6601
COMBINE

JOHN DEERE

OPERATORS MANUAL

6601
COMBINE

OMH95659 I6 English

JOHN DEERE HARVESTER WORKS
OMH95659 I6

LITHO IN THE U.S.A.
ENGLISH

To the Purchaser

This new combine was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read this operator's manual, which is divided into sections, for easy location of information. The Table of Contents explains where each section is located and the alphabetical index gives detailed listings.

⚠ This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

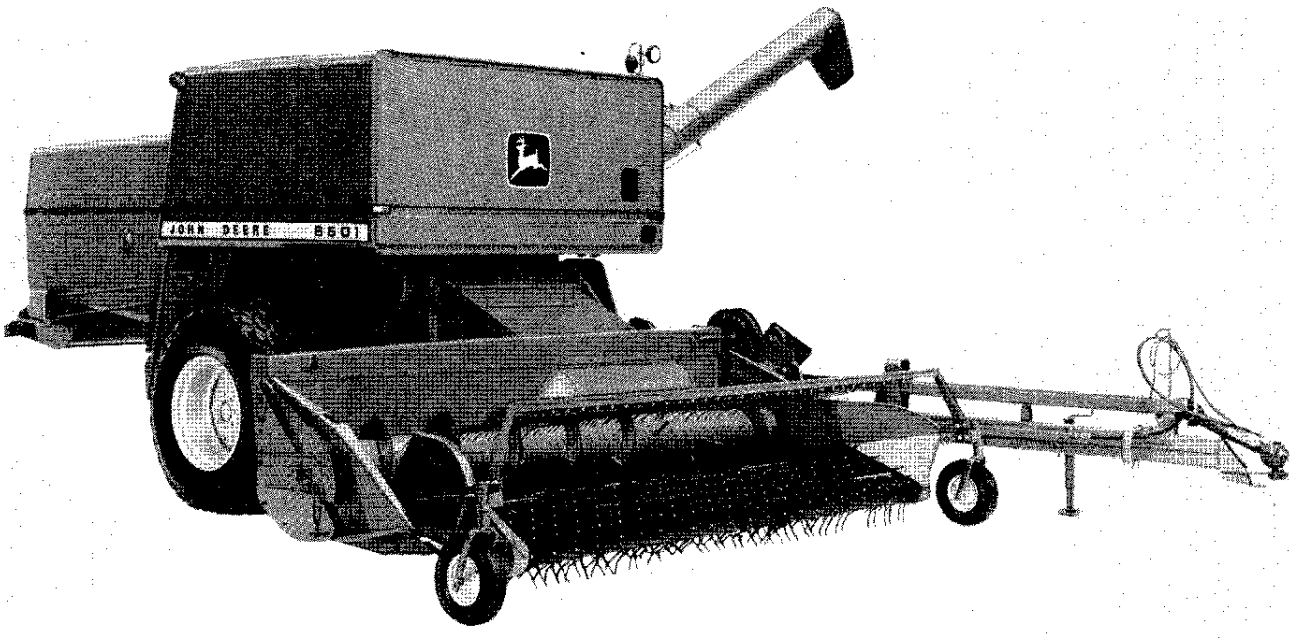
Your Operator's manual contains SI Metric equivalents which follow immediately after the U.S. customary units of measure.

In addition to the equipment furnished with your combine, attachments are available to help you do a better job in special crop conditions. These are described in the attachments section of this manual and can be purchased from your John Deere dealer.

"Right-hand" and "left-hand" sides are determined by facing in the direction the combine will travel when in use.

Record your combine serial numbers in the space provided on page 78. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your combine requires replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere parts—accept no substitutes.

The warranty on this combine appears on your copy of the purchase order which you should have received from your dealer when you purchased the combine.



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Contents

Safety Suggestions

The safety of the operator was one of the prime considerations in the minds of John Deere engineers when this combine was designed. Shielding, simple adjustments, and other safety features were built into the combine wherever possible.

All machinery must be operated only by responsible persons who have been properly instructed and delegated to do so.

Only the operator can ride on the tractor when combining.

Shields and guards must be in place and in good condition before starting in the field.

Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines relieve all pressure. Before applying pressure to system, all connections must be tight and lines, pipes and hoses not damaged. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

Clothing worn by combine operator must be fairly tight and belted. Loose jackets, shirts, or sleeves should never be worn because of the danger of getting into moving parts.

Everyone must be clear of the combine and tractor before starting so they cannot be struck by moving parts or caught in a drive belt or chain.

Never clean, lubricate, or adjust the combine when it is running.

Be careful when operating on hillsides because the combine or tractor may tip sideways if it strikes a hole, ditch, or other irregularity.

Always keep the tractor in gear when going down hills.

Before leaving the combine unattended, support the cutting platform with either the hydraulic cylinder safety stop or with blocks, or lower it to ground level.

Never attempt to clear obstructions off the platform unless the PTO is disengaged and the tractor engine is shut off.

Maintain a fire extinguisher in an easily accessible location and be familiar with its correct use.

The gearshift lever of your tractor must be in neutral and the PTO lever disengaged before starting the tractor engine.

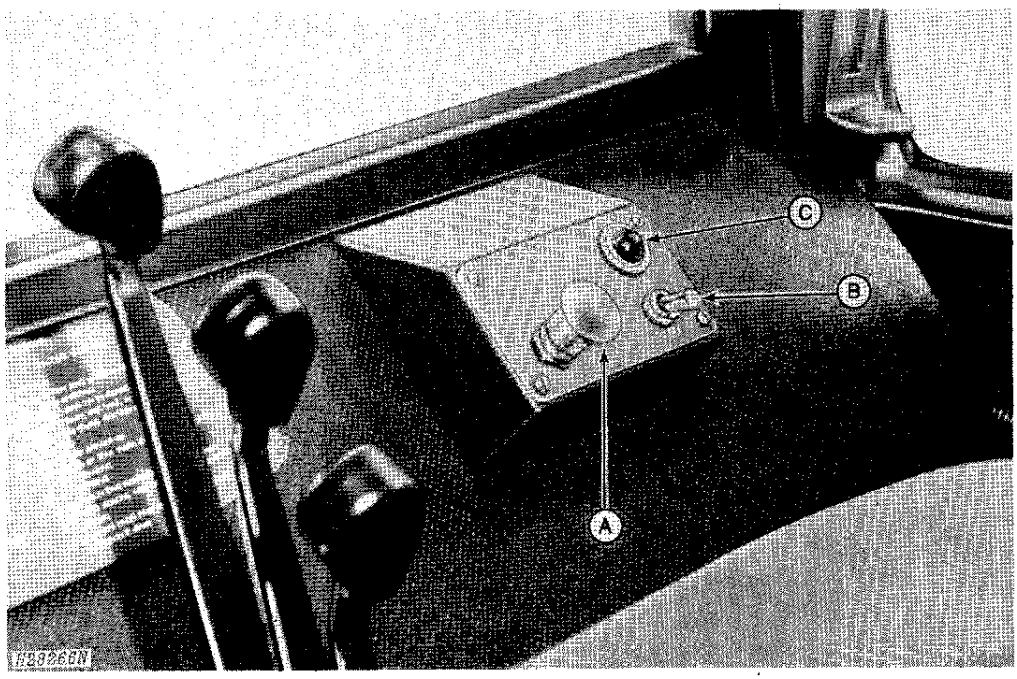
Tractor brakes must be properly adjusted.

Controls and Instruments

This section illustrates all controls and instruments necessary for successful field operation. For an explanation of each control and instrument, refer to the page reference given.

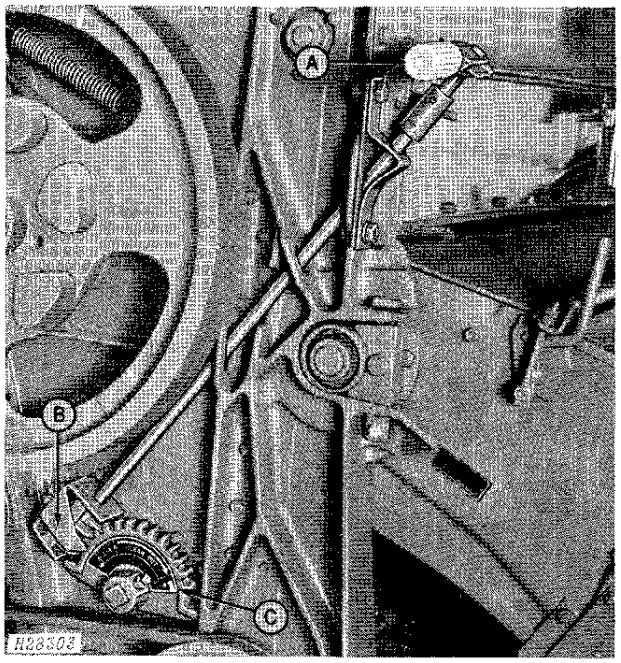
Before attempting to operate your new combine, become familiar with the location and purpose of its controls and instruments. Study these pages carefully, regardless of your previous combine experience.

SWITCH BOX



A—Platform Switch - Page 11
B—Grain Tank Unloading Auger Switch - Page 13
C—Grain Tank Unloading Auger Warning Light - Page 13

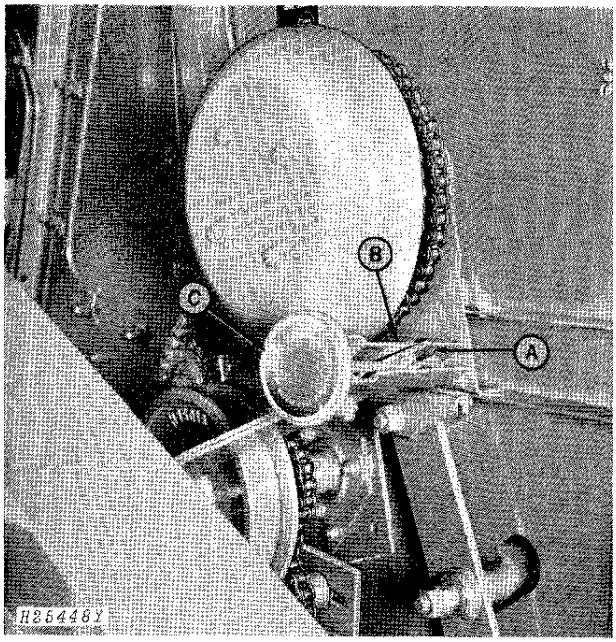
CONCAVE



A—Concave Spacing Control Ratchet
B—Pointer
C—Timed Sector

Concave Spacing Control Ratchet - Page 12

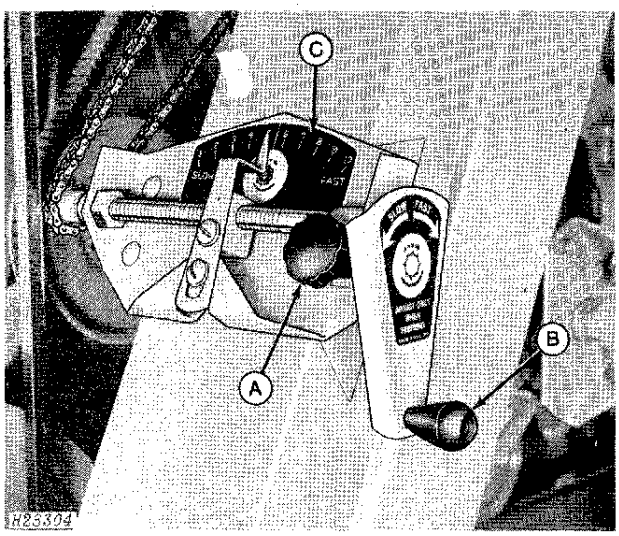
CLEANING FAN



A—Pointer
B—RPM Indicator
C—Fan Speed Control Wheel

Cleaning Fan Speed Control Wheel - Page 12

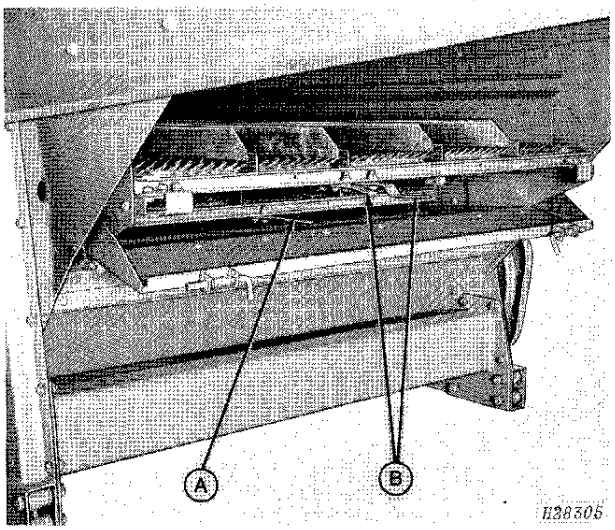
CYLINDER



A—Locking Knob
B—Cylinder Speed Control Crank
C—Speed Reference Indicator

Cylinder Speed Control Crank - Page 12

CHAFFER AND SIEVE



A—Sieve Opening Control Lever
B—Chaffer Opening Control Lever

Chaffer Opening Control Levers - Page 13
Sieve Opening Control Lever - Page 13

Operation

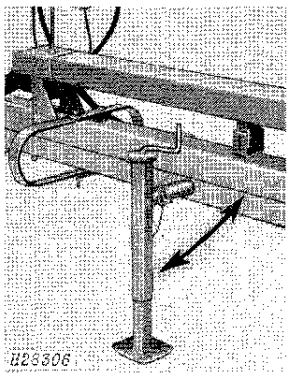
SUPPORT STAND

The support stand is attached to the hitch tube and can be adjusted to keep the hitch tube at proper height for tractor-combine hookup.

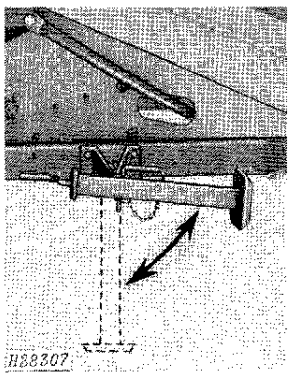
If the platform is to be removed from the separator, use the support stand on the separator.

⚠ CAUTION: The stand must be adjusted to support the separator so the hitch tube will not fly upward when the platform is removed.

When the combine is in operation, the support stands can be rotated 90 degrees for transporting.



Hitch Tube Support
Stand-Down Position



Separator Support
Stand-Up Position

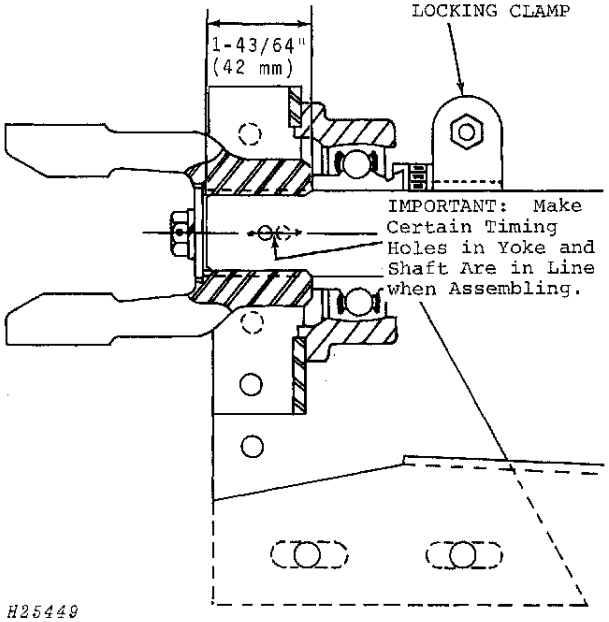
TRACTOR HOOKUP

⚠ CAUTION: Operate the 6601 Combine at 1000 rpm PTO speed only. Operating the combine at any other PTO speed can result in machine damage or personal injury.

YOKE ASSEMBLY

If it becomes necessary to disturb locking clamp on hitch tube powershaft, bearing and yoke assemblies must be assembled on the shaft, using dimensions given in the illustration above for proper position. Failure to do so will cause misalignment of hookup parts.

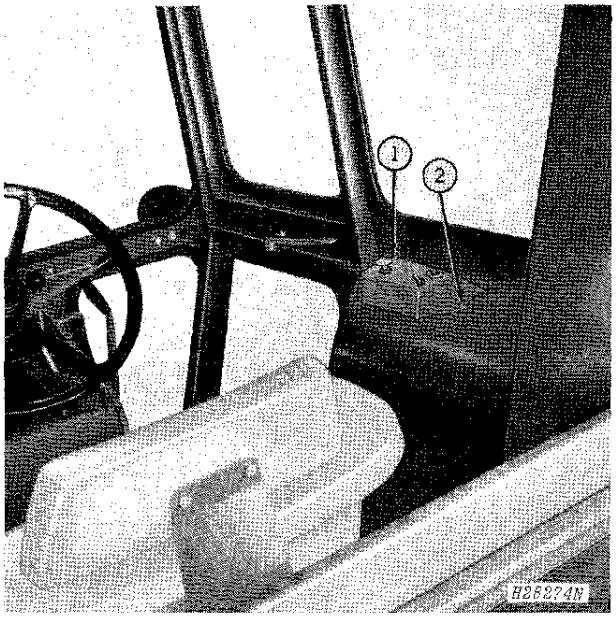
IMPORTANT: Under normal circumstances, locking clamp should not be moved unless it becomes necessary to replace parts.



ATTACHING SWITCH BOX AND WIRING TO TRACTORS WITH CABS PRIOR TO 1968

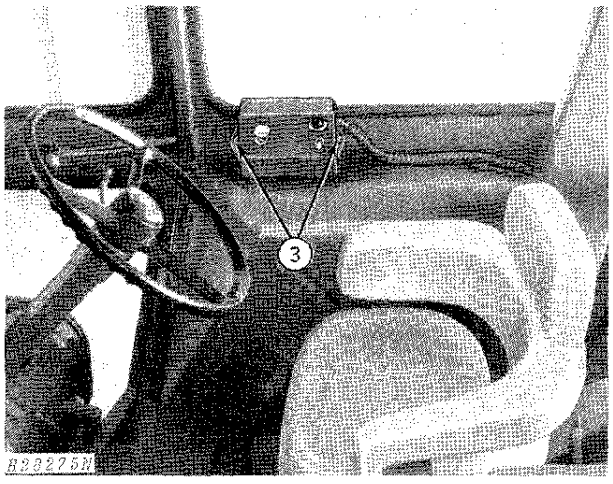
If switch box and wiring have not already been installed on tractor, proceed as follows:

Switch Box



1. Push top edge of housing under trim and then use housing as a template. Locate two screw holes in tabs. Mark and center punch holes. Remove housing.

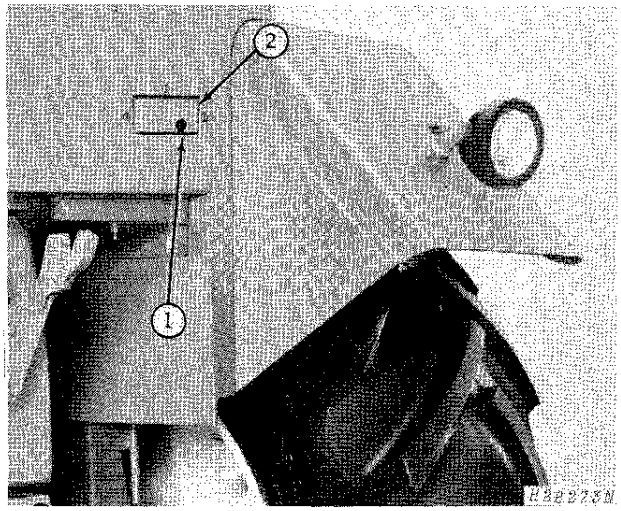
2. Drill two 1/8-inch (3 mm) holes.

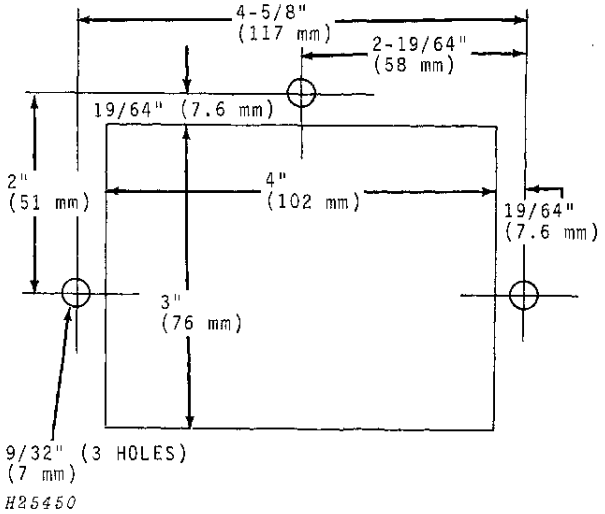


3. Reinstall housing and secure with two self-tapping screws.

4. (Not Illustrated) Run wires from switch box toward rear of cab.

Harness Plate





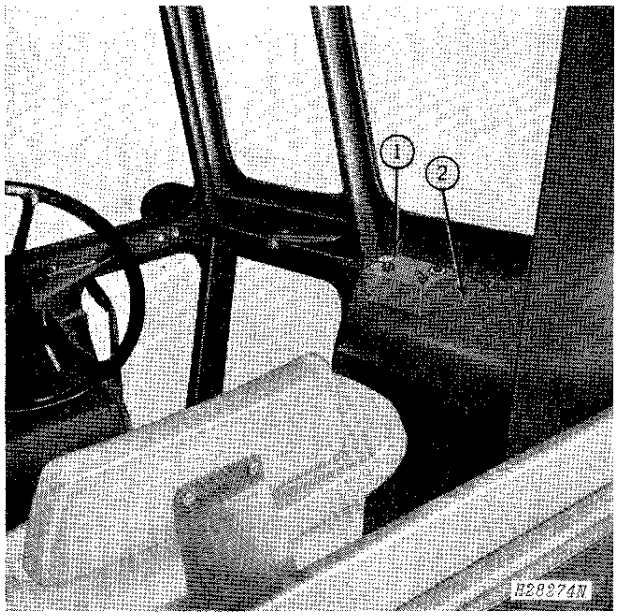
1. Cut and drill holes, to dimensions shown, in right-hand rear of cab.

2. Attach harness plate to cab, using three 1/4 x 7/8-inch truss head machine screws. Install grommet in harness plate.

3. (Not Illustrated) Run wires from switch box through hole in harness plate.

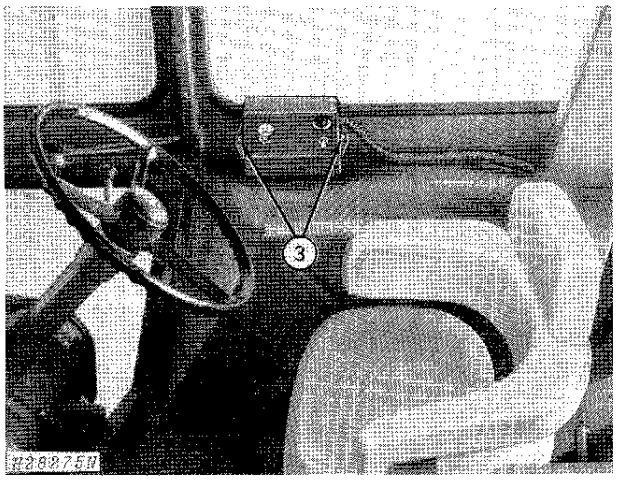
SWITCH BOX—Continued

Attaching Switch Box To Tractors with Cabs 1968-1971



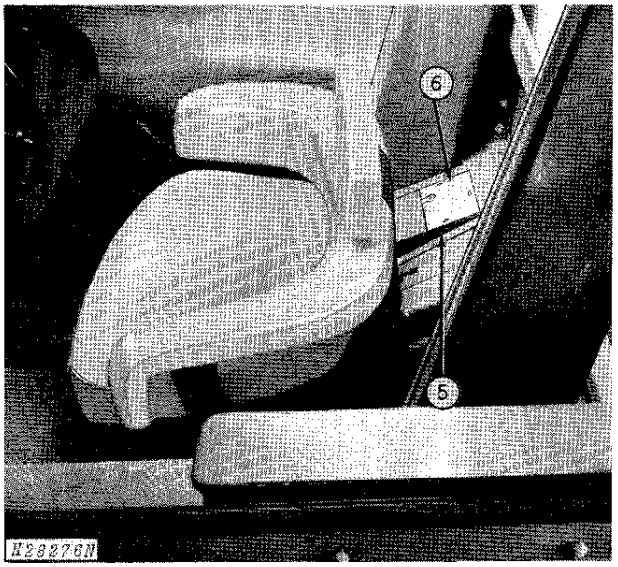
1. Push top edge of housing under trim and then use housing as a template. Locate two screw holes in tabs. Mark and center punch holes. Remove housing.

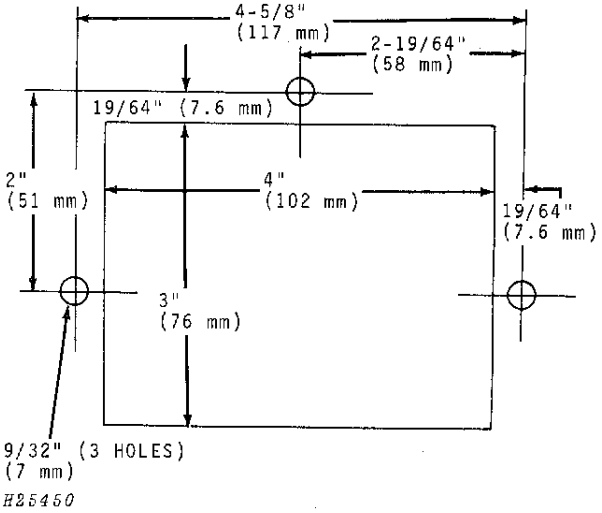
2. Drill two 1/8-inch (3 mm) holes.



3. Reinstall housing and secure with two self-tapping screws.

4. (Not Illustrated) Run wires from switch box toward rear of cab.



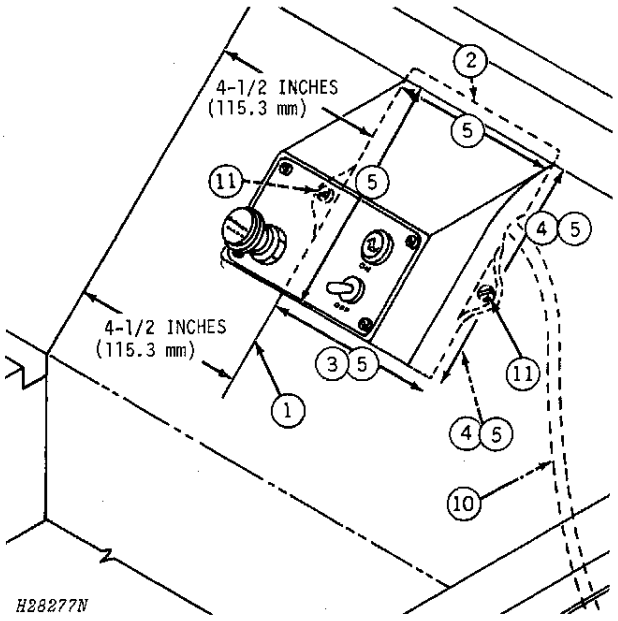


5. Cut and drill holes, to dimensions shown, in right-hand rear deck of cab.

6. Attach harness plate to rear deck, using three 1/4 x 7/8-inch truss head machine screws. Install grommet in harness plate.

7. (Not Illustrated) Run wires from switch box through hole in harness plate.

Attaching Switch Box To 4230, 4430 And 4630 Tractors With Cabs (1972-)



1. Measure in 4-1/2 inches (110.3 mm) from console and draw a line on foam as shown.

2. Place switch box housing edge along line with top edge under cab trim.

3. Draw line on bottom of switch box housing.

4. Draw a straight line on remaining side of switch box housing. Do not cut out for screw tabs. They must be hidden under foam. Remove housing.

5. Cut foam around edge of switch box housing.

6. (Not illustrated) Remove cut-out of foam.

7. Insert housing into area that was cut out in Step 6 by sliding screw tabs under foam on sides and top edge under trim.

8. Using housing as template to locate screw holes in tabs by pulling back foam on sides. Mark and center punch holes.

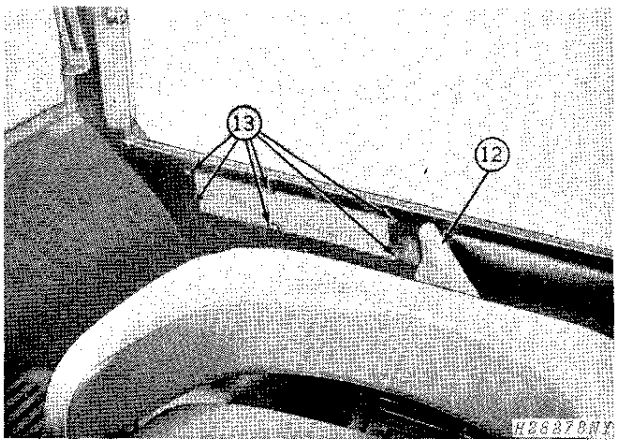
9. (Not illustrated) Drill two 1/8-inch (3 mm) holes.

10. Thread wire conduit under foam to rear of cab.

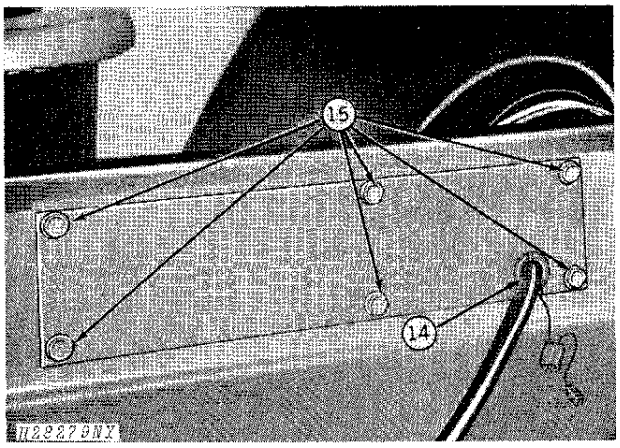
11. Reinstall housing and secure with two self-tapping screws.

12. Pull cab foam away to expose the six 5/16 x 3/4-inch cap screws.

13. Remove cover. Route cable and wires through opening.

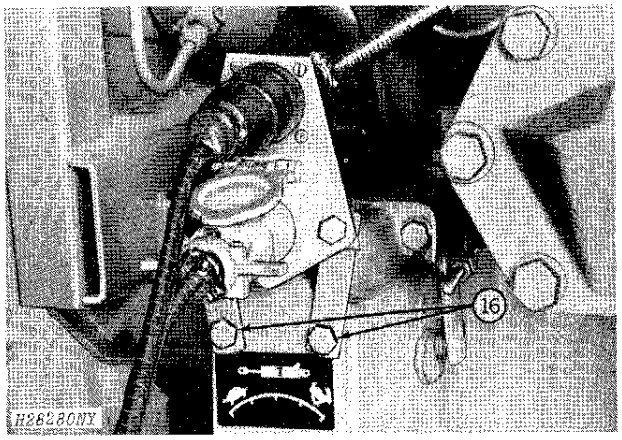


NOTE: Save cover removed in Step 13 for reuse when tractor is not used with combine.



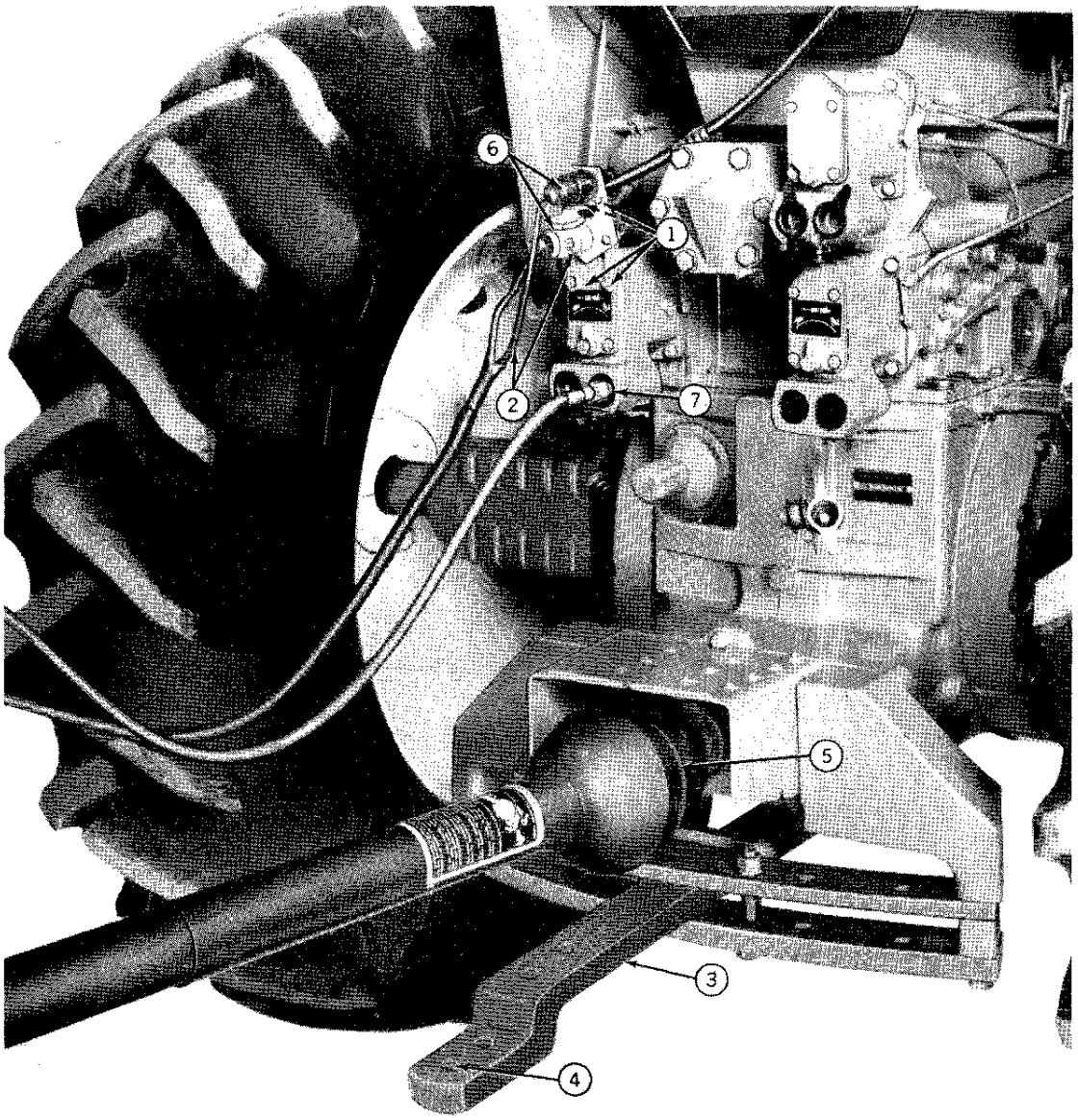
14. Slip grommet around cable and push into the large hole in the harness plate provided.

15. Attach harness plate, with new gasket, to rear of cab with hardware removed in Step 13. Replace cab foam.



16. Attach bracket with socket to remote cylinder valve, using existing hardware.

ATTACHING COMBINE TO TRACTOR



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1. Attach seven-pole socket to the bracket and bracket to tractor.
2. Tractor must be equipped with three wire and auxiliary four wire kits. Order from your John Deere dealer or from the other tractor manufacturer of tractor being used.
3. Lock tractor drawbar so it is straight with tractor PTO shaft.
4. Attach combine to drawbar.
5. Secure front joint to tractor PTO shaft.
6. Connect two seven pin combine connectors to connectors on tractor. (See Note 1.)
7. Couple hydraulic hose to tractor. (See Note 2.)

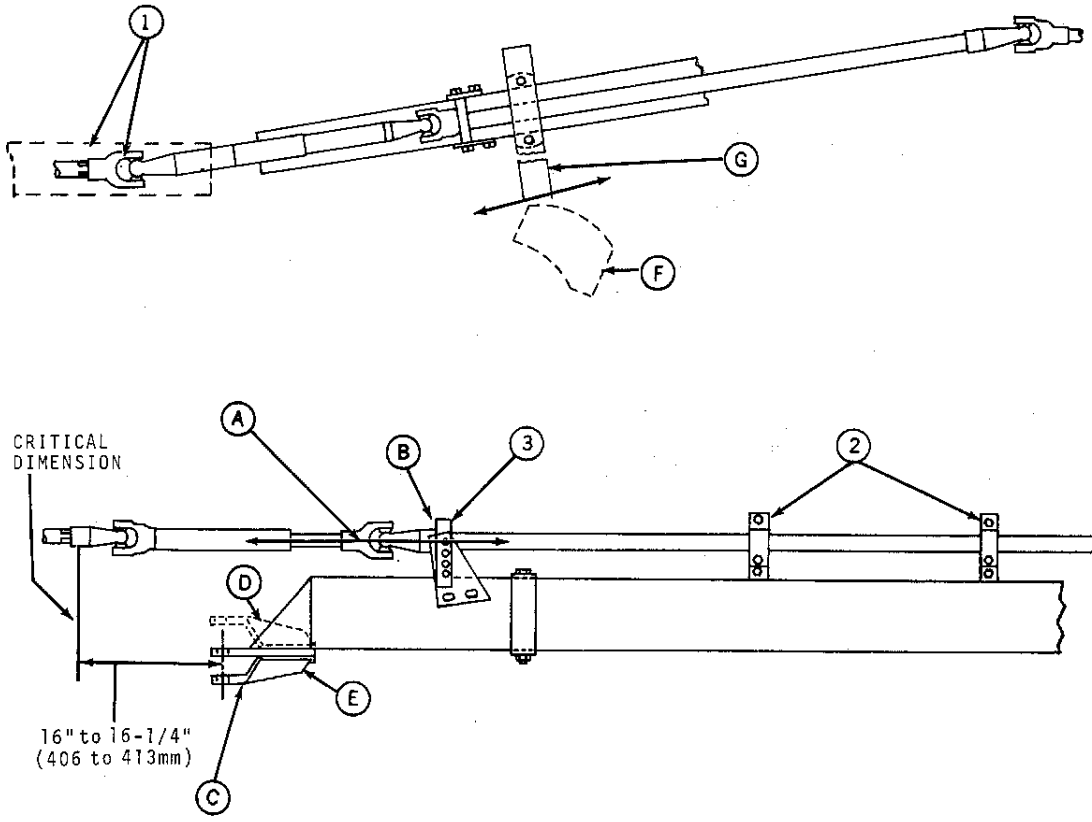
IMPORTANT: When attaching to a John Deere 6030 Tractor, it is necessary to change the tractor rear PTO shaft to 1-3/8-inch (35 mm) spline. See your John Deere dealer.

NOTE 1: To prevent accidental discharging of tractor batteries when tractor-combine hook-up is left unattended, disconnect seven-pole plug from tractor.

NOTE 2: Adapt the tractor remote hydraulic cylinder valve housing for single-action cylinder operation. See tractor operator's manual. Couple hydraulic hose to tractor No. 1 hydraulic circuit breakaway coupler.

Hookup Adjustments

Adjust hitch plates, powershaft, tractor drawbar, and turning stops as shown below.



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A—Straight Line
B—Bearing Box
C—Hitch Clevis
D—Hitch Clevis Top Position
E—Hitch Clevis Bottom Position
F—Tractor Tires
G—Longer Bumper

Tractor Hookup - 1000 rpm

1. Drawbar to be straight with tractor PTO shaft.

2. Adjust bearing supports up or down so powershaft runs straight (A).

3. Bearing box (B) can be adjusted up or down in conjunction with hitch plates so powershaft runs in a straight line.

NOTE: Hitch clevis (C) can be attached to the top (D) or bottom (E) so separator is level with ground line.

Adjust bumpers to contact rear tractor tires (F) to prevent turning too short. Longer bumper (G) must always be on left-hand side of hitch tube.

COMBINE BREAK-IN

Follow the lubrication instructions and periodic service information closely (page 32).

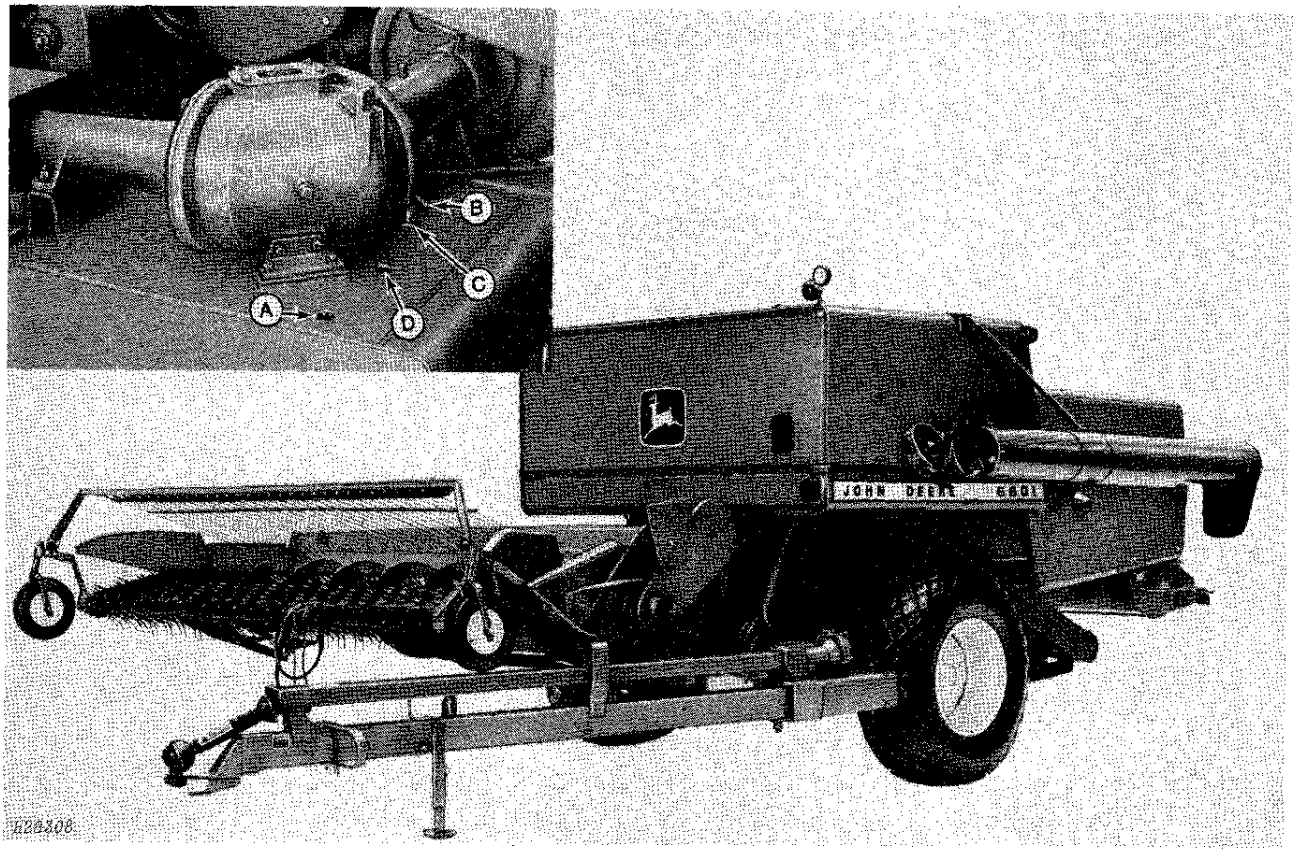
STARTING THE COMBINE

CAUTION: No one must be standing near enough to the combine or tractor to touch any moving parts. Warn everyone to stand clear.

When tractor is properly warmed, idle engine and engage PTO slowly to engage the separator. Then run tractor at rated PTO speed.

Check the speed of the primary countershaft with a speed indicator (page 51). The countershaft should operate at 1500 rpm with separator empty and not under load. If the countershaft speed is incorrect, check tractor PTO speed. If PTO is not operating at proper rpm rated speed, see your John Deere dealer.

TRANSPORTING



A—Transporting Position **B—Hitch Pin** **C—Operating Position** **D—Shipping Position**

Combine in Transport Position

The combine can be safely towed at a maximum speed of 20 mph. The grain tank must be empty when transporting.

CAUTION: Do not tow faster than 20 mph. Towing at speeds higher than 20 mph could cause damage to tires.

This combine is designed for easy and safe transporting. The width of the combine can be reduced by: folding unloading auger back along separator, removing the platform, and moving the hitch.

To fold unloading auger back along separator, unfasten over-center lock and swing outer auger back. Secure outer end of auger against separator with transport lock (page 14).

IMPORTANT: Always fold unloading auger back along separator and disconnect powershaft when transporting the combine.

Three locking positions are provided for the swinging hitch. The inside locking position is for field operation. The center locking position is for loading and transporting the combine on a flat car. Under no circumstances will you need to use this center position once the combine has been removed from the flat car.

The outer position locks the hitch for highway or field transporting. To secure hitch tube in transporting position (A), raise platform to its highest position. Remove hitch pin (B) from operating position (C) and swing hitch tube inward as far as possible. Install hitch pin (A) in transporting position (A).

CAUTION: Always use the hydraulic cylinder safety stop (page 17) when transporting the combine with the platform in raised position.

The combine is equipped with a slow moving vehicle emblem on the rear hood, lights, grain tank reflectors, and red reflective tape on the backside of the platform for transporting protection. Keep the emblem, reflectors, and lights clean.

CAUTION: When transporting the combine on a road or highway at night or during the day, use the lights and devices provided on the combine for adequate warning to the operators of other vehicles. In this regard, check your local governmental regulations.

FIELD AND HIGHWAY LIGHTS

Field and Highway Safety Lighting

The combine is equipped with two field lights positioned on a mast above the grain tank for night field operation.

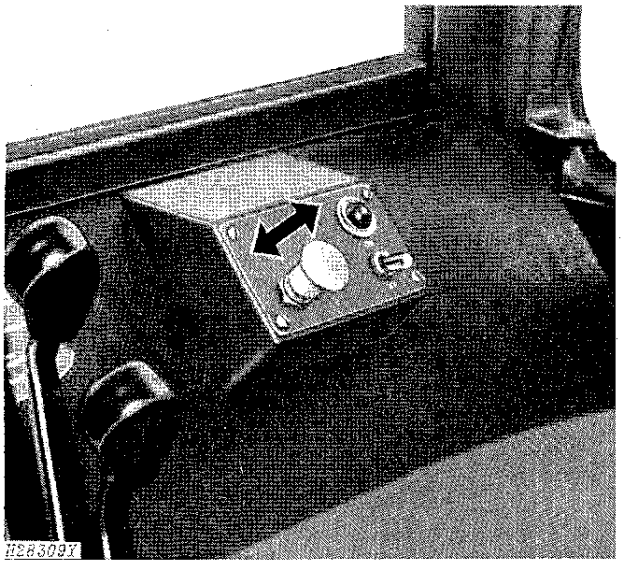
A flashing warning light on each side of the combine, and a tail light provide a warning to operators of vehicles approaching from the rear. If flashing lights are prohibited by local regulations, reconnect wires so lights will not flash (page 64).

The lights on the combine are controlled by the tractor light switch.

COMBINE FUNCTION CONTROLS

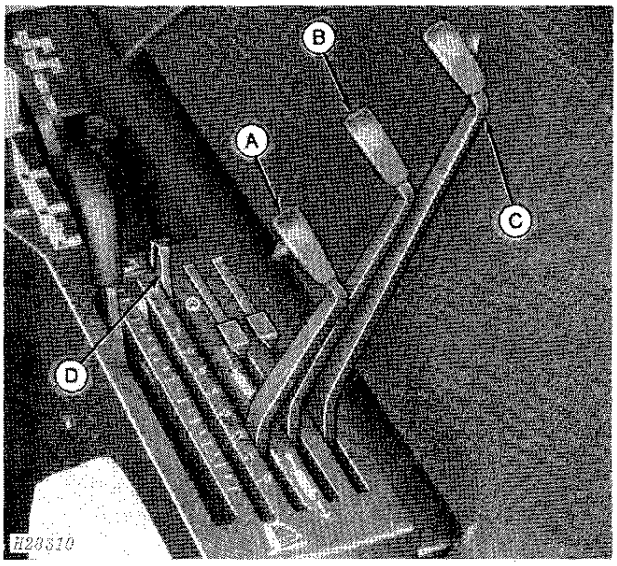
PLATFORM CONTROLS

Platform Electric Clutch Switch



Push switch (page 2) down to disengage clutch. Pull switch out to engage clutch.

Platform Height Control



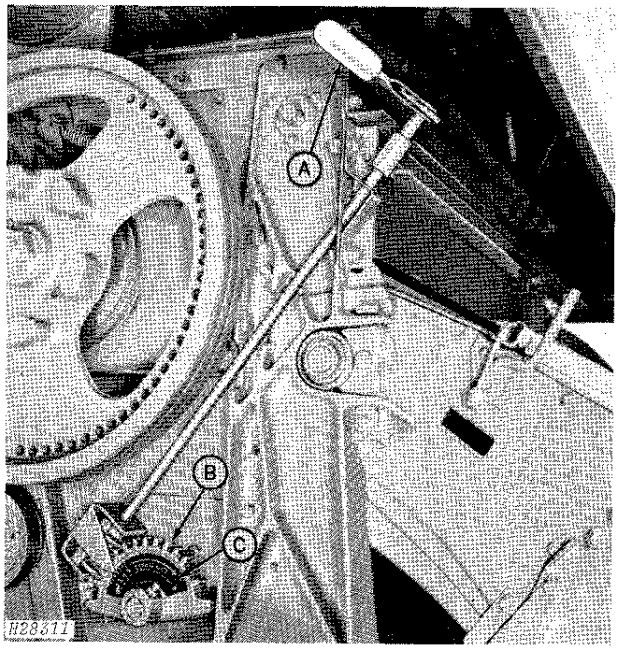
A—Operating Lever For Left Coupler (I)
B—Operating Lever For Lower Right Coupler (II)
C—Operating Lever For Upper Right Coupler (III)
D—Float Lockout Stop Positioned For Float

Remote Cylinder Operating Levers on 4230, 4430, and 4630 Tractors

Raise and lower the platform with the remote cylinder operating lever on the tractor. To raise the platform, push the lever forward. To lower the platform, pull the lever rearward.

SEPARATOR CONTROLS

Concave Spacing Control Ratchet



A—Control Ratchet **B—Timed Sector** **C—Calibration**

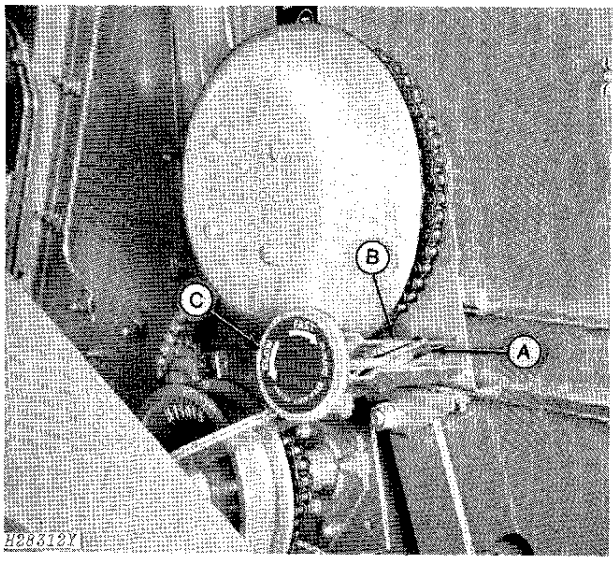
To open the concave, use the ratchet (A) to turn the adjusting shaft clockwise until the pointer on the timed sector (B) is on the desired calibration (C).

To close the concave, use the ratchet to turn the adjusting shaft counterclockwise until the pointer on the timed sector is on the desired calibration (C).

The timed sector is calibrated to indicate the setting at the front of the concave.

See Suggested Settings Chart, page 30.

Fan Speed Control Wheel



A—Pointer **C—Fan Speed Control Wheel**
B—RPM Indicator

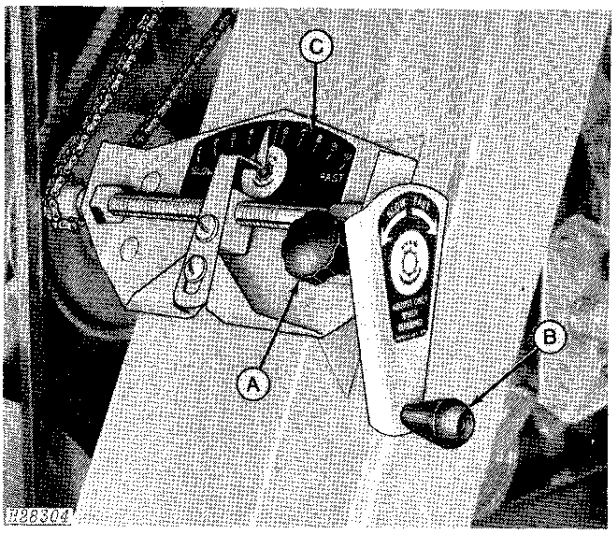
Adjust the fan speed control (C) until the pointer (A) on the indicator (B) is positioned on the desired speed.

IMPORTANT: Adjust the fan only when the separator is running.

The rpm indicator (B) is a guide so you can return to the fan speed previously found best for a particular crop or field condition.

See Suggested Settings Chart, page 30.

Cylinder Speed Control Crank



A—Locking Knob **C—Speed Reference Indicator**
B—Cylinder Speed Control Crank

Loosen locking knob (A).

To increase the cylinder speed, turn the crank (B) toward "FAST."

To decrease the cylinder speed, turn the crank (B) toward "SLOW."

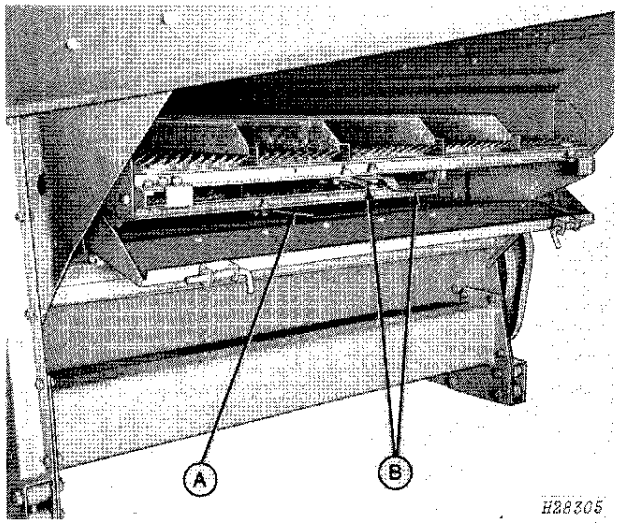
Tighten locking knob (A).

IMPORTANT: Adjust the cylinder speed only when the separator is running.

A cylinder speed reference indicator (C) is mounted on the back side of the clean grain elevator. The reference numbers are a guide to the operator so he can return to the cylinder speed setting that was previously found best for a particular crop or field condition.

See Suggested Settings Chart, page 30.

Chaffer Opening Control



A—Sieve Opening Control Lever
B—Chaffer Opening Control Levers

To open lips, push levers to the left.

To close lips, push levers to the right.

See Suggested Settings Chart, page 30.

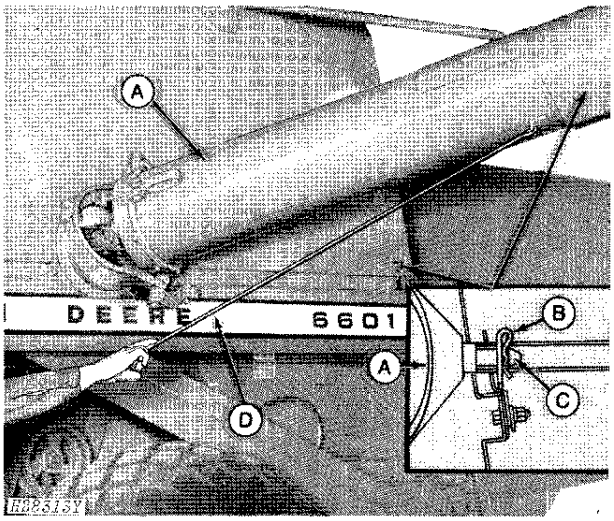
Sieve Opening Control

To open the sieve, push lever to the right.

To close the sieve, push lever to the left.

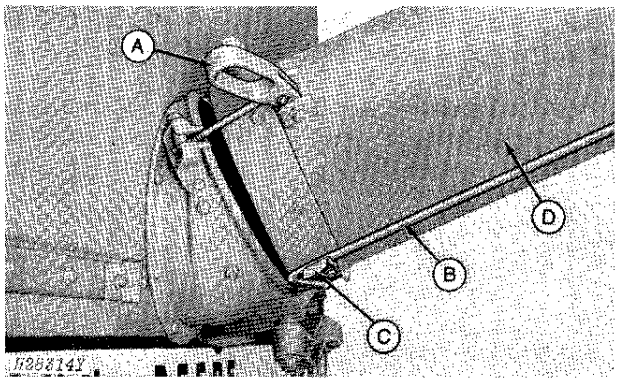
See Suggested Settings Chart, page 30.

Grain Tank Unloading Auger



To place the auger (A) in unloading position, remove the spring pin (B) from the locking stud (C).

Unlatch the swing rod (D) and use it to pull the auger shut.



A—Over-Center Lock
B—Swing Rod
C—Retainer Clip
D—Unloading Auger

Fasten the over-center lock (A) and snap the swing rod (B) back in retainer clip (C).

The grain tank unloading auger (D) can be turned on or off from the tractor seat. The unloading auger switch, located on the switch box (see page 2), activates an electric clutch which drives the unloading auger. A red warning light on the switch box flashes when the unloading auger switch is turned on.

To regulate the volume of grain fed into the unloading auger, position the adjustable cover plates up or down as necessary (page 63).

Grain Tank Unloading Auger Switch

To unload the grain tank, turn switch to the "ON" position.

When grain tank is empty, turn switch to the "OFF" position.

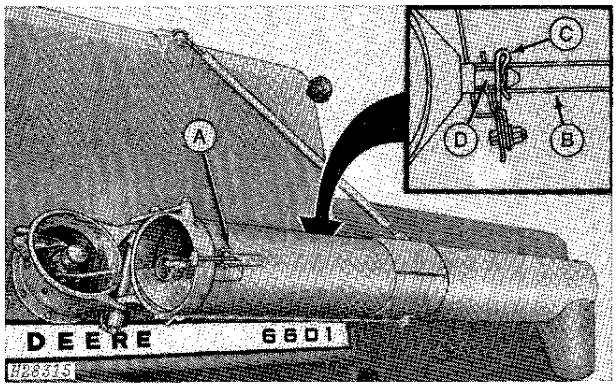
Grain Tank Unloading Auger Warning Light

When the unloading auger switch is in the "ON" position, the warning light flashes red.

The world's best safety device is a careful operator.

Positioning Grain Tank Unloading Auger

Fold the unloading auger back along the separator when transporting or when combining near trees or other obstructions.



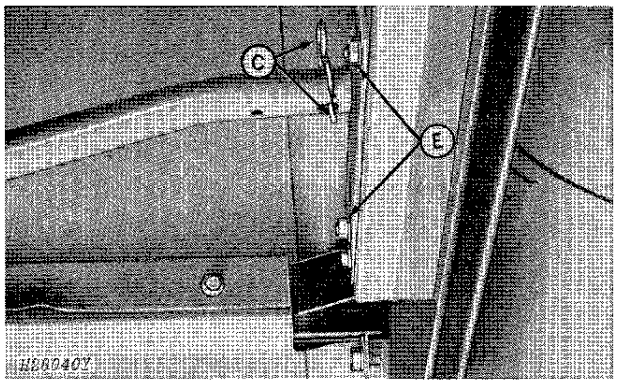
A—Over-Center Lock **C—Spring Pin**
B—Transport Support **D—Locking Stud**

Unfasten the over-center lock (A) and swing auger rearward. A coil spring helps move the auger.

Adjust the over-center lock by turning the adjusting pin in or out on the eyebolt.

Fasten the auger to the separator transport support (B) by inserting spring pin (C) through locking stud (D).

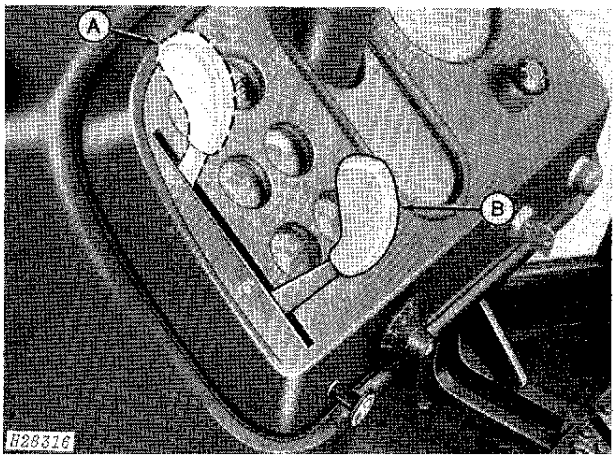
Adjusting Locking Stud



C—Spring Pin **E—Nuts**

Loosen two nuts (E) holding auger locking plate. Align plate with locking stud (D) on auger and tighten nuts.

PTO Clutch Lever



A—PTO Engaged **B—PTO Disengaged**

4430 - 4630 Tractor PTO Lever Illustrated

To engage (A) the separator, idle tractor engine and push lever forward slowly. After the separator is engaged (A), run tractor engine at rated PTO speed.

To disengage (B) the separator, idle tractor engine and pull lever rearward.

FUNDAMENTALS OF COMBINE HARVESTING

This new combine can be quickly and easily adjusted to harvest almost any crop under any condition. Before attempting to operate your new combine, become familiar with the following fundamentals of combine harvesting.

1. The crop must be in condition to thresh. Moisture content must not be too high and straw must not be too green. Grain containing 14% moisture or less and corn containing 17% moisture or less is usually considered dry enough for safe storage.

2. Adjust the combine to suit the particular crop being harvested and the particular field condition.

3. Select a ground speed that will not overload the combine. The tractor engine must be run at full throttle to keep the combine separator up to full speed. This will guard against slugging and clogging. Use the selective ground speed drive to obtain a slower travel speed or shift to a lower gear if necessary, but do not throttle down the tractor engine. Driving too fast or crowding the combine will result in crop loss or combine damage. Excessive ground speed travel is one of the greatest causes of trouble in combining.

4. Keep the cylinder speed as low as possible and the concave clearance as wide as possible to separate the maximum amount of grain from the heads without breaking up the straw excessively. Such crops as edible beans and peas are easily cracked and require the use of a special slower speed cylinder drive sheave. When combining edible beans and peas, keep the combine reasonably full at all times to provide sufficient straw and chaff to cushion the crop against cracking.

5. When using a cutting platform, cut the crop as high as possible without excessive loss of low heads. If the straw is down and tangled, it may be necessary to install lifting guards. A slower ground speed is important when combining under this condition. Adjust reel position and speed for even feeding. Keep the cutterbar in proper register and the guards in alignment to insure clean cutting.

6. When using a belt pickup attachment, keep the windrow to the left-hand side of the pickup so that the material is fed evenly into the feeder house. The heads of grain should be lying in one general direction; therefore, operate the combine so that the heads are picked up first. This insures better threshing and separation of the grain. Losses will increase if the windrows are picked up in the opposite direction.

7. Adjust chaffer openings to pass the grain or seed to the lower sieve, before it has passed over two-thirds the length of the chaffer, without admitting too much coarse material.

8. Use as much air as possible without blowing over clean grain and seed. Heavy crops, such as edible beans, require a large volume of air. Light seed crops, such as clover, require little air.

Combine harvesting can be profitable only if the operator knows how to adjust the combine properly and operate it efficiently with a minimum of loss.

Suggest:

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first, and then click the above link

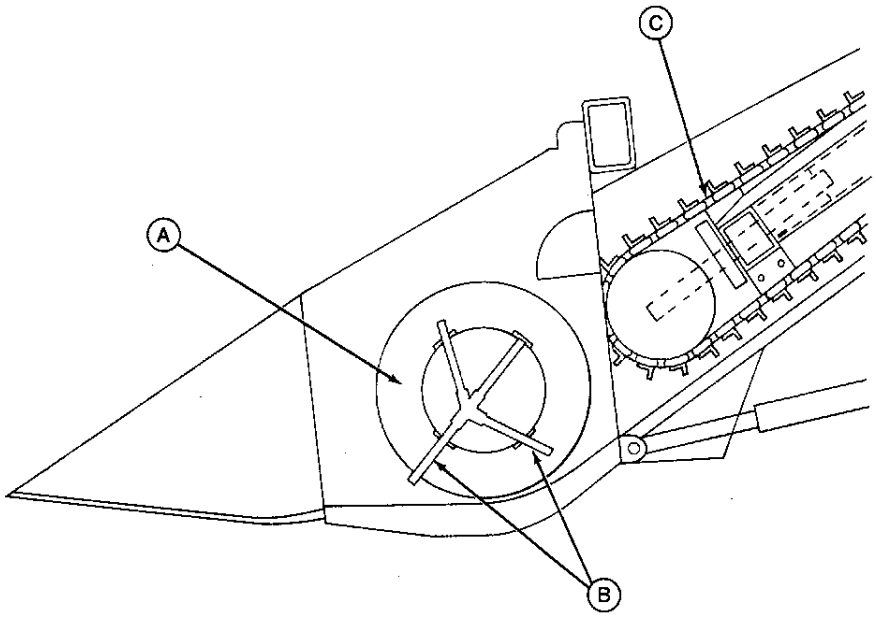
to download the complete manual.

Thank you so much for reading

FIELD AND CROP OPERATING ADJUSTMENTS

This section explains all field and crop operating adjustments. Adjustments which are required to compensate for wear and misalignment are explained in the SERVICE section, page 38. For illustrations of controls not shown in this section, see the CONTROLS AND INSTRUMENTS section, page 2.

PLATFORM



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A—Auger **B—Retracting Fingers** **C—Feeder Conveyor**

The platform receives the crop and moves it to the front of the feeder house by means of an auger (A). Retracting fingers (B) on the auger feed the material to the feeder conveyor (C).

The operation and height of the platform is controlled by the operator from the tractor seat. By operating the platform switch, an electric clutch is either engaged or disengaged, allowing the platform to be started or stopped immediately.

The height of the platform is controlled by the tractor remote cylinder operating lever.

Platform performance depends largely on maintaining correct unit speeds (page 29) and keeping the platform as level as possible (page 39).

While servicing the platform, always use the hydraulic cylinder safety stop (page 17).