



Meeting
Customer
Needs

Product Services Information

INSTALLATION INSTRUCTIONS

M74202-I7

BM16675, M74202

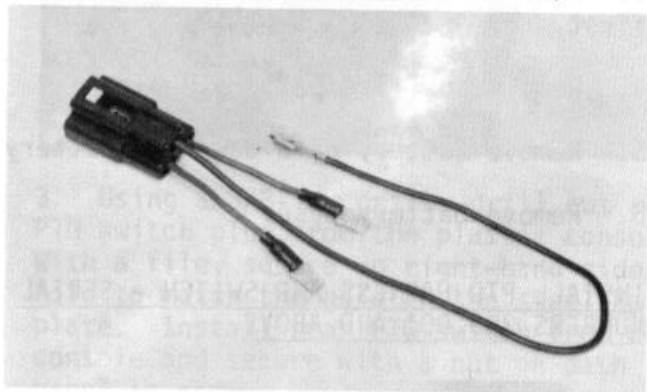
BM16675 2000 RPM REAR PTO ATTACHMENT FOR
316, 318, 322, 330, 332, 420 and 430 Tractors

PARTS IN KIT

- 2000 RPM Gear Case
- 2000 RPM PTO Clutch With Shaft
- Clutch Brace
- PTO Shield
- Bag Of Parts:
 - O-ring
 - Wiring Harness
 - Tie Strap (2 used)
 - Grounding Bolt, M10x20
 - Internal/External Tooth Washer
 - Bolt 1/2x3-3/4-in. (2 used)
 - Washer, .531x.938x.060-in. (2 used)

- Wrought Washer, .344x1.0x.060-in.
(2 used)
- PTO Switch Assembly
- Nut
- Flange Nut
- Bolt, 1/2x2-1/4-in.
- Bolt, M10x20 (4 used)

WIRING HARNESS ADAPTER (AM100316)

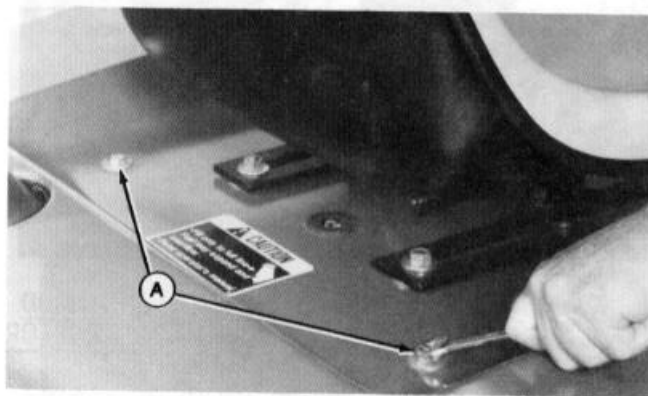


NOTE: This part should have been ordered with BM16675 for tractors with Serial Numbers 285,000 and below.

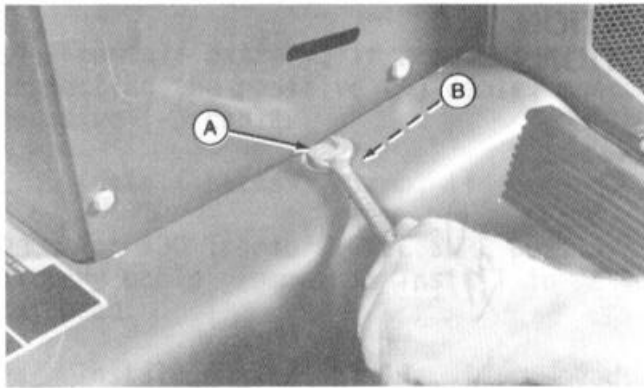
PREPARE TRACTOR

1. Shut off engine. Wait for all moving parts to stop and lock parking brake.

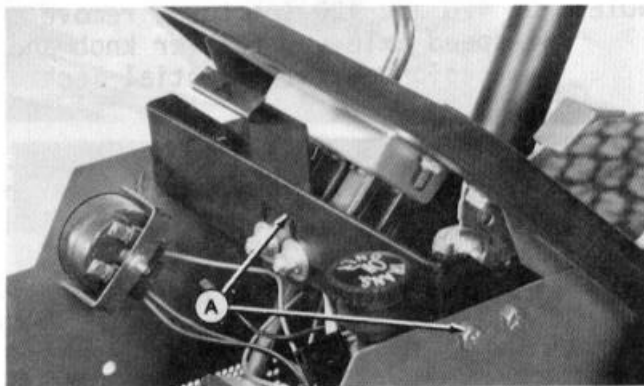
NOTE: On 420 and 430 Tractors, remove 2-speed axle shift lever knob and extension and differential lock knob.



2. Remove fender deck bolts (A).



3. Remove front fender deck bolts (A). DO NOT lose spacers (B) under deck.
4. Unplug seat switch wiring. Lift fender deck and unplug taillight wiring from wiring harness.
5. Remove fender deck.
6. Lift fuel tank from frame. Put a support under fuel tank on right side of tractor frame. DO NOT disconnect lines from fuel tank.



REMOVE BATTERY, ENGINE SHIELDS AND HOOD LATCH SUPPORT - 316, 318 AND 420 TRACTORS

1. Raise hood. Remove negative battery cable first and then positive cable. Remove battery hold-down and battery.
2. Remove engine shields and battery base.
3. Remove hood latch support (A). If tie strap holding fuses to hood latch support is to be removed, slide it off end of support so it can be reused.

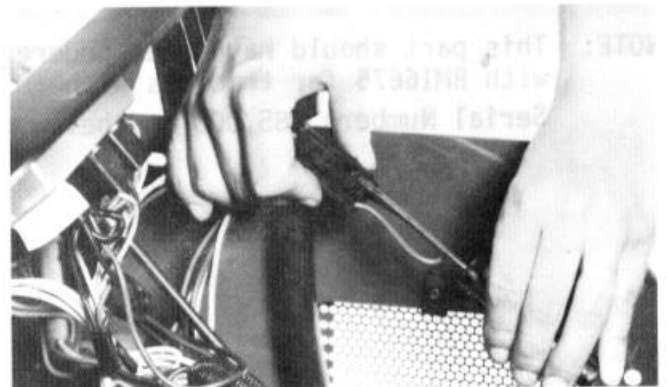
REMOVE PEDESTAL SCREEN AND HOOD LATCH SUPPORT - 330, 322 AND 332 TRACTORS

1. Raise hood.
2. Disconnect negative (-) battery cable.
3. Remove left side pedestal screen.
4. Pull fuse block off hood latch support.
5. Remove hood latch support.

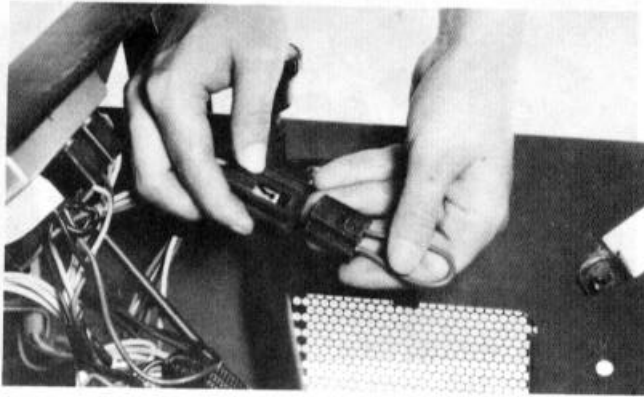
REMOVE GRILLE, ENGINE SHIELDS AND BATTERY - 430 TRACTOR

1. Remove grille.
2. Raise hood, remove engine shields.
3. Remove negative (-) battery cable first.
4. Remove positive battery cable.
5. Remove battery hold-down and battery.
6. Remove battery base.

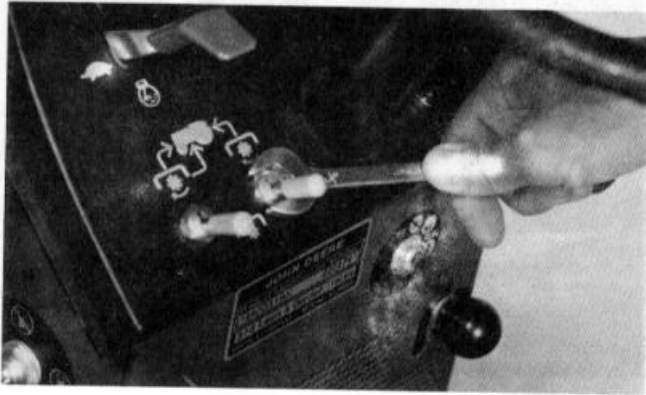
INSTALL PTO HARNESS AND SWITCH - SERIAL NUMBERS 285,001 AND ABOVE



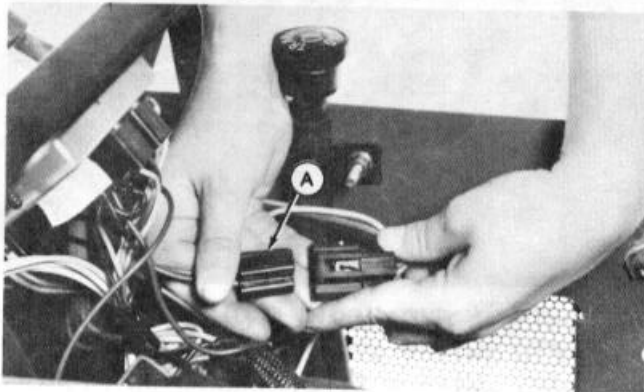
1. Locate brown 3-pin connector in the pedestal compartment behind the dash. This connector will be near the wires to the front PTO switch. The connector will have a short loop of purple wire connected to it. Insert a thin screwdriver under connector tab.



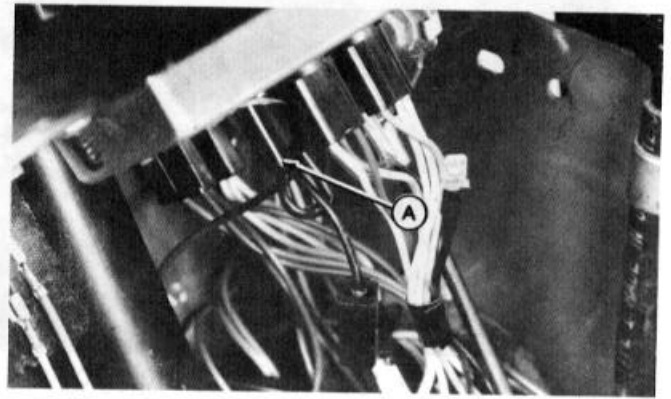
2. Remove the connector with the jumper wire and discard.



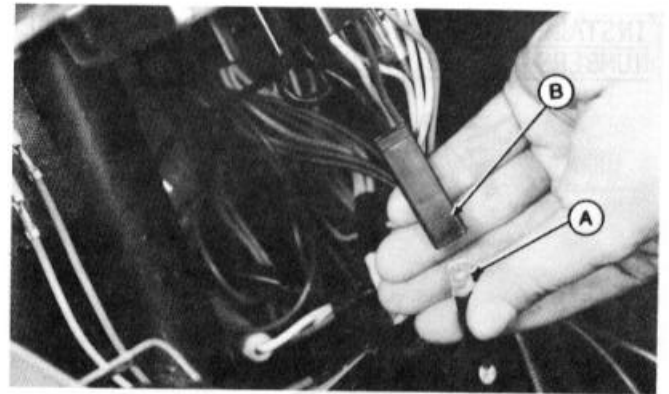
3. Using a 3/8-in. drill, drill out rear PTO switch plug from the plastic console. With a file, square up right-hand side of hole to match the hole in the steel back-plate. Install rear PTO switch from under console and secure with a nut on dash panel as shown.



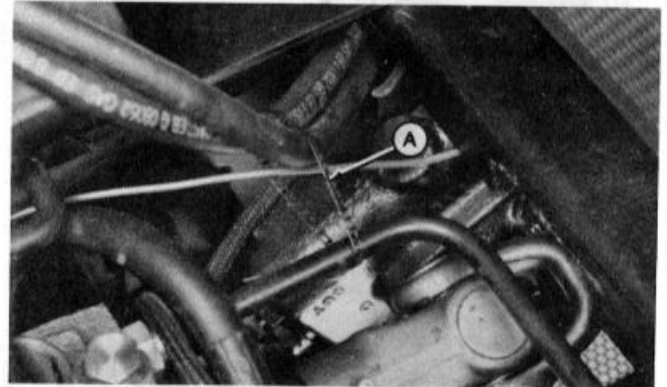
4. Install brown 3-pin connector (A) from rear PTO wiring harness to tractor 3-pin connector.



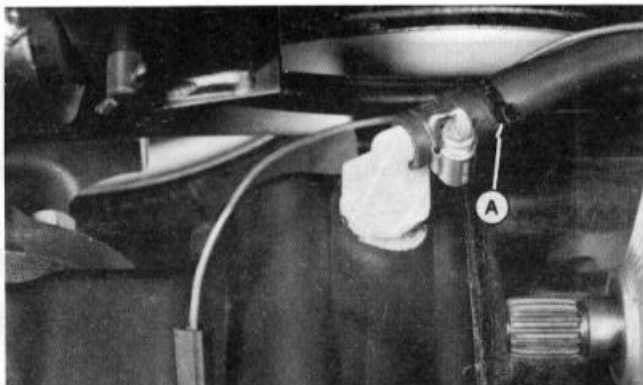
5. Install bulb socket (A) into rear PTO opening in the light panel behind the dash with a 1/8 turn clockwise.



6. Install black wire (A) of the main wiring harness (wire coming from light panel module) into connector (B) coming from light bulb.

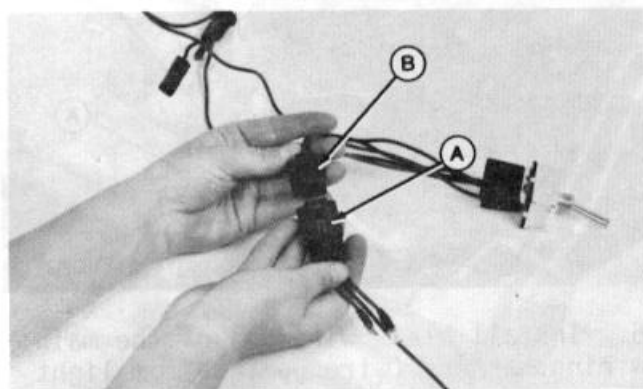


7. Route the long blue wire in the PTO wiring harness along the main wiring harness and to the left side of drive shaft. Route wire under console and through tie strap (A).

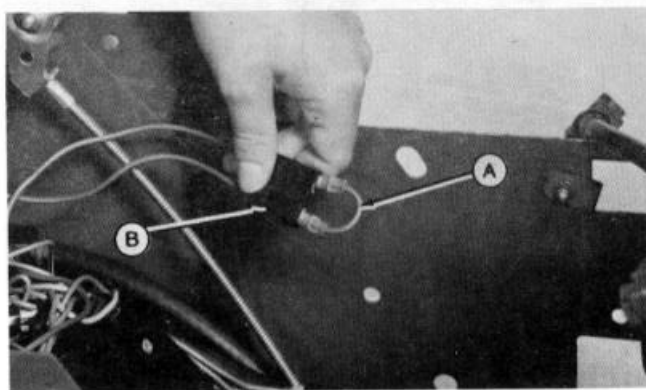


8. Continue to route blue wire along left side of tractor frame. Fasten wire to transmission fill line with tie strap (A), but DO NOT tighten tie strap at this time.

INSTALL PTO HARNESS AND SWITCH - SERIAL NUMBERS 285,000 AND BELOW

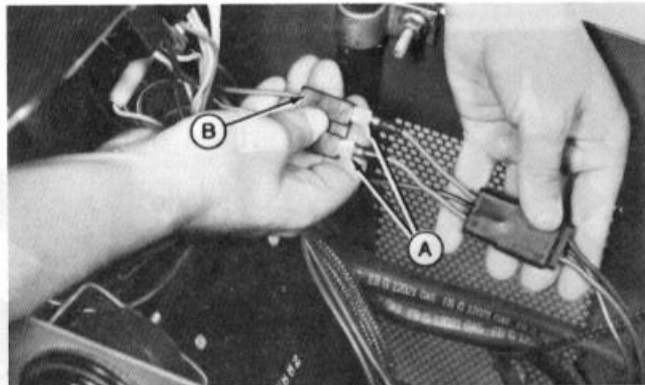


1. Install brown 3-pin connector (A) of PTO wiring harness adapter to mating brown 3-pin connector (B) from PTO wiring harness.

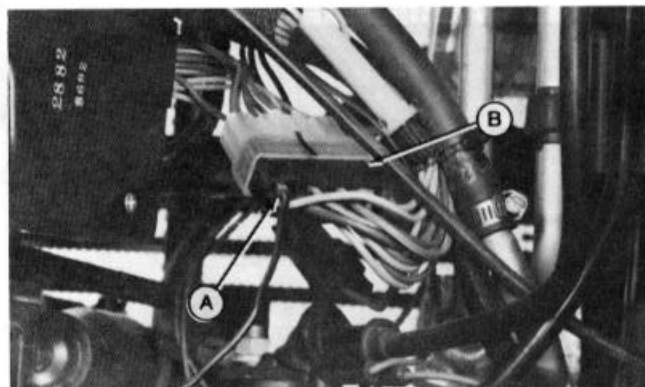


IMPORTANT: Jumper (A) must be removed or the safety interlock system will not operate properly.

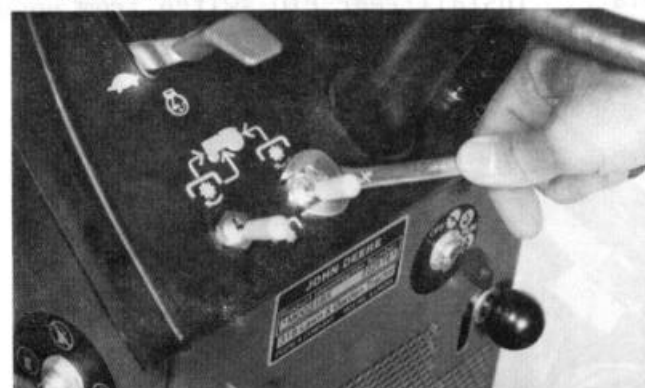
2. Pull out jumper (A) from connector (B) and discard.



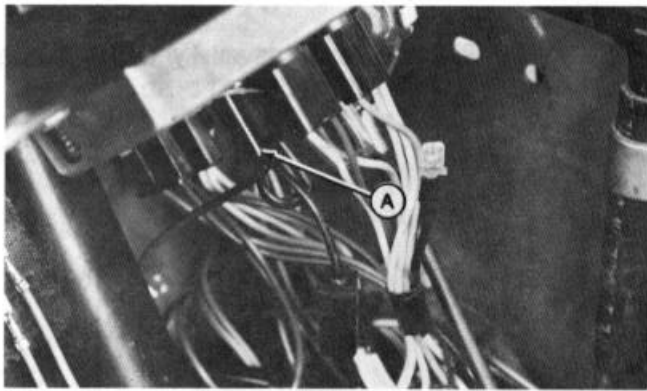
3. Plug two short purple leads (A) from PTO wiring harness adapter into 2-pin connector (B).



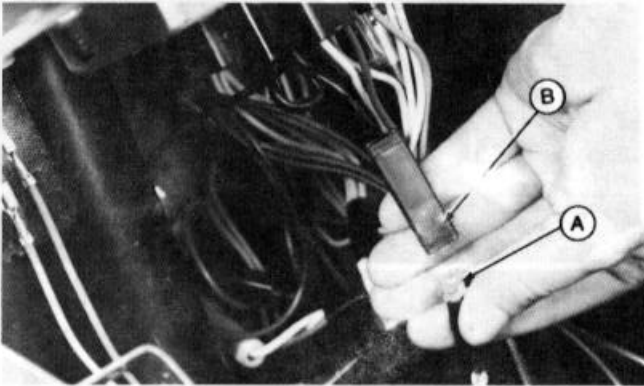
4. Install medium length wire (A) (blue with black strip) to the last open location in main wiring harness 8-pin connector (B). Be sure wire is secure in connector.



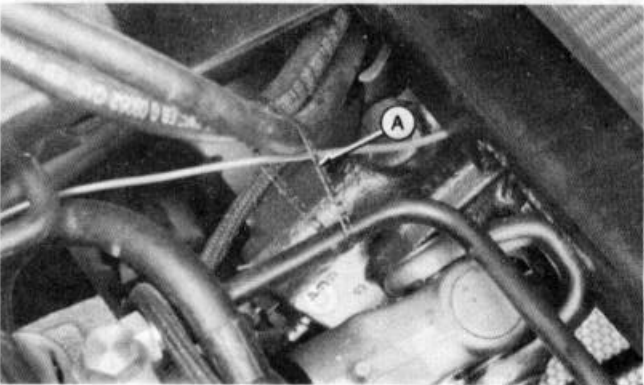
5. Using a 3/8-in. drill, drill out the rear PTO switch plug from the plastic console. With a file, square up right-hand side of hole to match hole in steel backplate. Install rear PTO switch from under console and secure with a nut on dash panel as shown.



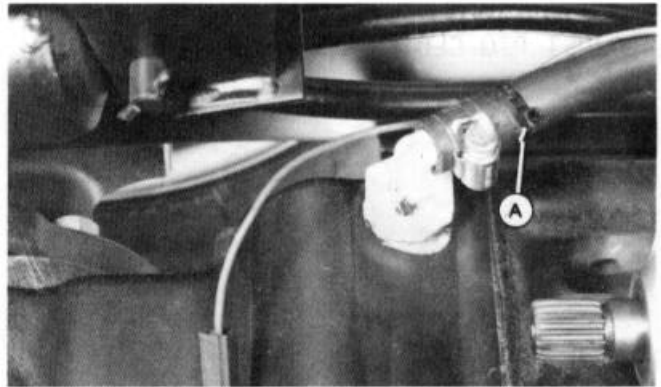
6. Install bulb socket (A) into rear PTO opening in the light panel behind the dash with a 1/8 turn clockwise.



7. Install black wire (A) of the main wiring harness (wire coming from light panel module) into connector (B) coming from the light bulb.

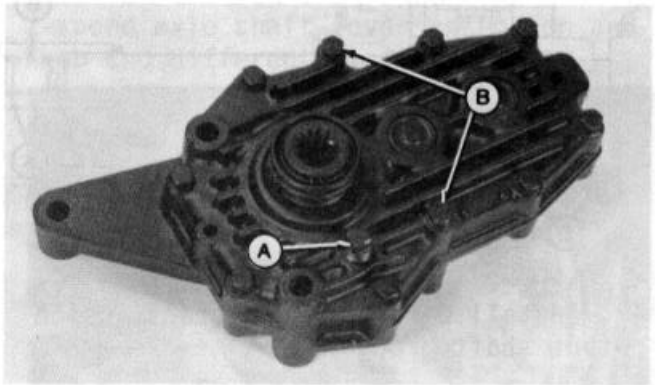


8. Route the long blue wire in the PTO wiring harness along the main wiring harness and to the left side of the drive shaft. Route wire under console and through tie strap (A).



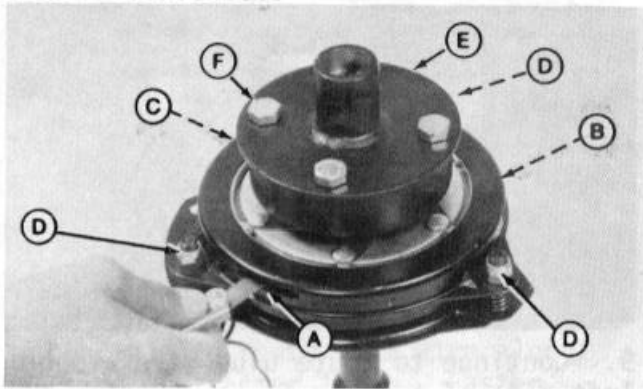
9. Continue to route blue wire along left side of tractor frame. Fasten to transmission fill line with tie strap (A), but DO NOT tighten tie strap at this time.

FILL GEAR CASE



1. Remove fill plug (A).
2. Pour in 8 oz (0.23 L) of API-GL5 (SAE 90) Gear Lube.
3. Install fill plug.
4. Remove two bolts and washers (B). Keep them to install PTO shield.

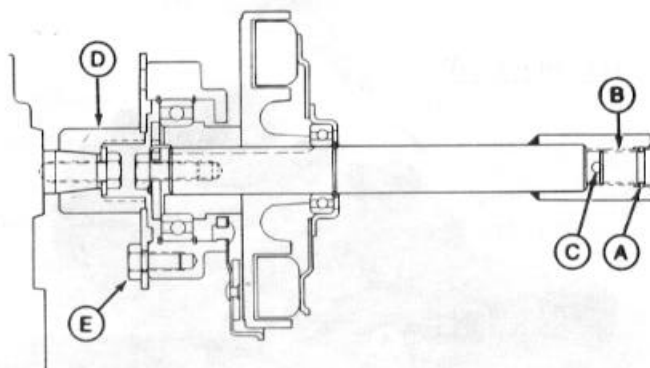
ADJUST PTO CLUTCH



NOTE: Coupler (E) is actually fastened to gear case input shaft. Four bolts (F) are in Bag Of Parts.

1. Insert a 0.018-in. (0.46 mm) feeler gauge in locations (A, B and C). Using a sweeping motion, check for a 0.018-in (0.46 mm) clearance. Loosen or tighten lock nuts (D) to adjust for this clearance. Recheck clearance in all three locations. Adjust and recheck if necessary.

INSTALL PTO CLUTCH



1. Install O-ring (A) in transmission output shaft groove.
2. Apply a liberal amount of multi-purpose grease on splines of transmission output shaft.

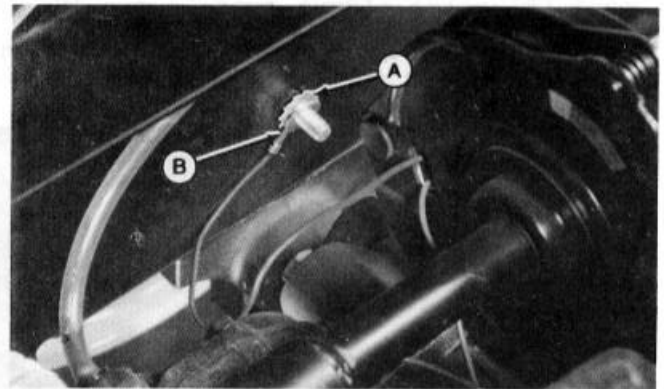
3. Fill PTO shaft spline cavity (B) with multi-purpose grease.

IMPORTANT: Add grease to splines every 300 hours of operation or annually, whichever occurs first. Fill cavity until grease comes out of grease fitting vent (C). BE SURE this information is passed on to the customer.

4. Slide PTO clutch assembly all the way on transmission output shaft so brace mounting hole is next to right frame. On 420 and 430 tractors with differential lock, install clutch and brace (Step 9, below) as an assembly.

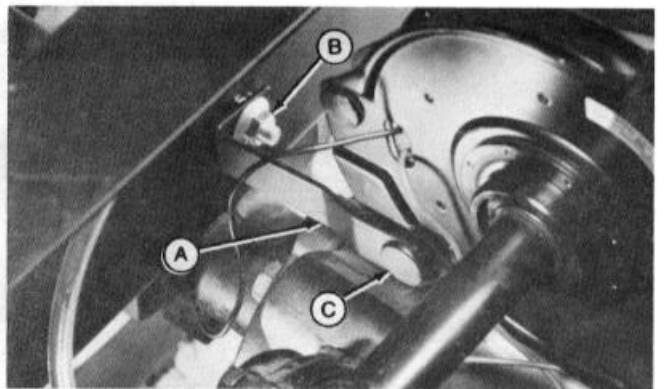
5. Fasten gear case coupler (D) to PTO clutch using four M10x20 bolts (E).

6. Tighten bolts (E) to 50 N·m (36 lb-ft).

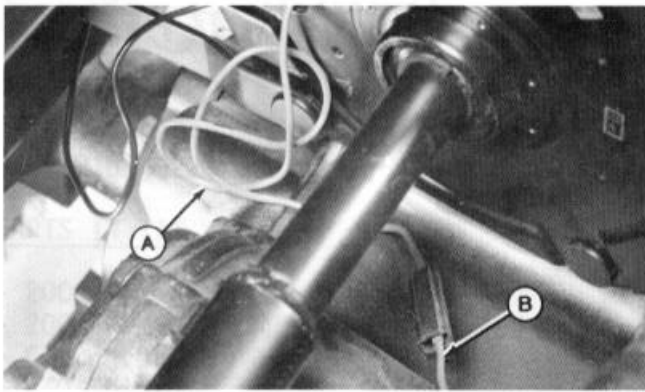


7. Install M10x1.5 bolt through right-hand side frame. Your tractor may have a round hole or a square hole; use appropriate bolt from bag of parts.

8. Install external-internal-tooth lock-washer (A) on bolt, then install ground wire (B) from clutch.

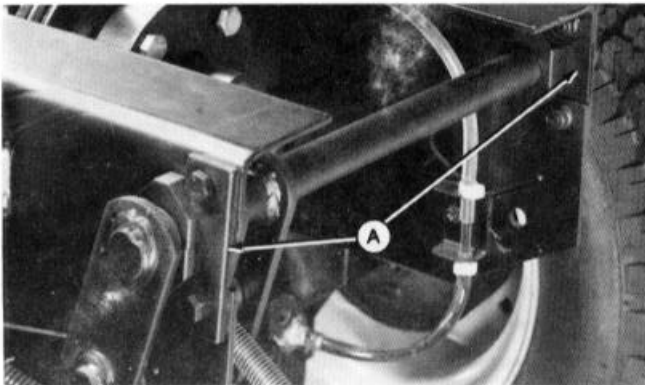


9. Install brace (A) and M10x1.5 flange nut (B). BE SURE pin (C) of brace fits into hole on front side of clutch. BE SURE brace remains square with tractor frame. Brace should not bind in clutch hole when tightening nut (B).



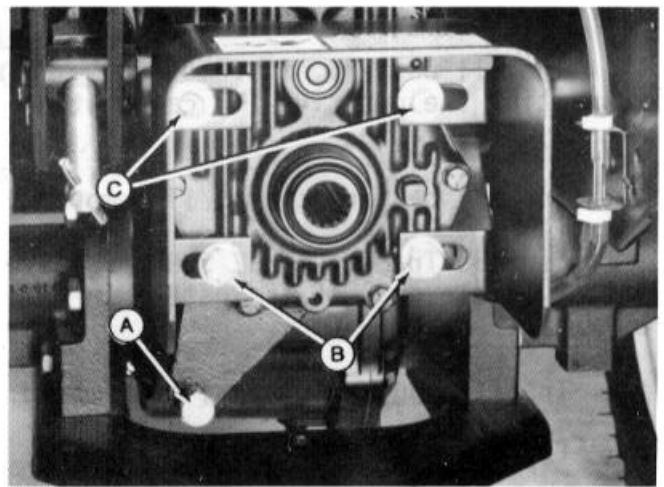
10. Route clutch wire (A) under clutch shaft and connect to wire (B) secured to transmission fill tube line.

11. Assemble loose wire and fasten to transmission fill line with tie strap installed earlier. Tighten tie strap.



12. Remove plates (A) securing rockshaft to the tractor frame. Slide rockshaft to the rear.

13. Remove 3-pt hitch if installed.

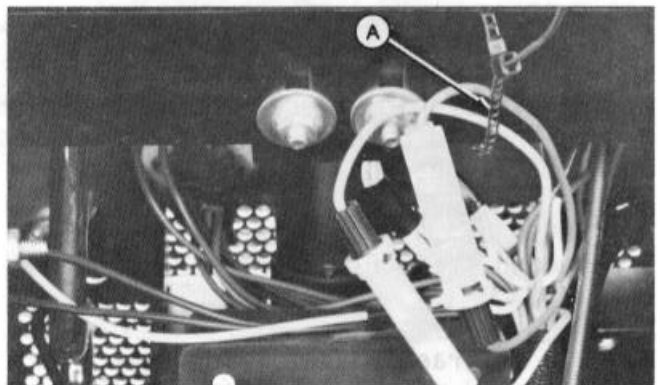


14. Install gear case and PT0 shield to clutch and transmission. Use the 1/2x 2-1/2-in. bolt (A) in lower hole. Install washers on 1/2x3-3/4-in. bolts (B) and install in the two holes as shown. Install washers and 5/16x2-in. bolts (C) removed earlier. Tighten all bolts.

15. Install rockshaft or install 3-pt hitch.

16. Put fuel tank in position. Install fender deck.

17. For 420 and 430 Tractors: Install 2-speed axle shaft lever extension and knob and differential lock knob.



18. For 316, 318 and 420 Tractors: Install hood latch support. Fasten wire with fuses to hood latch support with tie strap (A).

19. For 330, 322 and 332 Tractors: Install hood latch support, fuse block and side screen.

20. Install battery base, if removed.

21. Install battery, if removed, by connecting the positive (+) cable, then negative (-) cable.
22. Install battery clamp, if removed.
23. For 430 Tractors: BE SURE positive battery cable grommet is install in bulkhead.
24. Install engine shields, if removed.
25. For 430 Tractors: Install grille.

CHECK REAR PTO OPERATION



1. Sit on tractor seat. With engine not running, turn ignition switch to "RUN" position.
2. Move rear PTO switch to "ON" position. A click should be heard as PTO engages and amber light should light.
3. Raise off seat. After approximately 1/2 second, rear PTO light should go out.
4. Sit on tractor seat. The rear PTO light should not come back on until rear PTO switch is re-cycled.
5. If there are any malfunctions, check connections and repeat test or see your technical manual.