WHEEL LOADER

SERVICE MANUAL

HL775-9

HYUNDAI

MidWestTech | Hyundai HL775-9 Wheel Loader Service Manual | Publication HL775-9

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

CONTENTS

FOREWORD 0-1

SECTION 1 GENERAL

Group 1 Safety Hints 1-1
Group 2 Specifications 1-10
Group 3 Operational Checkout Record Sheet 1-22

SECTION 2 ENGINE

Group 1 Structure and Function 2-1
Group 2 Engine speed and Stall rpm 2-14

SECTION 3 POWER TRAIN SYSTEM

Group 1 Structure and Function 3-1
Group 2 Operational Checks and Troubleshooting 3-71
Group 3 Test and Adjustments 3-83
Group 4 Disassembly and Assembly 3-84

SECTION 4 BRAKE SYSTEM

Group 1 Structure and Function 4-1
Group 2 Operational Checks and Troubleshooting 4-30
Group 3 Tests and Adjustments 4-37
Group 4 Disassembly and assembly 4-39

SECTION 5 STEERING SYSTEM

Group 1 Structure and Function 5-1
Group 2 Operational Checks and Troubleshooting 5-16
Group 3 Tests and Adjustments 5-24
Group 4 Disassembly and Assembly 5-31

MidWestTech | Hyundai HL775-9 Wheel Loader Service Manual | Publication HL775-9 Order the manual at mid-west-tech.com >

SECTION 6 WORK EQUIPMENT

Group 1 Structure and Function 6-1
Group 2 Operational Checks and Troubleshooting 6-42
Group 3 Tests and Adjustments 6-53
Group 4 Disassembly and Assembly 6-65

SECTION 7 ELECTRICAL SYSTEM

Group 1 Component Location 7-1
Group 2 Electrical Circuit 7-3
Group 3 Electrical Component Specification 7-21
Group 4 Connectors 7-29
Group 5 Troubleshooting 7-50

MidWestTech | Hyundai HL775-9 Wheel Loader Service Manual | Publication HL775-9 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 HL775-9 Wheel Loader Service Manual | Publication HL775-9 Order the manual at mid-west-tech.com >

2. TROUBLESHOOTING

1) SERVICE BRAKE

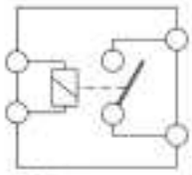
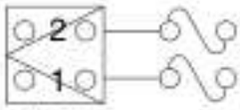
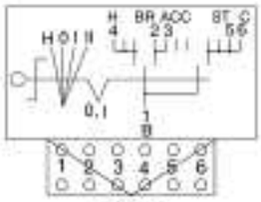
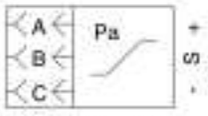
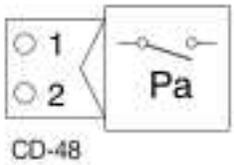
Diagnose malfunction charts are arranged from most probable and simplest to verify, to least likely, more difficult to verify. Remember the following steps when troubleshooting a problem :

Step 1. Operational check out procedure (see section 1)
Step 2. Operational checks (in this group)
Step 3. Troubleshooting
Step 4. Tests and adjustments (see group 3)

Problem	Cause	Remedy
Poor or no brakes	Brake accumulator charge low.	Do brake accumulator check.
	Brake pump standby pressure low.	Do brake pump standby pressure test.
	Brake pressure low.	Do brake valve pressure test.
	Air in system.	Bleed brakes.
	Worn brake surface material.	Inspect brake surface material.
	Leakage in brake valve.	Do brake valve leakage test.
	Leakage in brake piston seal.	Check for an over filled differential. Apply brakes and check for leakage from check plug. ※ It is normal for the oil level to be slightly above the check plug.
Aggressive brakes	Internal restriction in circuit.	Remove lines and components.
	Brake valve malfunction.	Disassemble and inspect.
	Low oil level.	Check oil level.
Brakes drag	Brake pedal not returning properly.	Inspect floor mat and pedal.
	Debris holding valve partially open in brake valve.	Do brake valve pressure test.
	Warped brake disk.	Inspect brake disk.
	Stuck brake piston.	Repair.
Brakes lock up	Brake valve malfunction.	Clean or replace brake valve.

MidWestTech | Hyundai HL775-9 Wheel Loader Service Manual | Publication HL775-9 Order the manual at mid-west-tech.com >

GROUP 3 ELECTRICAL COMPONENT SPECIFICATION

Part name	Symbol	Specifications	Check item
Battery		12V × 220Ah (2EA)	Gravity 1.280 over : over charged 1.280 – 1.250 : normal 1.250 below : discharged
Battery relay	 CR-1	Rated load : 24V 100A (continuity) 1000A (30seconds)	Coil resistance breaked : approx 50Ω connected : ∞Ω
Fusible link	 CN-60	24V 60A	Resistance between ring terminal and each connector pin 0Ω : normal
Start key	 CS-2	B-BR : 24V 1A B-ACC : 24V 10A B-ST : 20V 40A	Resistance between each pin Key off : ∞Ω (for each pin) Key on : 0Ω (for pin 1-2 & 1-3) Start : 0Ω (for pin 1-5)
Pressure sensor	 CD-3 CD-26 CD-39 CD-40	-	Voltage pin A,B : 12V pin B,C : 1–5V
Pressure switch	 CD-48	N.O Type	Resistance ∞Ω : normal (open)

MidWestTech | Hyundai HL775-9 Wheel Loader Service Manual | Publication HL775-9 Order the manual at mid-west-tech.com >

5) DISASSEMBLY AND ASSEMBLY

(1) Spool

① Loosen the bolt (2EA).

- Tool : Wrench 5 mm
- Tightening torque : 0.85 kgf · m (6.1 lbf · ft)



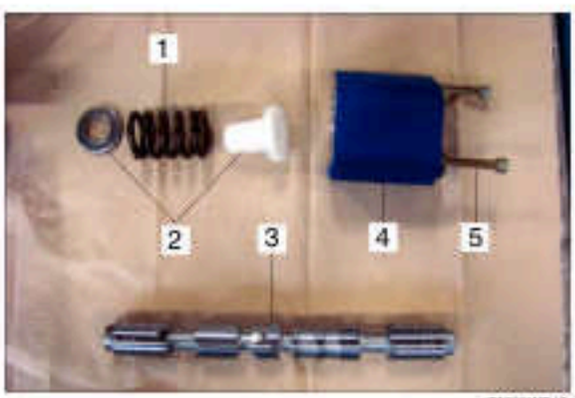
T6096WE40

② Remove the cover, spring retainer, spring and spool.



T6096WE41

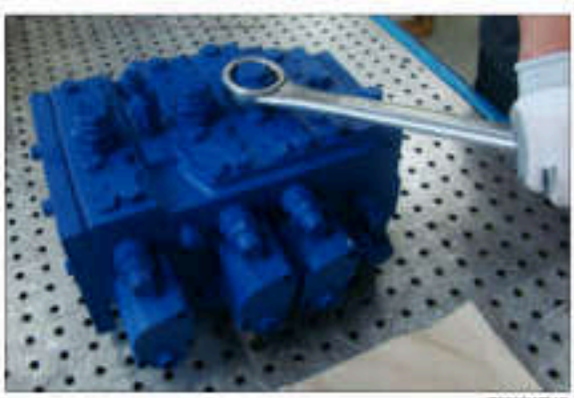
1 Spring
2 Spring ratainer
3 Spool
4 Cover
5 Bolt



T6096WE42

(2) Compensator valve

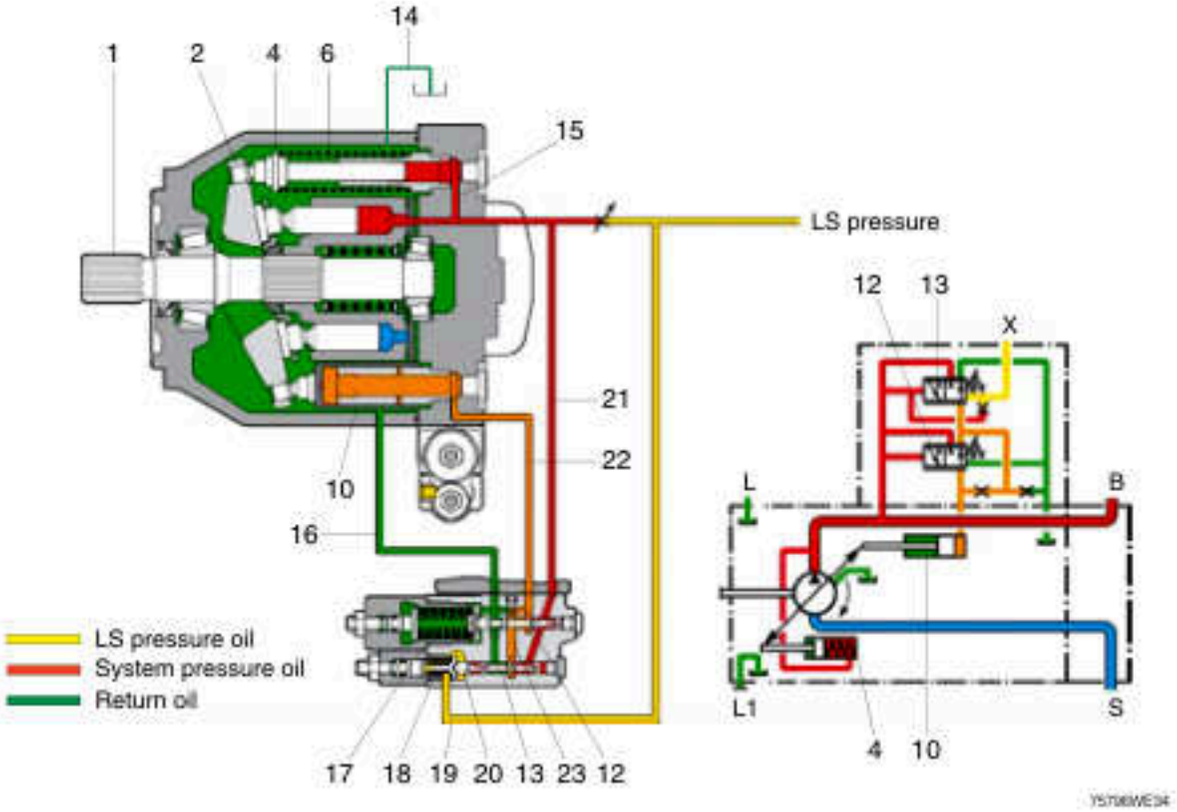
- Tool : Spanner 42 mm



T6096WE43

MidWestTech | Hyundai HL775-9 Wheel Loader Service Manual | Publication HL775-9 Order the manual at mid-west-tech.com >

(2) Destroking



1	Drive shaft	13	Flow compensator spool	19	LS line from the metering pump
2	Swash plate	14	Case drain	20	Cavity
4	Counter piston	15	Passage	21	Passage
6	Counter spring	16	Passage	22	Passage
10	Control piston	17	Spring	23	Cavity
12	Pressure compensator spool	18	Spring		

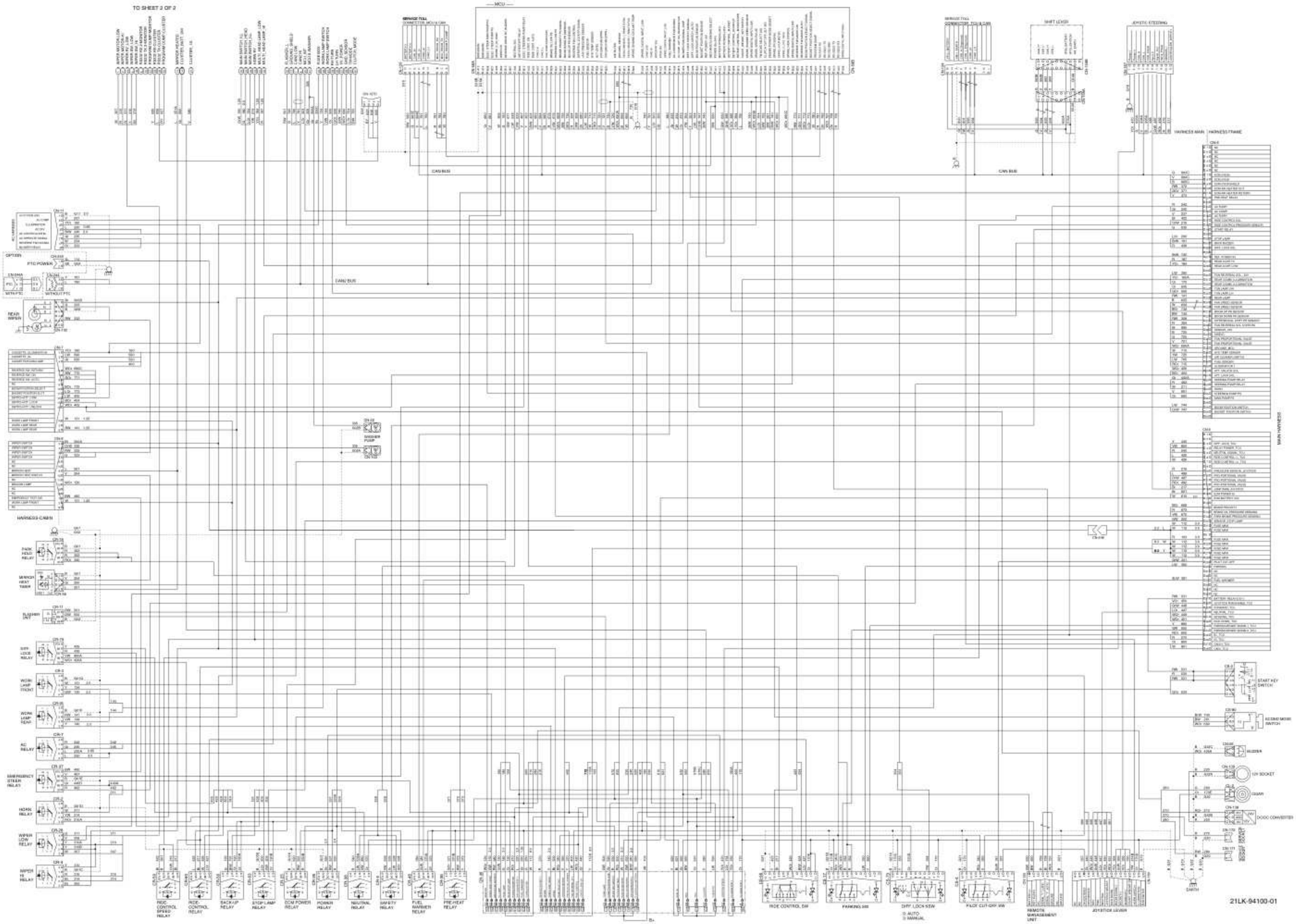
The decreased flow demand causes a LS pressure in line (19). The LS pressure in line (19) combines with the force of spring (18) in cavity (20).
This combination of LS pressure and of spring force is less than the pump pressure in passage (21). This causes flow compensator spool (13) to move left.
Pump oil now flows through passage (15). The oil then flows past flow compensator spool (13), through passage (22), and then to control piston (10).

The pump pressure behind control piston (10) is now greater than the combined force of counter piston(4) and of counter spring (6). The angle of swash plate (2) decreases.
This decreases the pump output and the system pressure.

When the lower flow requirements are met, flow compensator spool (13) moves right up to the balanced position. Swash plate (2) maintains an angle that is sufficient to provide the lower required pressure. If the operator does not turn the steering wheel and does not move RCV, then the pump will return to low pressure standby.

※ Control piston → Changes pump displacement ; influenced by controller.
Counter piston → Helps to change pump displacement but no possible to control this piston.

MidWestTech | Hyundai HL775-9 Wheel Loader Service Manual | Publication HL775-9 Order the manual at mid-west-tech.com >



MidWestTech | Hyundai HL775-9 Wheel Loader Service Manual | Publication HL775-9
Order the manual at mid-west-tech.com >