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MANUAL PREVIEW

J.I. Case

Service Manual

2390 & 2590

Volume 1 of 3

Service Manual

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CA-S-2390+

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Reprinted

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CRANKSHAFT AND MAIN BEARINGS

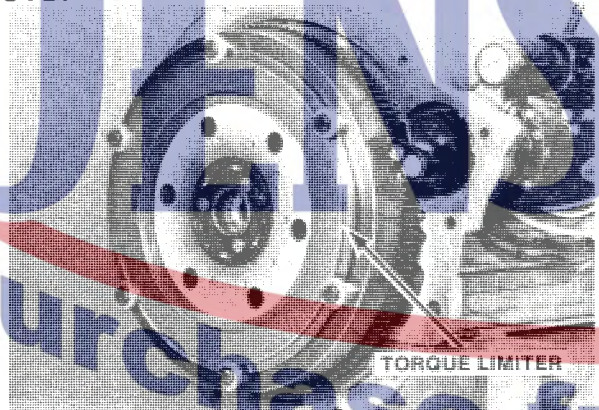
Removal

STEP 62



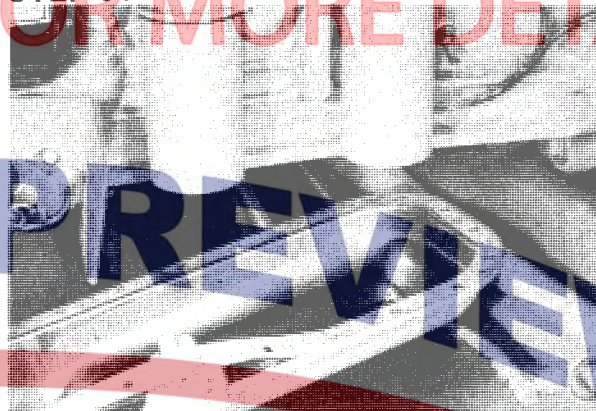
The engine must be separated from the torque tube before the crankshaft can be removed. See Section 2210 of the Service Manual for engine separation.

STEP 63



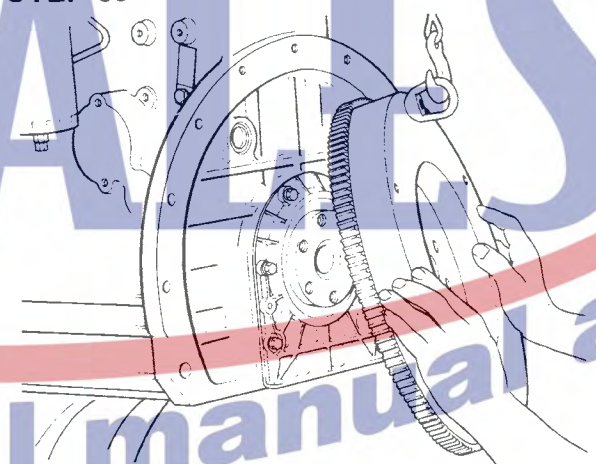
Remove the torque limiter or master clutch from the flywheel. See Section 6220, 6320 or 6420 in this Service Manual for removal.

STEP 64

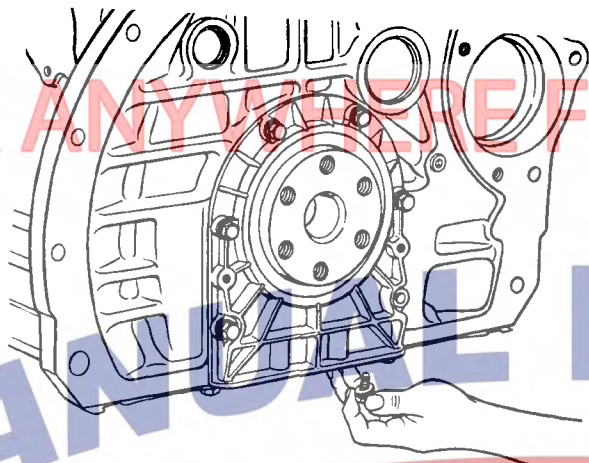


Remove the engine oil pan and gasket. See Section 2245 of the Service Manual for removal.

STEP 65



Remove the engine flywheel.

STEP 66

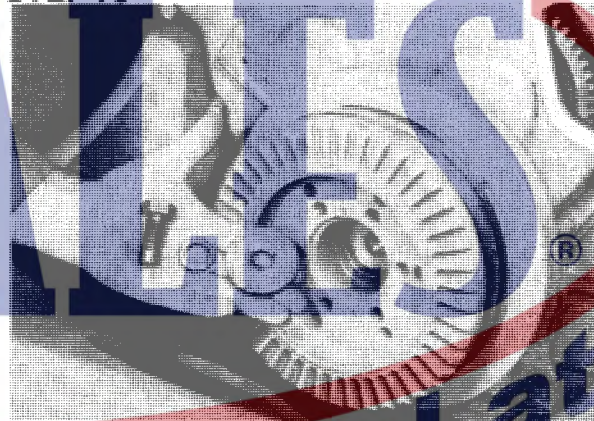
Remove the rear seal carrier.

STEP 69

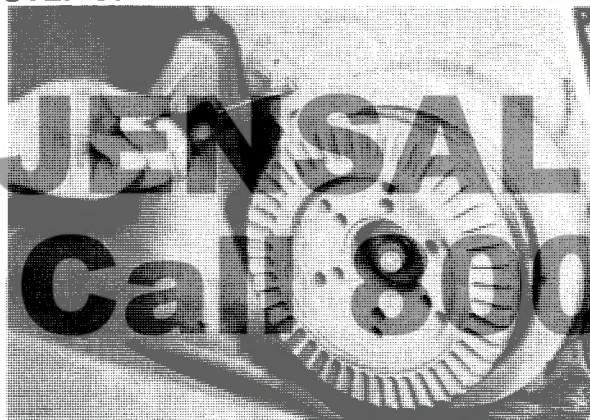
Loosen the bolt that holds the pulley to the crankshaft.

STEP 67

Remove the fuel injector pump. See Section 3212 of the Service Manual for removal.

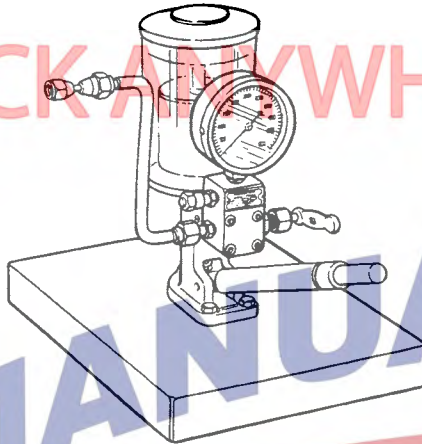
STEP 70

Remove the bolt, washer and spacer.

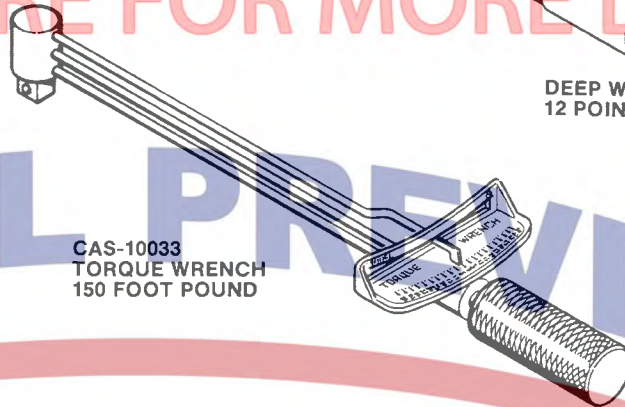
STEP 68

Remove the timing pointer.

SPECIAL TOOLS



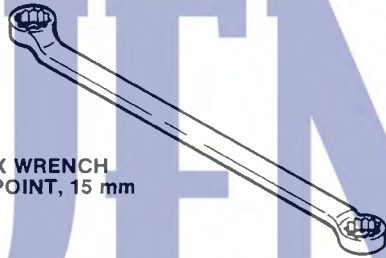
CAS-10091
DIESEL FUEL INJECTION
NOZZLE TESTER (BENCH MODEL)



CAS-10033
TORQUE WRENCH
150 FOOT POUND



DEEP WALL SOCKET
12 POINT, 15 mm



BOX WRENCH
12 POINT, 15 mm



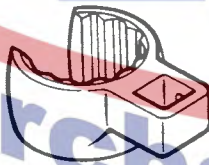
CROWSFOOT WRENCH
SNAP-ON TOOL AN-8506-8



MAGNIFYING GLASS
66-0135



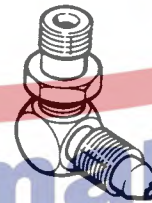
CAS-1411
INJECTOR BORE
CLEANING TOOL



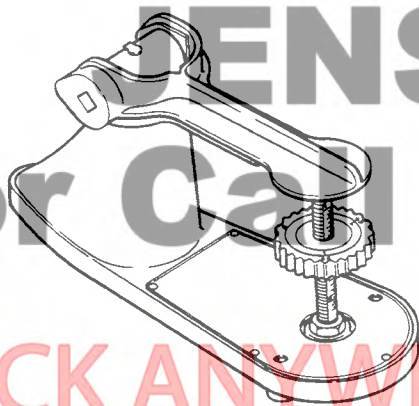
CROWSFOOT WRENCH
SNAP-ON TOOL AN-8508-11
SNAP-ON TOOL AN-8508-14



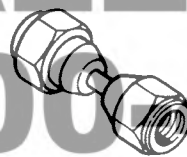
ORIFICE
CLEANING WIRES
66-0036



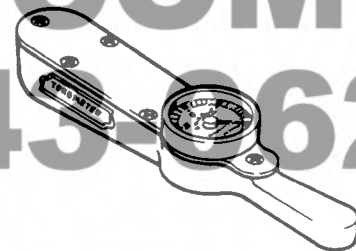
CAS-65-0476
ADAPTER ELBOW



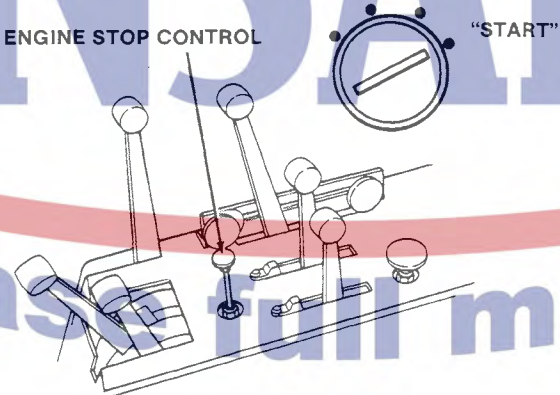
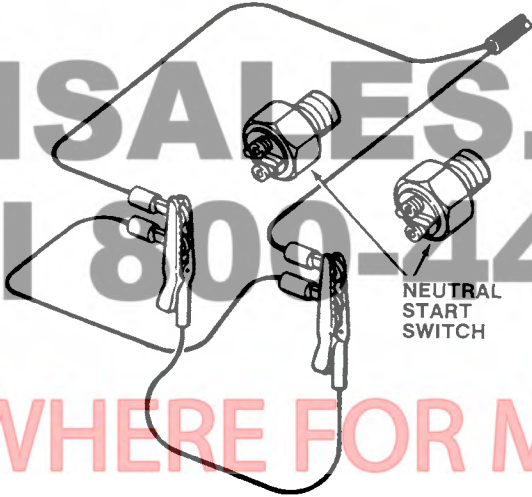
CAS-1357
COMPRESSION SPRING TESTER

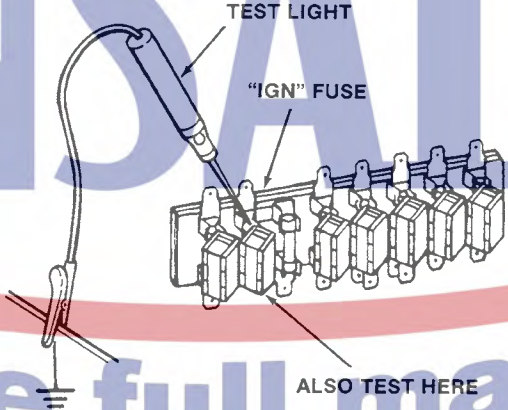
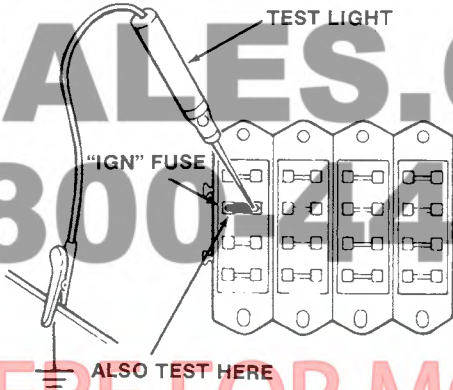


65-0878
TEST PUMP ADAPTER
(TWO REQUIRED)



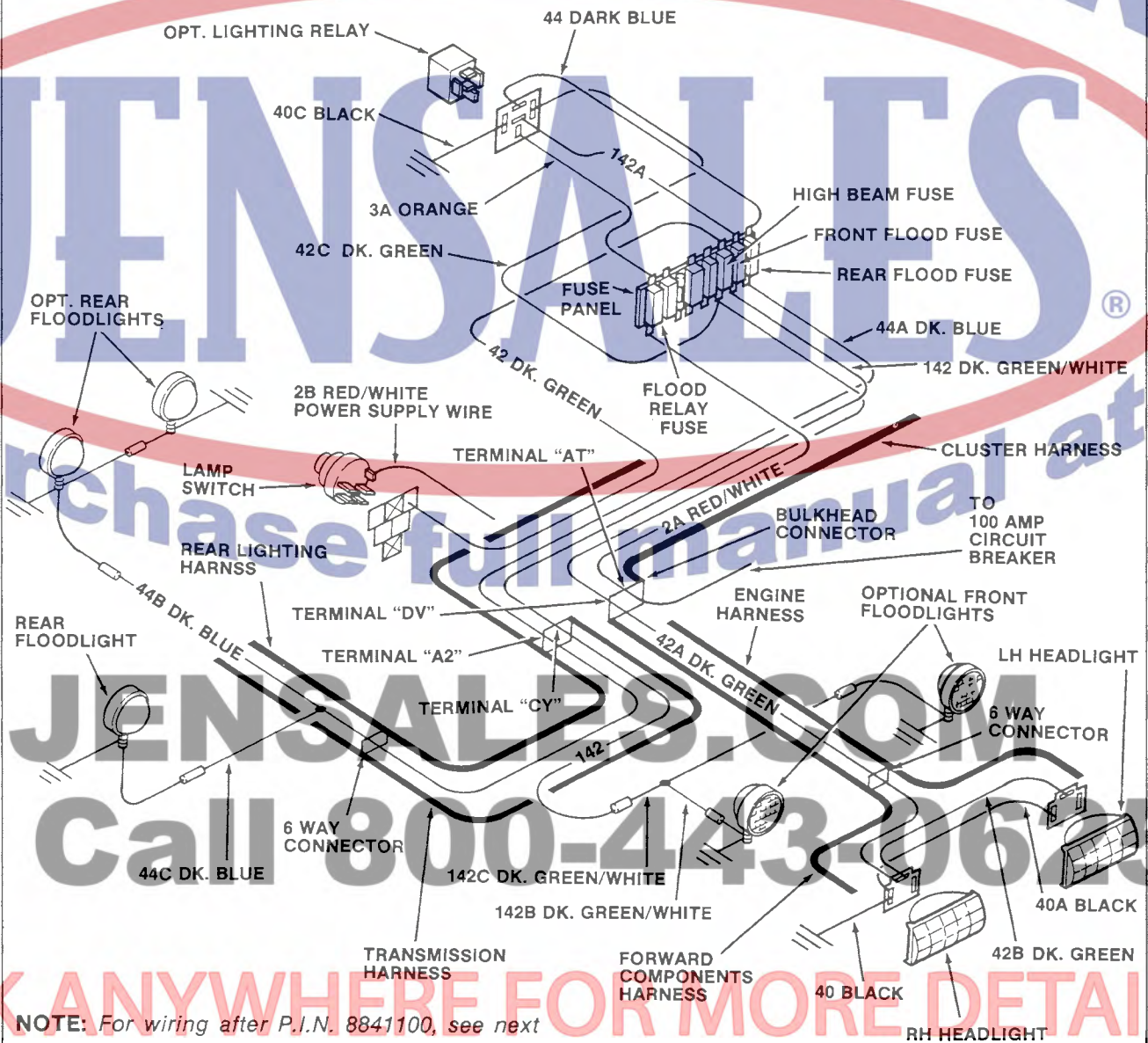
CAS-10032
TORQUE WRENCH
200 INCH POUND

STEP	PROCEDURE	RESULT
4C Solenoid Testing: 'Hold in' Coil Test	a. Using the same test circuit as in Step 4B, remove the test wire between the solenoid "M" terminal and ground. b. Adjust the variable resistor until the volt-meter has a reading of 10 volts. c. The ammeter must have a reading of 12.7 to 14.3 amps.	If the results are not to the specifications in part "c" of the procedure, replace the solenoid and Go back to Step 1B
5A PROBLEM: STARTER SOLENOID DOES NOT ENGAGE WHEN TRANSMISSION IS IN "PARK" (NO SOUND WHEN KEY SWITCH IS TURNED.	a. Pull the engine fuel stop control out. b. Make sure that the tractor transmission is in "PARK" c. Install a jumper wire across the neutral start switch wires. d. Turn the key switch to the start position. e. Check starter operation.  ENGINE STOP CONTROL "START"  NEUTRAL START SWITCH	a. Starter turns over engine: (neutral start switch problem) Continue to Step 5B b. Starter does not turn over engine: Connect the switch wires again and Continue to Step 5C

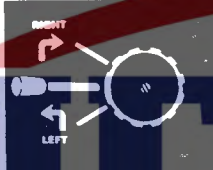
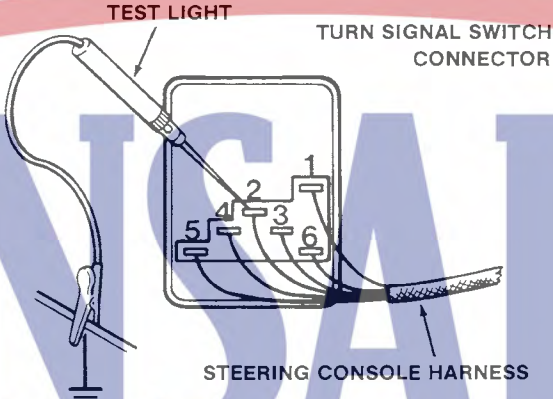
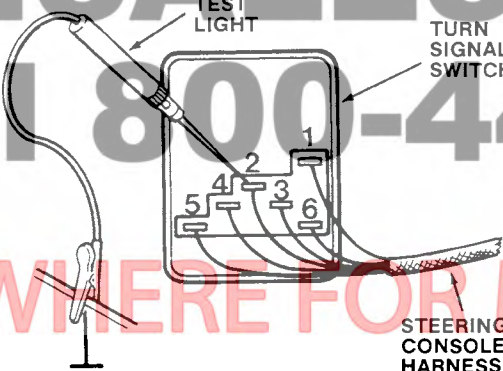
STEP	PROCEDURE	RESULT
5B	Causes for neutral start switch problems: 1. Connections at switches have too much corrosion or are loose. 2. Switch ball has damage. 3. Switch shim adjustment not correct.	Repair or adjust as necessary and Go back to Step 1B
5C	Checking "IGN" fuse: a. Connect one wire of a 12 volt test light to a good ground. b. Connect the other test light wire to one side of the "IGN" fuse in the fuse panel. Check for test light illumination. c. Move the test light wire connected to the fuse in part "b" to the other end of the fuse. Check for test light illumination.	a. Test light does not illuminate in either part "b" or "c" of the procedure: Continue to Step 5J b. Test light illuminates in both parts "b" and "c" of the procedure: Continue to Step 5D c. Test light illuminates when connected to one side of the fuse only: [®] Replace the fuse and Go back to Step 1B
	 TRACTORS BEFORE P.I.N. 8841100	
	 TRACTORS AFTER P.I.N. 8841100	

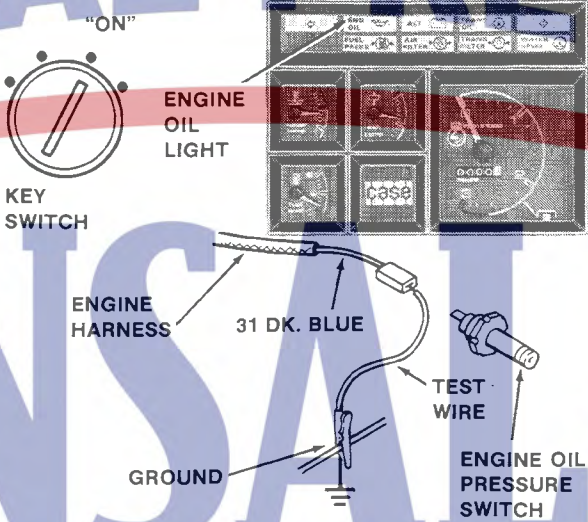
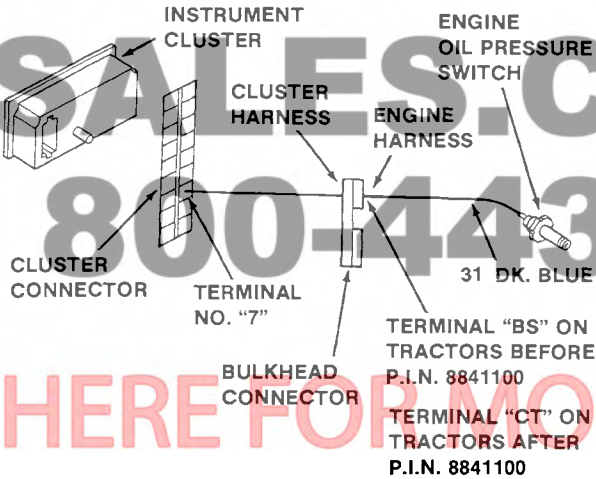
STEP	PROCEDURE	RESULT
4A	HIGH BEAM HEADLIGHTS AND FLOODLIGHTS CIRCUIT: - Use the circuit diagram below to help find the problem. - Check for bad fuses or bad light bulbs. - Check for bad connections at the junction. - Check for loose or bad ground connections. - Check for broken wires. - If floodlights are not working correctly and no problems in parts "b" through "e", replace the floodlight relay for the bad circuit.	Replace bad components, repair wiring as necessary and Go back to Step 1A

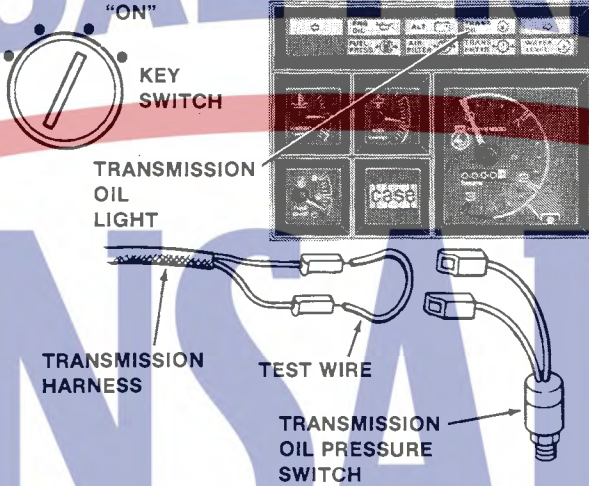
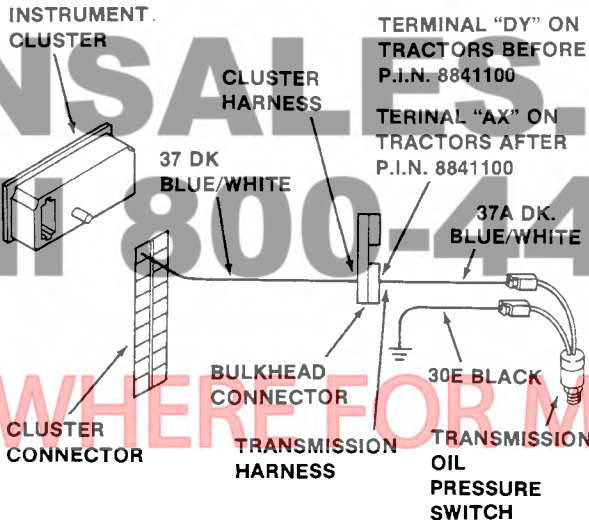
WIRING BEFORE P.I.N. 8841100



NOTE: For wiring after P.I.N. 8841100, see next page.

STEP	PROCEDURE	RESULT
7A TURN SIGNAL SWITCH ELECTRICAL CHECKS: Move the turn signal switch to the "OFF" position. 	a. Connect one wire of a 12 volt test light to a good tractor ground. b. Connect the other test light wire to each of the six terminals on the turn signal switch connector and check for test light illumination at each terminal. NOTE: The six terminal connector must be connected to the turn signal switch while testing and the lamp switch must be "OFF". 	a. Test light only illuminates at terminal No. "2": Good, Continue to Step 7B b. Test light illuminates at any of the terminals except terminal No. "2": Bad, replace the turn signal switch and Go back to Step 6A
7B Move the turn signal switch to the "LEFT" position. 	a. Connect one wire of a 12 volt test light to a good tractor ground. b. Connect the other test light wire to each of the six terminals on the turn signal switch connector and check for test light illumination at each terminal. NOTE: The six terminal connector must be connected to the turn signal switch while testing and the lamp switch must be "OFF". 	a. Test light has constant illumination at terminals "1", "2" and "4" and has flashing illumination at terminals "3" and "6": Good, Continue to Step 7C b. Test light does not have constant illumination at terminals "1", "2" and "4" or does not have flashing illumination at terminals "3" and "6" or has any type of illumination at terminal "5": Bad, replace the turn signal switch and Go back to Step 6A

STEP	PROCEDURE	RESULT
2A PROBLEM: "ENG OIL" LIGHT DOES NOT ILLUMINATE WITH THE KEY SWITCH "ON":	a. Move the key switch to the "ON" position, but do not start the tractor engine. b. Remove the wire from the engine oil pressure switch. c. Connect a test wire between the disconnected wire and a good tractor ground. d. Check for "ENG OIL" light illuminated. 	a. "ENG OIL" light illuminates: Replace the engine oil pressure switch and Go back to Step 1A b. "ENG OIL" light does not illuminate: Continue to Step 2B
2B Checking "ENG OIL" light circuit:	a. Use the circuit diagram below to help find the problem. b. Check for a bad light bulb or bulb holder. c. Check for loose or bad connectins. d. Check for broken wires. e. Check printed circuit board on the back of the instrument cluster for damage. 	Replace bad components repair wiring as necessary and Go back to Step 1A

STEP	PROCEDURE	RESULT
3A PROBLEM: "TRANS OIL" LIGHT DOES NOT ILLUMINATE WITH THE KEY SWITCH "ON":	a. Move the key switch to the "ON" position, but do not start the tractor engine. b. Disconnect the harness wires from the transmission oil pressure switch wires. c. Connect a test wire between the two disconnected harness wires. d. Check for "TRANS OIL" light illumination. 	a. "TRANS OIL" light illuminates: Replace the transmission oil pressure switch and Go back to Step 1A b. "TRANS OIL" light does not illuminate: Continue to Step 3B
3B Checking "TRANS OIL" light circuit:	a. Use the circuit diagram below to help find the problem. b. Check for a bad light bulb or bulb holder. c. Check for loose or bad connections. d. Check for broken wires. e. Check for a bad ground connection. f. Check the printed circuit board on the back of the instrument cluster for damage. 	Replace bad components, repair wiring as necessary and Go back to Step 1A