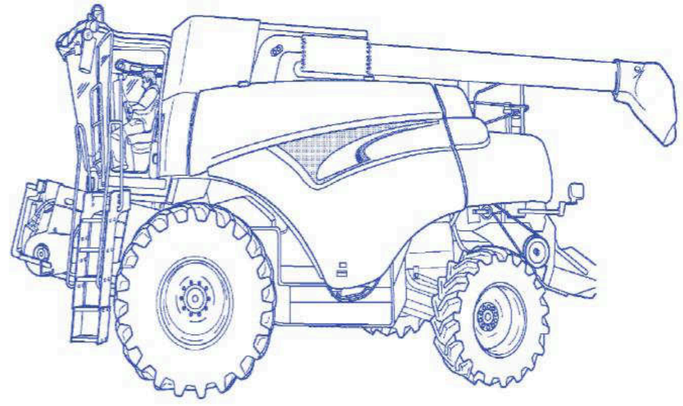


NEW HOLLAND

CR9040
CR9060
CR9070

REPAIR MANUAL

NEW HOLLAND

SERVICE

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The sections used through out all New Holland product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the CR9040, CR9060, and CR9070 Combines.

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Printed in U.S.A.

87682467 6/07
1st Printing

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SECTION 00 - GENERAL INFORMATION

BOOK 1 - 87682453

Chapter 1 - General Information

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ASSEMBLY

NOTE: *Prior to assembly of the Final Drive, the following operations must be performed:*

- *Final Drive Input Shaft - Assembly*
- *Final Drive Output Shaft - Assembly*
- *Final Drive Reducer, Satellite and Planetary - Assembly*

1. Before assembly of the final drive, perform the shimming of the reducer spur gear/sun gear assembly on the output shaft as follows:

   Install the bearing cups, 7, and, 2, in the reducer spur gear, 5.

   Install the sun gear, 4, in the reducer spur gear, 5, with the retaining ring, 3.

   Obtain from service parts two complete sets of the five available size distance rings. Available sizes are 4.60, 4.65, 4.75, 4.85, 4.90 mm (0.181, 0.183, 0.187, 0.191, 0.193 in).

   Select the two distance rings with a maximum thickness each of 4.90 mm (0.193 in).

   Combine the two distance rings, 6, and measure the effective height (X) of the two rings (18).

   Support the output shaft, 8, so the center line is vertical.

   On the output shaft, 8, install the bearing cone, 7, the reducer spur gear, the two distance rings, 6, the bearing, 2, and the bearing ring locknut, 1.

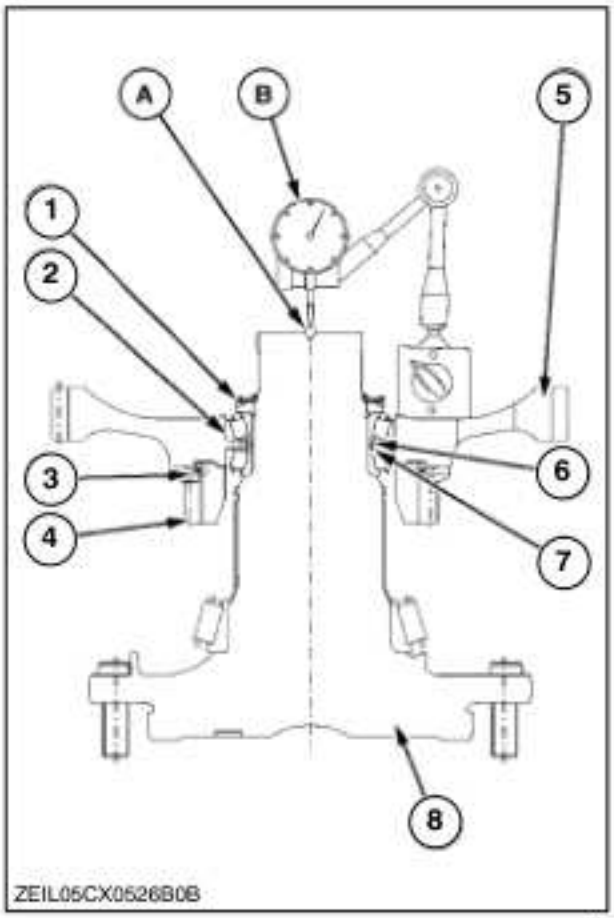
   Torque the locknut, 1, to 1300 N·m (959 ft-lb) using special tool 380002596.

   Put a ball (A) with diameter 8 mm (0.32 in) in the cleaned center hole of the output shaft, 8.

   Place a dial indicator (B) with its magnetic base on the reducer spur gear, 5, and its measuring needle, which is halfway its stroke, on the ball (A).

   Free rotate the reducer spur gear, 5, five rotations around the output shaft, 8.

   Reset the indicator of the dial indicator to zero.



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Park Brake Fault Codes

The following fault code must be resolved before proceeding to troubleshooting. In many cases, the fault code will direct you to the proper component for repair and resolution.

Fault Code	Description
E0181-11	Park Brake Disengage Valve Unidentified Failure Code
E0668-04	Park Brake On Switch Shorted to Low Source
E0669-04	Park Brake Off Switch Shorted to Low Source

***NOTE**: Refer to the appropriate section of the repair manual for troubleshooting fault codes.*

Park Brake Electrical Component Troubleshooting

***NOTE**: The batteries must be fully charged and all connections clean and tight. Use a multimeter (DVOM) for these tests. For battery testing and service, see the battery section in the service manual.*

⚠ CAUTION ⚠

DO NOT use a self-powered test light for any of these tests. Use of a self-powered test light can cause damage to components in this system.

⚠ WARNING ⚠

Before performing any of the electrical tests, be sure all operating controls are in neutral or park lock position. This will eliminate accidental movement of the machine or start-up of power driven equipment.

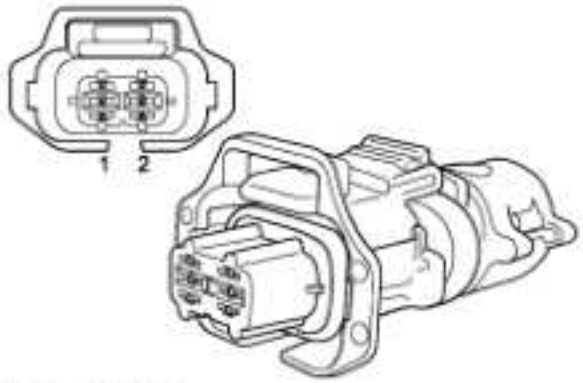
Park Brake Switch S09

Park Brake Switch S09 is a rocker switch that applies and releases the Park Brake.

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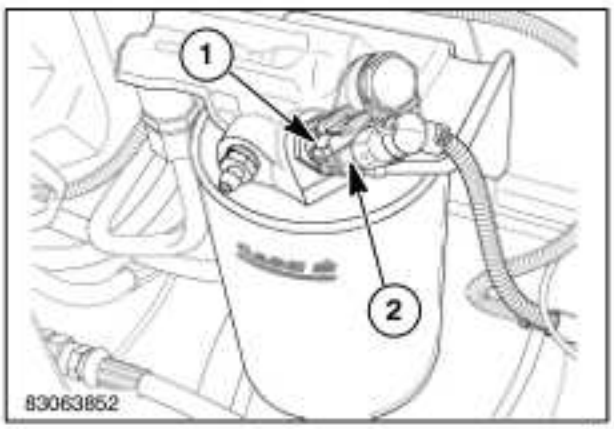
CONNECTOR X372 IVECO HARNESS TO FUEL TEMPERATURE B-36		
CAV	WIRE NUMBER	CIRCUIT REFERENCE
1	WHITE/ RED	TO ECU A-01 CONNECTOR X516 PIN 35
2	ORANGE/ BLACK	TO ECU A-01 CONNECTOR X516 PIN 18

NOTE: *Wire colors are not generally visible due to harness sheathing.*



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X372
IVECO HARNESS TO FUEL TEMPERATURE B-36



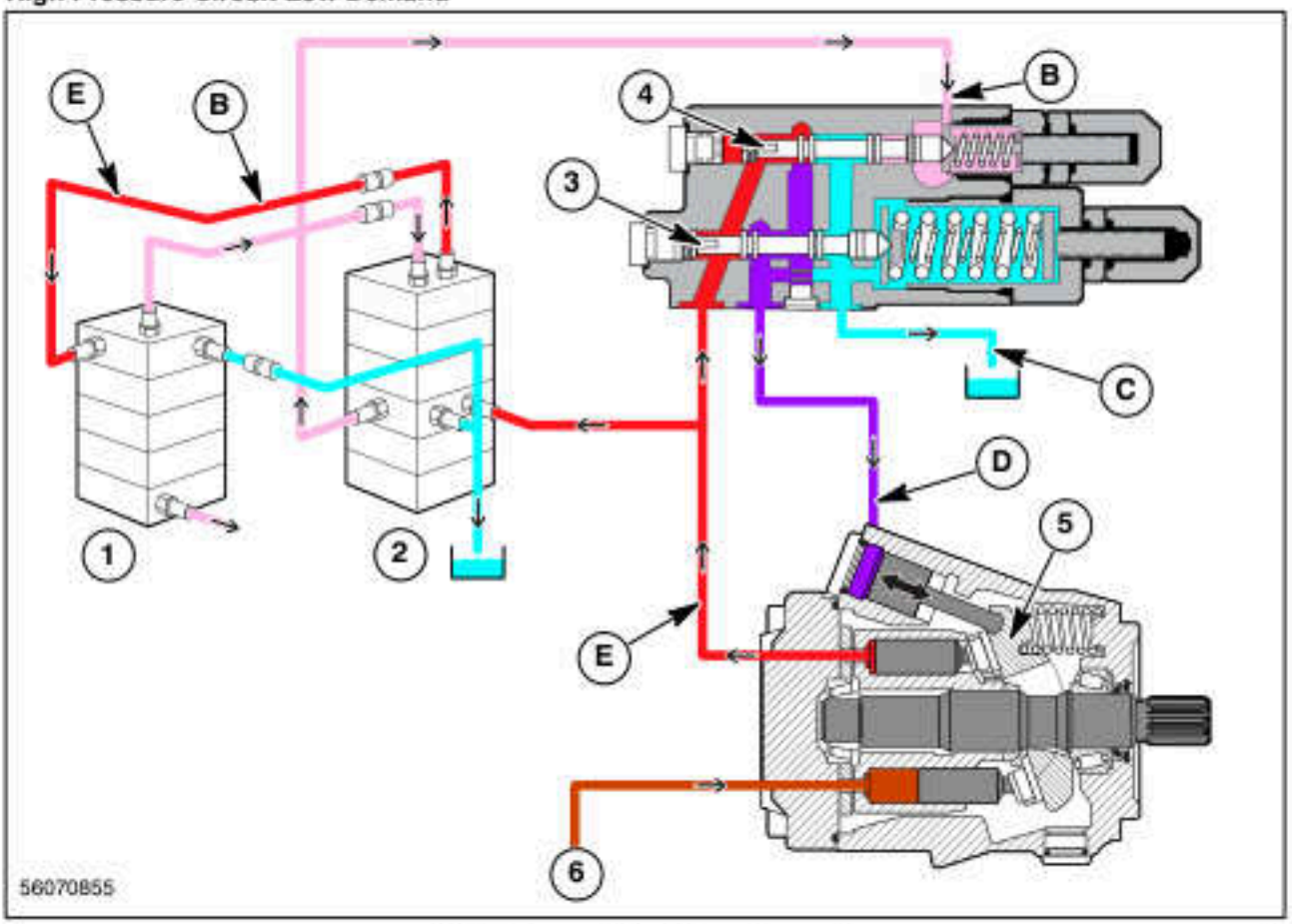
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Fuel Filter, Rear of Engine

1. Fuel Temperature B-36
2. Connector X372

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High Pressure Circuit Low Demand



High Pressure Circuit Low Demand 8

Standby Pressure @ 210 bar (3046 psi)

Control Pressure

Return to Reservoir

Charge Pressure

1. Straw elevator stack valve
2. Main frame stack valve
3. Pressure Compensating Valve
4. Flow Compensating Valve
5. Swash Plate
6. Return oil from hydrostatic motors

When output from the pump is meeting the demand of the hydraulic circuit the output pressure of the hydraulic pump in gallery, **E**, will continue to rise unless the flow from the pump is controlled.

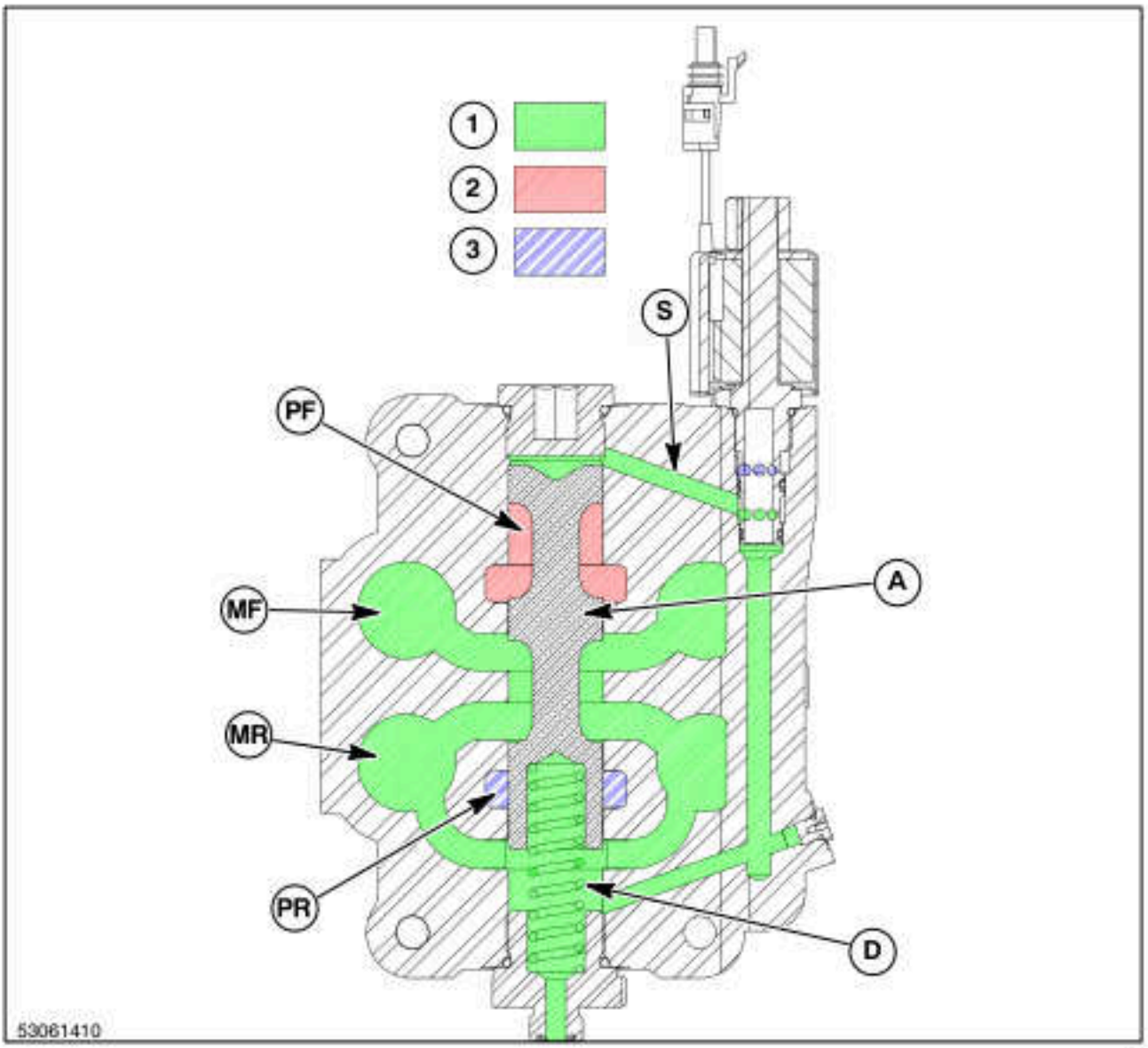
As pump pressure increases the differential between system pressure, **E**, and load sensed pressure, **B**, will similarly increase. When this differential rises towards 19 bar (275 psi) the pressure in gallery, **E**, causes the flow compensator spool to move back against the spring and load sense pressure in Gallery, **B**, to open gallery, **E**, to gallery, **D**. The controlled pressure rise in gallery, **D**, operates the swash plate servo piston and changes the swash plate angle to reduce pump output according to demand.

It can now be seen that whenever the differential pressure between system and load sensed pressures approaches 19 bar (275 psi) the flow compensator valve will operate to control the angle of the swash plate and consequently pump flow (output).

The load sensing shuttle valves will always allow the service requiring the highest pressure to pass that pressure onto the flow compensating valve.

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Selector Spool (OFF Position)



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Selector Spool - OFF Position

1. Drain
2. System Pressure
3. Charge Pressure

With the powered rear axle system OFF, charge pressure oil in the control valve is blocked at the solenoid valve. Cavity (S) is exposed to tank through the solenoid cartridge. The spring pressure in cavity (D) holds the spool (A) in the OFF position. The spool prevents system pressure oil from entering both the forward or reverse inlet port and the rest of the valve; therefore no high pressure oil is delivered to the wheel motors.

In the off position the spool cavities (PF) and (PR) are closed off from motor cavities (MF) and (MR). Cavities (PF) and (PR) are the forward and reverse pressure inlet cavities; they will always be exposed to either system pressure or return (charge) pressure oil depending on direction of the machine. Cavity (MF) opens an oil flow path to the forward pressure ports of the wheel motors. Cavity (MR) similarly opens an oil flow path to the reverse pressure ports of the motors.

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