NEW HOLLAND

WHEEL LOADER

W170B TIER 3

SERVICE MANUAL

84249890

Issued 12 - 2009

NEW HOLLAND CONSTRUCTION

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NOTE: CNH America LLC reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.

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Wire Identification Codes

21C Bk - 1.0

- 21C = Wire Name
- Bk = Wire Color
- 1.0 = Wire Size (mm^2)

Wire Size (mm^2)			
0.8 mm	1.0 mm	2.0 mm	5.0 mm

Wire Color				
Bk = Black	DU = Dark Blue	S = Gray	LG = Light Green	K = Pink
T = Tan	W = White	N = Brown	G = Green	U = Blue
LU = Light Blue	Or = Orange	R = Red	P = Purple	Y = Yellow

Wire Identification			From Connector		To Connector	
Wire	Circuit	Color, Size, and Material	Connector	Cavity	Connector	Cavity
61R B	AC Relay Control	W 0.8 GXL	CAB-E, Cab Engine	29	ECD, Elect Center D	D9
63C	Front Wiper Park Control	W 0.8 GXL	FWM, Front Wiper Motor	D	ECD, Elect Center D	C4
63C2	Front Wiper Park Control	W 0.8 GXL	ECD, Elect Center D	D4	ECD, Elect Center D	C2
63C3	Front Wiper Park Control	W 0.8 GXL	K-WCO, Wiper Cutout	87a	ECD, Elect Center D	B3
63HC	Front Wiper High Speed Rly Ctrl	W 0.8 GXL	SFWW, Front Wiper/Washer	9	SPL-HC, Ultrasonic	A
63HC A	Wiper Cutout Relay Control	W 0.8 GXL	SPL-HC, Ultrasonic	A	K-WCO, Wiper Cutout	85
63HC B	Front Wiper High Speed Rly Ctrl	W 0.8 GXL	SPL-HC, Ultrasonic	A	ECD, Elect Center D	B2
63H A	Front Wiper High Speed Rly Out	W 0.8 GXL	FMW, Front Wiper Motor	A	SPL-WHS, Ultrasonic	A
63H B	Front Wiper High Speed Rly Out	W 0.8 GXL	SPL-WHS, Ultrasonic	A	ECD, Elect Center D	D2
63H C	Front Wiper High Speed Rly Out	W 0.8 GXL	140M, Diode Module	A	SPL-WHS, Ultrasonic	A
63LC	Front Wiper Low Speed Rly Ctrl	W 0.8 GXL	SFWW, Front Wiper/Washer	3	ECD, Elect Center D	B4
63L A	Front Wiper Low Speed Rly Out	W 0.8 GXL	FMW, Front Wiper Motor	B	SPL-WLS, Ultrasonic	A
63L B	Front Wiper Low Speed Rly Out	W 0.8 GXL	K-WCO, Wiper Cutout	30	SPL-WLS, Ultrasonic	A
63L C	Front Wiper Low Speed Rly Out	W 0.8 GXL	140M, Diode Module	B	SPL-WLS, Ultrasonic	A
63W	Front Washer Pump	W 0.8 GXL	CAB-E, Cab Engine	25	SFWW, Front Wiper/Washer	7
63W A	Front Washer Pump	W 1.0 SXL	ENG, Engine Cab	25	FWW, Front Washer	1
64C	Horn Relay Control	Or 0.8 GXL	SRHSTLK, RH Stalk Switch	31b	ECC, Work Lights	B8
64 A	Horn Power	Or 0.8 GXL	CAB-F, Cab Front Chassis	13	ECC, Work Lights	D8
65L	Left Speaker	Or 0.8 GXL	LSPK, Left Speaker	1	SPK, Speaker	7
65R	Right Speaker	Or 0.8 GXL	RSPK, Right Speaker	1	SPK, Speaker	1
68C	Rear Wiper Park Control	Or 1.0 GXL	CAB-RF, Cab to Roof Conn.	K	SRWP, Rear Wiper Switch	1
68C A	Rear Wiper Park Control	Or 1.0 GXL	ROOF, Roof to Cab Conn.	K	RWM, Rear Wiper Motor	D
68L	Rear Wiper Switch Power	Or 1.0 GXL	SRWP, Rear Wiper Switch	2	SPL-3, Ultrasonic	A
68L A	Rear Wiper Switch Power	Or 1.0 GXL	ROOF, Roof to Cab Conn.	L	RWM, Rear Wiper Motor	B
68L B	Rear Wiper Switch Power	Or 1.0 GXL	CAB-RF, Cab to Roof Conn.	L	SPL-3, Ultrasonic	A
68L C	Rear Wiper Switch Power	Or 1.0 GXL	140M, Diode Module	F	SPL-3, Ultrasonic	A
68W	Rear Washer Pump	W 0.8 GXL	CAB-E, Cab Engine	24	SRWP, Rear Wiper Switch	6
68W A	Rear Washer Pump	W 1.0 SXL	ENG, Engine Cab	24	RWW, Rear Washer	1
CAN H	CAN High	Y 0.8 TXL TWIST	CAN2, CAN Bulk Head	A	EDC7, Engine Controller	35

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143 – Air Recirculation Motor

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

144 – Driver

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

145 – Electronic Water Valve

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

146 – Blower Motor Speed Resistors with Thermal Fuse

Check Points	Correct Reading	Possible Cause of Bad Reading
NOTE: *Disconnect the wiring harness connector DNS RESISTOR from the resistor.*		
Between terminals 1 and 4 of blower motor connector	Approximately x.x ohms	Bad blower motor resistor.
Between terminals 2 and 4 of blower motor connector	Approximately x.x ohms	Bad blower motor resistor.
Between terminals 3 and 4 of blower motor connector	Approximately x.x ohms	Bad blower motor resistor.

147 – Blower Motor

Check Points	Correct Reading	Possible Cause of Bad Reading
Terminals for wire DNS66 to ground	Continuity	Bad ground circuit.
NOTE: *Put the master disconnect switch and the ignition switch in the ON position. Turn the blower switch (149) to position 4.*		
Terminal for wire DNS65 to ground	24 volts	Check the blower switch (149).
NOTE: *If the readings are correct and the blower motor does not run, replace the blower motor. Turn the blower switch (149) to position 1. If the blower motor ran in position 4 but not in position 1, 2,or 3, check the blower motor resistor (146).*		

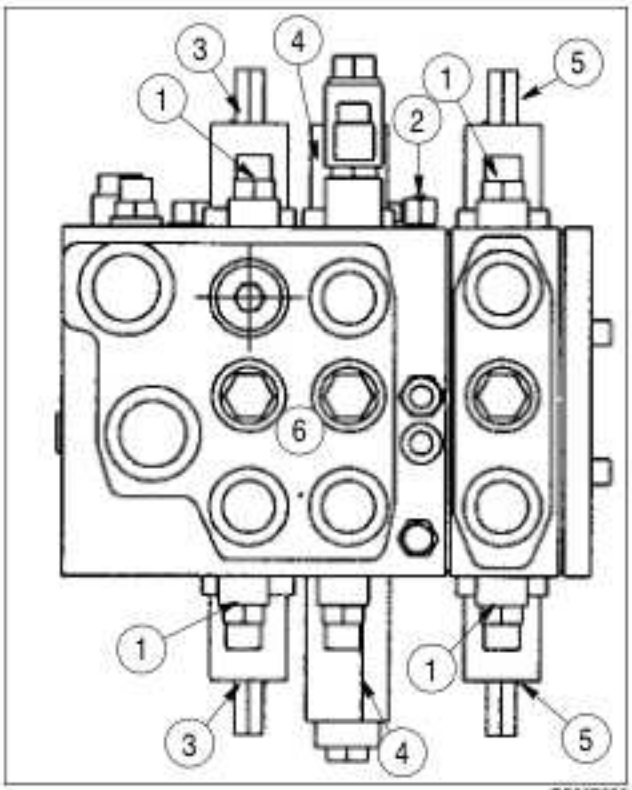
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TESTING AND ADJUSTING THE CIRCUIT RELIEF VALVES

Pressure Check

STEP 1

Circuit relief valves are located as shown below.



BS038022

1. CIRCUIT RELIEF VALVES
2. PUMP LIMIT PRESSURE ADJUSTMENT
3. BUCKET SPOOL
4. LIFT SPOOL
5. AUXILIARY SPOOL
6. LOADER CONTROL VALVE

STEP 2

Raise the lift arms and install the safety link on the lift arm cylinder.

STEP 3

Loosen and remove the bolts and washers that fasten the access cover plate for the loader control valve. Remove the cover plate.

STEP 4

Remove the safety strut and lower the bucket to the floor. Shut off the engine. Find an easy place to disconnect the line for the circuit to be tested.

STEP 5

Connect the hand pump to the disconnected line that goes to the loader control valve.

STEP 6

Make sure that the hand pump is full of hydraulic oil and that the temperature of the oil is approximately 21°C (70°F).

STEP 7

Operate the handle of the hand pump and read the highest pressure. Repeat this step several times to be sure of the reading.

STEP 8

Compare the reading to the specifications on Page 3.

STEP 9

If the pressure is not correct, adjust the circuit relief valve.

Adjustment

STEP 1

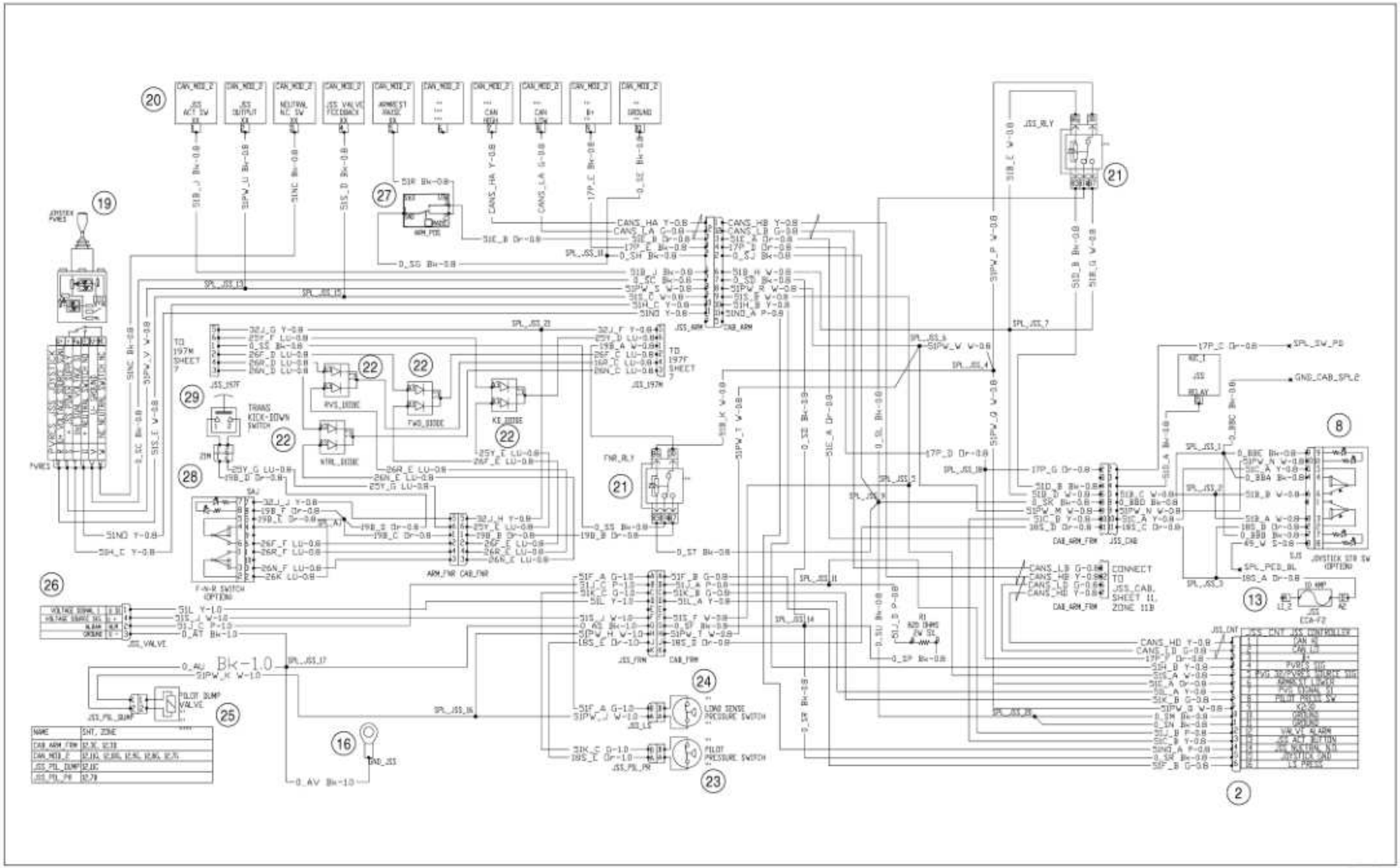
Loosen the lock nut. Turn the adjustment screw clockwise to increase the pressure or counterclockwise to decrease the pressure.

NOTE: *One turn of the adjusting screw will change the pressure approximately 138 bar (2000 psi).*

STEP 2

Check the pressure again. Repeat the adjustment as necessary.

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W190-4R097

WIRING DIAGRAM OF THE JOYSTICK STEERING SYSTEM

5-17050

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