SERVICE MANUAL

Wheel Loader
W110C
Tier 4

Print No. 84581910A

NEW HOLLAND CONSTRUCTION

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CNH Italia S.p.A.
Via Plava, 80
10135 Torino
Italia

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20 – Water Separator Heater

Located in the right side of the engine compartment on water separator housing, open engine compartment to gain access.

Check Points	Correct Reading	Possible Cause of Bad Reading
Terminal for wire 0-BW to ground	Continuity	Bad ground circuit.
NOTE: *Disconnect connector WSH from water separator heater.*		
Between terminals A and B of heater	1.9 ohms	Bad heater.
NOTE: *If the readings are good, check circuit 1-GA between water separator heater connector WSH and power relay module D connector PRM-D1.*		

21 – Fuel Filter Heater

Located in the right side of the engine compartment on fuel filter housing, open engine compartment to gain access.

Check Points	Correct Reading	Possible Cause of Bad Reading
Terminal for wire 0-BX to ground	Continuity	Bad ground circuit.
NOTE: *Disconnect connector FFH from fuel filter heater.*		
Between terminals A and B of heater	1.9 ohms	Bad heater.
NOTE: *If the readings are good, check circuit 1-G between fuel filter heater connector FFH and power relay module D connector PRM-D1.*		

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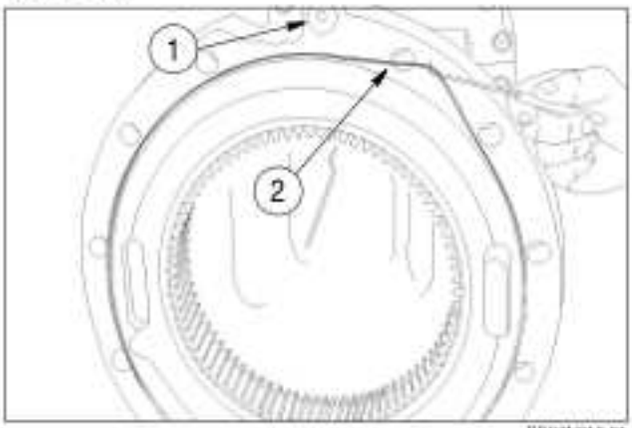
CODE	DEFINITION	DESCRIPTION AND POSSIBLE STEPS FOR REPAIR
3281	Sensor supply voltage 1 low	Insufficient battery voltage, defect in wiring harness, electrical failure connected sensors or in the EDC. Check battery voltage, check wiring for correct voltage supply of the sensor and the EDC, replace EDC
3283	Sensor supply voltage 2 high	Excessive battery voltage, defect in wiring harness, electrical failure in connected sensors or in the EDC. Check battery voltage, check wiring for correct voltage supply of the sensor and the EDC, replace EDC
3284	Sensor supply voltage 2 low	Insufficient battery voltage, defect in wiring harness, electrical failure connected sensors or in the EDC. Check battery voltage, check wiring for correct voltage supply of the sensor and the EDC, replace EDC
3285	Sensor supply voltage 3 high	Excessive battery voltage, defect in wiring harness, electrical failure in connected sensors or in the EDC. Check battery voltage, check wiring for correct voltage supply of the sensor and the EDC, replace EDC
3286	Sensor supply voltage 3 low	Insufficient battery voltage, defect in wiring harness, electrical failure connected sensors or in the EDC. Check battery voltage, check wiring for correct voltage supply of the sensor and the EDC, replace EDC
3290	Turbo compound monitoring signal not plausible	See engine manual for details.
3297	Rail pressure governor deviation exceeded max limit with fuel delivery quantity on limit.	See engine manual for details.
3301	Rail pressure governor deviation exceeded min limit with fuel delivery quantity on limit.	See engine manual for details.
3305	Rail pressure governor deviation below min limit for speed	See engine manual for details.
3309	Rail pressure governor deviation exceeded max limit	See engine manual for details.
3313	Rail pressure drop rate is higher than expected.	See engine manual for details.
3315	Minimum number of injections not reached - stop engine.	See engine manual for details.

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Sun Gear Shaft End Play Adjustment

NOTE: *Tools and axle shown in the following photographs may appear slightly different than the tools and axle you may have. The use of the tools and disassembly/assembly of axle is the same regardless of appearance.*

STEP 78



BD07N013-01

Install a new O-ring onto the axle housing (2) and a new O-ring in brake port (1) in axle housing.

STEP 79



BD06B036-01

Take a measurement from the straight edge to the face of the brake housing, the difference between this measurement and the next measurement will be dimension A.

Mount the sun gear into the planet gears. Then, determine dimension A, from the inner face of the sun gear to the face of the brake housing.

Example:

Dimension A . . . . . 97.90 mm (3.85 inch)

STEP 80

Install the stub shaft in the spline of the axle bevel gear. Make sure the stub shaft is installed all the way into the axle bevel gear.

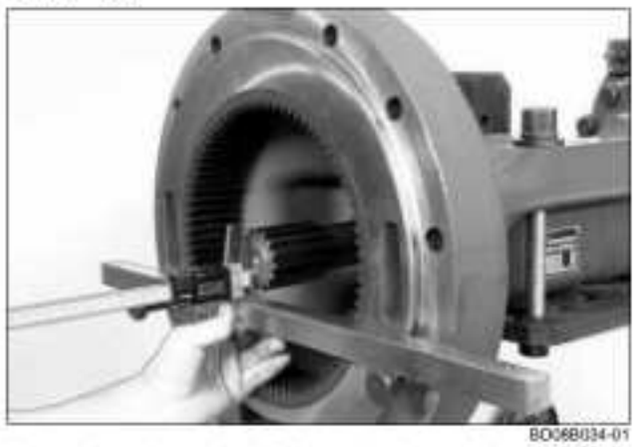
STEP 81



BD06B033-01

Install the sun gear onto the stub shaft with out the shims.

STEP 82



BD06B034-01

Determine dimension B from the face of the sun gear to the mounting face of the axle housing.

Example:

Dimension B . . . . . 100.20 mm (3.95 inch)

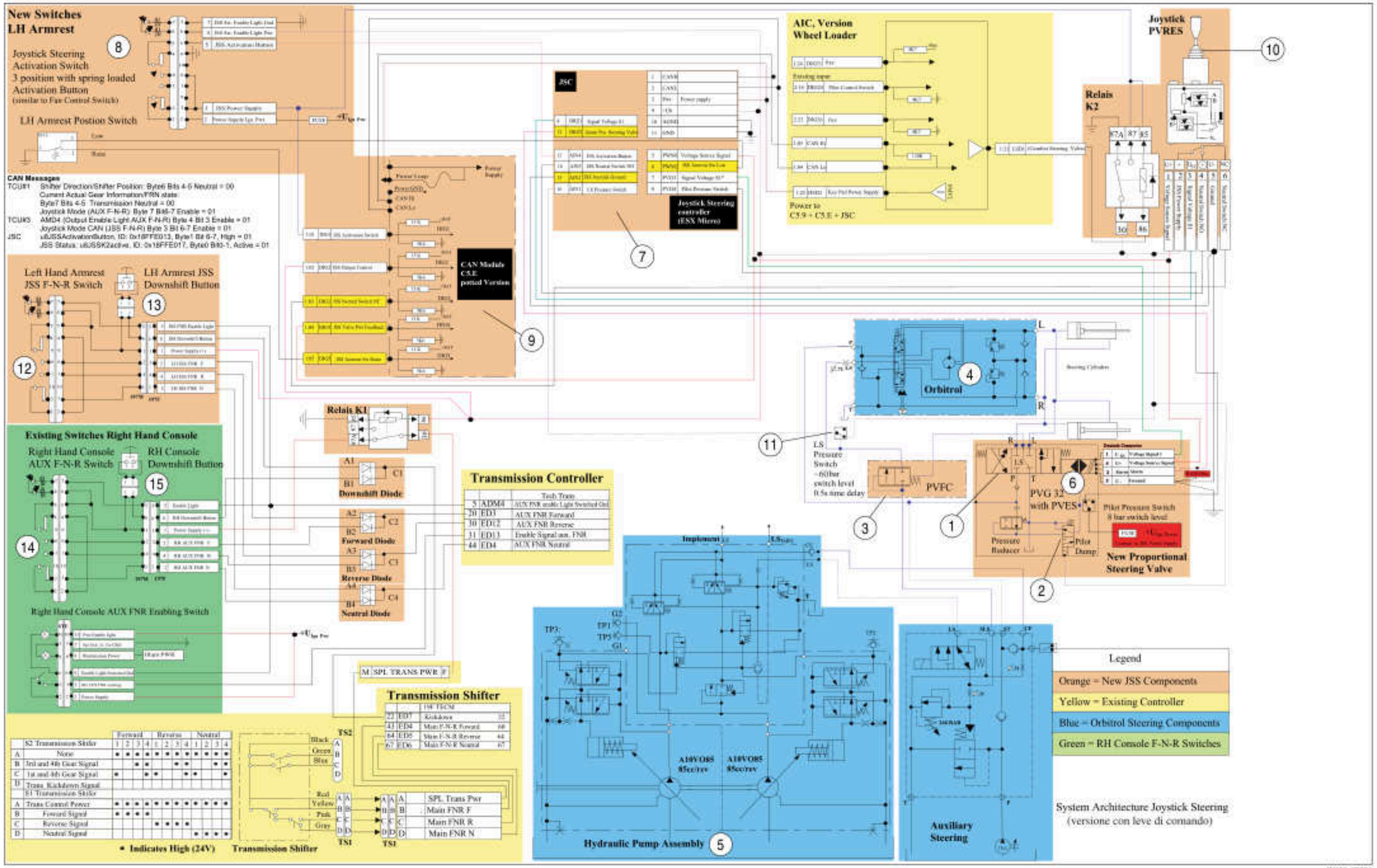
STEP 83

Subtract dimension A from dimension B. Then subtract 1.30 mm (0.05 inch) from the difference. The difference is the required shim size.

Example:

Dimension B	100.20 mm (3.94 inch)
Dimension A	– 97.90 mm (3.85 inch)
Difference	2.30 mm (0.09 inch)
Required end play	– 1.30 mm (0.05 inch)
Difference = shim size	**1.00 mm (0.04 inch)**

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