SERVICE MANUAL

T5.100 Electro Command
T5.110 Electro Command
T5.120 Electro Command

Tractor

Part number 51487926

English

May 2018

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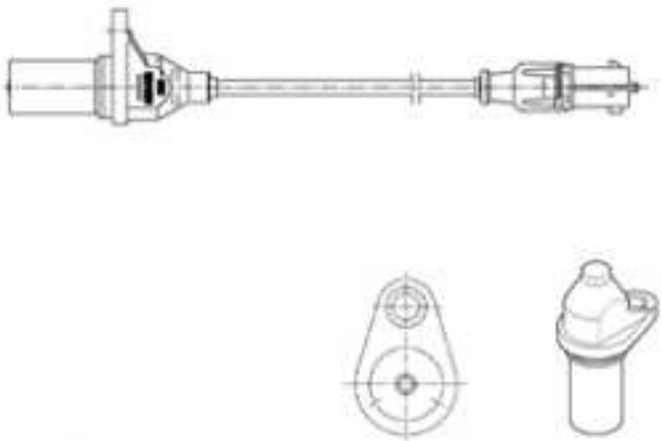
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Engine speed/RPM sensor - Technical Data - Crankshaft speed sensor

Supplied by Bosch.
It is an inductive type sensor placed on the front left side of the engine.
It generates signals obtained by the magnetic flow lines closing up through the openings of a phonic wheel splined on the engine crankshaft.
The same signal is used to pilot the electronic revolution counter eventually fitted on the vehicle instrument panel.

Torque setting	**8 N·m (6 lb ft) ± 2 N·m (1 lb ft)**
The sensor's resistance value is nearly	**900 Ω**





Pin	Description
1	Signal
2	Ground
3	Shielding

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2582 - Left brake pedal switch fault - electrical signals are inconsistent

Control Module: XCM

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

Context:
The left brake pedal switch (S-031) has two contacts: One is normally closed, connected to the ignition switchable supply via the F-004 fuse, and the other is normally open, connected to the cab ground. Pressing the pedal changes the status of the two contacts, sending both signals to the XCM control unit (A-001).

Cause:
The XCM control unit has detected that the two electrical signals coming from the left brake pedal switch are inconsistent.

Possible failure modes:

1. Connectors damaged or not connected correctly
2. Faulty wiring harness
3. S-031 left brake pedal switch faulty.
4. Fault in the XCM control unit

Solution:

1. Connect the diagnostic instrument and verify if the fault is present and active.

   A. If the fault is present and active, continue to step **2**.

   B. If the fault is no longer present or in an inactive state, the fault may be intermittent and not currently active. Continue to Step **12**.

2. Check the connector **X-210** of the XCM control unit (A-001).
   Disconnect the connector and check that the pins are not damaged. Reconnect the connector and make sure that the connection is secure.

   A. If a fault is found in the connector, repair (if possible) or replace it.

   B. If no problems have been detected with the connector, continue to step **3**.

3. Check the X-470 connector of the XCM control unit (A-001).
   Disconnect the connector and check that the pins are not damaged. Reconnect the connector and make sure that the connection is secure.

   A. If a fault is found in the connector, repair (if possible) or replace it.

   B. If no problems have been detected with the connector, continue to step **4**.

4. Check the connector **X-093** of the left brake pedal.
   Disconnect the connector and check that the pins are not damaged. Reconnect the connector and make sure that the connection is secure.

   A. If a fault is found in the connector, repair (if possible) or replace it.

   B. If no problems have been detected with the connector, continue to step **5**.

5. Check the fuse F-004.
   Visually check the integrity of the fuse and the connector **X-130**. Disconnect the connector and check that the pins **X-130 (Receptacle) pin 4A** and **X-130 (Receptacle) pin 4B** are not damaged.
   Reconnect the connector and check that the connection is secured.
   Use a multimeter to perform the following continuity check:

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4. Check the circuit of the wastegate pressure modulator valve **Y-105** in the vehicle wiring harness (VE).

   Disconnect the vehicle wiring harness (VE) from the ECU **A-010** at connector **X-939**.

   With the key in the OFF position, use a multimeter to perform the following continuity check on the vehicle wiring harness (VE) side of the connectors from :

From	To	Value
X-941A pin 27	Chassis ground	There should be no continuity.
X-941A pin 27	All pins in connector **X-941A**	There should be no continuity.

   A. If there is continuity, there is an short circuit in the wastegate pressure modulator valve vehicle wiring harness (VE) wiring. Use the appropriate service manual, if necessary to locate and repair the shorted conductor.

   B. If there is no continuity, check the ECU **A-010** for the appropriate software, and re-flash, if necessary.

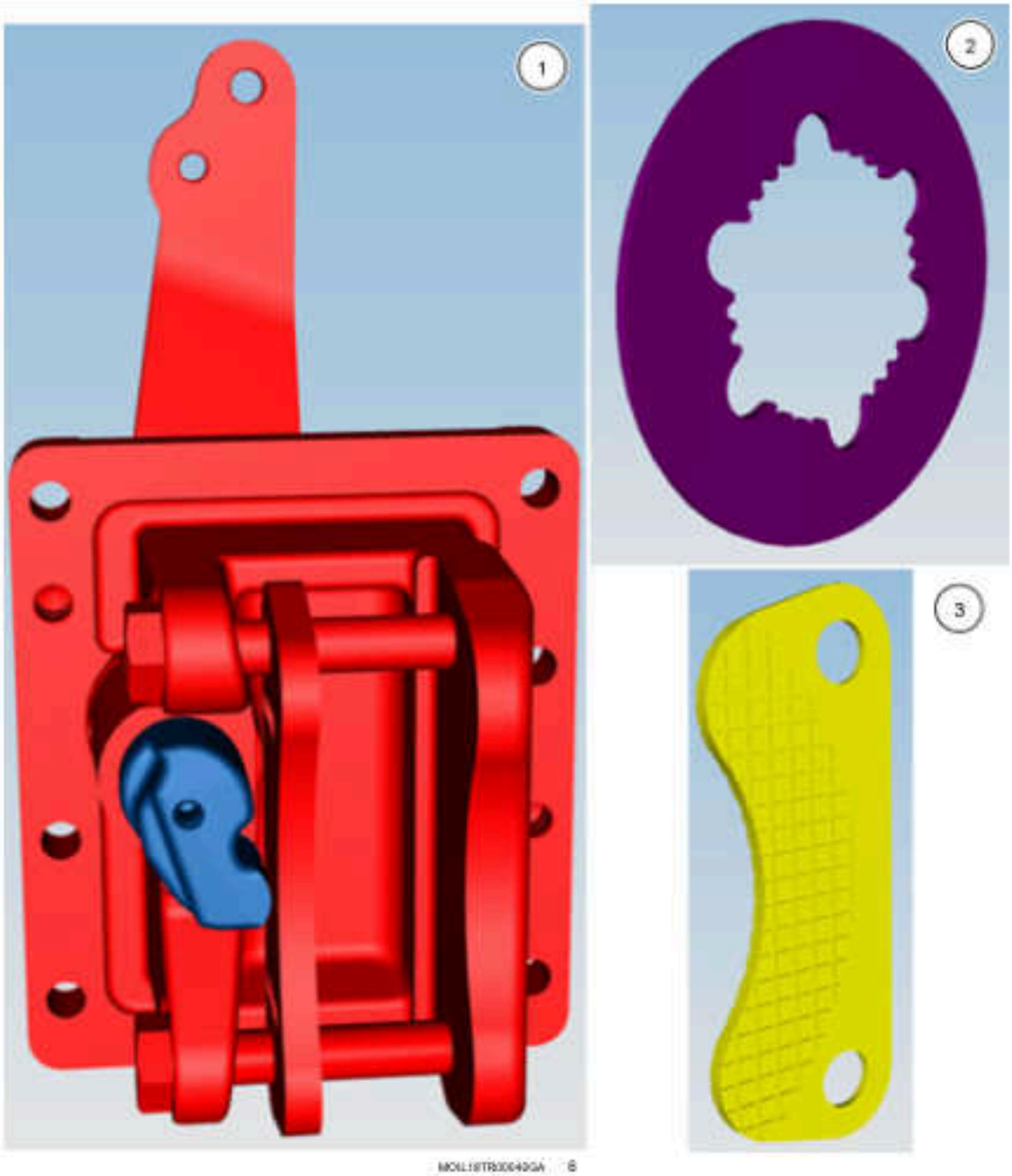
5. Visually inspect the relevant wiring harnesses and connectors for damage, bent or dislocated pins, corroded terminals, or broken wires. Verify that the connectors are fully installed. Flex the wiring harnesses involved to reveal intermittent breaks or shorts in the wiring. Operate the machine while monitoring the display.

   A. If you find damage or the display indicates other than normal display readings, then repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

   B. If you do not find damage and the display indicates only normal readings, then, erase the fault code and continue operation.

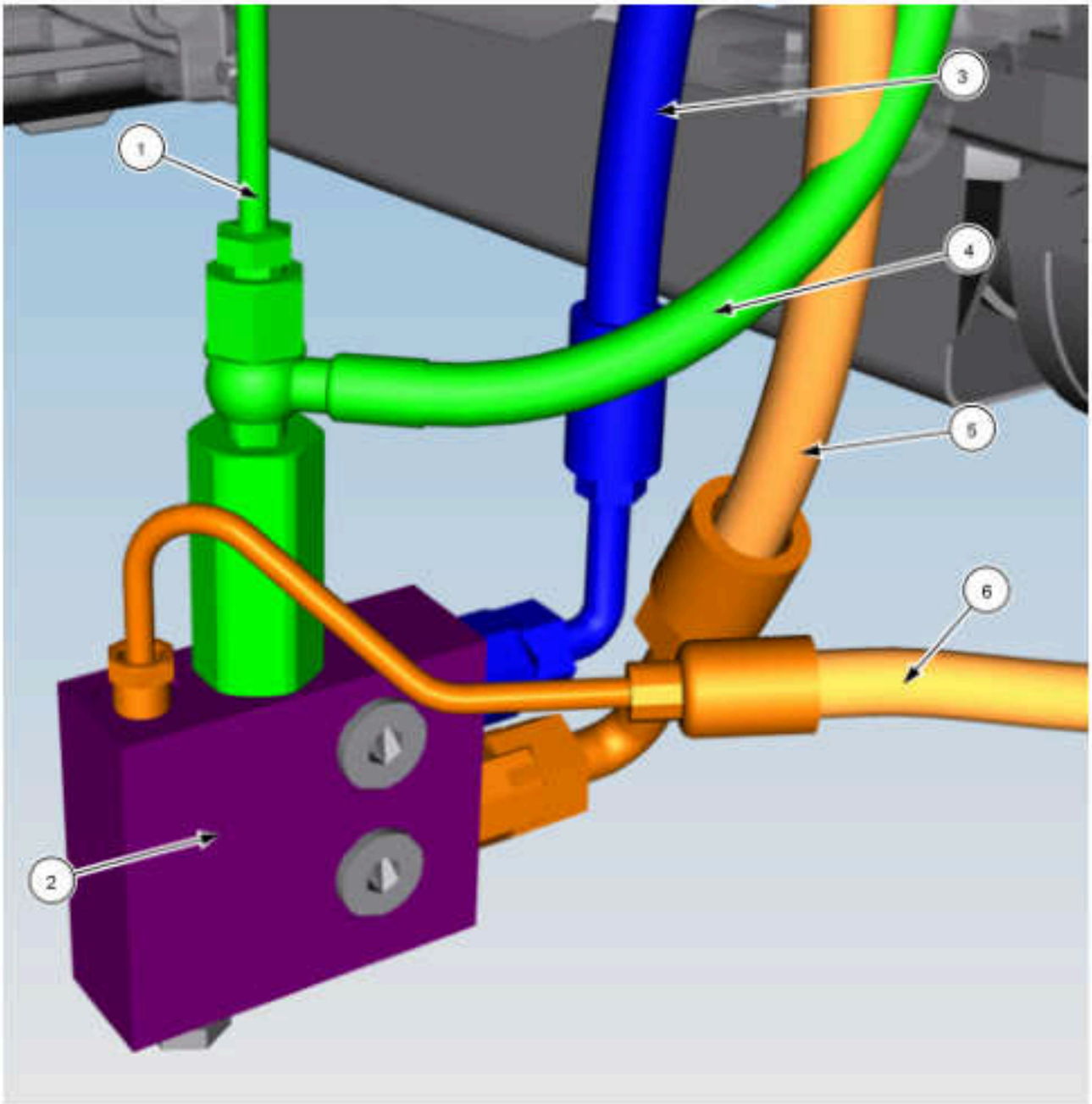
Wiring harnesses - Electrical schematic sheet 20 (55.100)

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1	Support handbrake
2	Parking brake discs
3	Brake pads

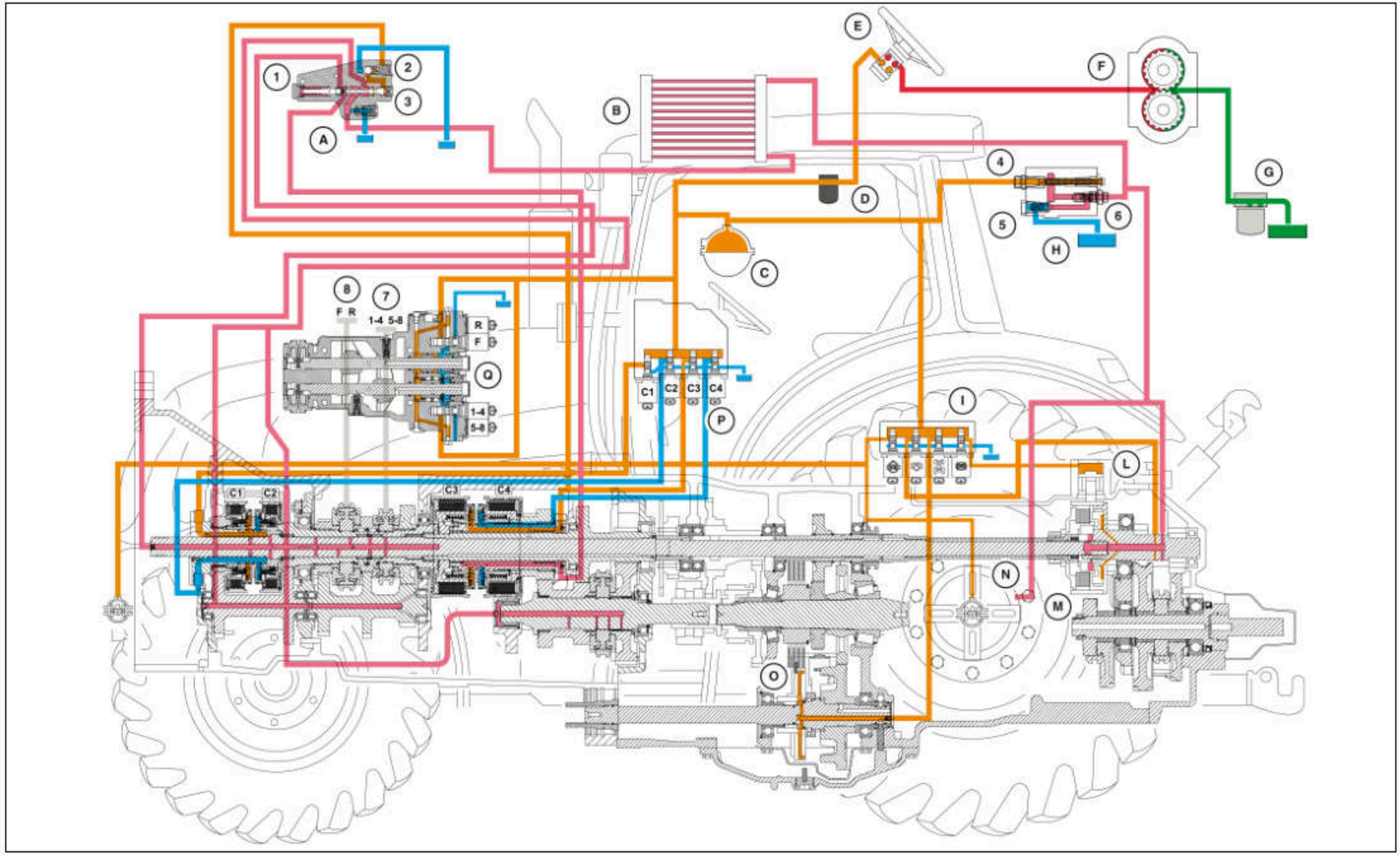
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1	Pipe to the bleed point
2	Front brake valve
3	Return line
4	Piloting pressure line from the **12 km/h** valve (and the master cylinder)
5	Low pressure supply line
6	Brake line to the front axle

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