

7701 Combines



OPERATORS MANUAL

7701
Combines

OMH98962 Issue B8 English

Harvester Works
OMH98962 Issue B8

LITHO IN U.S.A.
ENGLISH





To The Operator



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.

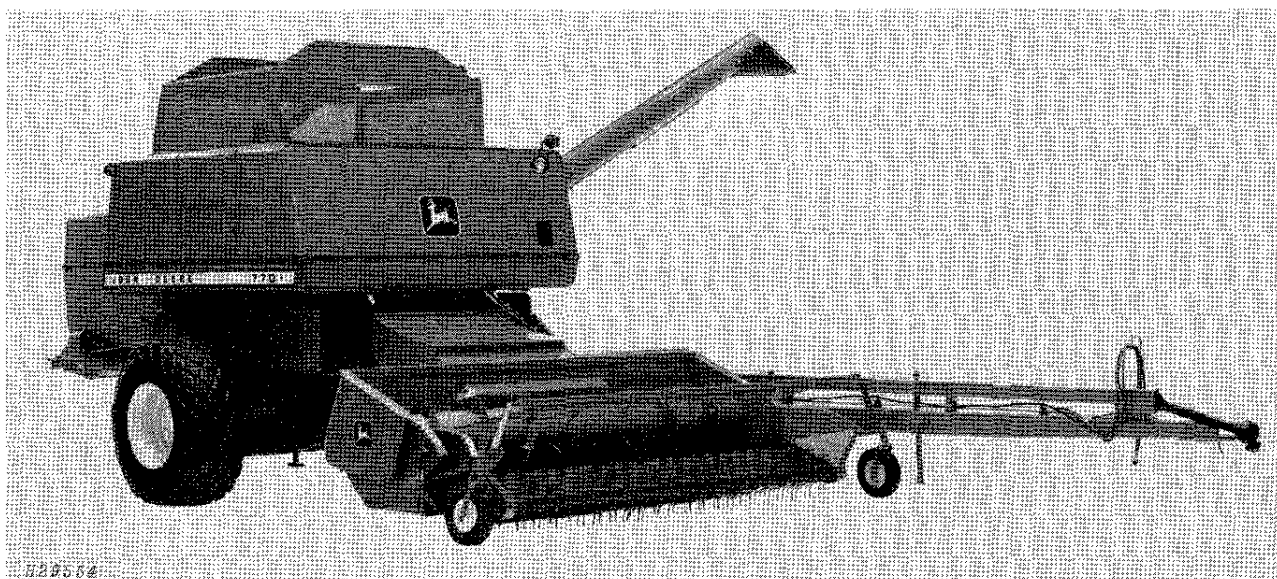
Your operator's manual contains SI metric equivalents which follow immediately after the U.S. customary units of measure.

"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 94.

The warranty on this combine appears on your copy of the purchase order which you should have received from your dealer when making your purchase. This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty.

Warranty and field improvements are a part of John Deere's product support program for customers who operate and maintain their equipment as described in this manual. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied.





Contents

	Page
Safety.....	2-4
Combine Function Controls.....	5
Preparing for Use.....	6
Preparing the Tractor.....	6-9
Preparing the Combine.....	10
Attaching Combine to Tractor.....	10
Hookup Adjustments.....	12
On John Deere Tractors.....	12
On Other Tractors.....	13
Field Lighting.....	14
Transporting.....	15-17
Operating the Combine.....	18-20
Controls on Tractor.....	18, 19
Controls on Combine.....	19, 20
Starting the Combine.....	20
Fundamentals of Combine Harvesting	21, 22
Field Adjustments.....	23-49
Cutting and Feeding.....	23-25
Threshing.....	25-28
Separating.....	29-33
Cleaning.....	34, 35
Crop Handling	35, 36
Belt, Chains, and Slip Clutches.....	37-43
Low Shaft Speed Monitor System (Optional).....	44, 45
Operating Speeds.....	46
Suggested Settings.....	47, 48
Seed Loss Chart.....	49
Lubrication.....	51-58
Service.....	59-84
Trouble Shooting.....	85-91
Storage	92, 93
Specifications.....	94-97
Serial Numbers.....	94
Index.....	98-100

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>

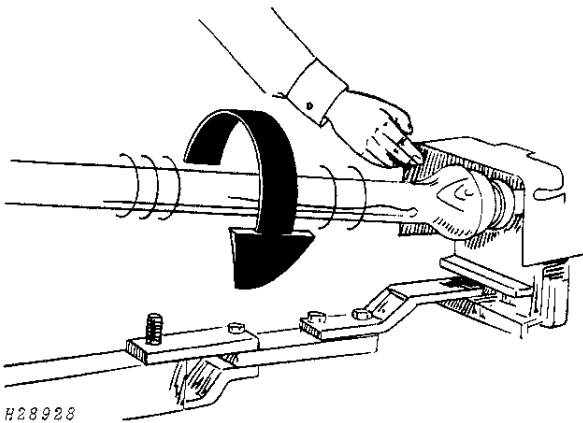


Safety



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. Modifications to the machine may also impair the function and or safety and affect machine life.

AVOID CONTACT WITH MOVING PARTS



Keep guards and shields in place at all times while operating the combine. Always disengage tractor PTO and shut off engine before removing guards or shields.

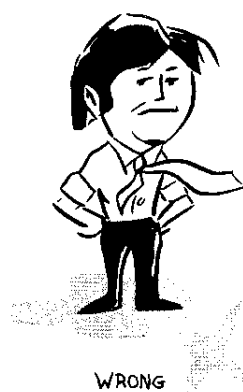
Keep hands, feet, and clothing away from power-driven parts.

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

Everyone must be clear before starting tractor engine or running combine.

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

OPERATE SAFELY



Clothing worn by operator must be fairly tight and belted. Loose jackets, shirts, or sleeves must never be worn.

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

Be careful when operating on hillsides so the combine or tractor will not tip sideways.

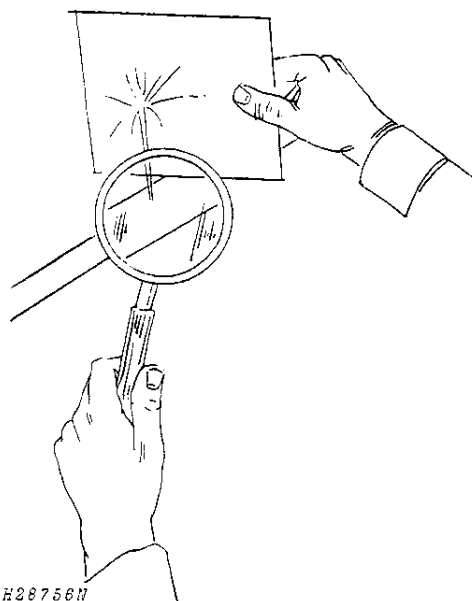
Always keep the tractor in gear when going down hills.

AVOID HIGH PRESSURE LEAKS

Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious injury. Before disconnecting lines, relieve all pressure. Before applying pressure to the system, all connections must be tight and lines, pipes, and hoses must be in good condition.

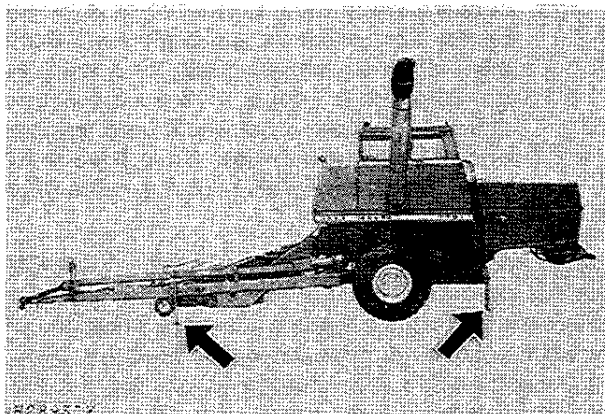
Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.



H28756M

LEAVING COMBINE UNATTENDED



H28552Y

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

Lower hitch and separator support stands.

TRANSPORT SAFELY

Never ride or allow anyone on the tractor, drawbar, or hitch.

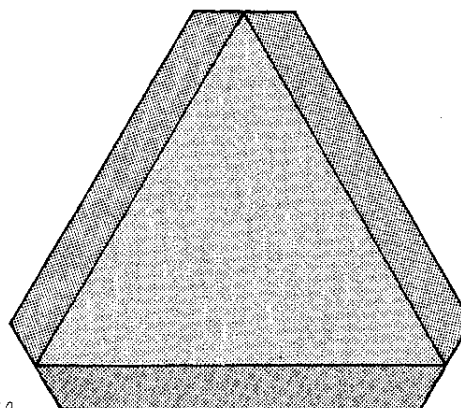
Be extra careful when transporting the combine in hilly country.

Use a tractor large enough to maintain control.

When transporting the combine on a road or highway, use accessory lights and devices for adequate warning to the operators of other vehicles. In this regard, check local governmental regulations.

Tow only with an agricultural tractor equipped with stationary drawbar.

Do not transport combine over 20 MPH (32.2 km/h).



H28930

RECOMMENDED MAXIMUM TOWING SPEED



CAUTION: To assure adequate braking performance and control during transport, do not exceed recommended maximum towing speed given in table below. When operating on slopes or less than optimum traction conditions, these towing speeds must be reduced. Always refer to this table before transporting combine.

Weight of Tractor	Total Weight of Combine with Empty Grain Tank and Attaching Equipment		
	10,000 lbs. (4536 kg)	16,000 lbs. (7200 kg)	18,000 lbs. (8100 kg)
0-3,300 lbs. (0-1497 kg)	Do not tow	Do not tow	Do not tow
3,300-5,300 lbs. (1497-2404 kg)	10 mph (16.1 km/h)	Do not tow	Do not tow
5,300-6,000 lbs. (2404-2722 kg)	10 mph (16.1 km/h)	10 mph (16.1 km/h)	Do not tow
6,000-10,000 lbs. (2722-4536 kg)	10 mph (16.1 km/h)	10 mph (16.1 km/h)	10 mph (16.1 km/h)
10,000-16,000 lbs. (4536-7258 kg)	20 mph (32.2 km/h)	10 mph (16.1 km/h)	10 mph (16.1 km/h)
16,000-18,000 lbs. (7258-8100 kg)	20 mph (32.2 km/h)	20 mph (32.2 km/h)	10 mph (16.1 km/h)
18,000 lbs. (8100 kg) — Up	20 mph (32.2 km/h)	20 mph (32.2 km/h)	20 mph (32.2 km/h)

CHANGING TIRES SAFELY



CAUTION: Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service.

When sealing tire beads on rims, never exceed 35 psi or maximum inflation pressures specified by tire manufacturers for mounting tires. Inflation beyond this maximum pressure may break the bead, or even the rim, with dangerous explosive force. If both beads are not seated when the maximum recommended pressure is reached, deflate, reposition tire, relubricate bead, and reinflate.

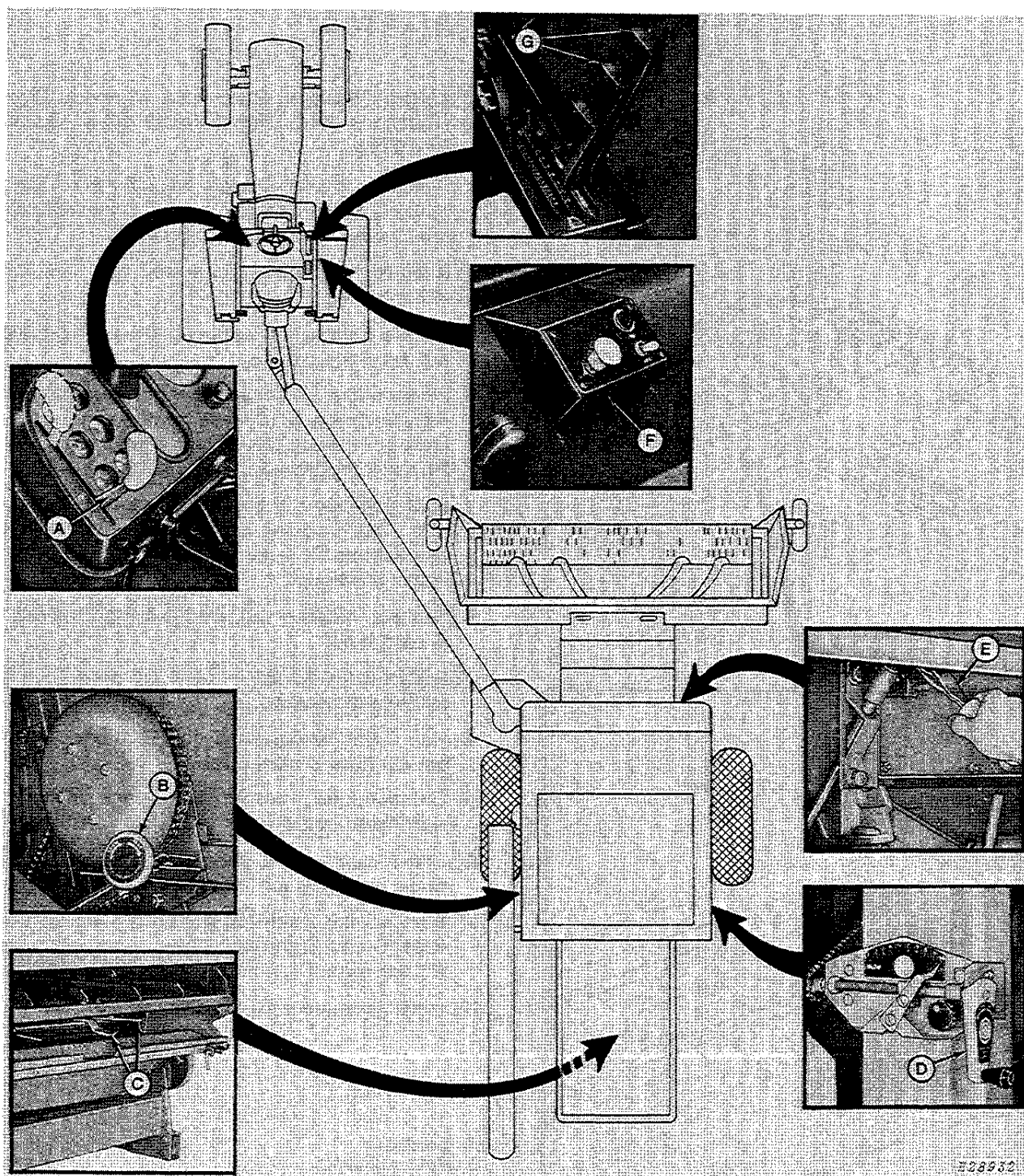
Detailed agricultural tire mounting instructions, including necessary safety precautions, are contained in John Deere Fundamentals of Service (FOS) Manual 55, Tires and Tracks, available through your John Deere dealer. Such information is also available from the Rubber Manufacturers Association and from tire manufacturers.

FIRE EXTINGUISHER

Have a multipurpose dry chemical fire extinguisher filled and handy. Know how to use it.



Combine Function Controls



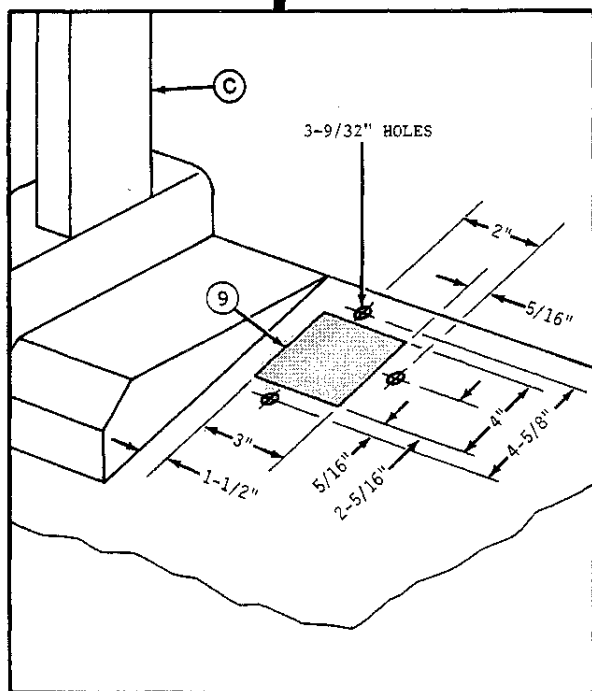
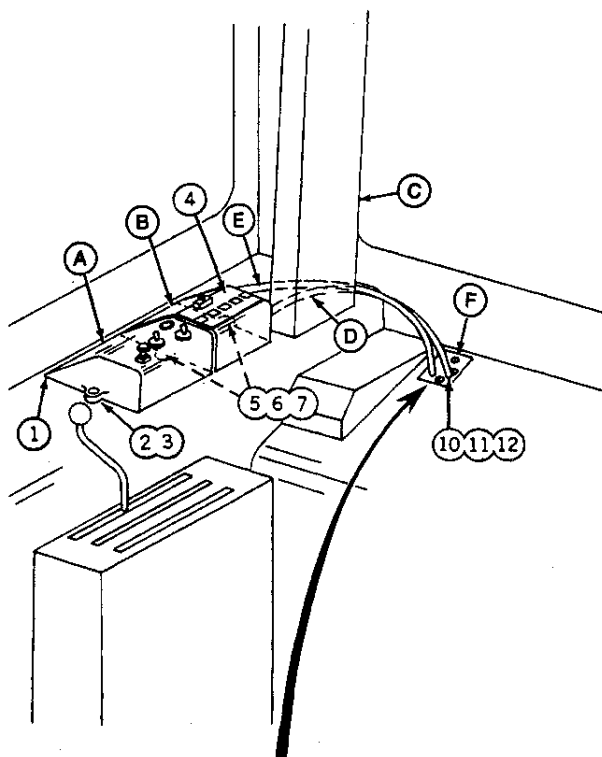
A - PTO Clutch Lever (on Tractor) — See Page 18.
 B - Cleaning Fan Control Wheel — See Page 20.
 C - Chaffer and Sieve Control Levers — See Page 20.
 D - Cylinder Speed Control Crank — See Page 19.

E - Concave Spacing Control Ratchet — See Page 19.
 F - Switch Box (on Tractor) — See Page 19.
 G - Header Height Control and Unloading Auger Swing Control (on Tractor) — See Page 18.



Preparing for Use

PREPARING THE TRACTOR



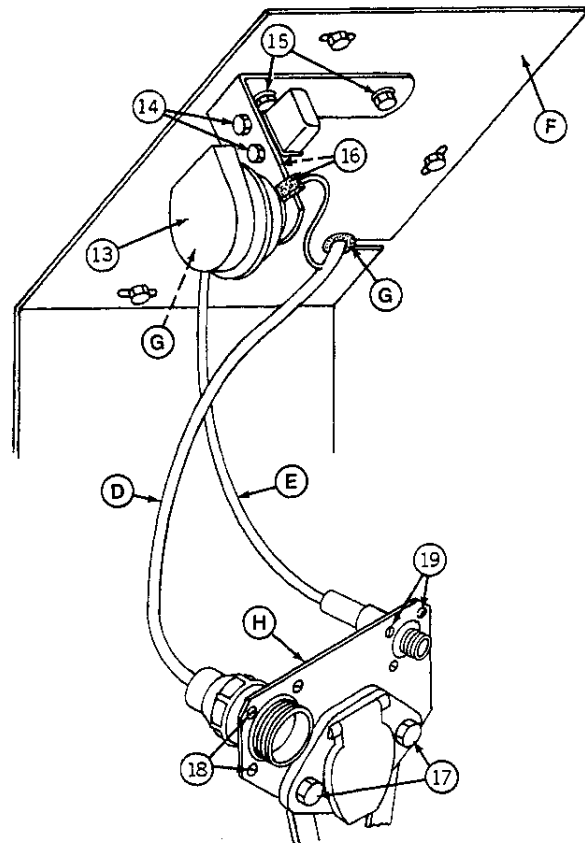
H29555

Attaching Switch Box And Monitor Box To Tractors with Pre-Sound Gard Cabs (1968-1971)

1. Push top edge of housing (A) under trim. Using housing as template, locate two screw holes in tabs, mark, and center punch holes.
2. Remove housing (A) and drill two 1/8-inch (3 mm) holes.
3. Secure housing (A) with two No. 8 x 1/2-inch self-tapping screws.
4. Remove four No. 6 self-tapping screws from monitor housing (B) face plate and turn face plate so lettering can be read from tractor seat. Reinstall four screws.
5. Push top edge of monitor housing (B) under trim. Use housing as template, locate two screw holes in tabs; mark and center punch holes, as shown.
6. Remove housing (B) and drill two 1/8-inch (3 mm) holes.
7. Secure housing (B) with two No. 8 x 1/2-inch self-tapping screws.
8. Run wiring harnesses (D and E) in back of roll bar (C) toward rear of cab.
9. Cut and drill holes to dimensions shown in right-hand rear deck of cab.
10. Attach harness (F) plate to rear deck, using three 1/4 x 7/8-inch truss head machine screws.
11. Remove any button plugs and run wiring harness (D and E) through holes in harness plate (F). Harness (D) must go through larger hole.
12. Install grommets (G) in harness plate (F).

A - Switch Box
 B - Monitor Housing
 C - Roll Bar
 D - Switch Box Wiring Harness
 E - Monitor Wiring Harness
 F - Harness Plate
 G - Grommets

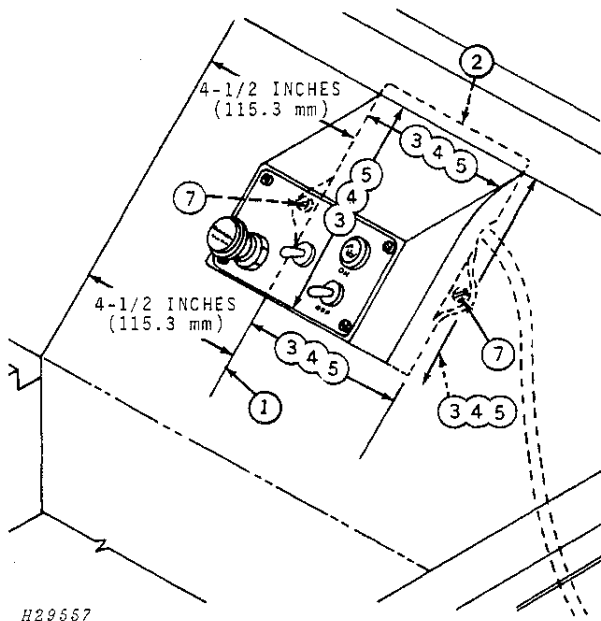
13. Secure horn to mounting bracket with special nut.
14. Secure relay to mounting bracket with two 1/4 x 1/2-inch cap screws, lock washers, and nuts.
15. Secure bracket to outside of harness plate (F) with two 5/16 x 5/8-inch truss head machine screws, lock washers, and nuts.
16. Slide connectors onto relay and horn.
17. Secure bracket (H) to existing wiring connector, using existing hardware.
18. Secure seven-pin connector to the bracket with four No. 6 x 1/2-inch pan head machine screws, lock washers, and nuts.
19. Secure wiring harness connector to tractor connector bracket (H) with four No. 4 UNC x 3/4-inch pan head machine screws, lock washers, and nuts.
20. (Not Illustrated) Connect combine wiring harness to tractor connector.



H29556

D - Switch Box Wiring Harness
E - Monitor Wiring Harness
F - Harness Plate
G - Grommets
H - Bracket

8 Preparing For Use



Attaching Switch Box and Monitor Box to Tractors with Sound Gard 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 (A) housing edge along line with top edge of housing under cab trim.
3. Mark around outside of switch box (A) housing.
4. Cut out foam to fit housing. Do not cut out for screw tabs. They must be hidden under foam.
5. Insert housing and use as template to locate screw holes. Mark and center punch holes.
6. (Not Illustrated) Drill two 1/8-inch (3 mm) holes.
7. Secure housing with two self-tapping screws.
8. Place monitor housing (B) edge along line with bottom edge of switch box housing (A), as shown.
9. Mark around outside of monitor housing (B).
10. Cut out foam to fit housing (B). Do not cut out for screw tabs. They must be hidden under foam.
11. Insert housing (B) and use as template to locate screw holes. Mark and center punch holes.
12. (Not Illustrated) Remove housing (B) and drill two 1/8-inch (3 mm) holes.
13. Secure housing (B) with two No. 8 x 1/2-inch self-tapping screws.
14. Route wire harnesses (C) and (D) under foam to rear of cab.

15. Pull cab foam away to expose six 5/16 x 3/4-inch cap screws. Remove cover and route wiring harness through opening. Retain screws.

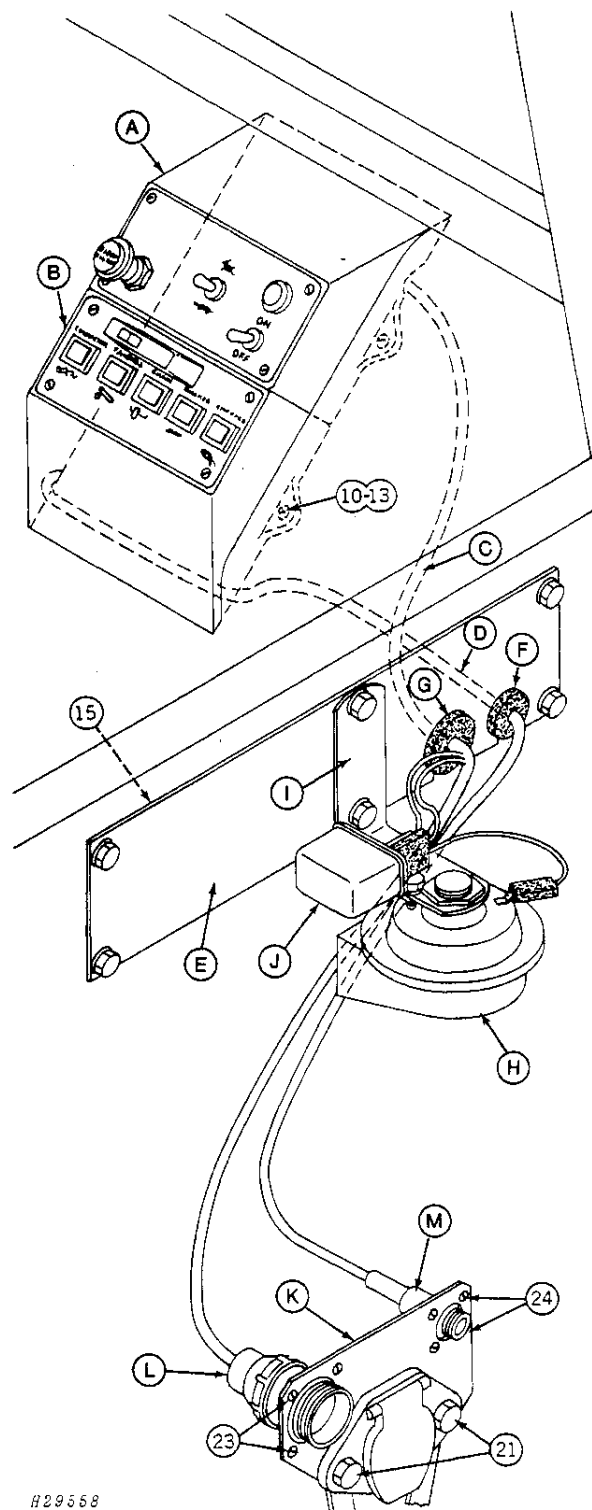
NOTE: Save cover to use when tractor is not used with combine.

16. Remove any button plug and run wiring harnesses (C and D) through holes in harness plate (E). Harness (C) must go through the larger hole.
17. Install grommet (F) in large hole in harness plate (E). Place grommet (G) in remaining hole.
18. Secure horn (H) to mounting bracket (I) with special nut.
19. Secure relay (J) to mounting bracket (I) with two 1/4 x 1/2-inch cap screws, lock washers, and nuts.
20. Secure bracket (I) and harness plate (E) to rear of tractor with six existing cap screws removed in Step 15.
21. Secure bracket (K) to existing wiring connector, using existing hardware.
22. Slide connectors onto relay (J) and horn (H).
23. Secure seven pin connector (L) to the bracket (K) with four No. 6 x 1/2-inch pan head machine screws, lock washers, and nuts.
24. Secure wiring harness connector (M) to tractor connector bracket (K) with four No. 4 UNC x 3/4-inch pan head machine screws, lock washers, and nuts.
25. (Not Illustrated) Connect combine wiring harness to tractor connector.

NOTE: 8430 and 8630 Tractors require BH76532 harness assembly adapter between the monitor harness (D) and the tractor harness connector bracket (K). Connect harness adapter to harness (D) and secure to connector bracket (K) as in Step 24.

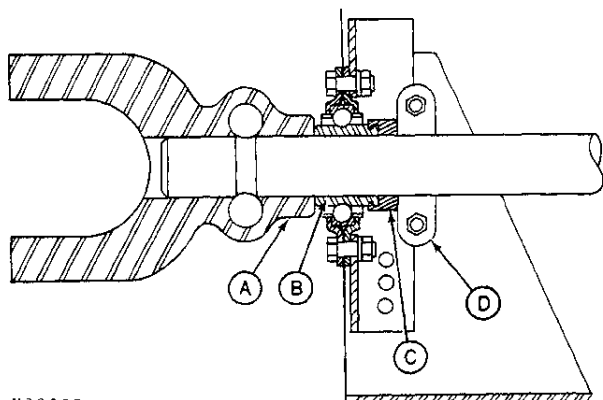
NOTE: The Low Shaft Speed Monitor parts (B) and (D) are optional equipment.

- A - Switch Box
- B - Low Shaft Speed Monitor Box (Optional)
- C - Switch Box Wiring Harness
- D - Low Shaft Speed Monitor Wiring Harness (Optional)
- E - Harness Plate
- F - Monitor Harness Grommet (Optional)
- G - Switch Box Grommet
- H - Warning Horn
- I - Mounting Bracket
- J - Relay
- K - Bracket
- L - Switch Box Connector
- M - Monitor Connector



H29558

PREPARING THE COMBINE



H28957



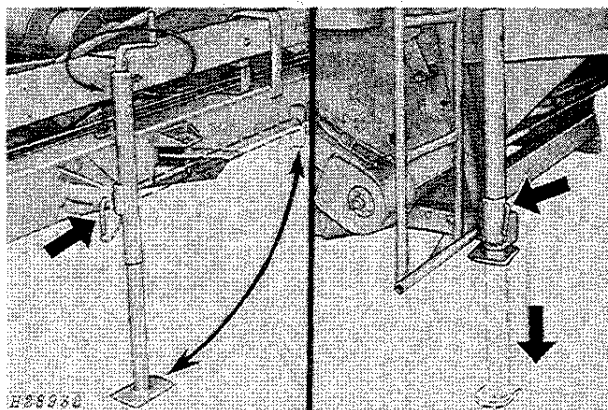
CAUTION: Operate the 7701 Combine at 1000 rpm PTO speed only. Operating the combine at any other PTO speed can result in machine damage or personal injury.

YOKE ASSEMBLY

IMPORTANT: Locking clamp must not be moved unless it is necessary to replace parts.

A - Yoke
B - Bearing
C - Locking Collar
D - Locking Clamp

ATTACHING COMBINE TO TRACTOR



Hitch Beam Support Stand

Separator Support Stand

Combine to Tractor Hookup

NOTE: Tractor must be equipped with three wire and auxiliary four wire kits. Order from your dealer.

The following hookup equipment is required for John Deere Tractors:

4430 Tractors

- BH 76472 10-in. (254 mm) Drawbar Extension
- BH 76512 Drawbar Assembly — also order AR33911 and two R49106 Bolts if tractor has AR46810 wide swinging drawbar kit
- BH 76535 1-3/8-in. (10 mm) Telescoping PTO Powershaft

4440, 4520, 4630, and 5020 Tractors

- BH 76473 10-in. (254 mm) Drawbar Extension
- BH 76513 Drawbar Assembly
- BH 76535 1-3/8-in. (10 mm) Telescoping PTO Powershaft

4640, 4840 and 6030 Tractors

- BH 76511 5-1/2-in. (140 mm) Drawbar Extension
- BH 76473 Drawbar Assembly
- BH 76534 1-3/4-in. (44 mm) Telescoping PTO Powershaft

8430 and 8630 Tractors

- BH 76511 5-1/2-in. (140 mm) Drawbar Extension
- BH 76473 Drawbar Assembly
- BH 76534 1-3/4-in. (44 mm) Telescoping PTO Powershaft
- BH 76532 Harness Assembly Adaptor

1. (Not Illustrated) The hitch beam support stand must be adjusted to proper height for tractor-combine hookup.



CAUTION: If the header and feeder house are removed, the separator support stand must contact the ground so hitch beam will not fly upward.

2. Lock tractor drawbar so it is aligned with tractor PTO shaft.
3. Loosen eight drawbar retaining bolts before tractor drawbar is backed into drawbar extension.
4. Back tractor drawbar into drawbar extension and lock with hitch pin, spring locking pin, and bolts. Eight bolts must be tightened evenly and locked with lock nuts.

IMPORTANT: Do not detach tractor from combine by unbolting drawbar extension from combine hitch tube.

5. Secure front joint to tractor PTO shaft.
6. Connect two seven pin combine connectors to connectors on tractor.
7. Couple hydraulic hoses to tractor.

NOTE: For header lift, 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 break-away coupler.

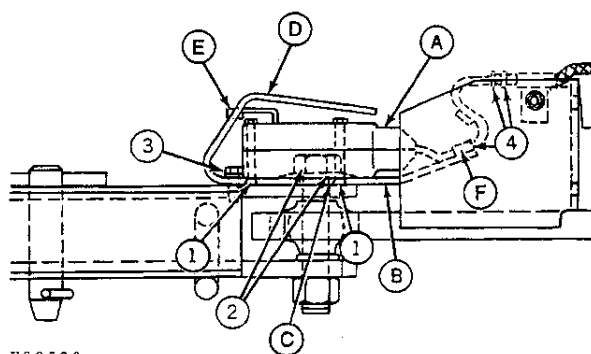
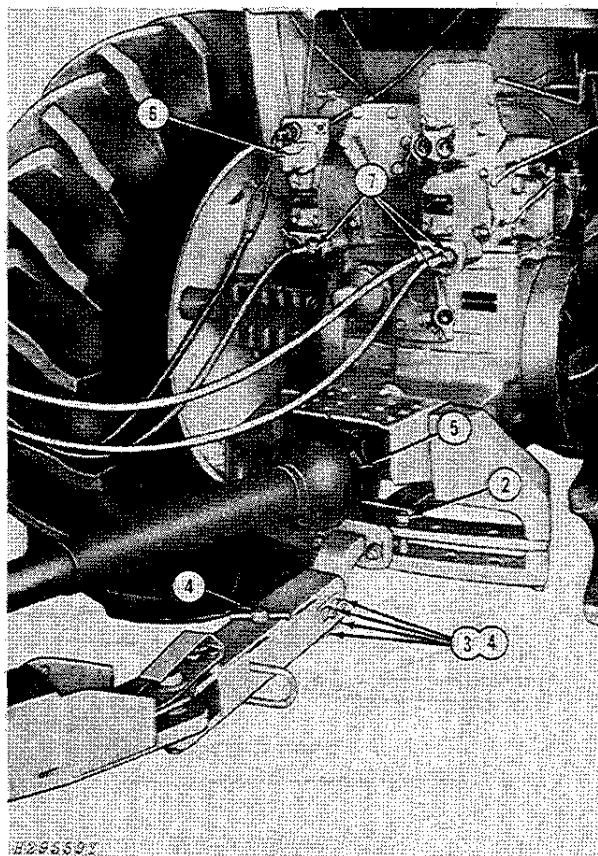
Short Turn Warning Switch

1. Install short turn warning switch (A) to base plate (B) with three 1/4 x 2-1/4-inch flat head screws (installed from bottom up).
2. Secure short turn warning switch to hitch beam extension with 1 x 5-1/4-inch cap screw, cup washer (cup down), spacer (C), and nut. Do not tighten at this time.
3. Secure switch shield (D) to hitch beam extensions with two 3/8 x 1-inch cap screws and lock washers. Secure bolt from Step 2.

IMPORTANT: Switch arm (E) must be through hole in switch shield (D).

4. Fasten harness to base plate with clamp (F) then connect electrical connectors.

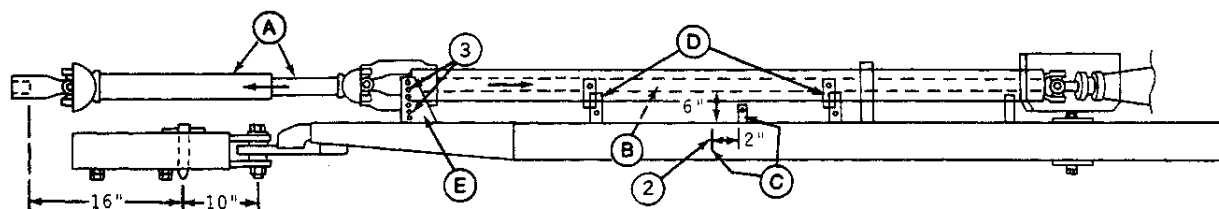
NOTE: The short turn warning switch is non-adjustable.



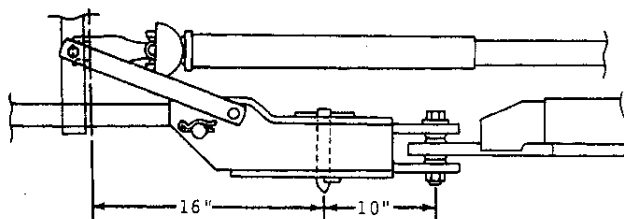
H29560

- A - Short Turn Warning Switch
- B - Base Plate
- C - Spacer
- D - Switch Shield
- E - Switch Arm
- F - Clamp

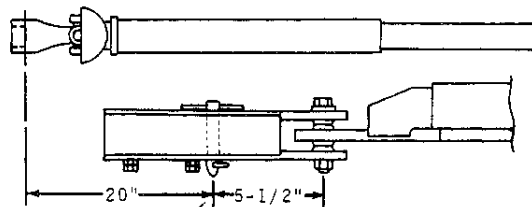
Hookup Adjustments on John Deere Tractors



CRITICAL
DIMENSIONS
4440, 4520, 5020,
4630 TRACTORS



CRITICAL DIMENSIONS
4430 TRACTORS



CRITICAL DIMENSIONS
4640, 4840, 6030, 8430
8630 TRACTORS

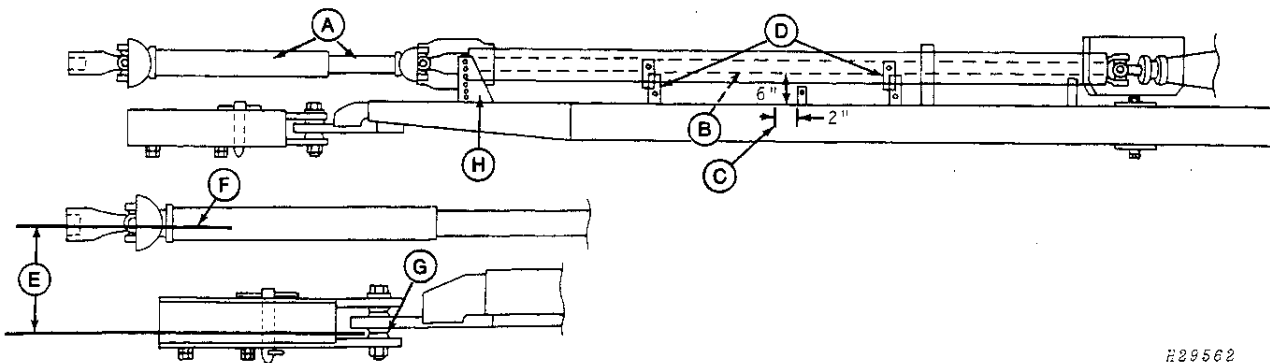
H29561

Tractor Hookup - 1000 rpm

A - Telescoping Shaft
B - Powershaft
C - Measuring Location
D - Adjusting Brackets
E - Hitch Brackets

1. Drawbar must be aligned with tractor PTO shaft.
2. Telescoping shaft (A) must run in a straight line with powershaft (B). Bottom of powershaft (B) must measure six inches (152 mm) from top of hitch beam at point (C). Use adjusting brackets (D) to obtain this dimension.
3. On John Deere tractors, center holes of hitch brackets (E) must be used. Bottom of powershaft (B) must measure six inches (152 mm) from top of hitch tube beam at point (C). Use adjusting brackets (D) to obtain this dimension.

Hookup Adjustments On Other Tractors



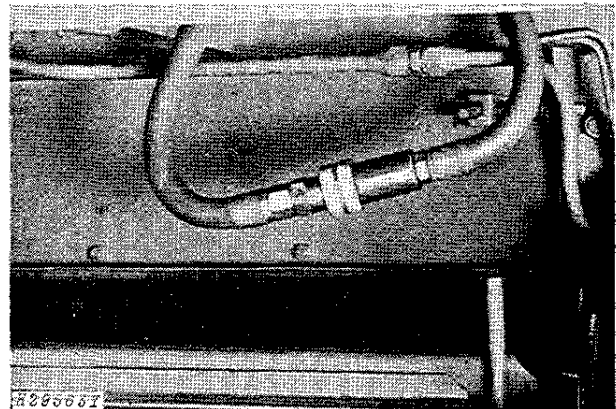
H29562

Tractor Hookup - 1000 rpm

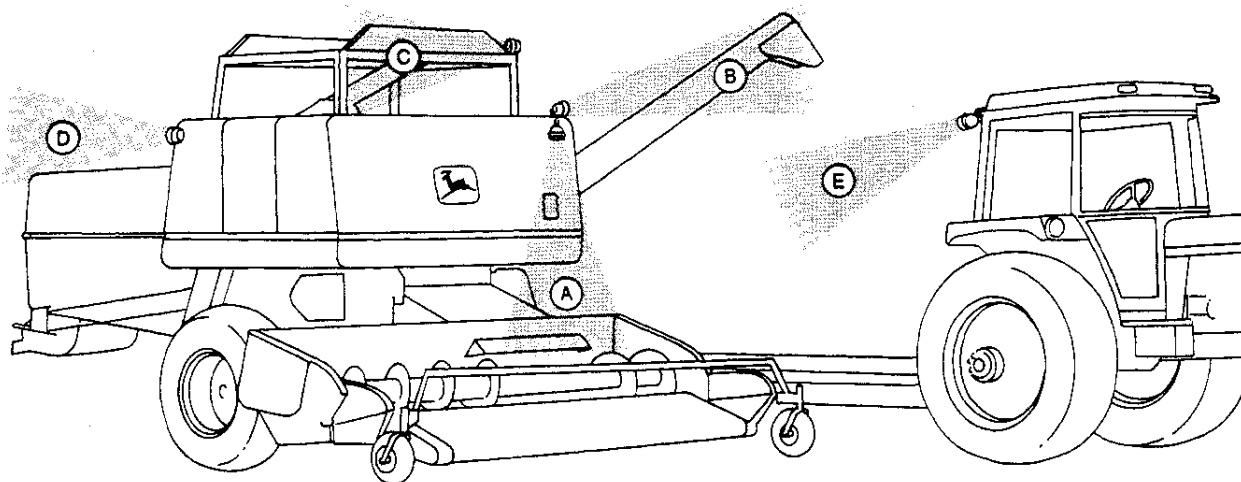
1. Drawbar must be aligned with tractor PTO shaft.
2. Measure distance (E) from centerline of tractor PTO (F) to top of washer welded on drawbar extension (G). If distance is less than 10 inches, use bottom holes of hitch brackets (H). Bottom of powershaft (B) must measure 5-13/64 inches (132 mm) from top of hitch beam at point (C). Use adjusting brackets (D) to obtain this dimension. If distance (E) is greater than 10-3/4 inches (273 mm), use top holes of hitch brackets (H). Bottom of powershaft (B) must measure 6-51/64 inches (173 mm) from top of hitch beam at point (C). Use adjusting brackets (D) to obtain this dimension. If distance (E) is between 10 and 10-3/4 inches, use center holes of hitch brackets (H). Bottom of powershaft (B) must measure 6 inches (152 mm) from top of hitch tube beam at point (C). Use adjusting brackets (D) to obtain this dimension.

A - Telescoping Shaft
 B - Powershaft
 C - Measuring Location
 D - Adjusting Brackets
 E - Dimension for Tractors other than John Deere
 F - Centerline of Tractor PTO
 G - Washer welded on Drawbar Extension
 H - Hitch Brackets

IMPORTANT: Before running the combine, without a belt pickup or with a corn head or row-crop head installed, connect pressure line to the return line at the front of the combine to insure a free flow of hydraulic fluid to the reservoir.



FIELD LIGHTING



H29564

The combine is equipped with three field operating lights:

One 35 watt lamp for illuminating the center of the header auger (A).

One 35 watt lamp for illuminating the unloading auger (B).

One 18 watt lamp for illuminating the grain tank (C).

For maximum illumination from all three lights, they must be positioned as illustrated. Loosen bolt in light mounting clamp and position light in the desired position.

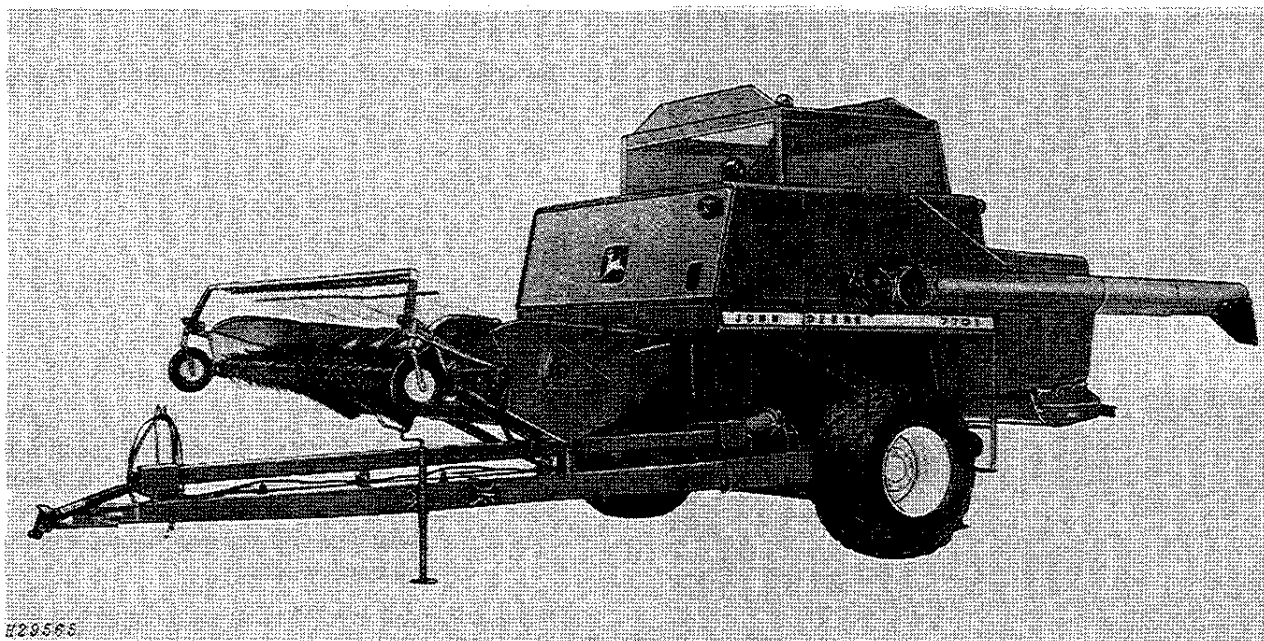
TURN SIGNALS: When operating tractor with light switch on W or R detent, the two flashers (D) will operate at 60 flashes per minute. When turn signal is set for right-hand turn, the right-hand light will flash 90 flashes per minute while the left-hand light will burn continuously. The opposite will happen for left-hand turn.



CAUTION: When transporting on a road or highway, a flashing warning light on each side of the combine and one tail-light on left-hand side provide a warning to operators of vehicles approaching from the rear. Lights must be turned on when transporting.

Additional lighting (E) from the tractor is covered by the operator's manual of the tractor being used.

TRANSPORTING



H29566

Combine in Transport Position

To Transport Combine:

1. Grain tank must be empty.
2. Lock unloading auger in transport position.
3. Raise header and lower hydraulic cylinder safety stop.

NOTE: Header may be removed if additional transport clearance is required.

4. Lock hitch beam in transport position
5. Travel at a safe and reasonable speed not to exceed maximum transport speed of 20 mph (32 kph). See chart on page 4.

**CAUTION**

To assure adequate braking performance and control during transport:

1. Tow only with an agricultural tractor.
2. Do not exceed recommended maximum towing speeds given in operator's manual. Safe towing speed depends on weight of tractor and weight of towed load and is never greater than 20 m.p.h.

H29566

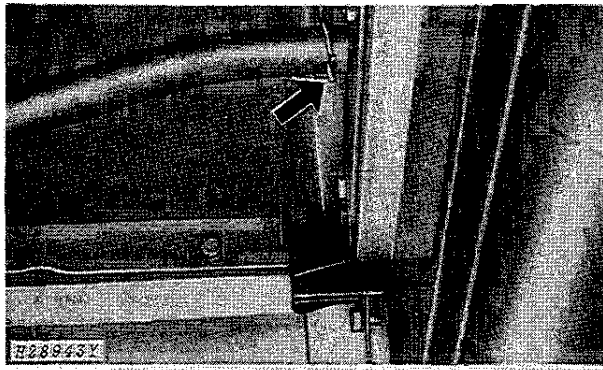


Suggest:

If the above button click is invalid.

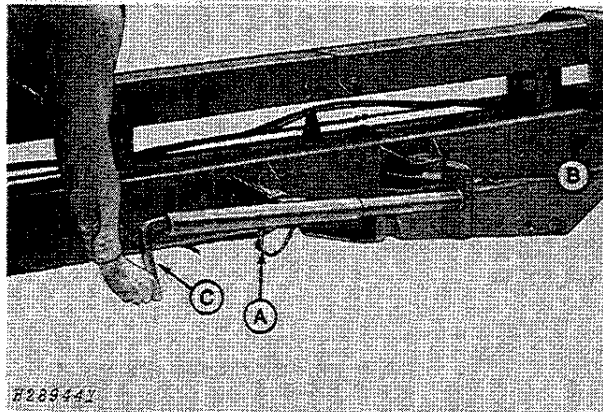
Please download this document first, and then click the above link to download the complete manual.

Thank you so much for reading



Unloading Auger Transport Position

1. Use tractor remote control lever to swing auger back along side of separator.
2. Secure outer end of auger with spring locking pin.

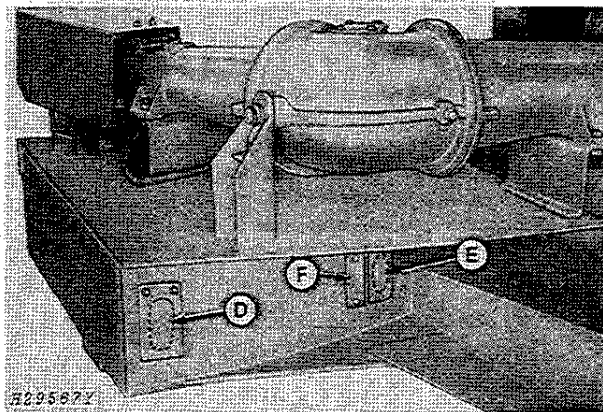


Hitch Beam Positions

IMPORTANT: Raise header to highest position and secure with hydraulic cylinder safety stop or remove header completely before moving hitch beam to transport position.

1. Remove locking pin (A) and pivot stand to the up position. Pad on bottom of stand must be in front of lock pin lever (B).

A - Locking Pin
B - Lock Pin Lever
C - Support Stand Crank



D - Transport Position
E - Wide Operating Position
F - Narrow Operating Position

2. Turn support stand crank (C) until lock at rear of hitch beam, pulls forward out of its operating position (E or F). Hitch beam must now be moved so lock is moved from hole.

The support stand crank (C) must be reversed to remove tension on the lock pin lever (B). The hitch beam must then be moved until the lock falls into transport position (D).

NOTE: If, when operating, the tractor wheels are running over the next windrow move the hitch from wide position (E) to the narrow position (F). There is about a 2 foot (610 mm) difference between wide (E) and narrow (F) positions. The combine is shipped with a plug bolted in narrow position (F). Remove plug and secure in opposite hole being used.

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>