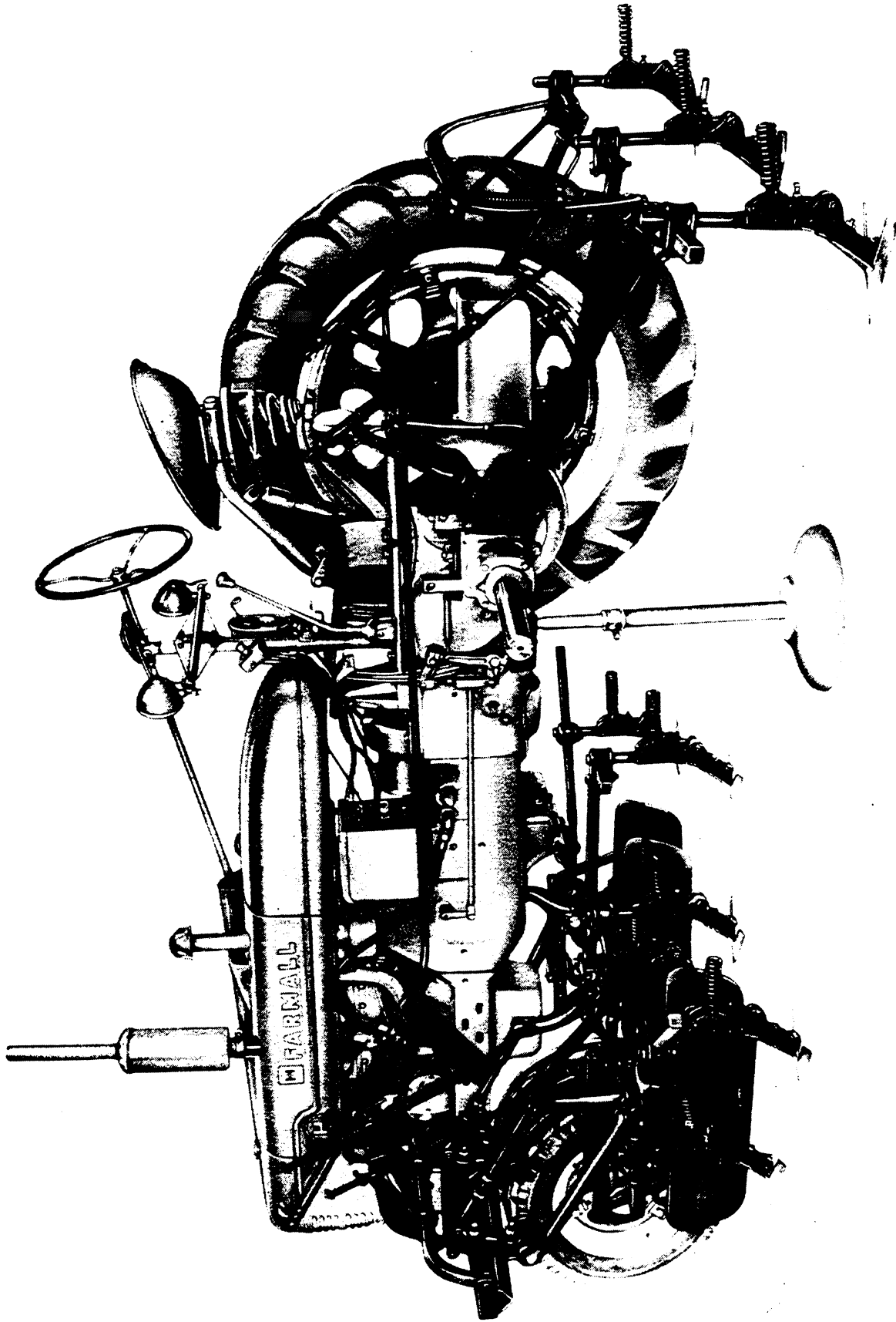


WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH. BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow Case Corporation instructions on machine operation and maintenance.



HM-250 Cultivator with No. 10 Tool Equipment and Blade Type Shields.

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TO THE OWNER

The HM-250 Cultivator is a two-row machine for use with Farmall H and M Tractors equipped with the Hydraulic Lift-All. Cotton, corn, potatoes and other crops may be cultivated when planted in rows spaced from 28" to 42" apart.

The cultivator front mounting frame, which is supplied regularly, consists of two parallel-action gang assemblies with pressure rods and pressure springs, a hydraulic cylinder return spring assembly and a lifting bail. Each gang has a tool bar attaching bracket provided with a keyhole slot to facilitate attaching and detaching the ground working tools without disturbing their adjustments.

The lifting means is supplied by the Hydraulic Lift-All. Selective Power Lift Connections may be obtained to operate the right and left gangs independently. The cultivator rear section may be raised and lowered simultaneously with the front section with regular lift, or the Delayed Power Lift Equipment may be used to control the front and rear sections independently. The tractor is kept in motion and cultivation is complete to the ends of the rows when the Delayed Power Lift is used.

The cultivator gangs are easily and quickly attached or detached without disturbing any of the set adjustments when the tractor is to be used for some other purpose. This assures that the cultivator will work at the same depth and in the same relation to the row when it is reattached as when last used.

The ground working tools have 1-1/4" round standards. The standard clamps are the single wedge bolt type, providing a quick and convenient means for adjusting the sweeps for depth and position. Only a moment is required to make an adjustment and set the sweeps in another position. The proper method for adjusting these clamps is explained elsewhere in this manual.

A large variety of tool equipment and attachments is available to meet the requirements imposed by various crop and soil conditions. These are available on special order and include the following:

Adjusting lever attachment - convenient for cultivating terraced land or hillside fields.

Disk hillers - for throwing dirt to the row or for barring off.

Moldboard hillers - providing hillers which may be attached to the spring trip standards.

Potato hillers - used by potato growers (also known as the "Connecticut Hiller").

Continued on following page.

Potato Hoe Attachment - used with No. 57 Tool Equipment (spring teeth) by potato growers for hilling up over the young plants.

No. 111 Tool Equipment - used by tomato growers. Two rows 42" to 60" apart may be cultivated. The tractor must be equipped with the 100" tread rear axle. For Setting Up and Operating Instructions, refer to the Owner's Manual furnished with this Tool Equipment.

Tobacco hoe - used by tobacco growers, replacing the sweeps usually used next to the row.

Tent type shields - for high speed cultivation of young crops.

Blade type shields - available for all styles of tool equipments on which these shields are not supplied regularly.

Fertilizer unit - for placing fertilizer beside the crop row.

Weeder mulcher attachment - to break up crusts and keep the surface free of weeds and well mulched.

Spring teeth - for use in stony or rooty soils.

Jockey arches - used to stabilize the front tool bars and recommended when disk hillers are used.

Gauge wheels - for cultivating over terraces or uneven ground.

Spring trip attachment - for use when additional spring trips are desired.

BEEF AND BEAN CULTIVATION

The cultivator is easily converted for cultivating beets, beans and similar crops by obtaining the No. 13 Tool Bar Attachment for use on the front section. The regular cotton and corn type front tool bars are removed and the beet and bean tool bar frames attached. Little effort is required to change from one type of cultivating equipment to another during the cultivating season.

The No. 13 Tool Bar Attachment is designed to cultivate four rows planted at a maximum spacing of 24". The attachment consists of two frames, each with two 1-3/8" square tool bars 50" long. Row widths 18", 20", 22" and 24" apart may be cultivated, depending on how the tools are arranged on the tool bars.

A variety of ground working tools is available. These are ordered as desired. The line of tools, which have 1-1/2 x 9/16" standards, include the Nos. 12, 13 and 14 Deer Tongues, Nos. 21 and 22 Duckfeet (7-1/2" and 9" cut), Nos. 6 and 7 Diamond Points, Nos. 22, 23, 30 and 31 Knife Weeders (5", 6-1/2", 7-1/2" and 8" cut), Nos. 27, 28 and 29 Adjustable Knife Weeders (5-1/2", 6-1/2" and 7" cut), Nos. 111 and 112 Disk Weeders (12" and 10" disks), Scrapers for Nos. 111 and 112 Disk Weeders, No. 15 Type Spring Trip and the No. 12 Irrigating Attachment. The No. 80 Parallel-Action Shield is available for cultivating small plants. Also available is the round standard (1-1/8" diameter) with a pin break shank. Standards without shovels are available for special purposes. These include 1-1/2 x 9/16" standards for disk or knife weeders, irrigating shovels and deer tongues. A heavy 2 x 5/8" standard is available for use with Planet Jr. or Dyrr sweeps.

Standard clamps are ordered as desired for use with 1-1/2 x 9/16" standards, 1-1/8" or 1-1/4" round standards and the 2 x 5/8" standard. Also available is the quick-attachable clamp for use with 1-1/2 x 9/16" standards.

FERTILIZER APPLICATION

Two styles of fertilizer units are available for use with the HM-250 Cultivator to place a band of fertilizer beside the plant row while cultivating, as follows:

- A. The style used with the HM-220 (checkrow), HM-221 (drill) and HM-222 (hill drop) Corn Planters.
- B. The style used with the HM-277 Blackland (sweep type) Planters and HM-278 Runner Planters.

The Fertilizer Units (Nos. 328, 329, 330 and 331 for the Farmall H Tractor and the Nos. 332, 333, 334 and 335 for the Farmall M Tractor) used with the HM-220, HM-221 and HM-222 Front Mounted Corn Planters may be used for side dressing by using the Deep Applicator Attachment (Ordering No. 620 817 R92) which includes longer delivery tubes. This same style fertilizer unit (Nos. 336 and 337 for the Farmall H Tractor and the Nos. 338 and 339 for the Farmall M Tractor), which includes the Deep Applicator Attachment, is available for side dressing with the cultivator; however, this style unit cannot be used with the HM-277 and HM-278 Front-Mounted Planters. The Split Row Fertilizer Boots and Tubes (Ordering No. 620 818 R91 for checkrow and hill drop and 620 819 R91 for drill type planters) may be obtained from your dealer when it is desired to use the No. 336, 337, 338 or 339 Fertilizer Unit with the HM-220, HM-221 or HM-222 Planter. The Nos. 336 and 338 Fertilizer Units include the hoppers. The Nos. 337 and 339 Fertilizer Units do not include the hoppers because the owner may already have them.

Either the HM-61-A Fertilizer Unit for the HM-278 Runner Planter or the HM-61-B Fertilizer Unit for the HM-277 Blackland (sweep type) Planter may be used for side dressing by connecting the discharge tube to the sweep running next to the row. The Deep Applicator Attachment (Ordering No. 514 303 R91) may be obtained from your dealer and used with this style unit if desired. The HM-61 Style Fertilizer Unit is recommended for side dressing with the cultivator and fertilizing beside the seed row with the planter using the same unit. This same style (the HM-53-C Fertilizer Unit) may be obtained for use with the cultivator when it is intended to use it for side dressing only. This unit is shown in this manual. Neither the HM-61 Style Fertilizer Unit nor the HM-53-C Fertilizer Unit may be used for fertilizing with the HM-220, HM-221 or HM-222 Front-Mounted Corn Planters. The HM-53-C Fertilizer Unit includes the hoppers and delivery tubes with one delivery mechanism mounted on each side of the tractor.

The hoppers are the star-feed type having a fingered feed wheel which revolves in the hopper bottom, carrying the fertilizer under an adjustable gate to the discharge opening. Each hopper has a capacity of approximately 65 pounds (based on average commercial fertilizer).

FERTILIZER APPLICATION - Continued

The quantity of fertilizer sown is regulated by adjusting the gate opening with the lever outside the hopper, by changing feed wheels within the hopper or by changing the sprocket on the feed shaft. Two extra feed wheels may be obtained on special order. The range of distribution may be from 56 to 1740 pounds per acre. The gate opening lever will permit a range of 140 to 680 pounds per acre when the regular feed wheel and the slow speed sprocket are used. The range is from 260 to 1260 pounds per acre when the regular feed wheel and the fast speed sprocket are used. These figures are approximate and are based on average free-running commercial fertilizer and rows spaced 42" apart.

The delivery mechanism includes the hopper mounting bracket with a feed shaft. The hoppers on each side of the tractor are driven from the countershaft which is integral with the support for the hoppers. The countershaft and support serve to drive and support the fertilizer hopper and also the seed hopper when the planter is used. One countershaft and hopper support is all that is required for one tractor. The countershaft is driven by means of a sprocket on the tractor axle. A throw-out rod extends from the countershaft to the mounting frame bail so that the hopper mechanism is thrown in and out of gear as the cultivator is raised or lowered.

The Fertilizer Stream Divider Attachment may be obtained on special order for use with either style of Fertilizer Unit described above. It is designed to divert the flow of fertilizer from one hopper into two delivery tubes to permit fertilizing on both sides of the row. The divider case has an adjustable valve which may be set to divide the flow of fertilizer equally into the two tubes, or all or any portion of the fertilizer may be diverted into one tube as desired. For Setting Up and Operating Instructions, refer to the Owner's Manual furnished with this attachment.

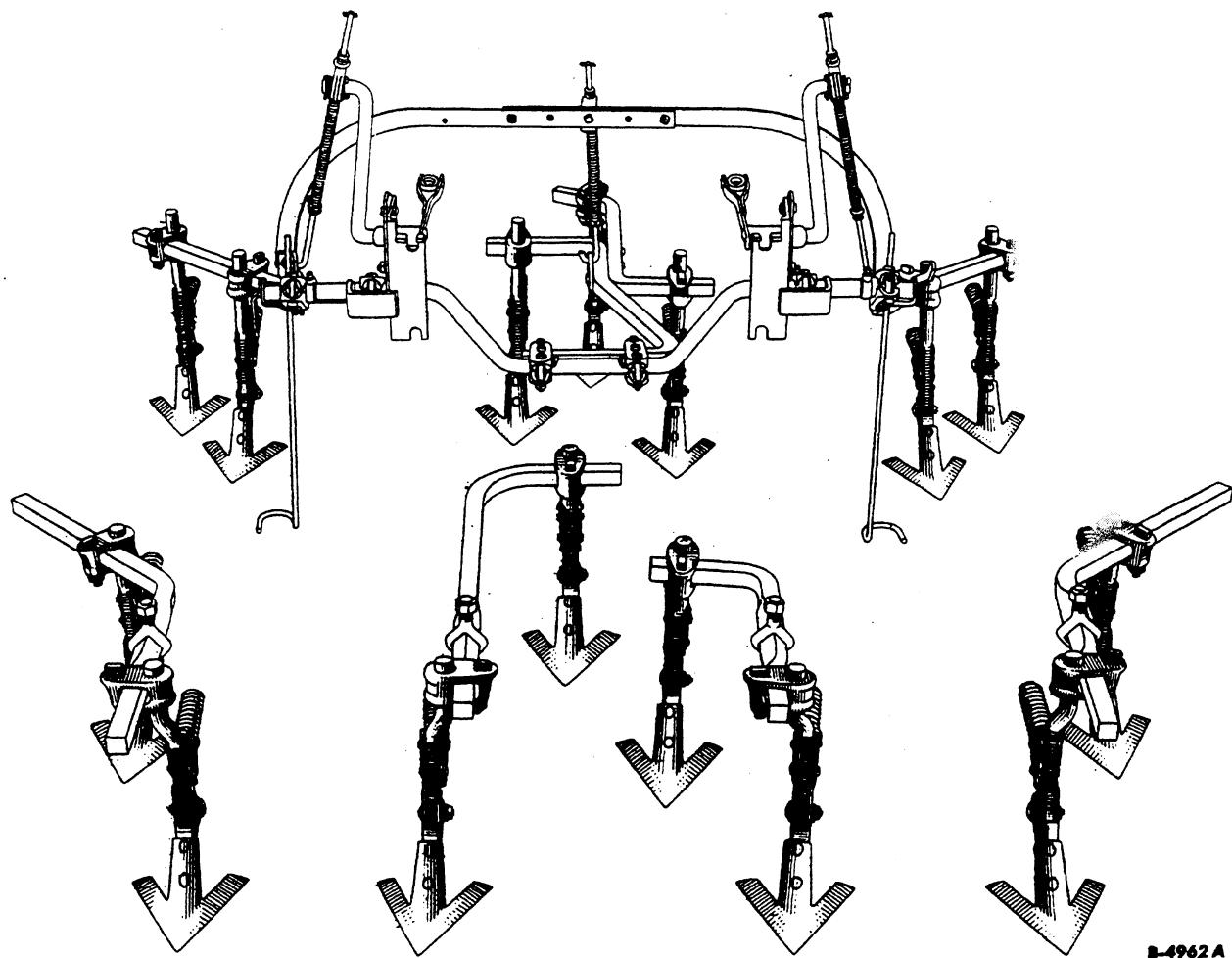
You are urged to consult your International Harvester dealer concerning unusual field conditions or special crops. Within the International Harvester Company are men who have spent years in research and study of these things. Let the experience of these men serve you.

Be sure to read the Instructions for Adjusting and Operating in this manual. Check each item referred to and acquaint yourself with the adjustments required to do a good job and to get maximum trouble-free service from your machine.

Remember, a cultivator which is properly lubricated and adjusted saves time, labor and fuel costs.

TOOL EQUIPMENTS - Continued

No. 11-H Tool Equipment



B-4962 A

Illust. 3

**Front - eight No. 19 spring trips
eight 8" full sweeps.**

**Rear - seven No. 19 spring trips
seven 8" full sweeps.**

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