MXU VALUE AND LIMITED SERIES
100, 110, 115, 125, 130, 135,
AND
MAXXUM VALUE AND PRO SERIES
110, 115, 120, 125, 130, AND 140

Tractors

SERVICE MANUAL

87659930

CASE IH AGRICULTURE

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SECTION 10 - ENGINE

BOOK 2 - 87659931

Chapter 1 - CNH Engine - F4DE0484A (4 Cylinder Common Rail Electronic)

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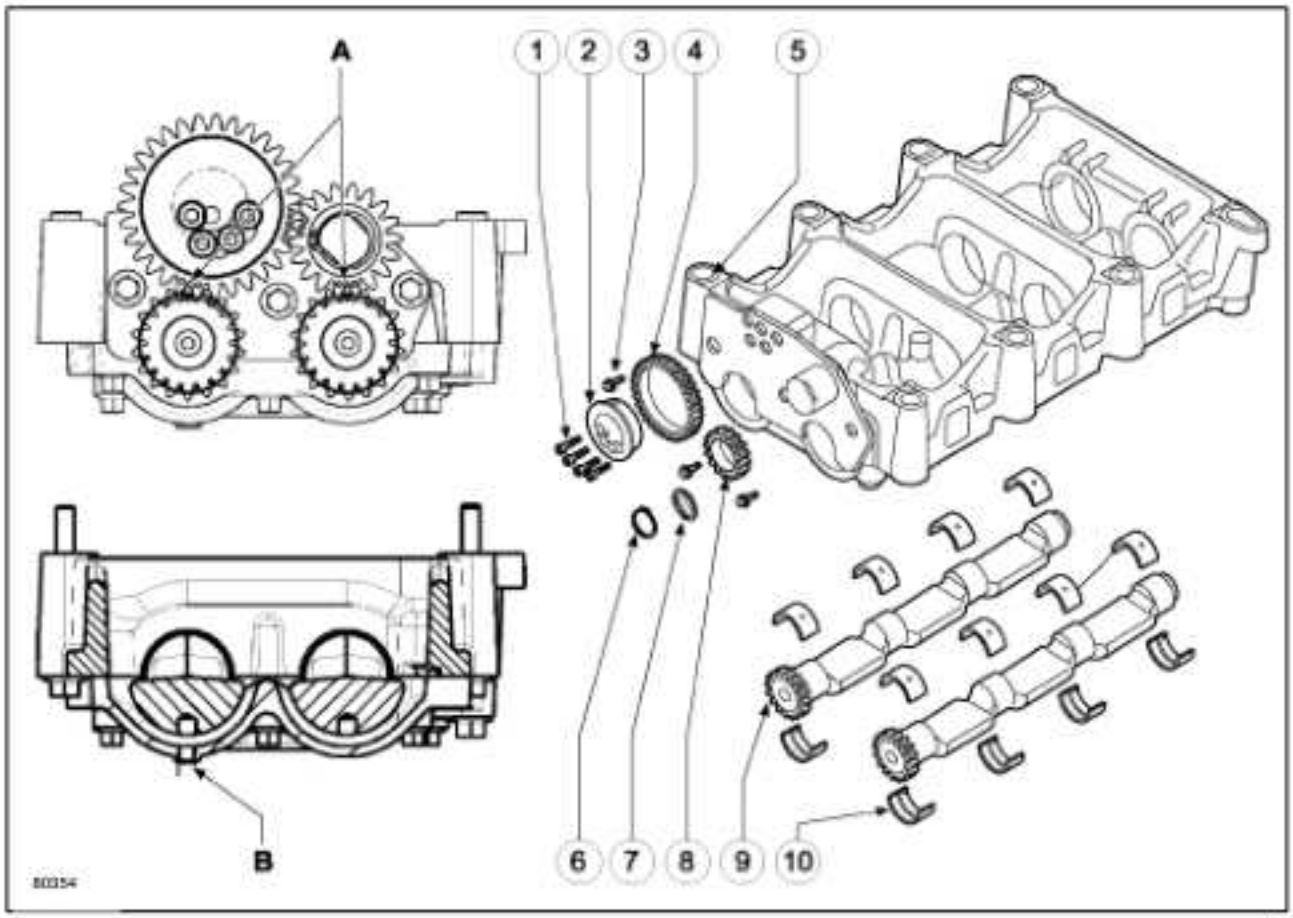
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Counterweight Timing Operations

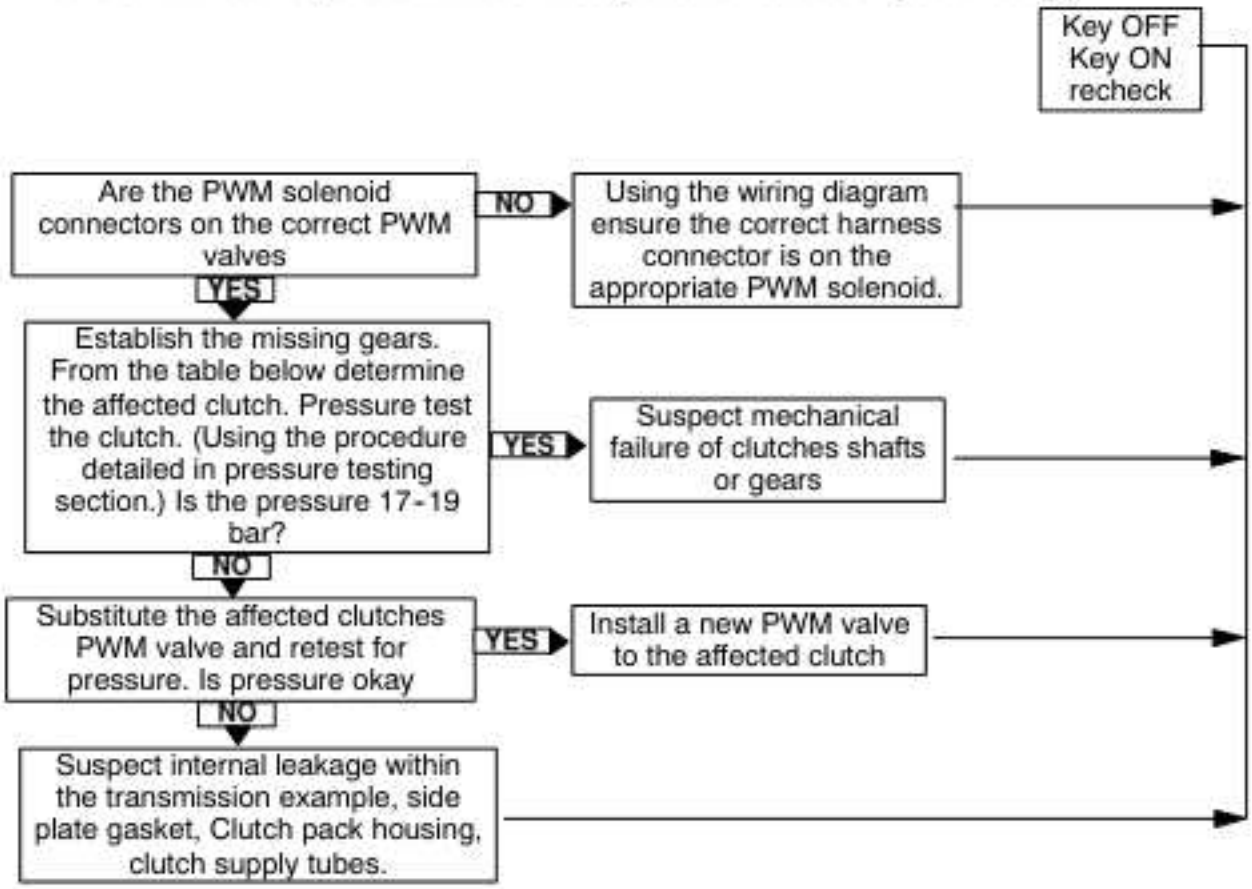
112. Make the marks (A) stamped on the gears for doing the timing coincide. Insert the pin into the hole (B) in the balancing weight.

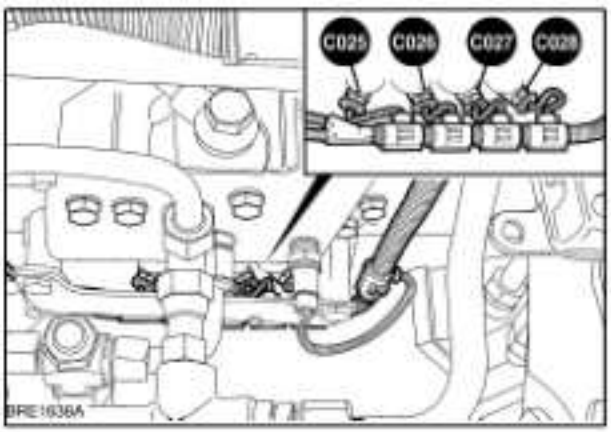
1. Retaining bolts - 2. Mounting - 3. Retaining bolts - 4. Gear - 5. Balancing weight - 6. O-Ring - 7. Ring - 8. Gear - 9. Counter-shaft - 10. Half bearings

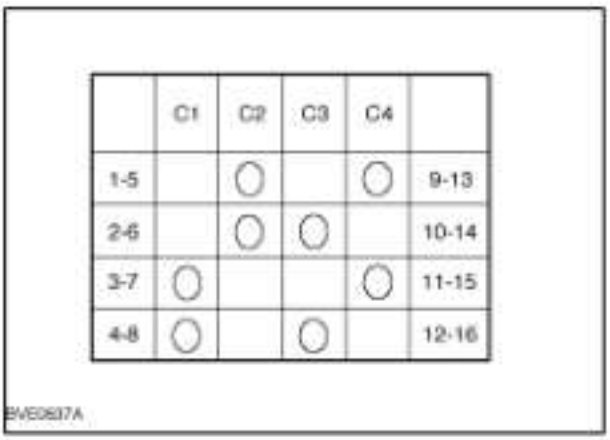
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DIAGRAM 2 - TRACTOR DRIVES IN RANGES BUT HAS FOLLOWING FAULT:

- Powershift function operates but the shift sequence is incorrect or gears missing







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ERROR CODE 15008 - CHANGE VALVE SOLENOID OPEN CIRCUIT OR SHORT TO GROUND

Effects:

1. System Disabled, non critical alarm activated.

Possible failure modes:

1. Faulty change valve solenoid
2. Faulty wiring

Solution:

NOTE: *When the cause of the error code has been rectified, clear the error code and test the system for normal operation.*

1. Check the change valve solenoid using H-Menu mode H9.

   A. Install the diagnostic tool and enter H menu Mode H9 for the KA processor. Select channel 4. Typical reading should be 350-600. If the reading is correct clear the error code and check for an intermittent poor connection.
   If the readings are incorrect continue to step 2.

2. Check the change valve solenoid using a multimeter

   A. Remove connector **C512** from the change valve solenoid. Using a multimeter check the resistance across the change valve solenoid terminals. The resistance should be 5.3Ω @ 20°C.
   If the resistance is incorrect replace the change valve solenoid.

   If the resistance is correct continue to step 3.

3. Check the wiring and connectors to the change valve solenoid and Turn assist processor

   A. With the key start OFF disconnect the processor connector **C515** and the solenoid connector **C512**. Using a suitable multimeter check for an open circuit and a short to ground at the following pins:-
   C515-A2 and **C512-1**
   C515-A6 and **C512-2**

   If an open circuit or short to ground is indicated, repair or replace the wiring as required.

   B. If no fault is indicated continue to step 4.

4. Suspect a faulty Turn assist (KA) processor. Substitute the processor and test system.

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OPERATION OF DRAFT CONTROL

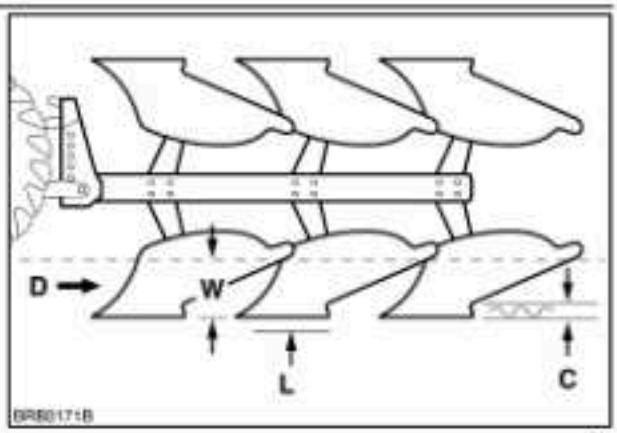
In draft control the working position of the lift arms is affected by the lift arm position control lever, draft loading control, draft sensitivity and slip limit control. All these controls interact with each other to achieve the desired operation of the hydraulic lift.

D Draft Load on Implement

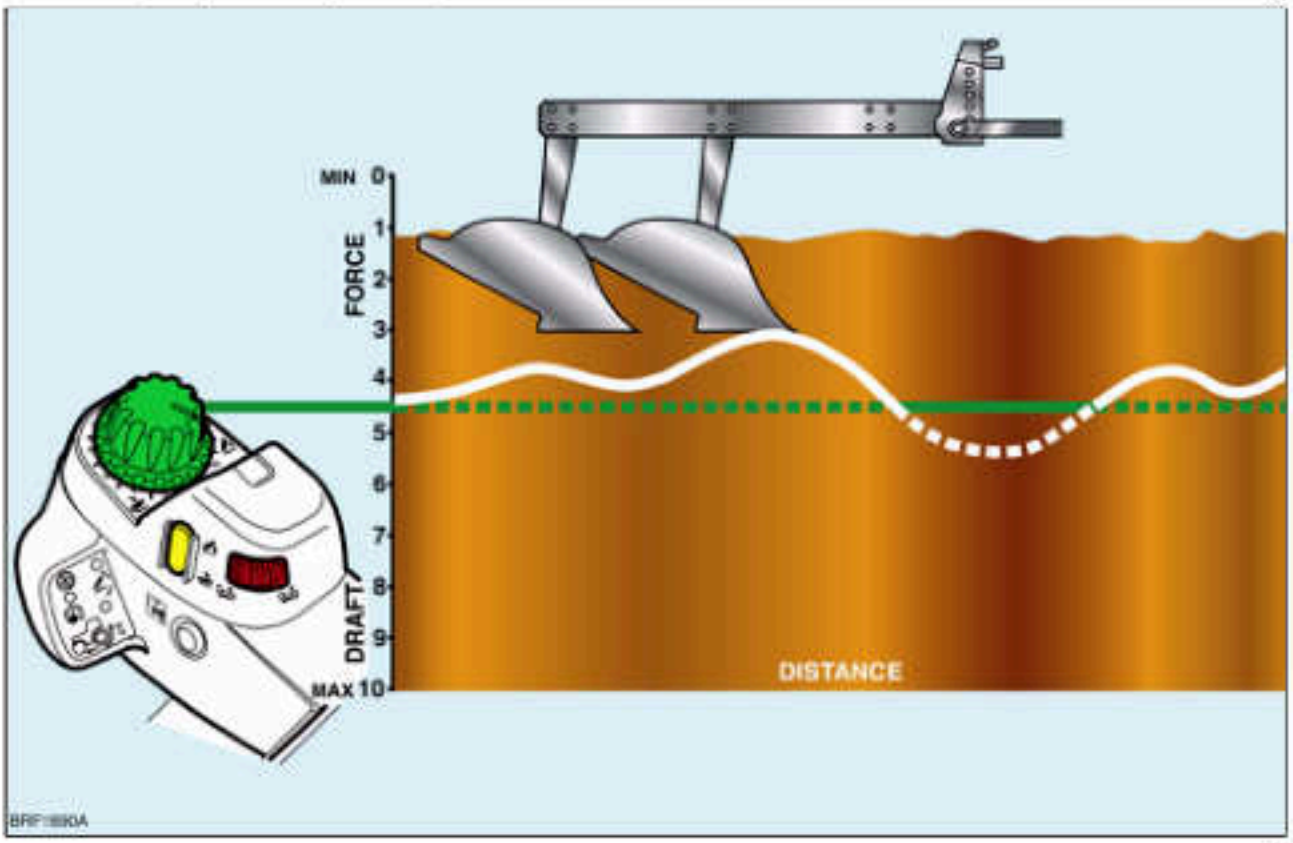
W Working Depth
(Set by Draft Loading Control)

L Lower Limit
(Set By Lift Arm Position Control Lever)

C Correction Band
(Set by Sensitivity Control)



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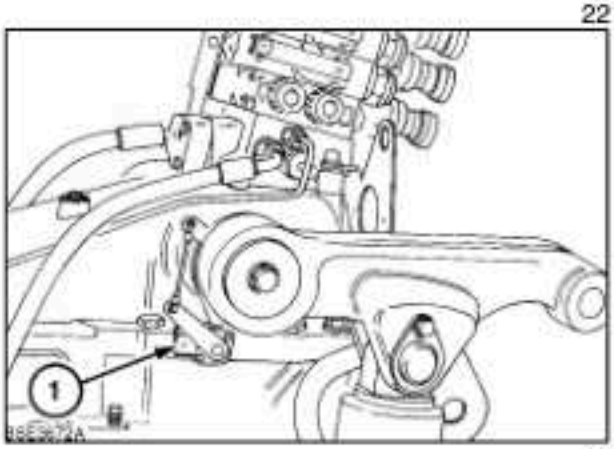


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The lower limit working depth of an implement in the soil is controlled by the lift arm position control lever.

Irrespective of any draft loading applied to the implement the maximum depth of the implement will never exceed this setting.

The depth of the implement is sensed using the lift arm position control potentiometer (1) which sends a signal to the microprocessor to turn off power to the lower solenoid of the hydraulic control valve when maximum depth has been reached.



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SHOCK ABSORBER protects your tractor and increases the driving comfort.

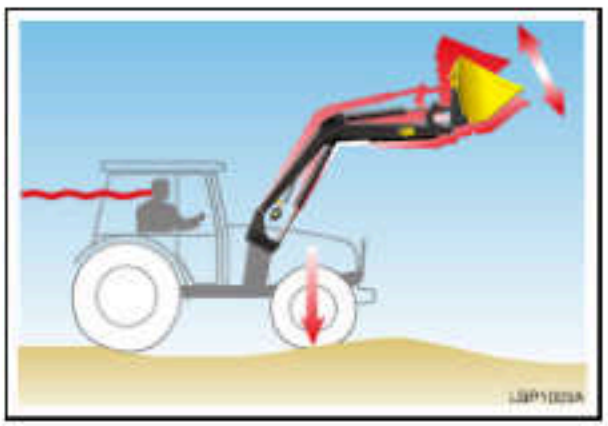
Without SHOCK ABSORBER



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When a tractor fitted with a conventional frontloader, i.e. without the SHOCK ABSORBER system, travels at high speed on a bumpy lane, the resulting hunting effect will still be increased by the frontloader. This effect can only be reduced by the flexing action of the tires if the tractor is fitted with rigid axles. Both tractor and driver are heavily stressed as a result of the poor travelling characteristics.

With SHOCK ABSORBER



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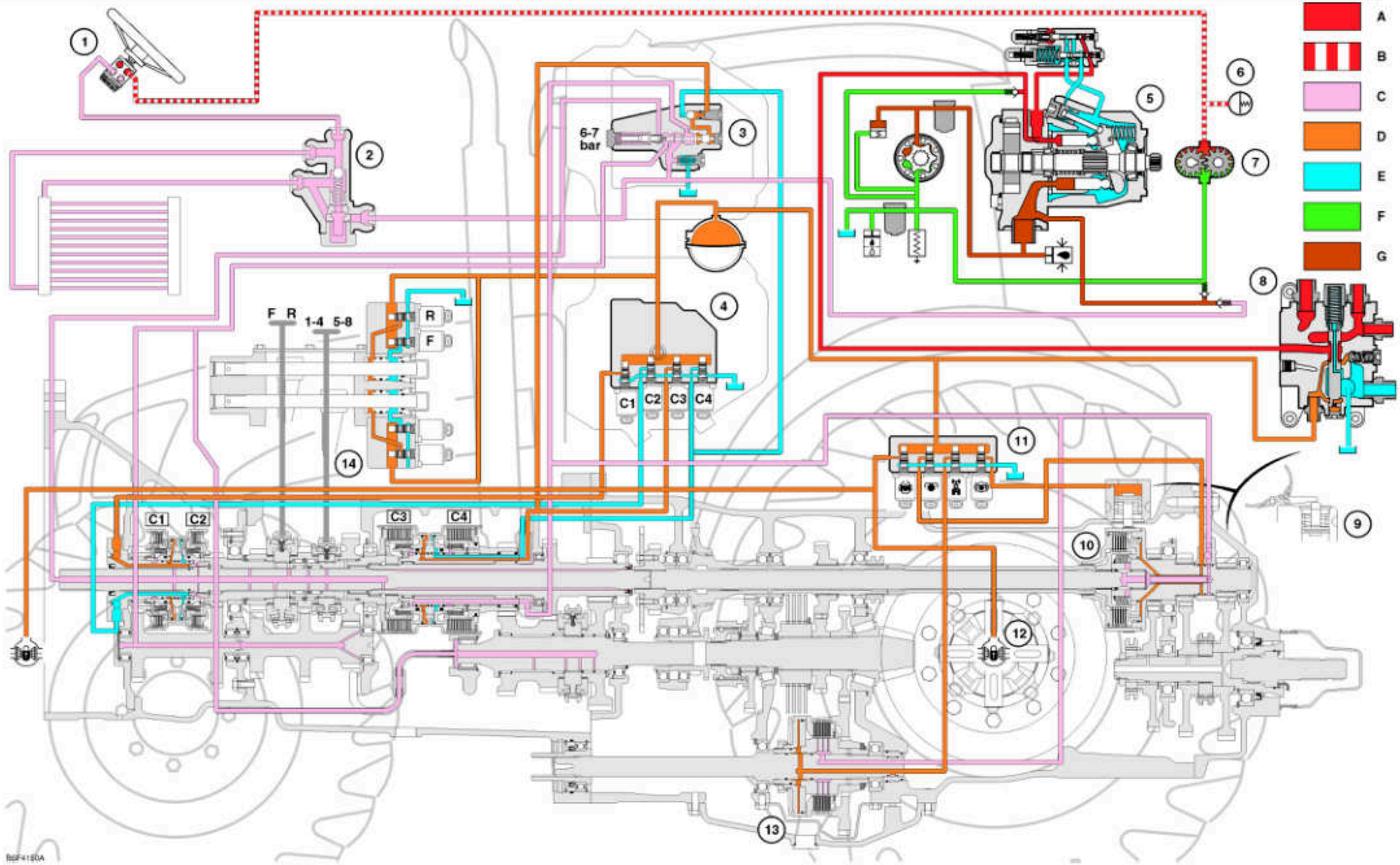
If fitted with the SHOCK ABSORBER system, the frontloader effectively cushions the movement of the tractor under the same conditions. Sitting relaxed in his cab, the driver securely steers the tractor along the road. Shocks acting on the frontloader are smoothly compensated by the two pneumatic pressure accumulators - the connection between tractor and frontloader is no longer rigid but flexible.

General instruction

When the loader unit is fitted with SHOCK ABSORBER please notice the following instructions:

- It is preferable to use SHOCK ABSORBER when operating in long term road driving and bad road conditions (cock valve open). As shown in principal on the picture right the impact load of the liftarm will be damped through the accumulator.
- When loading with short distances to drive, i.e. earthwork the cock valve of SHOCK ABSORBER should be closed between the lift side of the liftarm ram and the accumulator. At maximum load of frontloader the permanently changing use are disadvantages for the membrane of the accumulator. Further wise, a certain "swinging effect" can occur through the accumulator. The cock valve should be also closed when working with palette forks to refuse any "swinging effects" when lifting or lowering of palette.

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Low Pressure Hydraulic Circuit - 16 x 16 Models

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