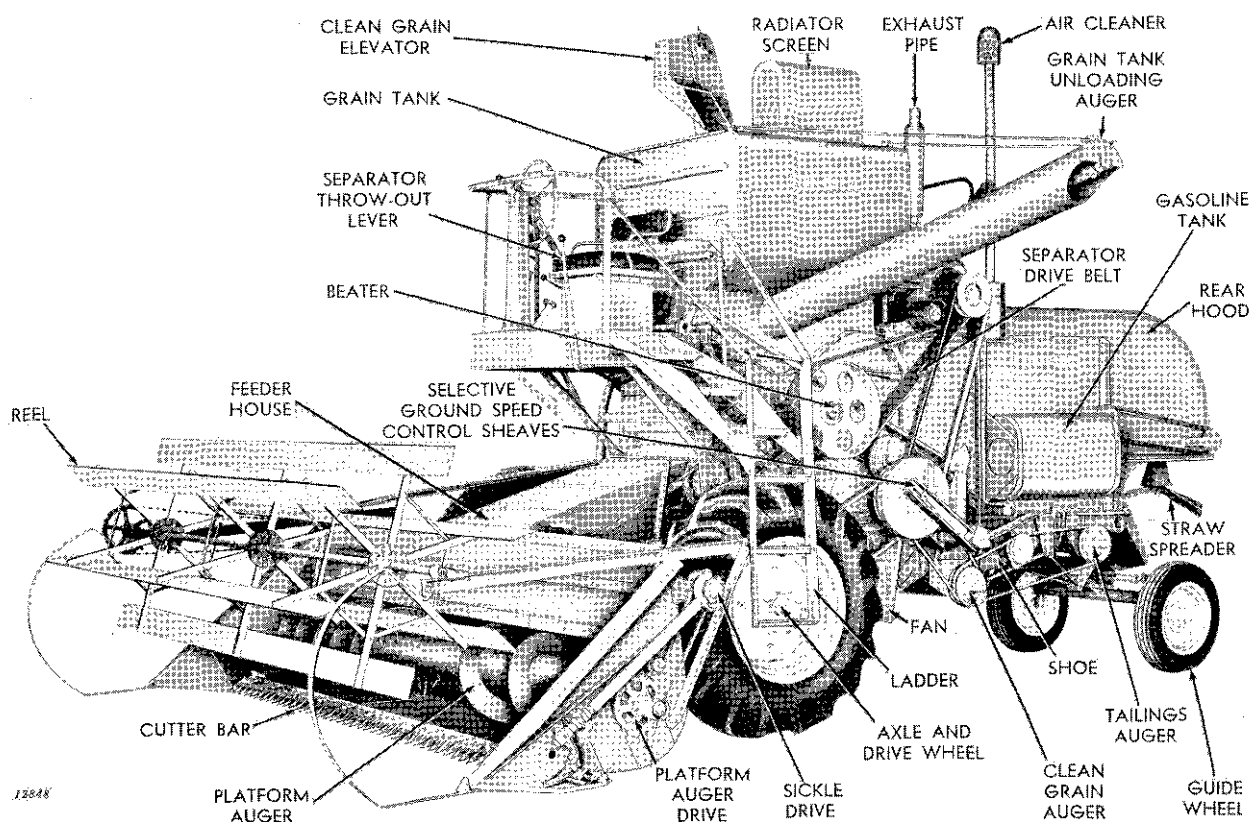


## Section 10

# Description and Specifications

### Group 5

## DESCRIPTION



**Figure 10-5-1—John Deere No. 55 Self-Propelled Combine, Below Serial No. 55-12051**

The John Deere No. 55 (Figures 10-5-1 through 10-5-6) is a self-propelled combine designed for one-man operation. It will handle a 12-foot cut in all crops and a 14-foot cut in most crops. The two large front wheels are the driving wheels. The rear wheels are used to steer the combine.

The No. 55 Combine uses a rasp-bar cylinder for threshing and straw walkers for separating. A chaffer and sieve is used to clean the chaff from the grain. The platform has an auger that conveys the cut grain to the center of the platform where the feeder carries the material direct to the cylinder.

The 45-bushel grain tank and the engine are located on top of the combine so the weight is on the center line of the combine and evenly dis-

tributed on the wheels on both sides of the combine.

The operator's platform is also centered on the combine for good visibility. All controls are located within easy reach of the operator.

Power is furnished by a Hercules QXD-3 6-cylinder engine. The engine drives the separator by means of a flat belt connecting the engine to a large pulley on the beater behind the cylinder. The drives for the combine, from the cutter bar to the straw spreader, are taken from the beater. Power to propel the combine is delivered to the transmission by two V-belts and a double sheave arrangement used to select the exact ground speed desired.

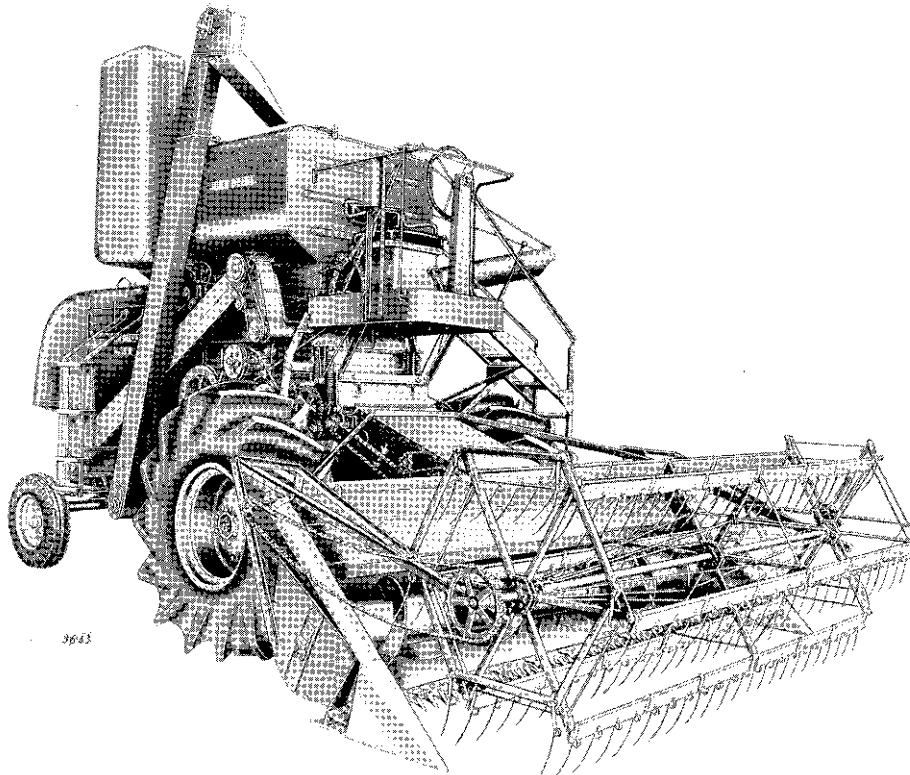


Figure 10-5-2—John Deere No. 55-R Self-Propelled Rice Combine, Below Serial No. 55-12051

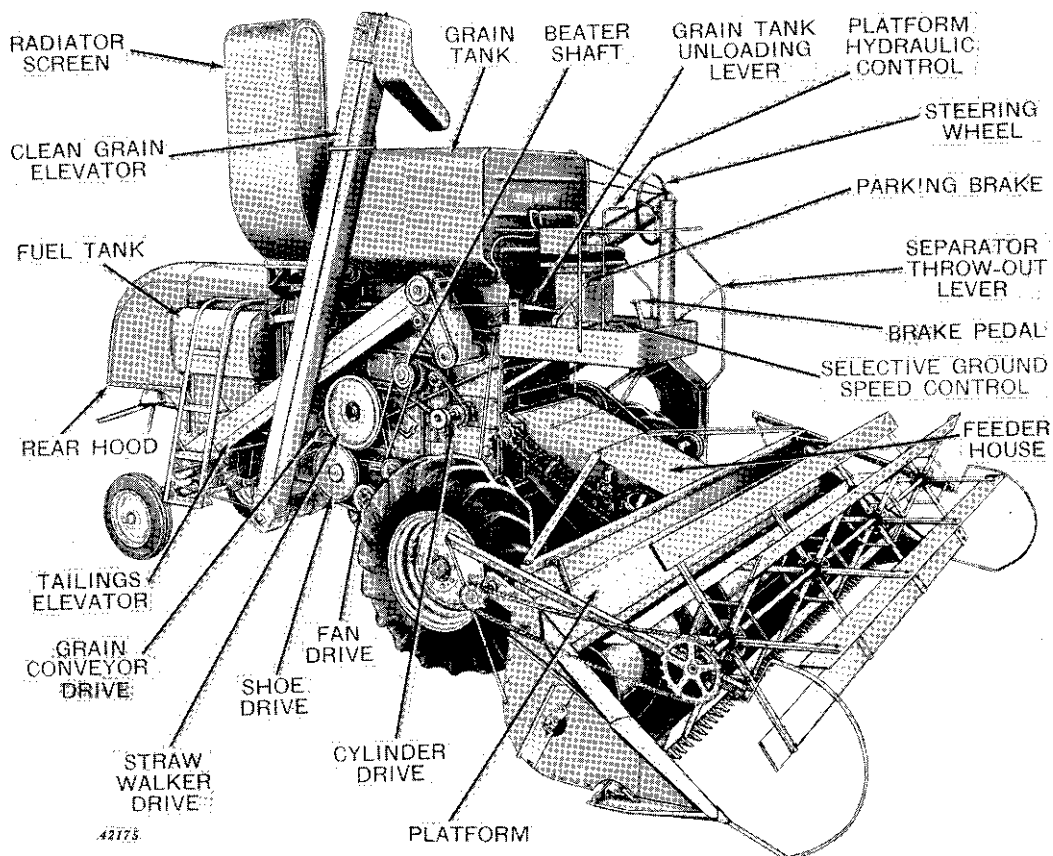


Figure 10-5-3—John Deere No. 55 Self-Propelled Grain Combine, Serial No. 55-12051 to 55-17838

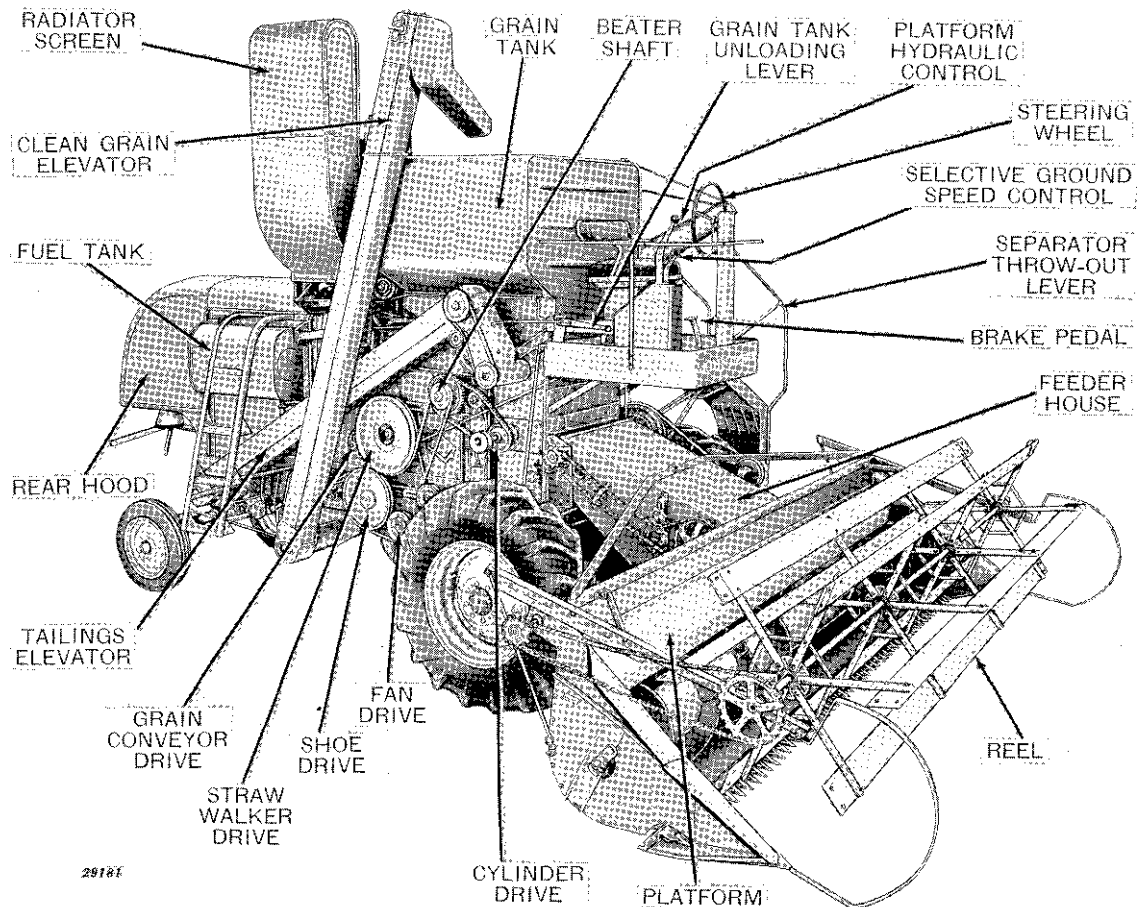


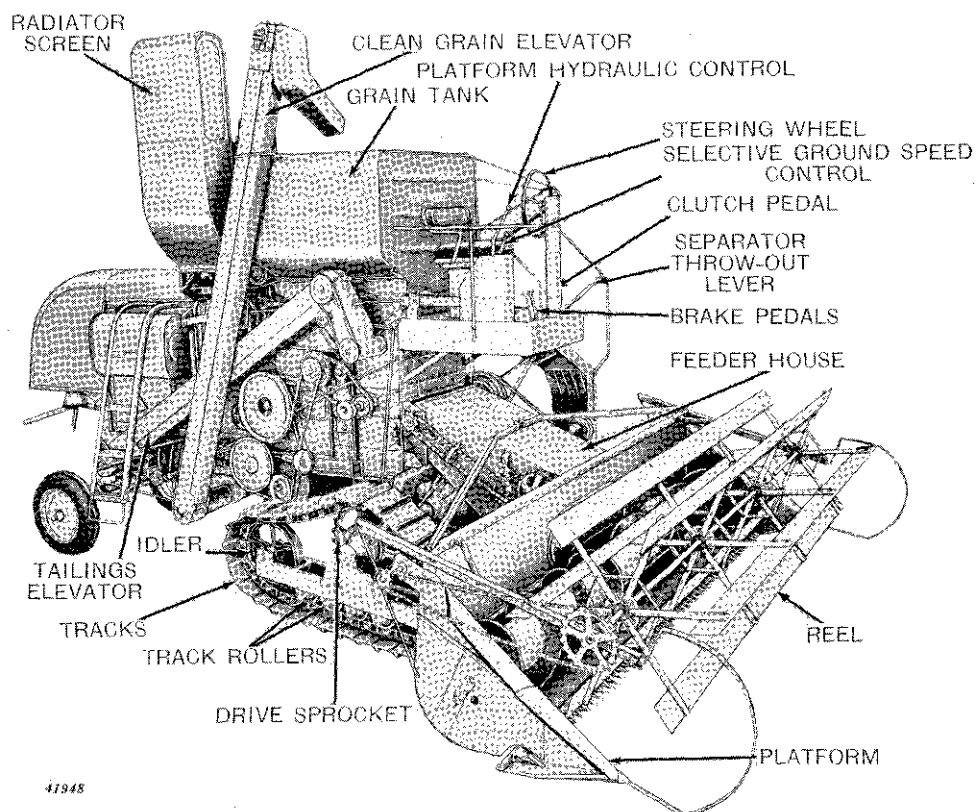
Figure 10-5-4—John Deere No. 55 Self-Propelled Grain Combine (Serial No. 55-17838 and Up)

#### Differences Among Models.

Several variations of the No. 55 Combine are available. The basic types are the grain combine (No. 55) (Figure 10-5-4), rice combines (55-R) (Figure 10-5-2), and rice crawler (55-RC) (Figure 10-5-5). The principal visible differences between these combines are larger tires on the rice combine or tracks on the rice crawler. The rice combines have hydraulic wheel brakes as well as the mechanical transmission brake. The rice combines (55-R) also have planetary gears at the ends of the axle which serve to further reduce the ground speed.

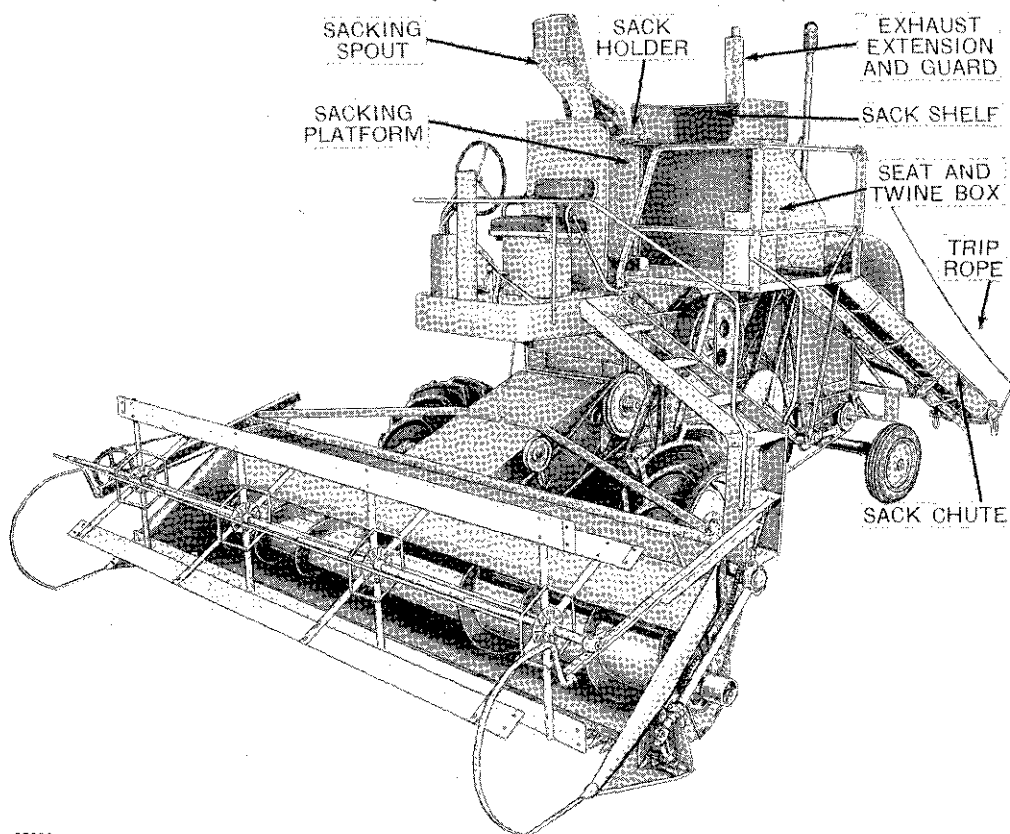
Hardened cylinder rasp-bars are used in rice combines because of the abrasive action of the rice hulls. Also, the basic cylinder speed on rice combines is slower than on grain combines (960 rpm instead of 1060 rpm).

In addition to the variations listed above, the No. 55 Combine is available as a sacking instead of grain tank machine. On a sacker machine, a sacking platform replaces the grain tank (Figure 10-5-6).



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Figure 10-5-5—John Deere No. 55-RC Self-Propelled Rice Crawler Combine (Serial No. 55-17838 and Up)



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Figure 10-5-6—John Deere No. 55 Self-Propelled Combine with Sacking Attachment (Serial No. 55-17838 and Up)

**SPECIAL EQUIPMENT**

A wide variety of special equipment is available for use on the No. 55 Combine to meet the special needs of every crop and condition.

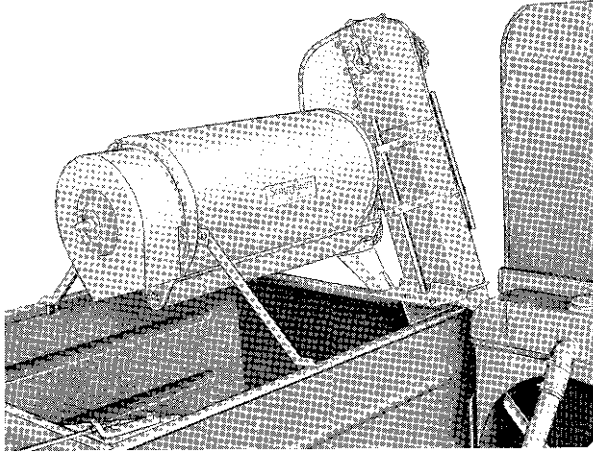


Figure 10-5-7—Hart Scourkleen

**Hart Scourkleen Weed Seed Cleaner.** The Scourkleen is available for grain tank or sacker machines (Figure 10-5-7). It is used to remove weed seeds from the grain. A large variety of screens adapt the Scourkleen to handle any condition.

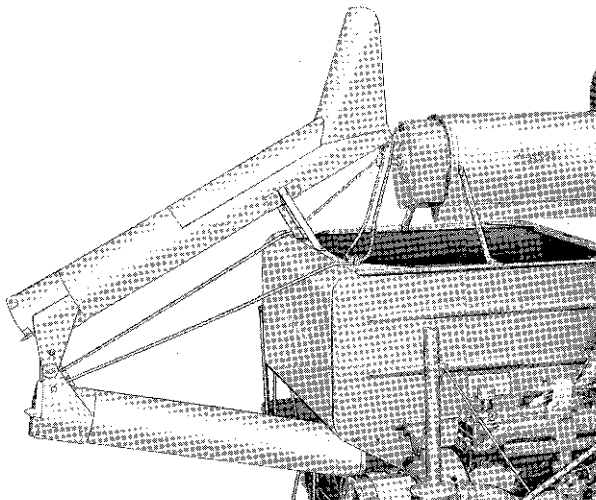


Figure 10-5-8—Folding Grain Tank Unloading Auger

**Folding Grain Tank Unloading Auger.** The folding auger reduces the over-all width of the combine for transporting (Figure 10-5-8). When unfolded, it is the same length as the straight auger.

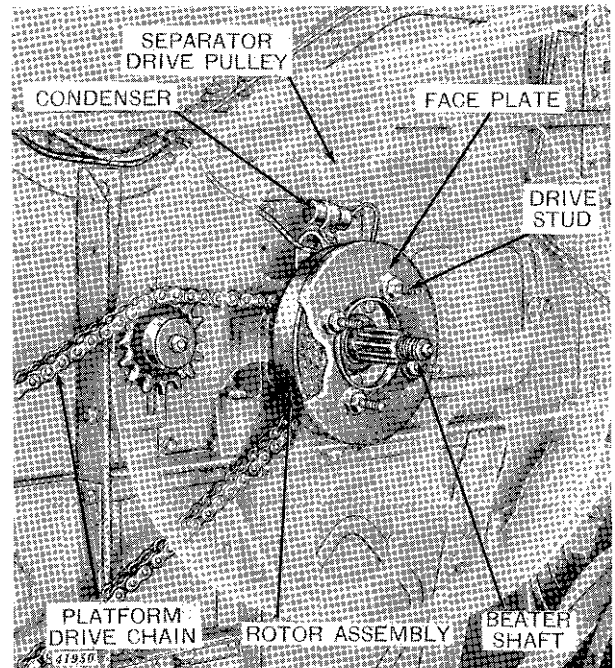


Figure 10-5-9—Electro-Magnetic Platform Throw-Out Clutch

**Platform Throw-Out Clutch.** The electro-magnetic platform throw-out clutch permits instant disengagement of the entire platform drive should a rock or similar object enter the platform or feeder house (Figure 10-5-9). It also aids in the feeding of heavy slugs to the cylinder.

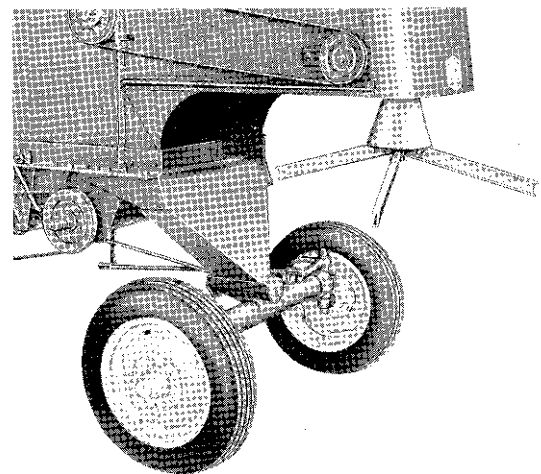
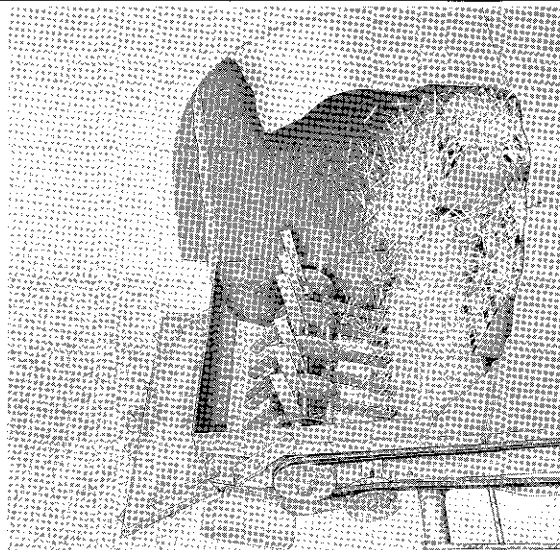


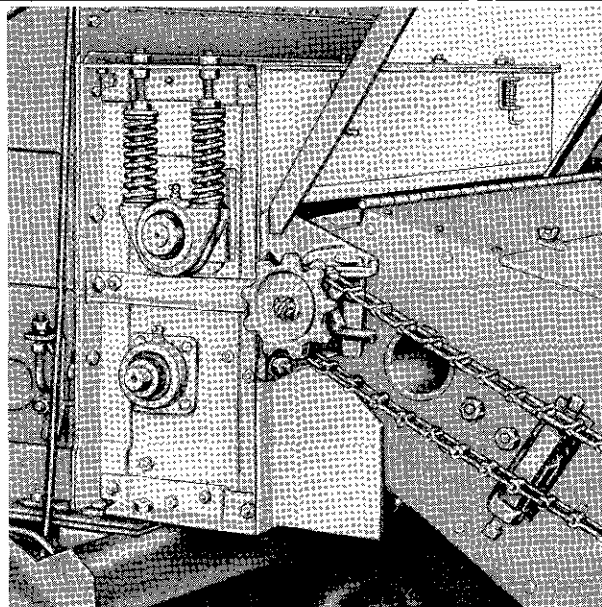
Figure 10-5-10—Straw Spreader

**Straw Spreader.** The straw spreader distributes the straw over a wide area behind the combine (Figure 10-5-10).



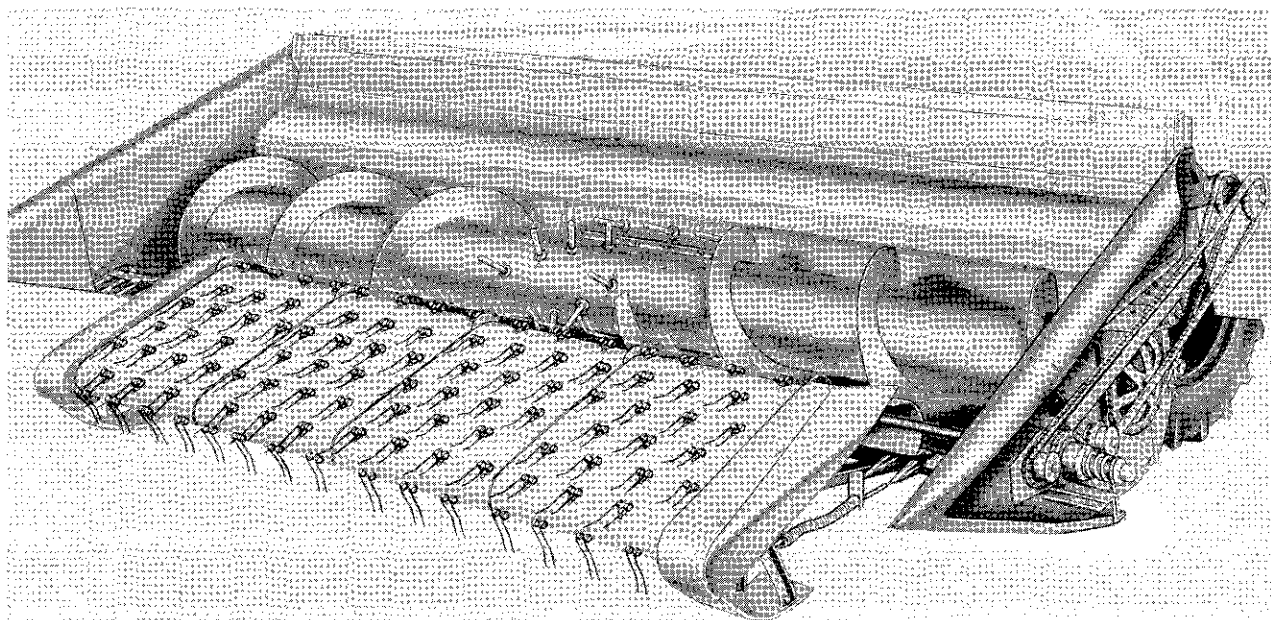
*Figure 10-5-11—Straw Chopper*

**Straw Chopper.** The straw chopper cuts up the straw into small particles making it easier to plow under (Figure 10-5-11). The finely cut straw also decomposes rapidly. The straw chopper drive can be reversed so instead of being chopped, the straw is laid in a windrow so it can be picked up and baled.



*Figure 10-5-12—Feed Rolls*

**Feed Rolls.** The special feed rolls are used primarily for combining flax (Figure 10-5-12). One rubber roll and one steel roll feed the flax evenly to the threshing cylinder. They also crush the bolls for easier threshing.



*Figure 10-5-13—Belt Pickup*

**Belt Pickup.** The belt pickup for the No. 55 Combine is 88 inches wide and will pick up all kinds of windrows (Figure 10-5-13). The pickup consists of four wide conveyor belts equipped with steel fingers that gently pick up the windrowed crop and drop it on the platform.



**Reel End Shields.**

Reel end shields are available for use on 6-slat reels (Figure 10-5-14). The shields reduce the possibility of straw winding and being carried around the reel.

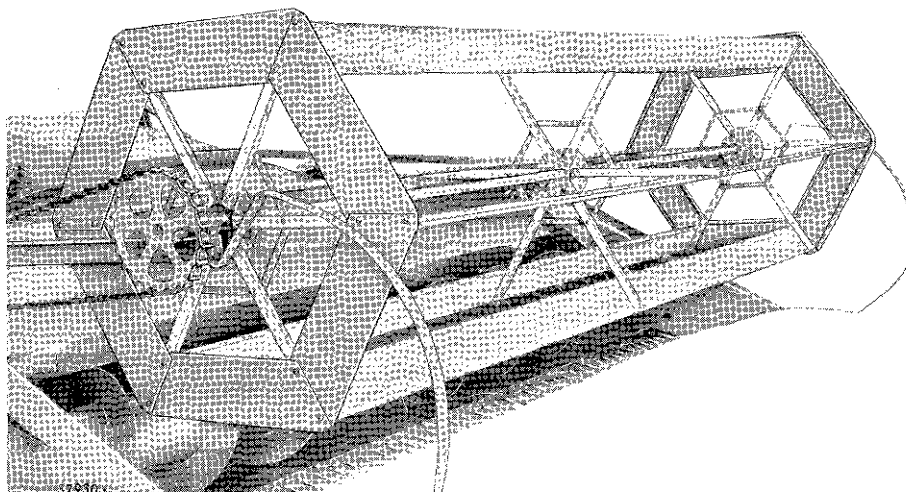


Figure 10-5-14—Reel End Shields

**Special Lifting Guards.**

The special lifting guards (Figure 10-5-15) are available to assist in raising down and tangled crops so they can be readily cut and delivered to the auger.

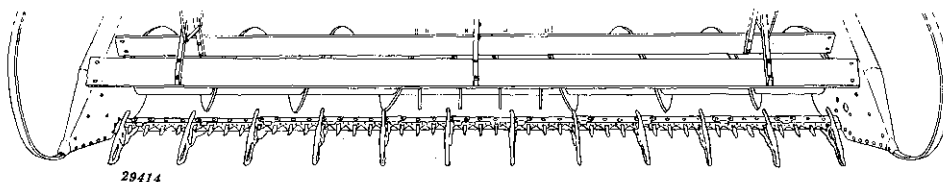


Figure 10-5-15—Special Lifting Guards

**Inside Loop Divider.** The inside loop divider is used to separate down and tangled crops so a cleaner swath is cut with less loss of grain.

**Special Chaffers and Sieves.** A large selection of special chaffers and sieves is available if for some reason the adjustable chaffer and sieve is not satisfactory. A comprehensive discussion of chaffers and sieves can be found on page 80-5-2.

**Concave Pan.** A concave pan is available that covers the first five concave bars when handling easy-to-thresh crops or seeds that crack easily. See page 60-5-4.

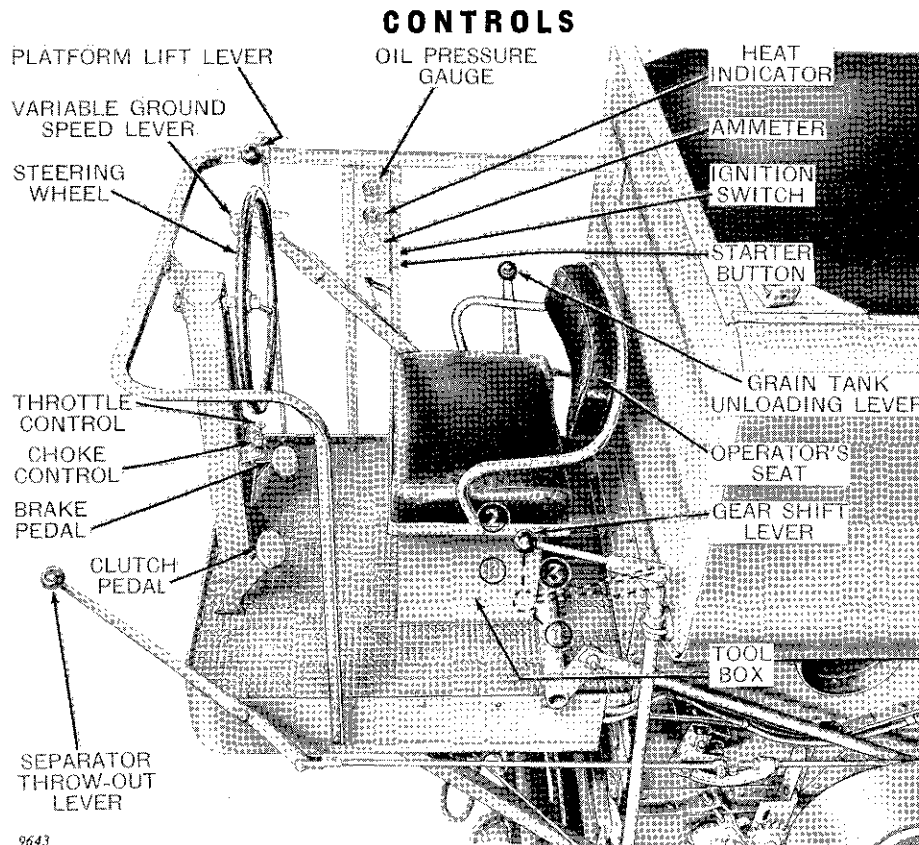


Figure 10-5-16—Combine Controls (Below Serial No. 55-12051)

All the controls necessary for the operation of the No. 55 Combine are on the operator's platform. The arrangement of controls has changed three times since the No. 55 Combine went into production. The controls used up to Serial No. 55-12051 as shown in Figure 10-5-16, Figures 10-5-17 and 10-5-18 show the arrangement of controls from Serial No. 55-12051 to 55-17838. The arrangement of the controls, Serial No. 55-17838 and up is shown in Figures 10-5-19 and 10-5-20.

**Instrument Panel.** The instrument panel contains the ammeter, oil pressure gauge, water temperature gauge, ignition switch, and starter button. The location of the instrument panel has been shifted several times as can be seen in the illustrations.

**Gear Shift Lever.** The transmission has three speeds forward and one in reverse. The positions of the gear shift lever for the various transmission speeds are shown in Figures 10-5-16, 10-5-17, and 10-5-19.

**Platform Control Lever.** This lever controls the height of the cutting platform through the hydraulic cylinders. Moving the lever to the rear raises the platform, to the front lowers it.

**Selective Ground Speed Control.** Below Serial No. 55-12051 the ground speed was changed mechanically by a lever on the right-hand side of the operator's platform (Figure 10-5-16). Moving the lever forward increases the travel speed, backward decreases travel speed.

At Serial No. 55-12051 the operation of selective ground speed control was changed from mechanical to hydraulic. Up to Serial No. 55-17838, the hydraulic valve was operated by a foot pedal (Figure 10-5-18). Pushing down the toe end of the pedal increases travel speed. Pushing down the heel end decreases travel speed.





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