SERVICE MANUAL

W270B
Wheel Loader

NEW HOLLAND
CONSTRUCTION

87661531

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1 – Starting Relay

Located in the right side of the engine compartment on starter motor, open engine compartment to gain access.

Check Points	Correct Reading	Possible Cause of Bad Reading
Relay housing to ground	Continuity	Bad ground circuit.
NOTE: *Put the master disconnect switch in the ON position.*		
Terminal 87, battery hot lead (black w/white stripe), to ground	24 volts	Check circuit to batteries.
NOTE: *Put the transmission in NEUTRAL. Have another person hold the ignition switch in the START position.*		
Terminal for wire 21C-D to ground	24 volts	Check crank control relay (4), also check circuit 21.
Terminal 30, lead from relay to starter solenoid, to ground	24 volts	Bad starting relay.

2 – Resistor

Located in the cab access panel for fuses and relays.

NOTE: *Turn master disconnect switch off, disconnect terminals from resistor.*

Check Points	Correct Reading	Possible Cause of Bad Reading
Between terminals of resistor	75 ohms	Bad resistor.

3 – Alternator

Located on left side of engine, open engine compartment to gain access.

Check Points	Correct Reading	Possible Cause of Bad Reading
Between housing of alternator and ground	Continuity	Bad ground connection.
NOTE: *Put the master disconnect switch in the ON position.*		
Between the B+ terminal of alternator and ground	24 volts	Check circuit to positive post of left battery. Bad master disconnect switch. Bad wire 1-BA.
NOTE: *Put the ignition switch in the ON position.*		
Terminal for wire 14 to ground	20 volts	Check circuit 14, 75 ohm resistor (2), and diode module. Bad fuse ECA-F4. Check power relay module A (13), and 105 ampere circuit breaker (19) in engine compartment of machine.
NOTE: *If the readings are good, repair or replace the alternator.*		

4 – Crank Control Relay

Check Points	Correct Reading	Possible Cause of Bad Reading
NOTE: *No information at time of print.*		

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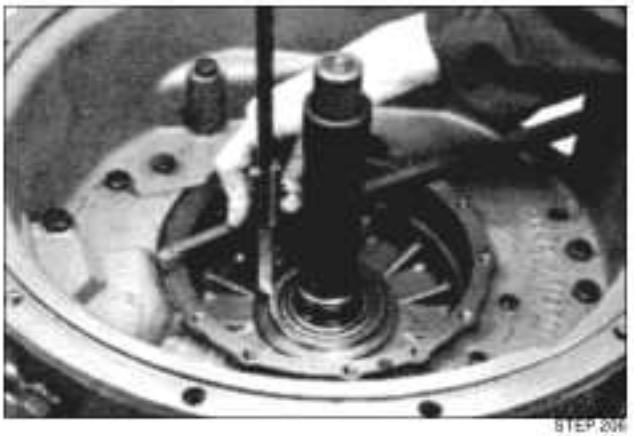
101 – Left Hand Rear Combination Lamp		
Check Points	**Correct Reading**	**Possible Cause of Bad Reading**
NOTE: *Disconnect wiring harness connector LLR-E from LH rear combination lamp connector.*		
Combination lamp connector pin 1 to pin 5	Continuity	Bad stop lamp bulb.
Combination lamp connector pin 2 to pin 5	Continuity	Bad turn lamp bulb.
Combination lamp connector pin 3 to pin 5	Continuity	Bad tail lamp bulb.
Combination lamp connector pin 4 to pin 5	Continuity	Bad reverse lamp bulb.
NOTE: *Connect wiring harness connector LLR-E to LH rear combination lamp connector.*		
Terminal for wire 0-BT to ground	Continuity	Bad ground circuit.
NOTE: *Put master disconnect switch and ignition switch in ON position. Have another person press and hold down the brake pedal.*		
Terminal for wire 44A-E to ground	24 volts	Check brake lamps relay (91). Also check circuit 44 to brake lamps relay (91).
NOTE: *Have assistant put transmission in reverse.*		
Terminal for wire 35A-L to ground	24 volts	Check backup alarm relay (78). Also check circuit 35A to backup alarm relay (78).
NOTE: *Have assistant put transmission in neutral. Put turn signal lever in LEFT turn position.*		
Terminal for wire 45L-A to ground	Intermittent 24 volts	Check the turn signal switch (94) and flasher module (92). Also check circuit 45L to flasher module.

102 – License Plate Lamp		
Located on the right rear of the machine with combination lamp.		
Check Points	**Correct Reading**	**Possible Cause of Bad Reading**
Bulb	Continuity	Bad bulb.
Terminal for wire 0-JC to ground	Continuity	Bad ground circuit.
NOTE: *Put master disconnect switch in ON position. Put the driving lamp switch (95) in position 2.*		
Terminal for wire 18G-E to ground	24 volts	Check fuse ECB-F8 and five driving lamp switch (95). Also check circuit 18G.

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Converter Bearing Preload Procedure

STEP 238

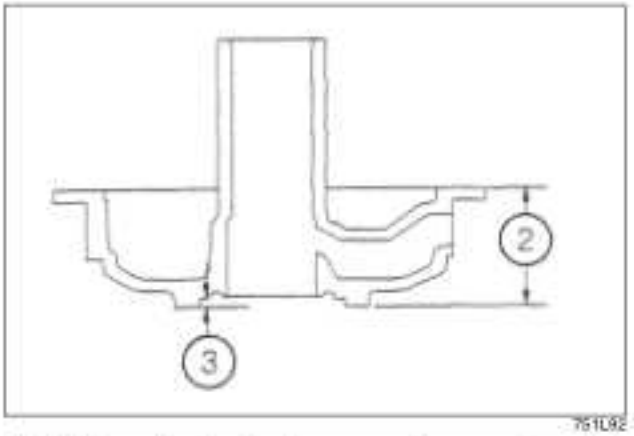


Install converter housing. Tighten the bolts to a torque of 34 Nm (M8 bolts), 79 Nm (M12-8.8 bolts) and 117 Nm (M12-10.9 bolts).

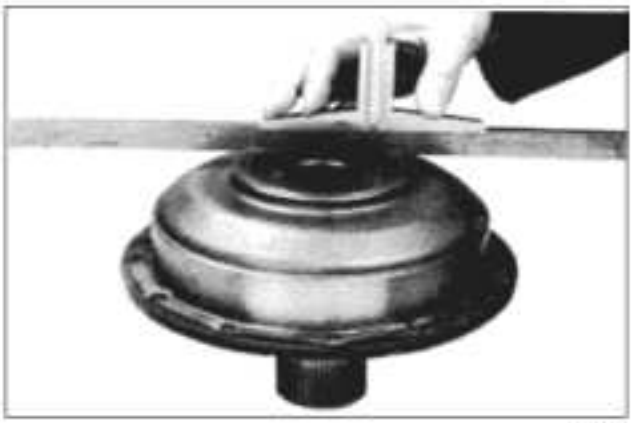
Measure from the bearing outer race (cup) to the flange mounting surface (Dimension 1).

STEP 239





Install the gasket on the flange and measure from the gasket to the bottom of the oil supply housing (Dimension 2).

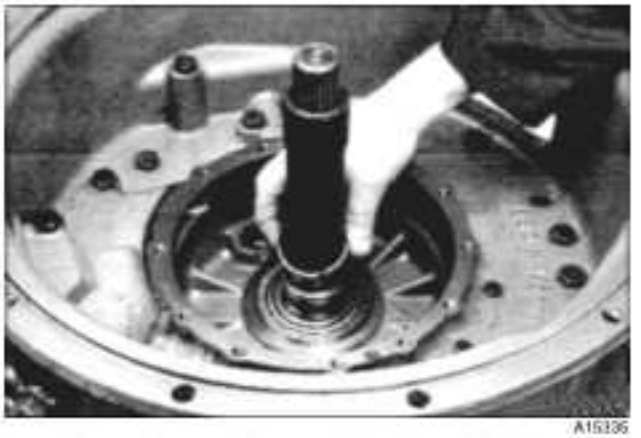


Measure from the bottom of the housing to the bearing outer race locating surface (Dimension 3). Determine shim size needed by using the following:

EXAMPLE:

Dimension 2	65.37	mm
Dimension 3	-4.50	mm
Dimension X	60.87	mm
Dimension 1	62.10	mm
Dimension X	-60.87	mm
Difference	1.23	mm
Bearing Preload	+0.07	mm
Shim Size Needed	1.30	mm

STEP 240



Install the oil control ring on the drive shaft. Lock the ends of the ring together.

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