SERVICE MANUAL

FR9040 / FR9050 / FR9060
FR9080 / FR9090

Forage Harvester

Part number 87725913D
English
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Mechanical transmission lubrication system - Hydraulic schema
Main gearbox lubrication

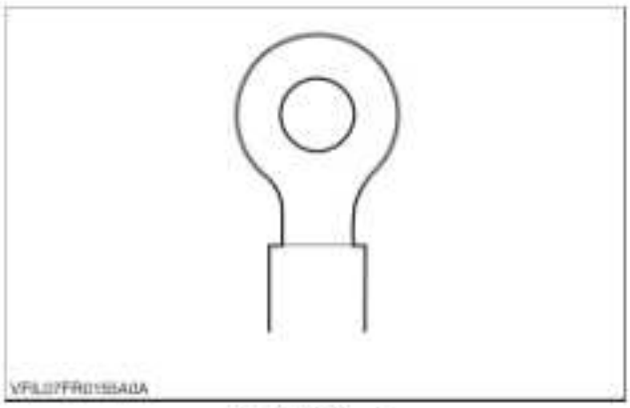
Item	Description
Port 1	From cooler
Port 2	Suction
Port 3	Output shaft lubrication
Port 4	Pressure sensor
Port 5	Conical couple lubrication
Port 6	Pump gear lubrication
Port 7	Feeding rolls / header bearings / output shaft
Port 8	To cooler
Port 9	Fan lubrication
A	Return to gearbox
B	Return to gearbox
C	Orifice **1.7 mm** (**0.067 in**)
D	Orifice **1.7 mm** (**0.067 in**)
E	Orifice **0.8 mm** (**0.031 in**)
F	Orifice **1.2 mm** (**0.047 in**)
G	On units till series **5619**, Orifice **1.2 mm** (**0.047 in**) From series **5620**, two spray bars **0.8 mm** (**0.031 in**)
H	Orifice **1.5 mm** (**0.059 in**)
2	Main gearbox
9	Gear pump - main gearbox lubrication
26	Main gearbox oil cooler
45	Main gearbox lubrication valve
45a	Lubrication relief valve **15 bar** (**218 psi**)
45b	Cooler relief valve **11 bar** (**160 psi**)
45c	Check valve **5 bar** (**73 psi**)
45d	Pressure sensor
45e	Check valve **0.5 bar** (**7 psi**)

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Ground 6

Connector X205 Ground 6			
Position	Wire number	Circuit reference	Electrical schematic frame
1	-	Ground	**Wire harnesses - Electrical schematic frame 01 (55.100)** **Wire harnesses - Electrical schematic frame 02 (55.100)** **Wire harnesses - Electrical schematic frame 03 (55.100)** **Wire harnesses - Electrical schematic frame 04 (55.100)** **Wire harnesses - Electrical schematic frame 06 (55.100)** **Wire harnesses - Electrical schematic frame 07 (55.100)** **Wire harnesses - Electrical schematic frame 08 (55.100)** **Wire harnesses - Electrical schematic frame 09 (55.100)** **Wire harnesses - Electrical schematic frame 11 (55.100)** **Wire harnesses - Electrical schematic frame 14 (55.100)** **Wire harnesses - Electrical schematic frame 19 (55.100)** **Wire harnesses - Electrical schematic frame 20 (55.100)** **Wire harnesses - Electrical schematic frame 21 (55.100)** **Wire harnesses - Electrical schematic frame 27 (55.100)** **Wire harnesses - Electrical schematic frame 29 (55.100)** **Wire harnesses - Electrical schematic frame 34 (55.100)** **Wire harnesses - Electrical schematic frame 36 (55.100)**

NOTE: *For the wiring color code refer to,* ***Electrical system - Electrical standard (55.000).***



VFIL07FR015SA0A 11

NOTE: *For connector service tools refer to,* ***Wire harnesses - Special tools 3 (55.100).***

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E1334-04-Header CCW (counterclockwise) slow, Voltage below normal or shorted to low source

Control Module : RHM

NOTE: *The forage harvester monitor diagnostic capability can be used to assist in troubleshooting the electrical system, for further information refer to* ***Instrument cluster - Detailed view (55.408)****.*

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

Possible failure modes:

1. Faulty connector
2. Faulty harness
3. Faulty multi-function handle (MFH)
4. Faulty controller

Solution:

1. Before proceeding, clear the error code with the approved diagnostic equipment. Run the machine under normal conditions and retest.

   A. If the error code is not indicated, check that the system is operating correctly.

   B. If the error code is indicated, continue to step **2**.

2. Using the multi-function handle, operate the following controls and check for the corresponding error codes:
   spout rotation cw slow, (error code **E1330-4**)
   header tilt ccw slow, (error code **E1334-4**)
   spout setpoint left slow, (error code **E1322-4**)
   header tilt ccw fast, (error code **E1344-4**)

   A. If all four error codes are displayed continue to step **4**

   B. If only error code **E1334-4** is displayed continue to step **3**

3. Using the multi-function handle, operate the following controls and check for the corresponding error codes:
   header tilt ccw slow, (error code **E1334-4**)
   header down fast, (error code **E1326-4**)
   header up slow, (error code **E1325-4**)
   header up fast, (error code **E1324-4**)
   lower resume, (error code **E1323-4**)
   header tilt cw slow, (error code **E1335-4**)
   header down slow, (error code **E1327-4**)

   A. If all seven error codes are displayed continue to step **5**.

   B. If only error code **E1334-4** is displayed, remove and replace the multi-function handle (MFH).

4. Check for a short to ground.

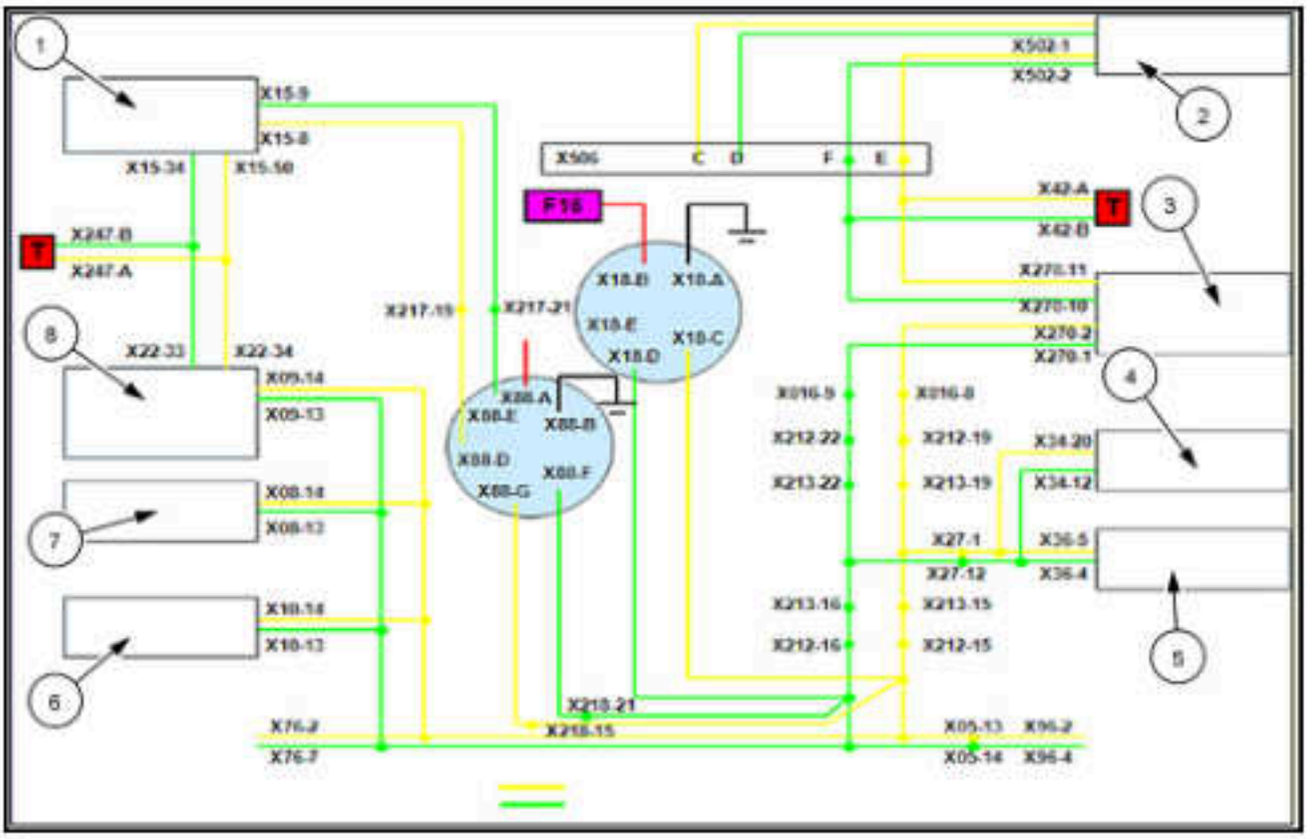
   A. Disconnect connector **X334**. Check between connector **X334** pin **1** (WT) and ground. If a short to ground is indicated, repair or replace the harness as required.

   B. If the harness is okay, remove and replace the multi-function handle (MFH). If the fault is still present, download the correct level of software. If the fault recurs, remove and replace the controller.

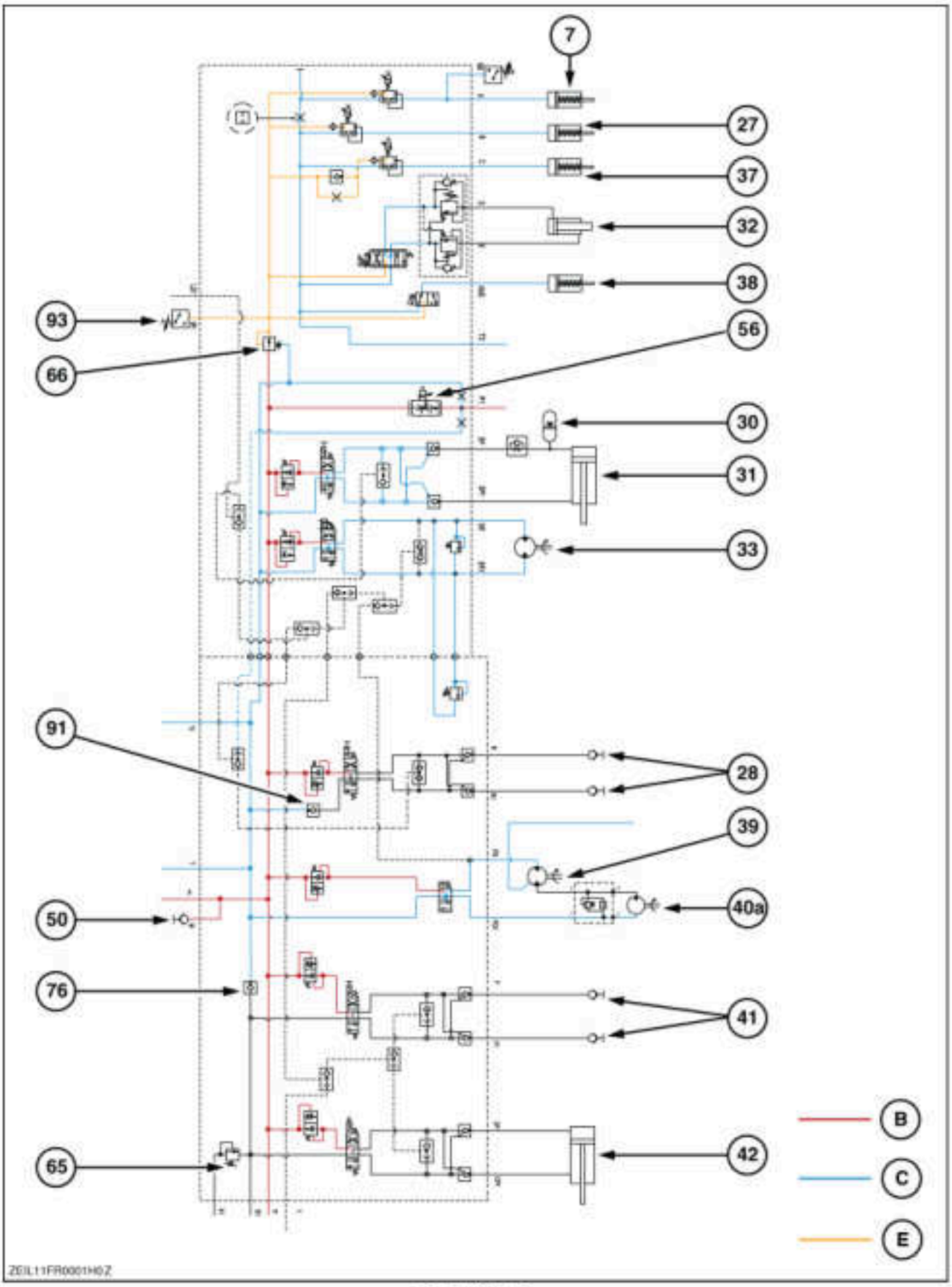
5. Check for a short to ground.

   A. Disconnect connector **X110**. Check between connector **X110** pin **3** (ZW) and ground. If a short to ground is indicated, repair or replace the harness as required.

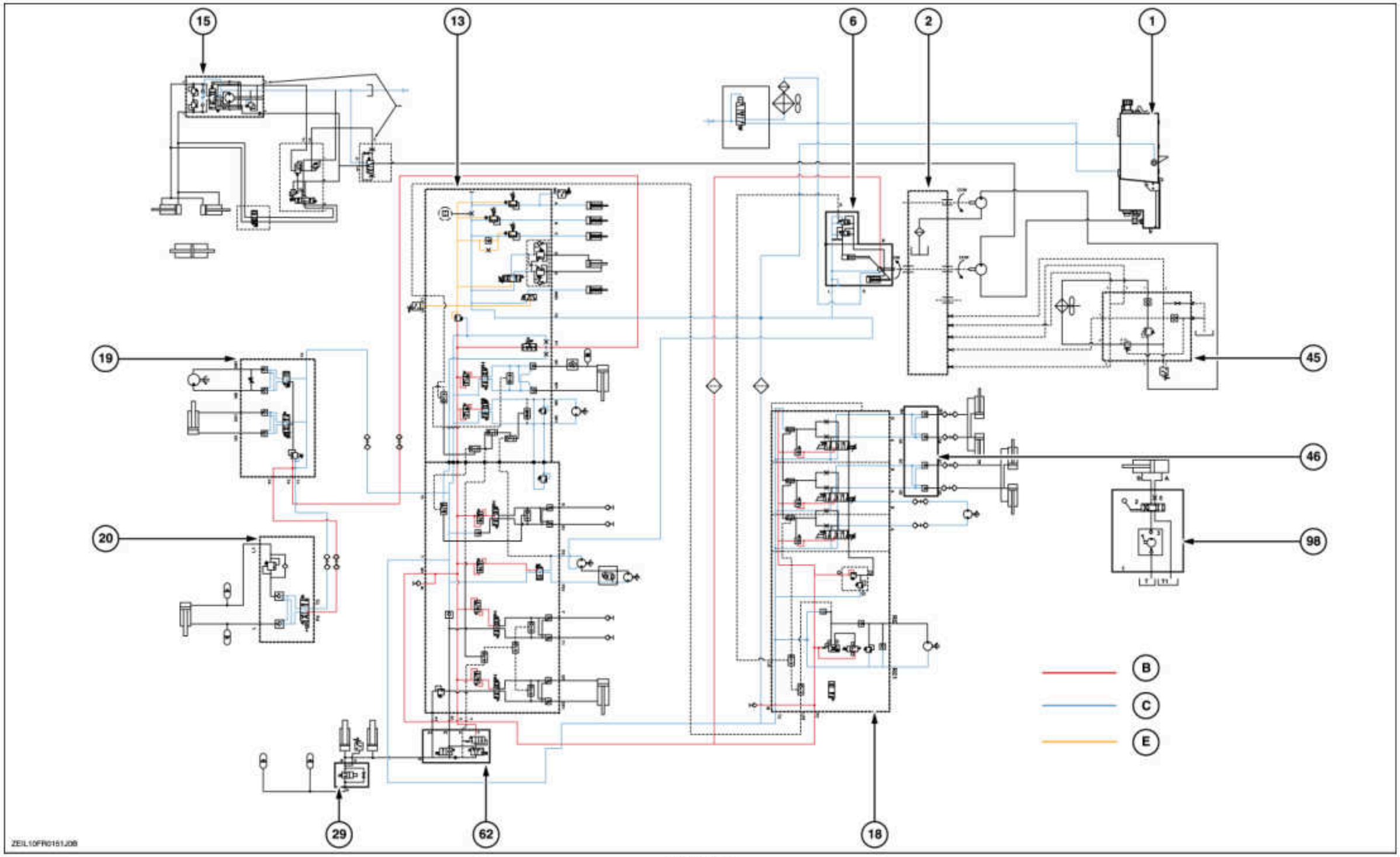
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