SERVICE MANUAL

RG140.B
RG170.B VHP
RG200.B
MOTOR GRADERS

NEW HOLLAND
CONSTRUCTION

75314407

MidWestTech | New Holland RG140.B, RG170.B VHP, RG200.B Motor Grader Service Man... Order the manual at mid-west-tech.com >

RG 140.B - RG 170.B VHP - RG200.B GRADERS
Service Manual
75314407

Table of Contents

Description	Section No.	Form No.
General	**Tab 1**	
Section Index - General		6-46520
Standard Torque Specifications	1001	6-46530
Fluids and Lubricants	1002	6-46540
Metric Conversion Chart	1003	6-46550
Tools	**1005**	
Loctite Product Chart		
Engines	**Tab 2**	
Section Index - Engines		6-46560
For Engine Repair, See the Engine Service Manual		
Fuel System	**Tab 3**	
Section Index - Fuel System		6-46590
For Fuel System Repair, See the Engine Service Manual		
Electrical	**Tab 4**	
Section Index - Electrical		6-46600
Removal and Installation of Starter and Alternator	4001	6-42320
Electrical Diagram	4002	6-46620
Batteries	4003	6-42330
Alternator - 45 Ampere	4008	6-42360
Steering	**Tab 5**	
Section Index - Steering		6-46660
Front wheel,axle&wheel lean	5002	6-46780
Steering Control Valve	5003	6-46690
Steering Priority Valve	5004	6-46700
Power Train	**Tab 6**	
Section Index - Power Train		6-46730

CNH Latin America Ltda
2237, General David Samoff Avenue
Contagem, MG Brazil

75314407

Printed in Brazil
December, 2004

MidWestTech | New Holland RG140.B, RG170.B VHP, RG200.B Motor Grader Service Man... Order the manual at mid-west-tech.com >

RG 140.B - RG 170.B VHP - RG200.B GRADERS
Service Manual
75314407

Table of Contents

Description	Section No.	Form No.
Transmission Specifications, Pressure Checks, and Troubleshooting RG140.B-RG170.B VHP	6002	6-46750
Transmission Specifications, Pressure Checks, and Troubleshooting RG200.B	6002	6-46750
Transmission-RG140.B-RG170.B VHP	6003	6-46760
Transmission-RG 200.B	6	6-46760
Limited slip rear axle-RG 140.B - RG 170.B VHP	6005	6-46760
Rear axle with differential lock-RG 140.B - RG170.B VHP - RG 200.B	6005	6-46780
Tandem drive limited slip rear axle-RG 140.B - RG 170.B VHP	6006	6-46790
Tandem drive differential hydraulic lock-RG 170.B VHP - RG 200.B	6006	6-46790
Brakes	**Tab 7**	
Section Index- Brakes		6-46810
Hydraulic brakes troubleshooting	7002	6-46830
Brake pedal valve and system	7003	6-46840
Hydraulics	**Tab 8**	
Section Index - Hydraulics		6-46810
Removal and installation of hydraulic components	8001	6-46870
Mounted Equipment	**Tab 9**	
Section Index - Mounted Equipment		6-46930
Air Conditioning Troubleshooting Refrigerant	9002	6-46950
Air Conditioner System Operating instructions	9003	6-46960
Removal and Installation of Air Conditioning Components For Systems with HFC-134a Refrigerant	9004	6-46970
Rear Ripper	9007	6-47010
Frame, articulation joint, circle and scarifier	9008	6-47000
Front Blade	9009	6-47030
ROPS Cab	9010	6-47030
Cab Glass Installation	9011	6-47040

NOTE: CNH Latin America 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.

MidWestTech | New Holland RG140.B, RG170.B VHP, RG200.B Motor Grader Service Man... Order the manual at mid-west-tech.com >

Charge Air Cooler

Air inlet to cooler pipe removal

1 - Remove clamps (1)
2 - Remove hose (2)



3 - Remove clamps (3)
4 - Remove hose (4)
5 - Remove tube (5)



6 - Remove bolts (6)
7 - Remove tube (7)
8 - Remove gasket (8)



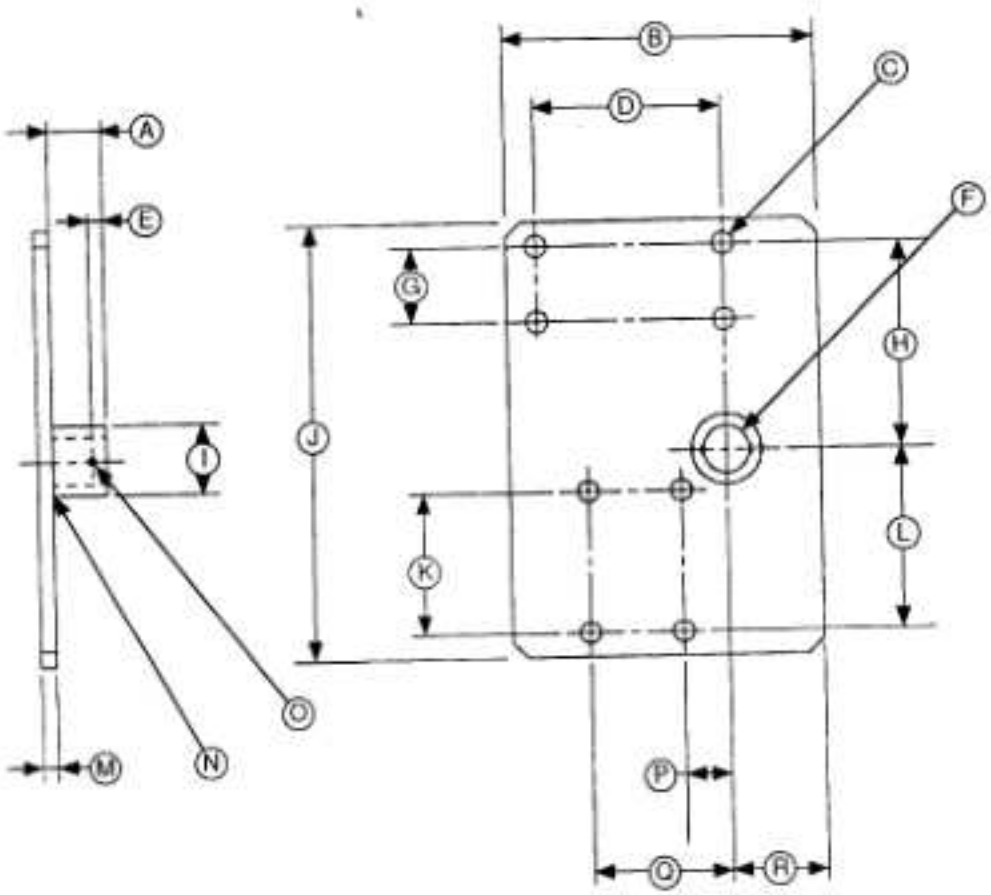
CNH LATIN AMERICA LTDA
2234, General David Sarnoff Avenue
Contagem, MG Brazil

75314407

Printed in Brazil
December 2004

MidWestTech | New Holland RG140.B, RG170.B VHP, RG200.B Motor Grader Service Man... Order the manual at mid-west-tech.com >

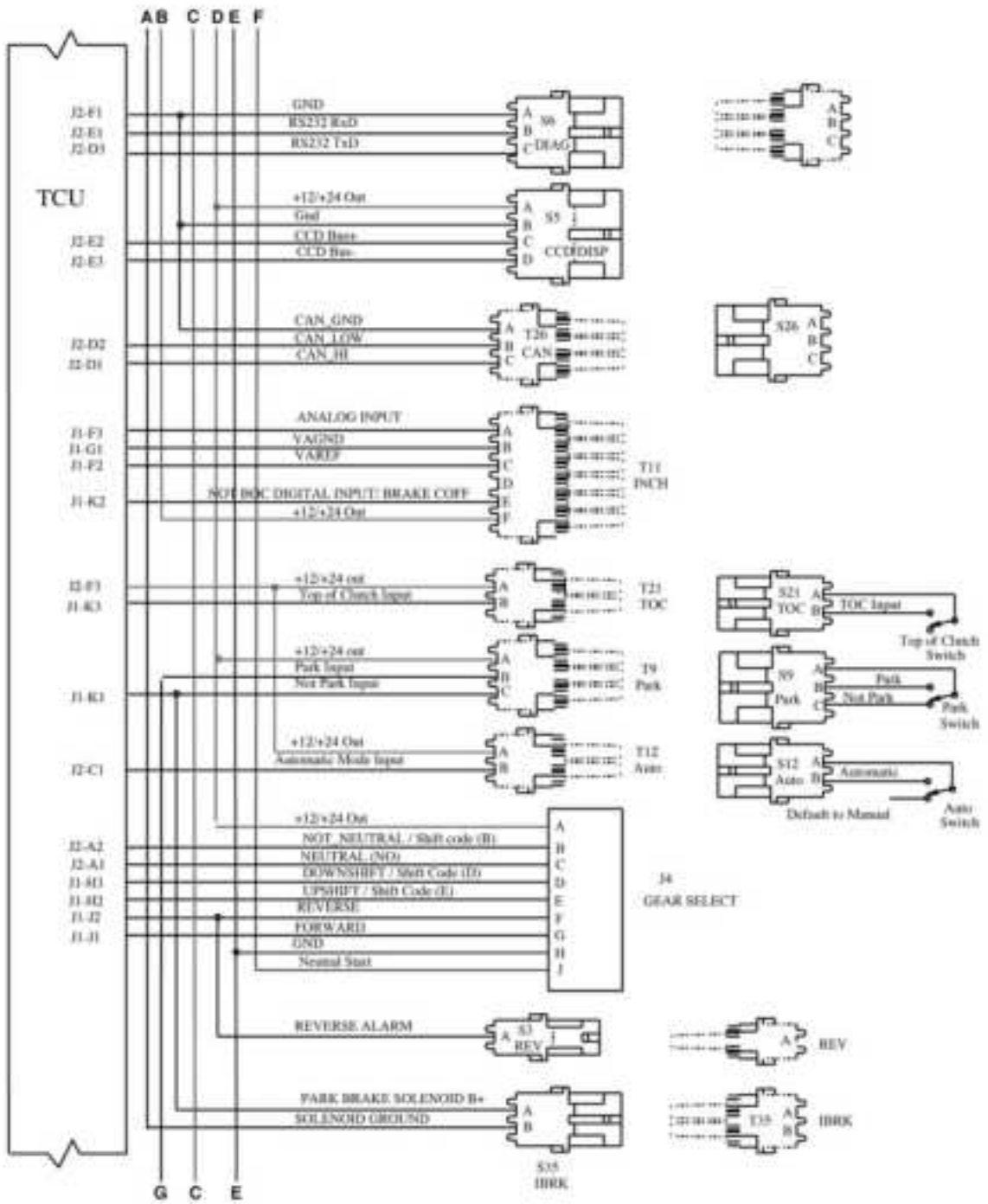
ASSEMBLY STAND PLATE



A—1.75 in. (44.45mm)
B—9.96 in. (252.98mm)
C—8X 11/16 Drill Through
D—5.984 in. (151.993mm)
E—.5 in. (12.7mm)
F—1.500—1.505 in. (38.1—38.227mm)
G—2.362 in. (59.994mm)
H—6.48 in. (164.59mm)
I—2.25 in. (57.15mm)
J—13.875 in. (352.425mm)
K—4.528 in. (115.011mm)
L—5.84 in. (148.33mm)
M—.5 in. (12.7mm)
N—.25 (6.35) radius in corner
O—17/64 Drill Through as Shown
P—1.46 in. (37.08mm)
Q—2.992 in. (75.996mm)
R— 3.00 in. (76.2mm)

MidWestTech | New Holland RG140.B, RG170.B VHP, RG200.B Motor Grader Service Man... Order the manual at mid-west-tech.com >

TRANSMISSION WIRING HARNESS 2 OF 4



NOTE: The letters G,C,E link to the next page.
Wiring harness is + 24Volts grader RG 140.B / RG 170.B

MidWestTech | New Holland RG140.B, RG170.B VHP, RG200.B Motor Grader Service Man... Order the manual at mid-west-tech.com >

SETTING OF MIN. AND MAX. ACCUMULATOR RECHARGE PRESSURE

Connect two pressure gauges **M1** and **M2** (200 bar 2900 PSI capacity) to the quick release pressure pick-up points **(7** and **8,** fig. **),** located left side of the machine.
Start the engine and operate the hydraulic levers to warm-up the oil to 40° ÷ 50° C (105° ÷ 120° F)
Parking brake ON.

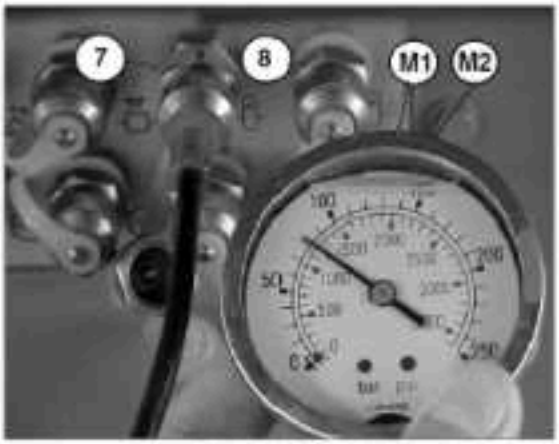
Minimum recharge value

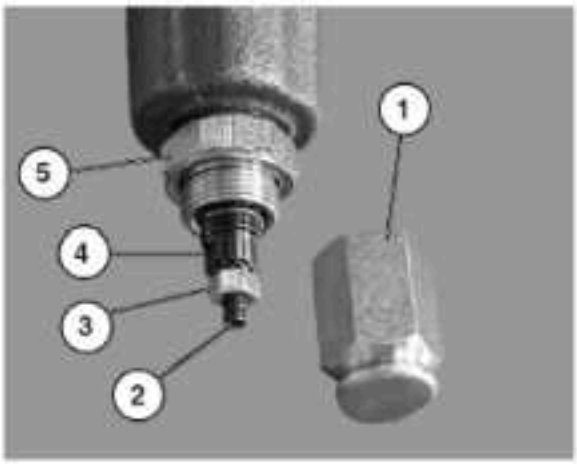
With engine idling and machine standing still, apply brake 8 to 10 times slowly. Read on gauges **M1** and **M2** the values of minimum on pressure, prior to the start of the recharge cycle
The pressure gauges must read momentary 81÷87bar (1175 ÷ 1262 PSI).

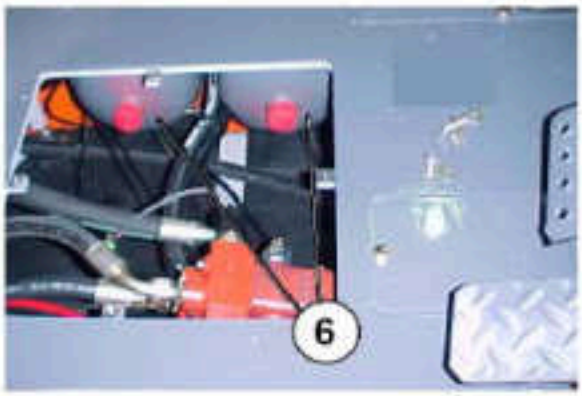
If the minimum recharge pressure is different from the nominal value, remove cap **(**1), loosen nut **(**5) and adjust screw **(**4) slowly, until the correct value is obtained.
Check the pressure again before tightening locknut **(**3).

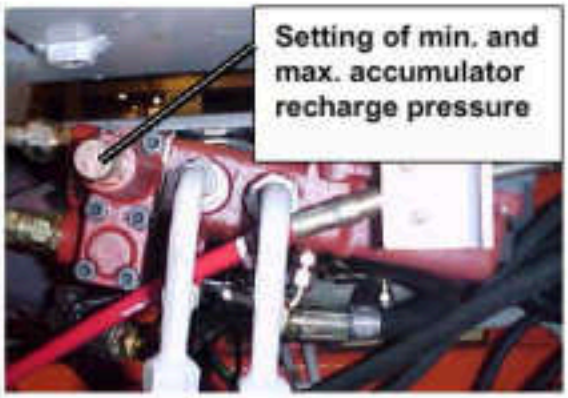
Recharge maximum value

With engine at low idle read the maximum charging pressure on pressure gauges **M1** and **M2**.
This pressure must be 120 ÷ 126bar (1740 ÷ 1827 PSI).
If the maximum recharge pressure is different from the nominal value, remove plug **(**1), loosen locknut **(**3) and adjust screw **(**2), until this value is obtained.









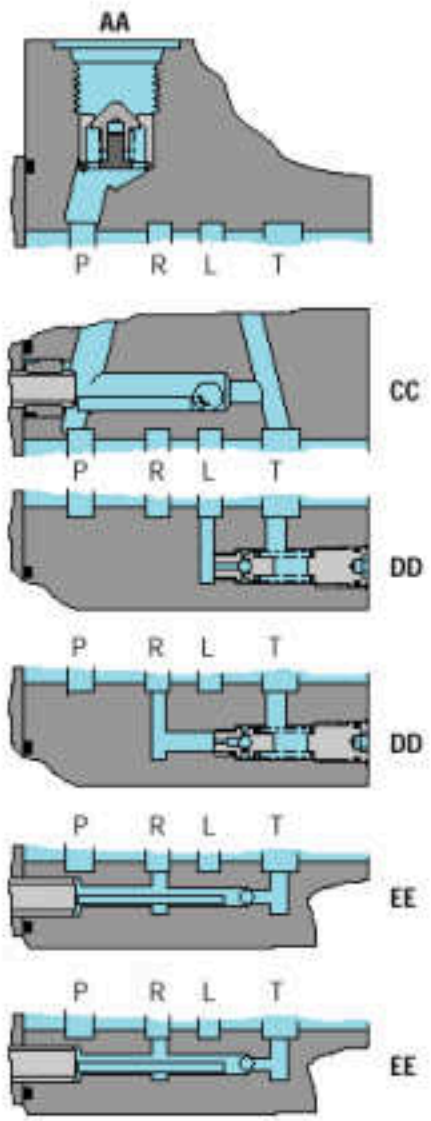
M1 and M2 Pressure gauges – **1.** Cap – **2.** Max. Pressure setting screw – **3.** Locknut – **4.** Min. pressure setting screw – **5.** Nut – **6.** Accumulators – **7.** And **8.** Pressure pick-up points thd M16 x 2.

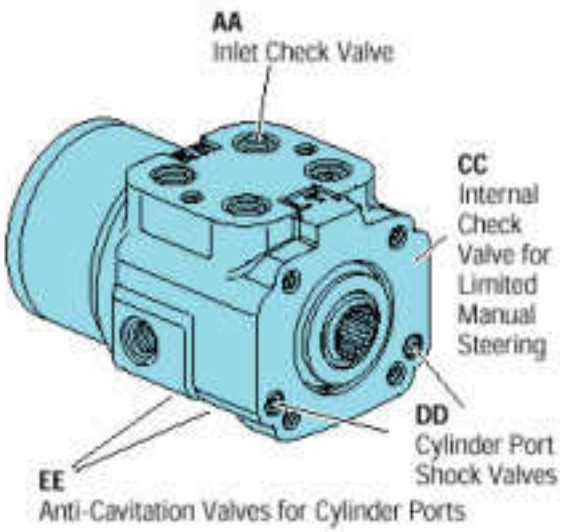
MidWestTech | New Holland RG140.B, RG170.B VHP, RG200.B Motor Grader Service Man... Order the manual at mid-west-tech.com >

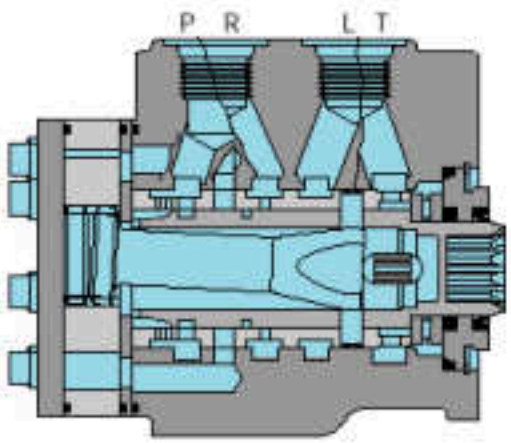
Section Drawing and Integral Valves

NOTE: The steering control valve housing (7) Fig. 2 has internally two anti-cavitation valves (EE) and one check valve (CC). Before removing these valves, verify their positions.

17. To disassemble these valves, insert soda straws (3) in each end of the threaded holes, refer to Figure 3. Remove the steering control valve housing from the vise and tilt it until the port face (4) is upward. Continue turning until the roll pins (2) and ball checks (1) slide through the straws (3).







MidWestTech | New Holland RG140.B, RG170.B VHP, RG200.B Motor Grader Service Man... Order the manual at mid-west-tech.com >