COMBINE LOW-SHAFT-SPEED INDICATOR

JOHN DEERE

OPERATORS MANUAL

COMBINE LOW-SHAFT-SPEED INDICATOR

OMH84014 J1 English

JOHN DEERE HARVESTER WORKS
OMH84014 J1

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ENGLISH

To the Purchaser

This new combine low-shaft-speed indicator was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation or service. Read the Table of Contents to learn where each section is located.

Study this manual carefully, keep it handy with your regular combine operator's manual, in a safe place for future reference.

If you find that you require information not covered in this manual, see your John Deere dealer. He will answer any questions regarding the operation and service of the low-shaft-speed indicator. He has trained mechanics who are kept informed on the best method of John Deere servicing and can give you prompt know-how service in the field or in his shop.

Should your low-shaft-speed indicator require replacement parts, see your John Deere dealer where you will receive John Deere parts—accept no substitutes. John Deere parts fit properly and insure satisfactory service because they are made from original patterns and from the same material as the original attachment.

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

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.

The warranty on this low-shaft-speed indicator appears on your copy of the purchase order which you should have received from your dealer when you purchased the low-shaft-speed indicator.

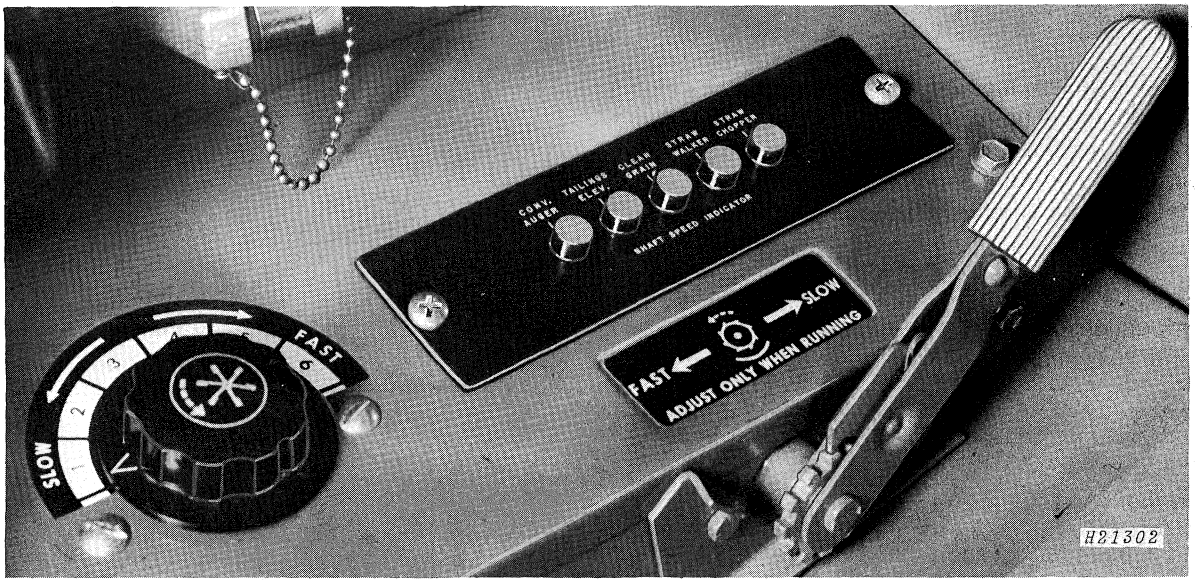
Record the date purchased in the space provided below. Your dealer needs this information to give you prompt, efficient service when you order parts.

Date Purchased ..... 19.....
(To be filled in by purchaser.)

CONTENTS

Operation

CONTROL BOX AND STEERING COLUMN LIGHT



The low-shaft-speed indicator attachment indicates with glowing lights when the conveyor augers, tailings elevator, clean grain elevator, straw walkers, and straw chopper (combine attachment) drive shafts are operating less than 70 percent of their designed speed.

Checking Indicator Operation

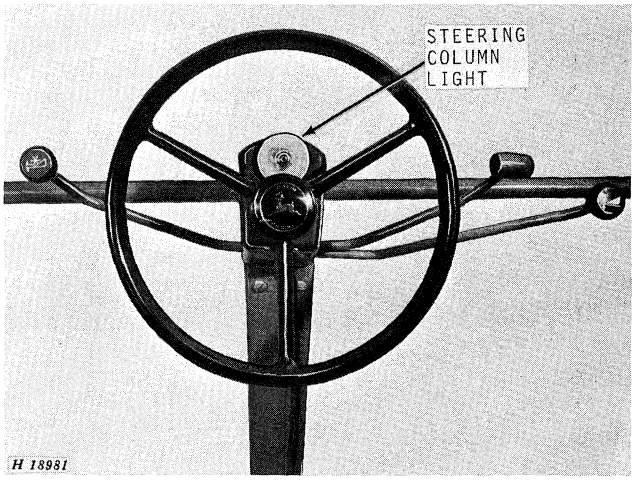
To check the operation of the low-shaft-speed indicator, turn key to "ON" (do not start engine) and engage separator lever; all lights should glow.

Disengage separator lever before starting engine.

Operating Indicator

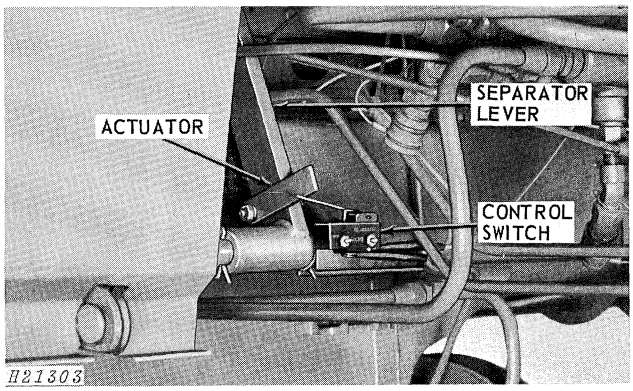
Start engine, engage separator lever, and run engine at fast idle. If lights continue to glow during operation, disengage separator lever and idle engine. Shut off engine and check Trouble Shooting chart on page 5.

CAUTION: Be certain combine engine is shut off before working on combine.



When a light on the control box glows, the light on the steering column also glows.

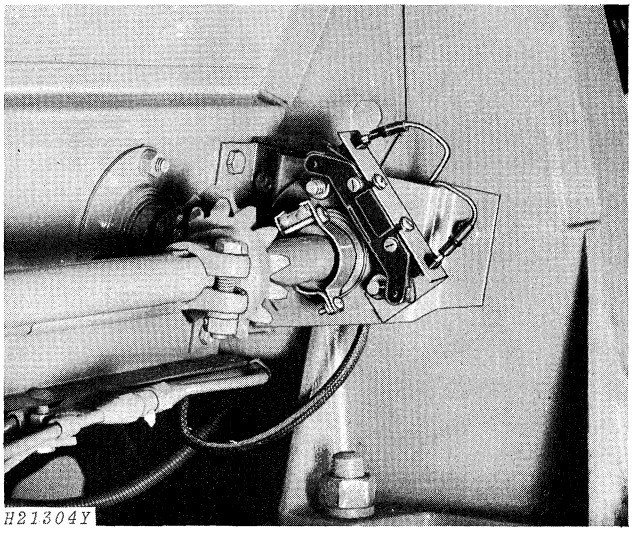
CONTROL SWITCH



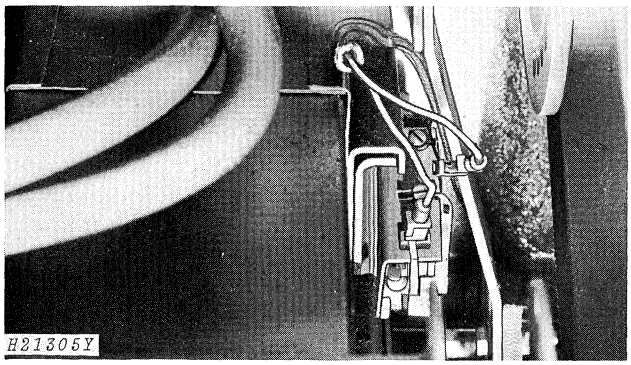
A control switch, located under the operator's platform, prevents the lights from glowing before the separator lever is engaged. Lights will glow until separator is brought up to full operating speed. If lights continue to glow, see Trouble Shooting chart on page 4.

SENSOR LOCATIONS

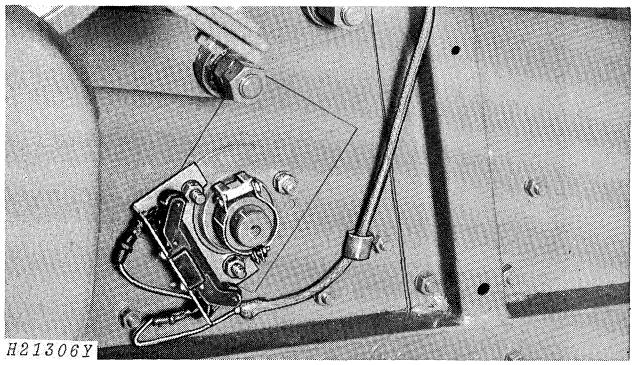
The locations of the five sensors are shown in the following illustrations.



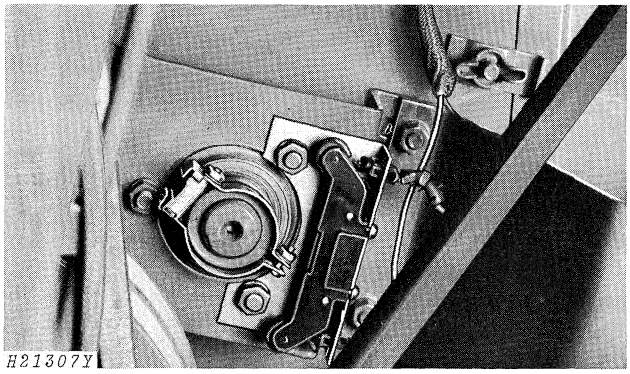
Conveyor Augers



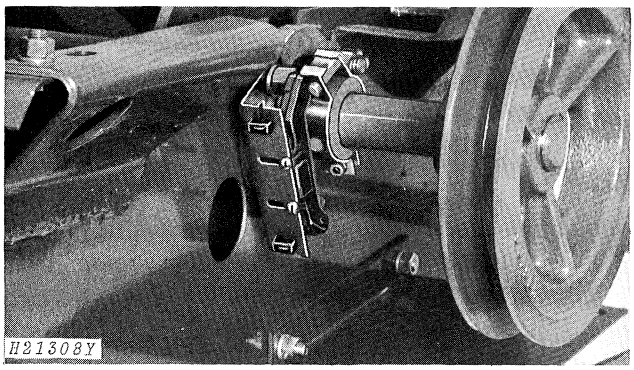
Tailings Elevator



Clean Grain Elevator



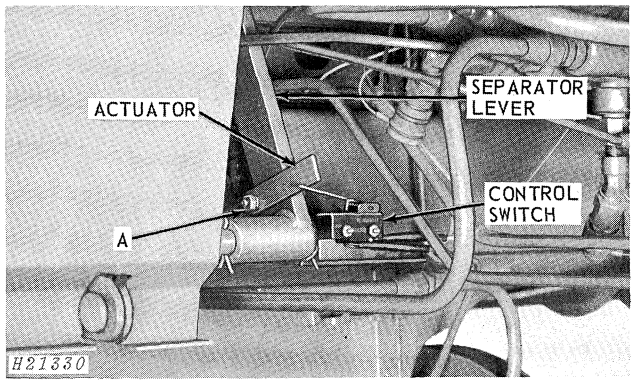
Straw Walker



Straw Chopper

Service

ADJUSTING CONTROL SWITCH



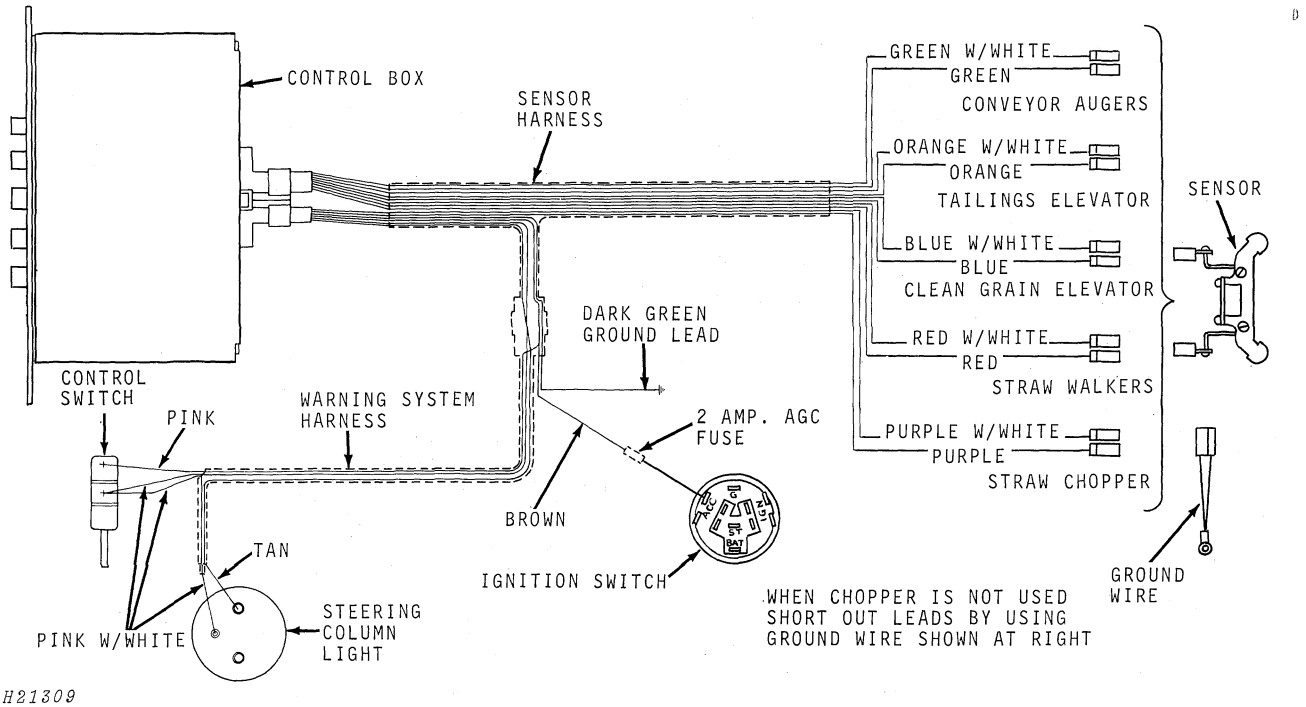
If the control switch is not actuated when the separator lever is engaged, loosen 1/4 x 1-inch truss head machine screw "A" and move switch actuator down until switch is actuated. Tighten truss head machine screw "A."

ELECTRICAL SYSTEM

The electrical system is protected by a 2-amp fuse located in the brown wire between the wiring harness and ignition switch.

If the circuit overloads and blows a fuse, determine the cause by checking for damaged wires or loose connections. After correcting cause, replace fuse.

WIRING DIAGRAM



Trouble Shooting

The chart which follows is designed to help you when problems develop, by suggesting a probable cause and the recommended remedy.

These suggested remedies should be applied with caution. Make a sincere effort to understand your equipment and know why you are making an adjustment.

Make certain when you are trying to solve a problem, that source does not come from some place other than where the problem exists.

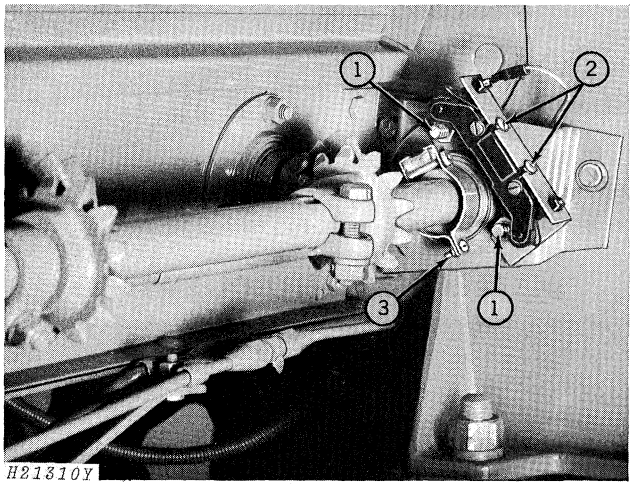
If the following remedies do not solve your problems, see your John Deere dealer.

Problem	Cause	Remedy	Page
FUSE BLOWS	Light on steering column shorted.	Replace light.	—
	Short in tan lead wire for light in steering column.	Replace wire.	—
	Short in brown power lead.	Replace wire.	—
	Short in pink or pink and white wires to switch.	Replace wires.	—
CONTROL BOX DOES NOT WORK AT ALL	Switch not actuated.	Adjust actuator.	3
	Loose or corroded connections. (This includes fuse holder.)	Clean and tighten connections.	—
	Low supply voltage. (Unit requires 11 volts minimum.)	Run engine so alternator operates.	—
	Faulty ignition switch.	Replace switch.	—
LIGHTS COME ON ABOVE 2000 ENGINE RPM	Sensor leads unhooked	Reconnect.	3
	Laterial movement of actuator on shaft.	Move actuator into position and tighten.	—
	Sensor defective.	Replace sensor.	—
LIGHTS DO NOT COME ON			—
	Sensor lead shorted	Find short and repair.	—
CONROL BOX WORKS— LIGHT ON STEERING COLUMN DOES NOT GLOW	Loose connections.	Tighten connections.	—
	Blown light.	Replace light.	—

Installation

INSTALLING SENSORS

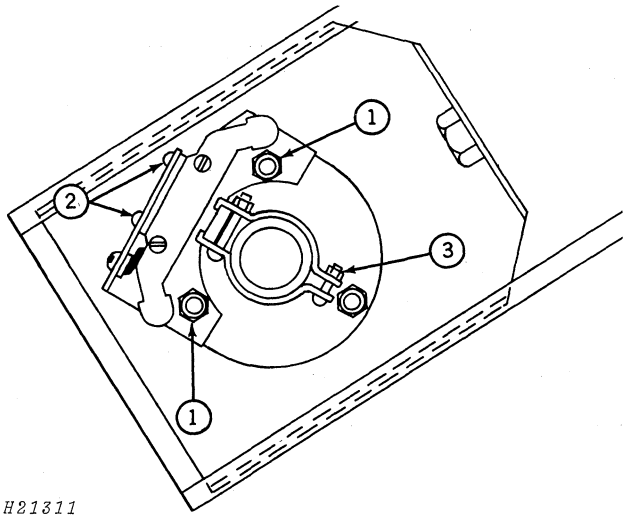
Grain Conveyor Augers



H21310Y

1. Remove two nuts, slip sensor bracket onto cap screws, and reinstall and tighten nuts.
2. Install sensor on bracket, and insert sensor leads in T-slots in bracket.
3. Loosen lower screw in clamp assembly, slip clamp assembly onto locking collar, and tighten screw.

Tailings Elevator



H21311

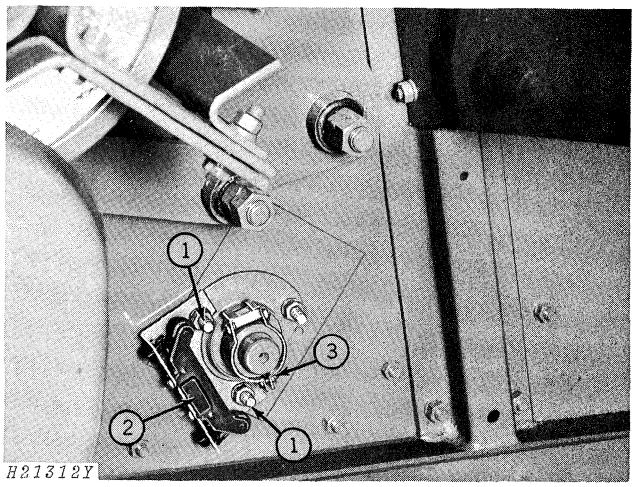
1. Remove two nuts, slip sensor bracket onto cap screws, and reinstall and tighten nuts.

2. Install sensor on bracket, and insert sensor leads in T-slots in bracket.

3. Loosen lower screw in clamp assembly, slip clamp assembly onto locking collar, and tighten screw.

Clean Grain Elevator

3300 and 4400 Combines



H21312Y

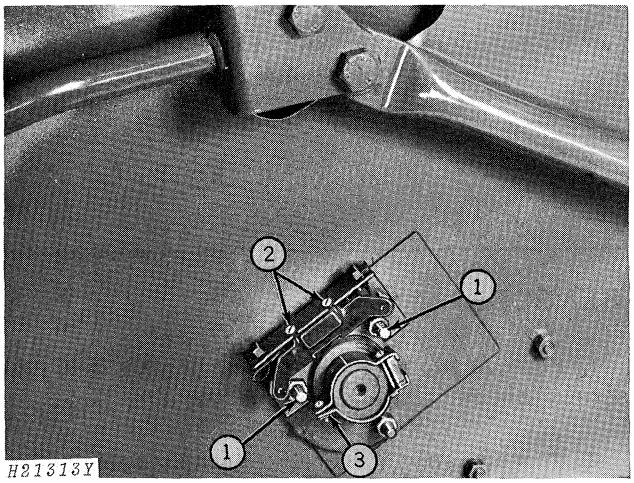
1. Remove two nuts, slip sensor bracket onto cap screws, and reinstall and tighten nuts.

2. Install sensor on bracket, and insert sensor leads in T-slots in bracket.

3. Loosen lower screw in clamp assembly, slip clamp assembly onto locking collar, and tighten screw.

Clean Grain Elevator—Continued

6600, 6602, and 7700 Combines

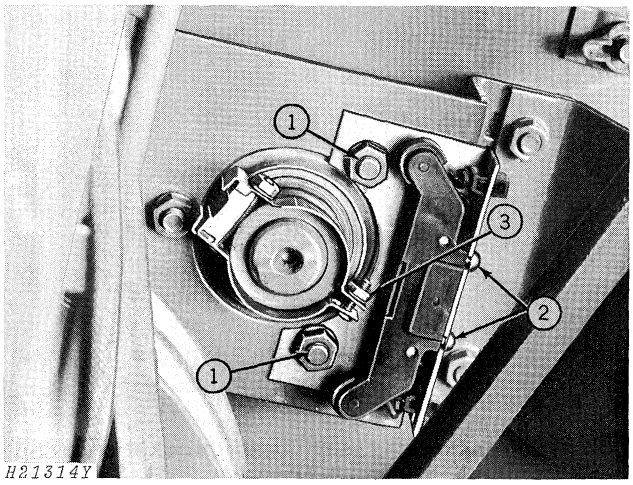


1. Remove two nuts, slip sensor bracket onto cap screws, and reinstall and tighten nuts.

2. Install sensor on bracket, and insert sensor leads in T-slots in bracket.

3. Loosen lower screw in clamp assembly, slip clamp assembly onto locking collar, and tighten screw.

Straw Walker

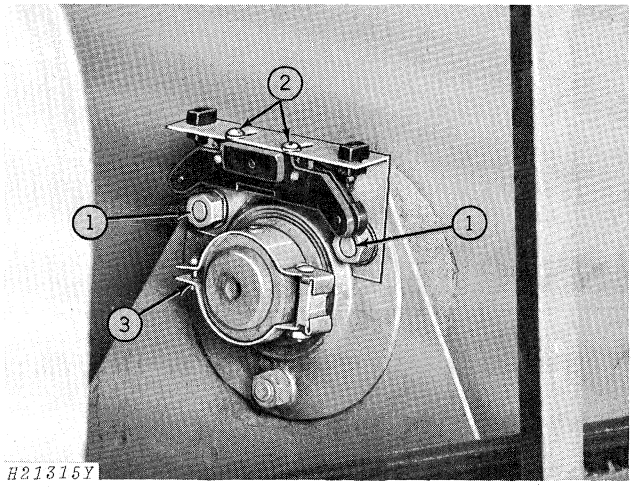


3300 and 4400 Combines

1. Remove two nuts, slip sensor bracket onto cap screws, and reinstall and tighten nuts.

2. Install sensor on bracket, and insert sensor leads in T-slots in bracket.

3. Loosen lower screw in clamp assembly, slip clamp assembly onto locking collar, and tighten screw.

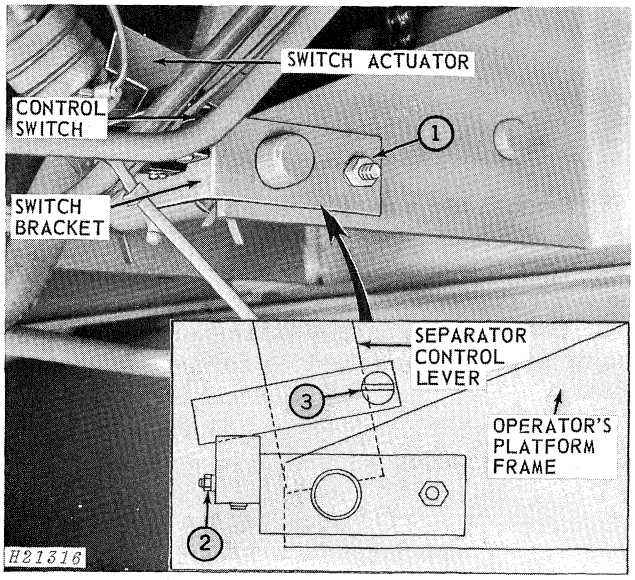


6600, 6602, and 7700 Combines

Straw Chopper

The low-shaft-speed indicator parts and installation instructions are in a separate bundle and must be ordered for combines equipped with a straw chopper.

INSTALLING CONTROL SWITCH



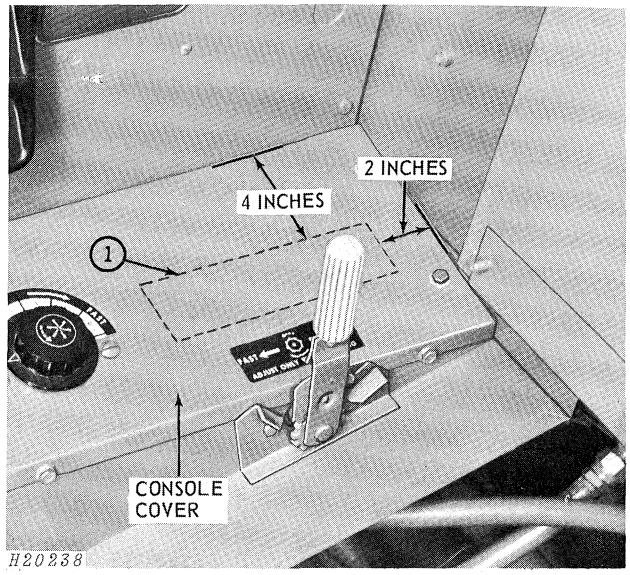
1. Slip switch mounting bracket over the separator control lever pivot shaft and secure to operator's platform frame with one 1/4 x 3/4-inch cap screw and 1/4-inch nut.

2. Secure switch to bracket with two No. 6 x 1-1/8-inch truss head machine screws and two No. 6 nuts.

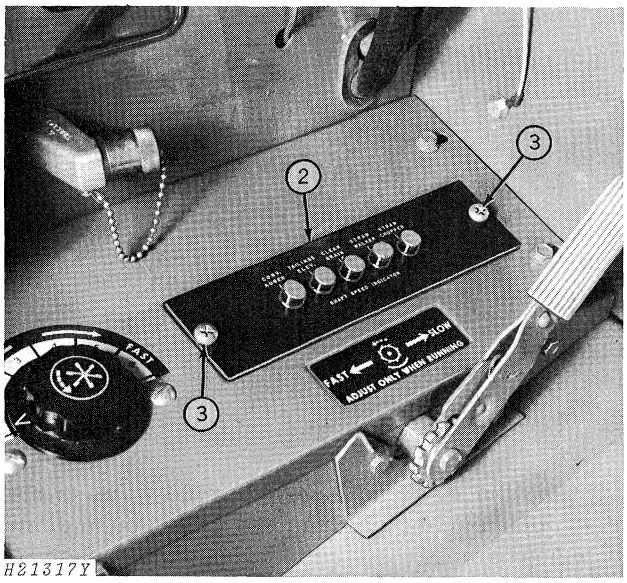
3. Slip switch actuator over separator control lever and attach with one 1/4 x 1-inch truss head machine screw and 1/4-inch nut.

NOTE: Do not attempt to adjust switch until the entire system is ready for operation. See page 3 for adjustment procedure.

INSTALLING CONTROL BOX



1. Using the dimensions shown above, lay the control box seal on the console cover. Scribe a line around the inside of the seal and cut out this portion of the console cover.

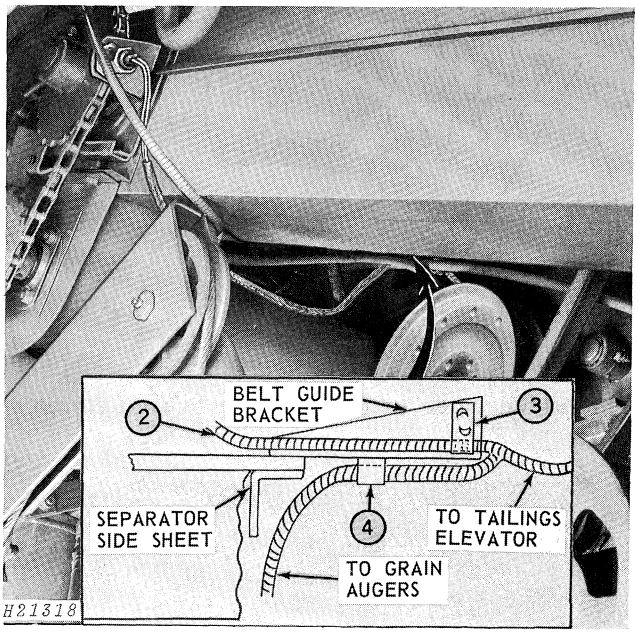


2. Place the seal on the control box and set the control box and seal in the opening cut in Step 1.

3. Using the control box as a template, drill two 1/4-inch diameter holes, slip 1/4-inch speed nuts over each hole, and secure control box to console cover with two 5/16 x 1/2-inch self-tapping screws.

INSTALLING SENSOR WIRING HARNESS

1. (Not Illustrated) Place the sensor wiring harness through the engine powershaft access door opening and direct the portion with the red and red-with-white and the purple and purple-with-white wires to the right-hand side of the combine. The remaining wires go to the left-hand side of the combine.



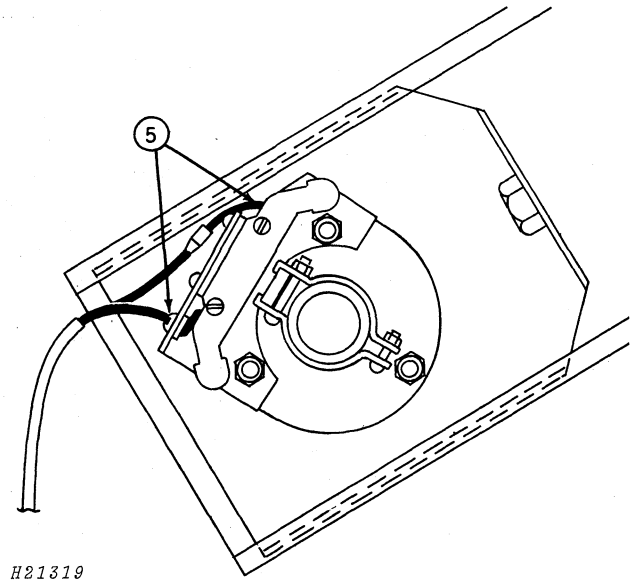
2. Pull the green and green-with-white and the orange and orange-with-white wires to the left-hand side of the combine.

IMPORTANT: Be certain wires are away from sheaves and belts.

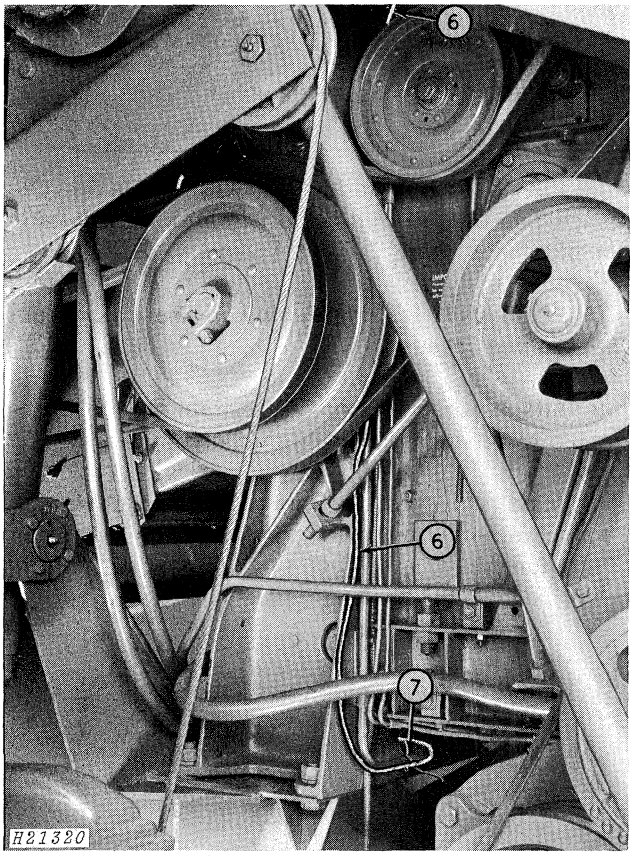
3. Attach wires to belt guide bracket with cushioned clamp, furnished, using existing hardware.

4. Attach the green and green-with-white wires to the underside of belt guide bracket, using a push-on clamp, furnished.

INSTALLING SENSOR WIRING HARNESS—Continued



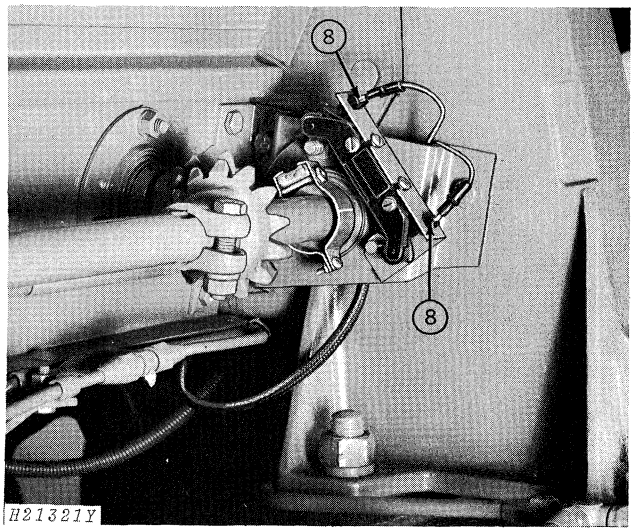
5. Attach wires to terminals on tailings elevator sensor.



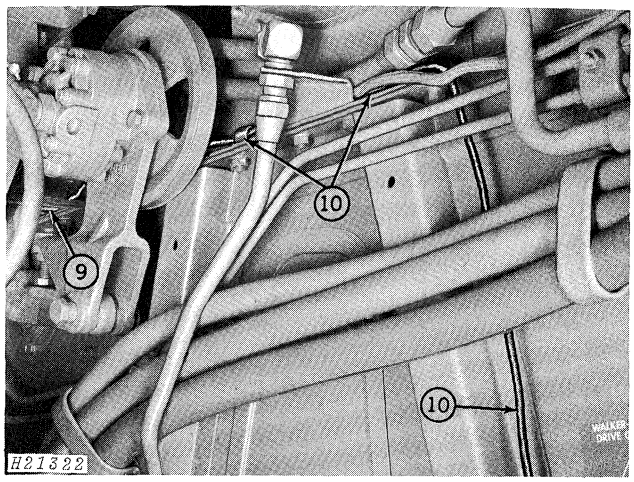
6. Run the green and green-with-white wires down the left-hand front upright.

IMPORTANT: Be certain wires are away from all sheaves and belts.

7. Attach wires to the platform lift oil line with a self-locking strap, furnished.



8. Attach wires to terminals on grain conveyor sensor.



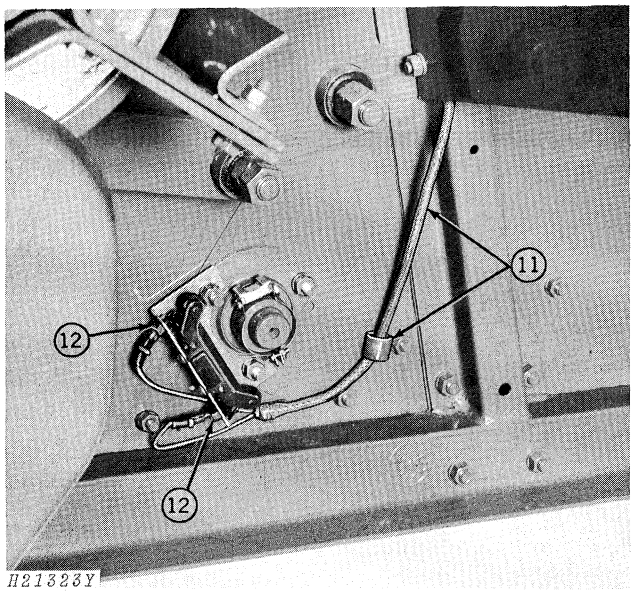
9. Pull the blue and blue-with-white wires to the left-hand side of the combine and attach to the existing wiring harness with a self-locking strap, furnished.

IMPORTANT: Be certain wires are away from all sheaves and belts.

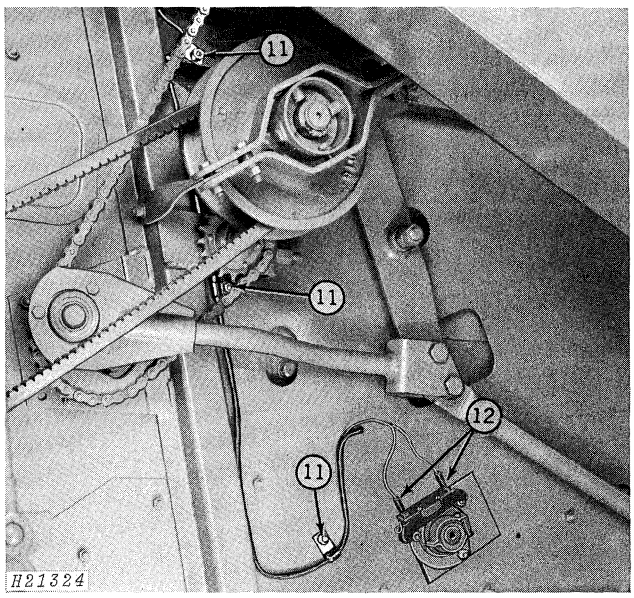
10. Run wires along the top of the left-hand side sheet through two existing clamps and along the box section down the side of the side sheet.

BE SAFE

It pays to be careful,
It costs to be careless!



4400 Combine Illustrated



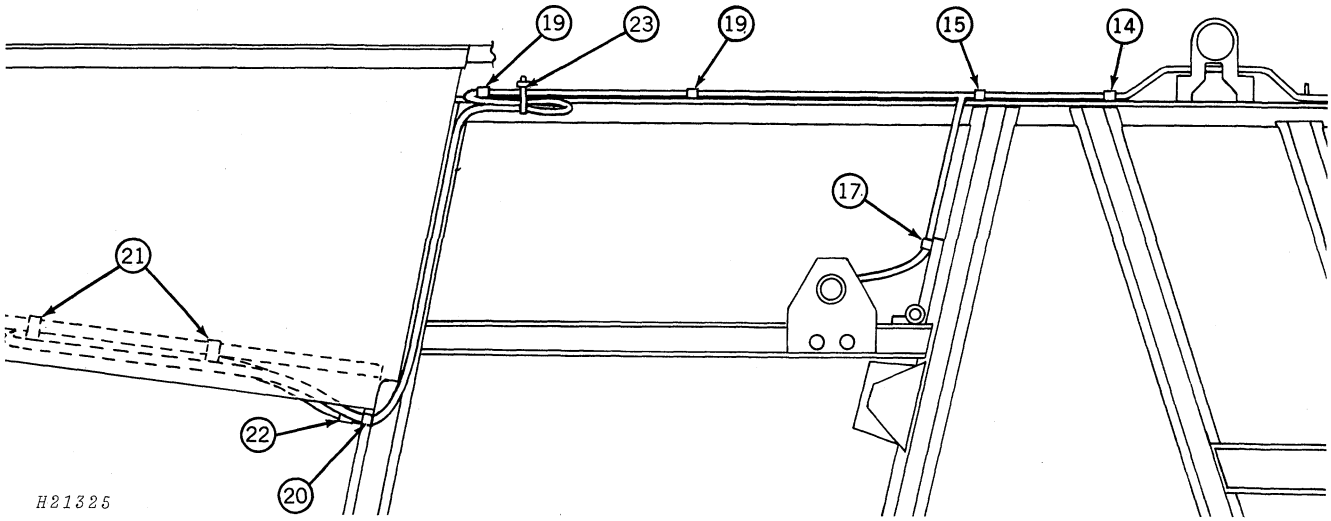
7700 Combine Illustrated

11. On the 3300 and 4400 Combines, attach wires to side sheet with one open J-clamp, furnished, using existing hardware. On the 6600, 6602, and 7700 Combines, attach wires to side sheet with three open J-clamps, furnished, using existing hardware.

12. Attach wires to terminals on clean grain elevator sensor.

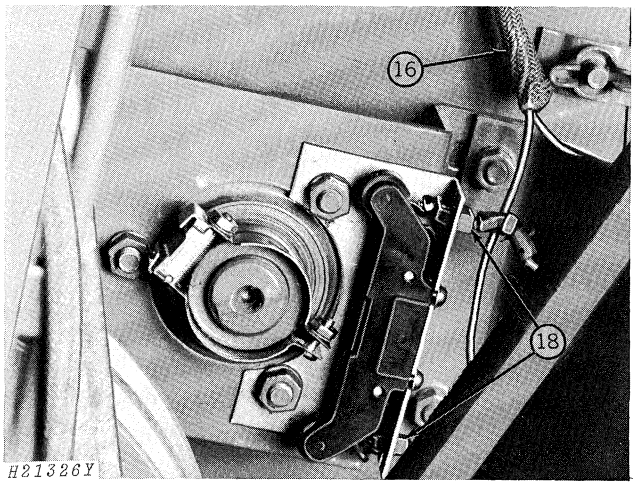
13. (Not Illustrated) Pull the red and red-with-white and the purple and purple-with-white wires across the top of the separator to the right-hand side of the combine.

INSTALLING SENSOR WIRING HARNESS—Continued



14. Attach wires to the top of the right-hand side sheet with self-locking strap furnished, using existing hardware.

15. Run wires through existing clamp and run red and red-with-white wires along the box section down the side of the side sheet.

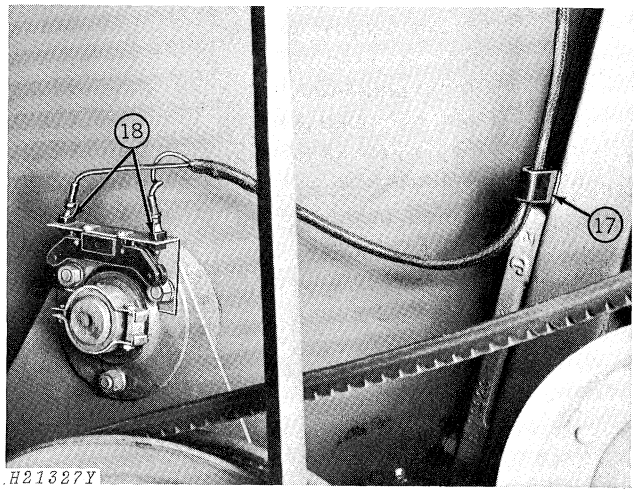


16. (3300 and 4400 Combines) Attach wires to separator side with one open J-clamp furnished, using existing hardware.

17. (6600, 6602, and 7700 Combines) Attach wires to tightener bracket with one open J-clamp, furnished, using existing hardware.

18. Attach wires to terminals on straw walker sensor.

19. Run the purple and purple-with-white wires through two existing clamps on top of the side sheet.



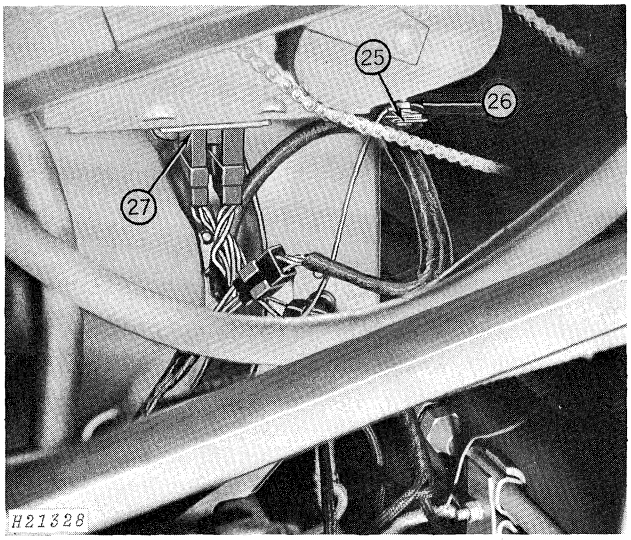
20. If combine is not equipped with a straw chopper, run wire down rear sill and attach to rear sill with a insulated clamp. At the same time, affix single end of grounding wire assembly, furnished, underneath insulated clamp.

21. Run wires underneath hood toward the rear of the combine. On the 3300 and 4400 Combines, affix to the inside of the hood, with a insulated clamp, at the fourth hole from the rear. On the 6600, 6602, and 7700 Combines, affix to the inside of the hood, with insulated clamps, at the fifth and seventh holes from the rear.

22. Attach the above wires to the two wires in the grounding wire assembly.

23. Pull excess wire back, loop and coil, and secure with a self-locking strap.

24. (Not Illustrated) If combine is equipped with a straw chopper, see installation instructions included with straw chopper low-shaft-speed indicator parts.

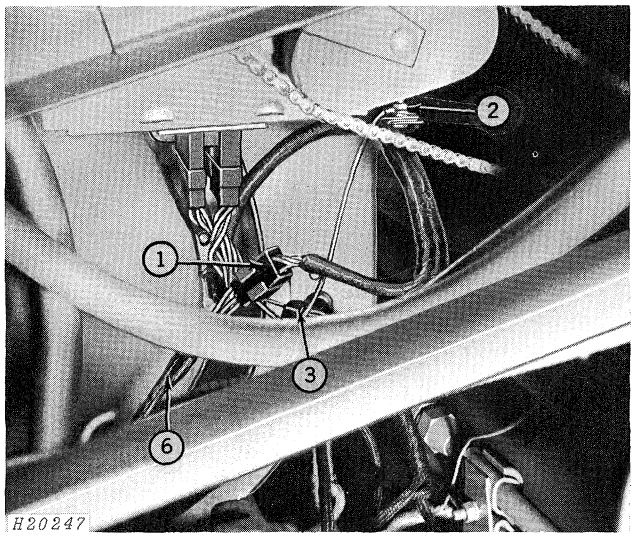


25. Attach clamp support bracket to the left-hand rear corner of the engine compartment, using existing hardware.

26. Place wiring harness in clamp and attach to bracket installed in Step 25, using 1/4 x 3/4-inch cap screw, 11/32 x 11/16 x .060-inch flat washer, and 1/4-inch nut.

27. Plug sensor wiring harness into control box.

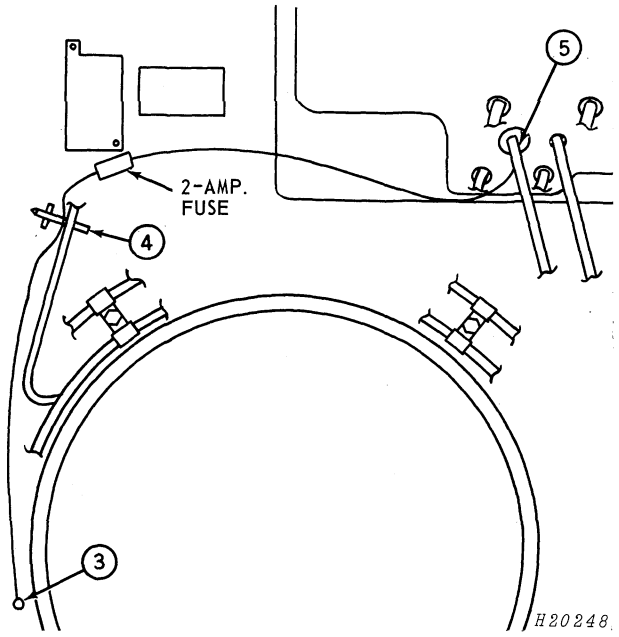
INSTALLING SENSING SYSTEM WIRING HARNESS



1. Plug sensing system harness to sensor harness.

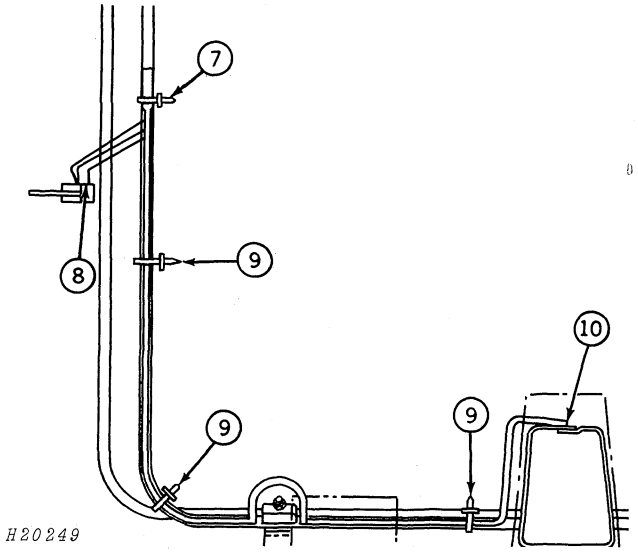
2. Secure green ground wire under flat washer, attaching sensor wiring harness clamp.

3. Run the brown wire with fuse through the fire wall.



4. Attach wire to the existing wiring harness, using a self-locking strap furnished.

5. Attach wire to the accessory terminal of the ignition switch.



6. Run the remaining portion of the wiring harness under the engine powershaft housing.

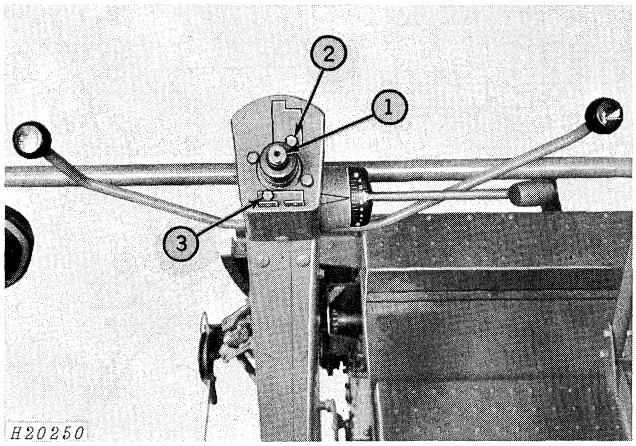
7. Attach the wiring harness to the sensor harness, using a self-locking strap, furnished.

8. Attach the pink and pink-with-white wires to the terminals on the control switch.

9. Route the wire along the hydraulic lines on the operator's platform and attach to the lines with three self-locking straps, furnished.

10. Run the wire through the steering column opening in the operator's platform floorboard. This wire will be hooked up when the steering column light is installed.

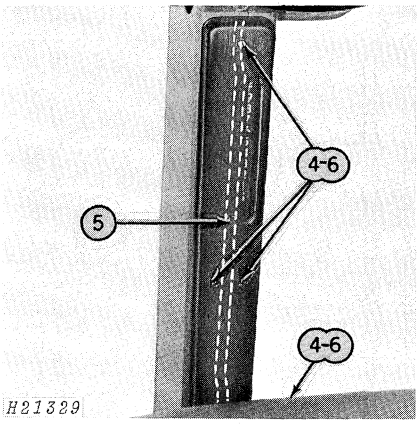
INSTALLING STEERING COLUMN LIGHT



1, Remove steering wheel.

2. Attach upper bracket to steering column, using existing cap screw.

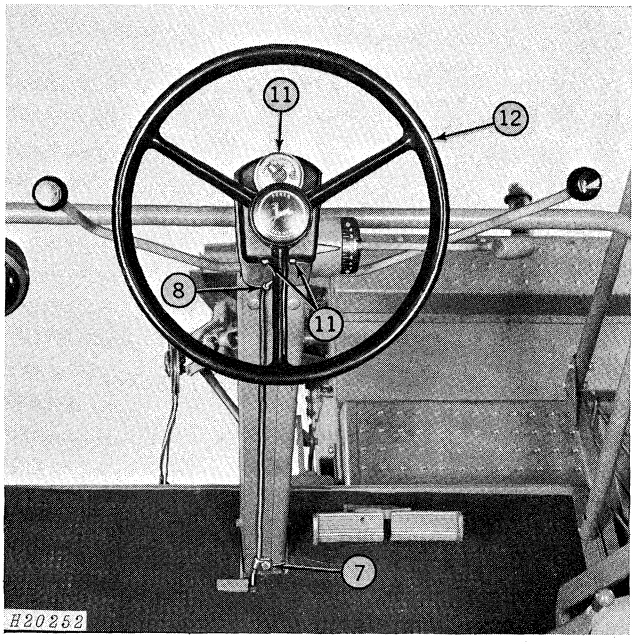
3. Attach lower bracket to steering column, using existing cap screw.



4. (Combines Equipped with Selective Ground Speed) Remove indicator cover.

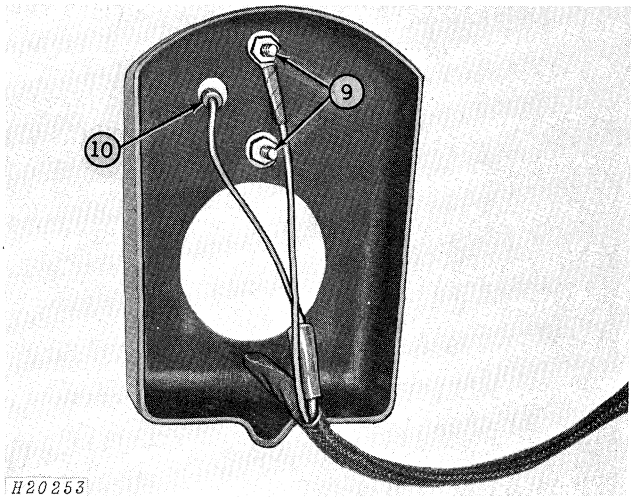
5. (Combines Equipped with Selective Ground Speed) Run wiring harness between indicator strips.

6. (Combines Equipped with Selective Ground Speed) Install indicator cover.



7. (Combines Equipped with Hydrostatic Drive) Attach wiring harness to steering column with clamp, furnished, using existing hardware.

8. Attach wiring harness to steering column with clamp, furnished, using existing hardware.



9. Attach light to steering column cover, using two No. 12 x 3/4-inch pan head machine screws, two 7/32 x 1/2 x .048-inch flat washers, and two No. 12 nuts. *NOTE: Place the wire with the eyelet terminal under the washer on one of the attaching screws.*

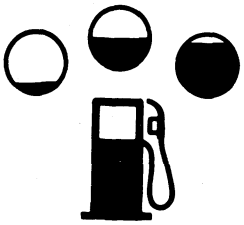
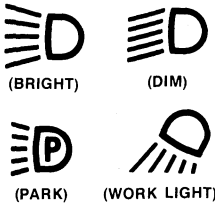
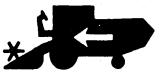
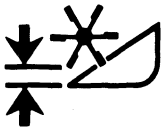
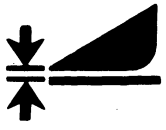
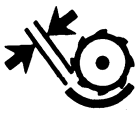
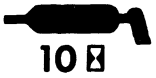
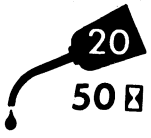
10. Place light bulb in receptacle on wire and snap into light.

11. Secure cover to steering column with three No. 10 x 1/2-inch self-tapping screws.

12. Install steering wheel.

WORLDWIDE SYMBOLS FOR OPERATOR CONTROLS

Symbols instead of words; that's what John Deere is using to promote worldwide identification of operator controls. Once standardized, they give a quick, positive message anywhere in the world — without translation. Study the symbols below and learn to recognize them at a glance.

 TRANSMISSION OIL PRESSURE	 TRANSMISSION OIL TEMPERATURE	 TRANSMISSION OIL FILTER	 ENGINE OIL PRESSURE	 ENGINE R P M
 WATER TEMPERATURE	 PRESSURIZED–OPEN SLOWLY	 AIR FILTER	 CHOKE	 AMMETER OR GENERATOR LIGHT
 FUEL	 FUEL SHUTOFF	 SPEED RANGE	 NEUTRAL	 PARK
 HAND BRAKE	 LIGHTS	 ALL MECHANISMS	 GROUND SPEED	 UNLOADING AUGER
 PLATFORM	 REEL SPEED	 REEL HEIGHT	 PLATFORM HEIGHT	 FAN
 CYLINDER SPEED	 CONCAVE ADJUSTMENT	 HOURS	 GREASE FREQUENCY	 OIL TYPE AND FREQUENCY

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