WHEEL LOADER

SERVICE MANUAL

HL740-9S

HYUNDAI

MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-9S

Order the manual at mid-west-tech.com >

CONTENTS

SECTION 1 GENERAL

Group 1 Safety Hints 1-1
Group 2 Specifications 1-10
Group 3 Operational Checkout Record Sheet 1-25

SECTION 2 ENGINE

Group 1 Structure and Function 2-1
Group 2 Fuel Warmer System 2-7
Group 3 Engine Speed and Stall rpm 2-8

SECTION 3 POWER TRAIN SYSTEM

Group 1 Structure and Function 3-1
Group 2 Operational Checks and Troubleshooting 3-61
Group 3 Test and Adjustments 3-72
Group 4 Disassembly and Assembly 3-74

SECTION 4 BRAKE SYSTEM

Group 1 Structure and Function 4-1
Group 2 Operational Checks and Troubleshooting 4-21
Group 3 Tests and Adjustments 4-28
Group 4 Disassembly and Assembly 4-31

SECTION 5 STEERING SYSTEM

Group 1 Structure and Function 5-1
Group 2 Operational Checks and Troubleshooting 5-11
Group 3 Tests and Adjustments 5-17
Group 4 Disassembly and Assembly 5-23

SECTION 6 WORK EQUIPMENT

Group 1 Structure and Function 6-1
Group 2 Operational Checks and Troubleshooting 6-42
Group 3 Tests and Adjustments 6-52
Group 4 Disassembly and Assembly 6-67

MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-... Order the manual at mid-west-tech.com >

SECTION 7 ELECTRICAL SYSTEM

Group 1 Component Location 7-1
Group 2 Electrical Circuit 7-3
Group 3 Monitoring System 7-21
Group 4 Electrical Component Specification 7-51
Group 5 Connectors 7-58
Group 6 Troubleshooting 7-78

MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-... Order the manual at mid-west-tech.com >

SECTION 1 GENERAL

Group 1 Safety Hints 1-1
Group 2 Specifications 1-10
Group 3 Operational Checkout Record Sheet 1-23

MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-... Order the manual at mid-west-tech.com >

3) TRANSMISSION FAULT CODES

Fault code (Hex)	Meaning of the fault code possible reason for fault detection	Reaction of the TCU	Possible steps to repair
10	Logical error at direction select signal 3rd shift lever TCU detected a wrong signal combination for the direction · Cable from shift lever 3 to TCU is broken · Cable is defective and is contacted to battery voltage or vehicle ground · Shift lever is defective	TCU shifts transmission to neutral if selector active OP mode : Transmission shutdown if selector active	· Check the cables from TCU to shift lever 3 · Check signal combinations of shift lever positions F-N-R · If shift lever is a CAN shift lever check CAN cable/shifter/device ※ Fault is cleared if TCU detects a valid neutral signal for the direction at the shift lever
11	Logical error at gear range signal TCU detected a wrong signal combination for the gear range · Cable from shift lever to TCU is broken · Cable is defective and is contacted to battery voltage or vehicle ground · Shift lever is defective	TCU shifts transmission to neutral OP mode : Transmission shutdown	· Check the cables from TCU to shift lever · Check signal combinations of shift lever positions for gear range ※ Failure cannot be detected in systems with DW2/DW3 shift lever. Fault is taken back if TCU detects a valid signal for the position
12	Logical error at direction select signal TCU detected a wrong signal combination for the direction · Cable from shift lever to TCU is broken · Cable is defective and is contacted to battery voltage or vehicle ground · Shift lever is defective	TCU shifts transmission to neutral OP mode : Transmission shutdown	· Check the cables from TCU to shift lever · Check signal combinations of shift lever positions F-N-R ※ Fault is taken back if TCU detects a valid signal for the direction at the shift lever
13	Logical error at engine derating device TCU detected no reaction of engine while derating device active	After selecting neutral, TCU change to OP mode limp home	· Check engine derating device ※ This fault is reset after power up of TCU
15	Logical error at direction select signal 2 shift lever TCU detected a wrong signal combination for the direction · Cable from shift lever 2 to TCU is broken · Cable is defective and is contacted to battery voltage or vehicle ground · Shift lever is defective	TCU shifts transmission to neutral if selector active OP mode : Transmission shutdown if elector active	· Check the cables from TCU to shift lever 2 · Check signal combinations of shift lever positions F-N-R ※ Fault is taken back if TCU detects a valid neutral signal for the direction at the shift lever
17	S.C. to ground at customer specific function No. 1 (ride control) TCU detected a wrong voltage at the output pin, that looks like a S.C. to vehicle ground · Cable is defective and is contacted to vehicle ground · Customer specific function No. 1 device has an internal defect · Connector pin is contacted to vehicle ground	Customer specific	· Check the cable from TCU to customer specific function No. 1 device · Check the connectors from customer specific function No. 1 to TCU · Check the resistance of customer specific function No. 1 device

※ Some fault codes are not applied to this machine.

MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-... Order the manual at mid-west-tech.com >

⑨ Press end shim on with about 10kg and measure Dimension Ⅰ from the end face/ plate carrier to the end shim.

Dimension Ⅰ e.g. 7.20 mm

※ Special tool

Digital-Depth gauge 5870 200 072



⑩ Press end shim against snap ring (Upward) until contact is obtained and determine Dimension Ⅱ.

Dimension Ⅱ e.g. 6.00 mm

※ Special tool

Digital-Depth gauge 5870 200 072



EXAMPLE

Dimension Ⅰ e.g.	7.20 mm
Dimension Ⅱ e.g.	- 6.00 mm
Difference = Plate clearance	=1.20 mm

※ In case of deviations from the required plate clearance, correct by means of corresponding snap ring (S = 2.1~4.2 mm).

⑪ Introduce idler gear until all inner plates are accommodated.

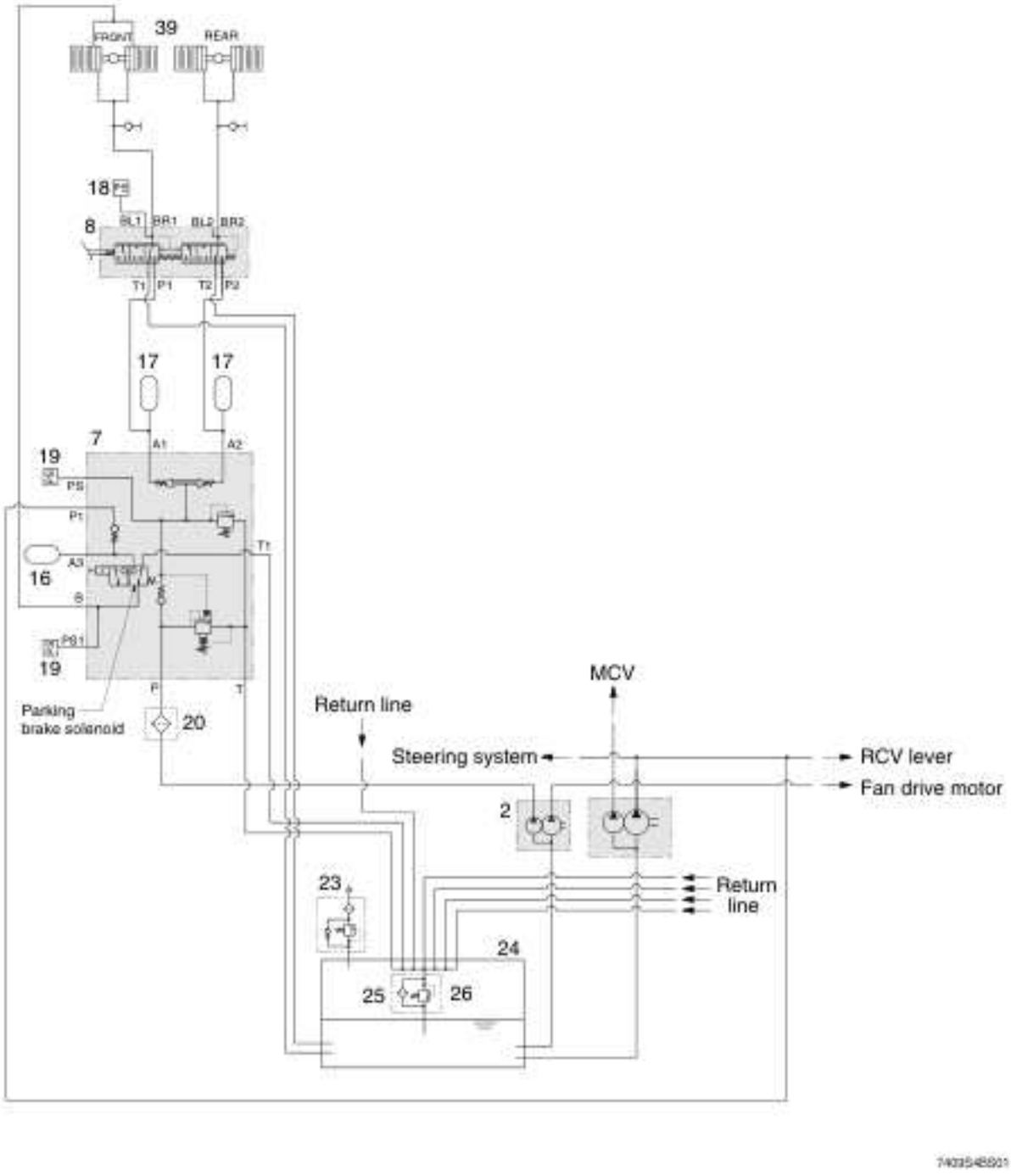
※ This step makes the later assembling of the idler gear easier.

Now, remove idler gear again.



MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-... Order the manual at mid-west-tech.com >

2. HYDRAULIC CIRCUIT



2	Fan & brake pump	18	Pressure sensor	25	Return filter
7	Cut off valve	19	Pressure sensor	26	Bypass valve
8	Brake valve	20	Line filter	39	Axle
16	Accumulator	23	Air breather		
17	Accumulator	24	Hydraulic tank		

MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-... Order the manual at mid-west-tech.com >

(9) Assemble drive gear set.
Spread hydraulic fluid around gear set.



(10) Assemble thrust plate.
Rotate the shaft gear and check status of gear set.
Assemble dowel pins and connector shaft.



(11) Assemble the rear cover.
Check the contact status of square seal.



(12) Assemble stud bolt and washer.
※ Washer : smooth - convex side up
※ Keep bolts in dry condition after washing.



MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-... Order the manual at mid-west-tech.com >

③ Machine information







- Version
  - Software versions of MCU, cluster and monitor can be checked.
- Status info
  - The machine status can be checked.

④ Service contact



- The phone number of the service man can be checked and changed.

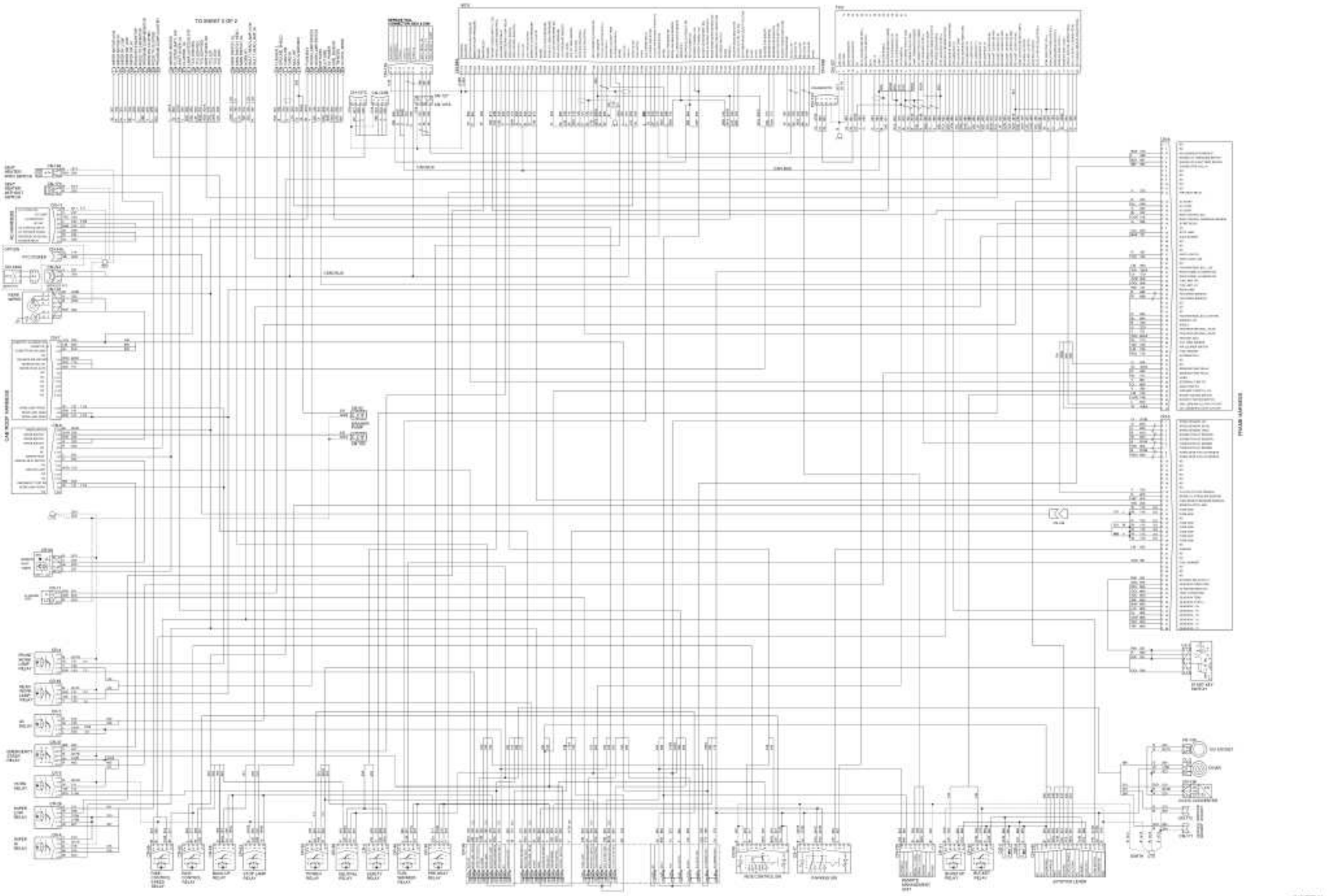
⑤ Service menu



- The software of monitor can be downloaded.

MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-... Order the manual at mid-west-tech.com >

· ELECTRICAL CIRCUIT (1/2)



MidWestTech | Hyundai HL740-9S Wheel Loader Service Manual | Publication HL740-9S

Order the manual at mid-west-tech.com >