CRAWLER EXCAVATOR

SERVICE MANUAL

HX330L

HYUNDAI

MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX330L

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

CONTENTS

SECTION 1 GENERAL

Group 1 Safety Hints 1-1
Group 2 Specifications 1-10

SECTION 2 STRUCTURE AND FUNCTION

Group 1 Pump Device 2-1
Group 2 Main Control Valve 2-20
Group 3 Swing Device 2-46
Group 4 Travel Device 2-57
Group 5 RCV Lever 2-71
Group 6 RCV Pedal 2-78

SECTION 3 HYDRAULIC SYSTEM

Group 1 Hydraulic Circuit 3-1
Group 2 Main Circuit 3-2
Group 3 Pilot Circuit 3-5
Group 4 Single Operation 3-14
Group 5 Combined Operation 3-24

SECTION 4 ELECTRICAL SYSTEM

Group 1 Component Location 4-1
Group 2 Electric Circuit 4-3
Group 3 Electrical Component Specification 4-23
Group 4 Connectors 4-32

SECTION 5 MECHATRONICS SYSTEM

Group 1 Outline 5-1
Group 2 Mode selection System 5-3
Group 3 Automatic Deceleration System 5-6
Group 4 Power Boost System 5-7
Group 5 Travel Speed Control System 5-8
Group 6 Automatic Warming Up Function 5-9
Group 7 Engine Overheat Prevention Function 5-10
Group 8 Variable Power Control System 5-11

MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX3... Order the manual at mid-west-tech.com >

Group 9 Attachment Flow Control System 5-12
Group 10 Boom Floating Control System 5-13
Group 11 Intelligent Power Control System 5-14
Group 12 Anti-Restart System 5-16
Group 13 Self-Diagnostic System 5-17
Group 14 Engine Control System 5-55
Group 15 EPPR (Electro Proportional Pressure Reducing) Valve 5-56
Group 16 Monitoring System 5-61
Group 17 Fuel Warmer System 5-96

SECTION 6 TROUBLESHOOTING

Group 1 Before Troubleshooting 6-1
Group 2 Hydraulic and Mechanical System 6-4
Group 3 Electrical System 6-24
Group 4 Mechatronics System 6-40

SECTION 7 MAINTENANCE STANDARD

Group 1 Operational Performance Test 7-1
Group 2 Major Components 7-21
Group 3 Track and Work Equipment 7-32

SECTION 8 DISASSEMBLY AND ASSEMBLY

Group 1 Precaution 8-1
Group 2 Tightening Torque 8-4
Group 3 Pump Device 8-7
Group 4 Main Control Valve 8-30
Group 5 Swing Device 8-54
Group 6 Travel Device 8-78
Group 7 RCV Lever 8-111
Group 8 Turning Joint 8-125
Group 9 Boom, Arm and Bucket Cylinder 8-130
Group 10 Undercarriage 8-147
Group 11 Work Equipment 8-158

MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX3... Order the manual at mid-west-tech.com >

SECTION 9 COMPONENT MOUNTING TORQUE

Group 1 Introduction guide 9-1
Group 2 Engine system 9-2
Group 3 Electric system 9-4
Group 4 Hydraulic system 9-6
Group 5 Undercarriage 9-9
Group 6 Structure 9-10
Group 7 Work equipment 9-15

MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX3... Order the manual at mid-west-tech.com >

6. BUCKET SELECTION GUIDE

1) GENERAL BUCKET

		
1.44 m³ SAE heaped bucket	1.74 m³ SAE heaped bucket	2.10 m³ SAE heaped bucket

Capacity		Width		Weight	Recommendation				
					6.45 m (21' 2") boom				6.15 m (20' 2") boom
SAE heaped	CECE heaped	Without side cutter	With side cutter		2.2 m arm (7' 3")	2.5 m arm (8' 2")	3.2 m arm (10' 6")	4.05 m arm (13' 3")	2.2 m arm (7' 3")
1.44 m³ (1.88 yd³)	1.25 m³ (1.63 yd³)	1410 mm (55.5")	1505 mm (59.3")	1230 kg (2710 lb)	○	○	○	⊙	○
1.74 m³ (2.28 yd³)	1.50 m³ (1.96 yd³)	1640 mm (64.6")	1735 mm (68.3")	1370 kg (3020 lb)	○	○	⊙	●	○
2.10 m³ (2.75 yd³)	1.83 m³ (2.39 yd³)	1780 mm (70.1")	1875 mm (73.8")	1500 kg (3310 lb)	⊙	⊙	●		⊙

○ Applicable for materials with density of 2000 kgf/m³ (3370 lbf/yd³) or less

⊙ Applicable for materials with density of 1600 kgf/m³ (2700 lbf/yd³) or less

● Applicable for materials with density of 1100 kgf/m³ (1850 lbf/yd³) or less

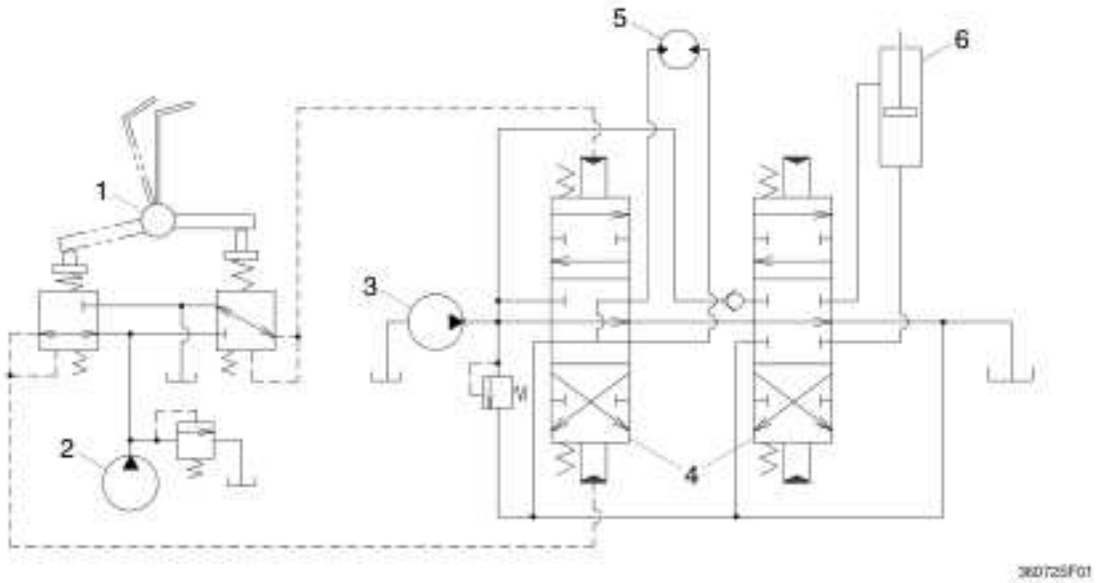
※ These recommendations are for general conditions and average use.
Work tools and ground conditions have effects on machine performance.
Select an optimum combination according to the working conditions and the type of work that is being done.
Consult your HD Hyundai Construction Equipment dealer for information on selecting the correct boom−arm−bucket combination.

MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX3... Order the manual at mid-west-tech.com >

3) OPERATION

The operation of the pilot valve will be described on the basis of the hydraulic circuit diagram shown below ant the attached operation explanation drawing.

The diagram shown below is the typical application example of the pilot valve.



1	Pilot valve	3	Main pump	5	Hydraulic motor
2	Pilot pump	4	Main control valve	6	Hydraulic cylinder

MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX3... Order the manual at mid-west-tech.com >

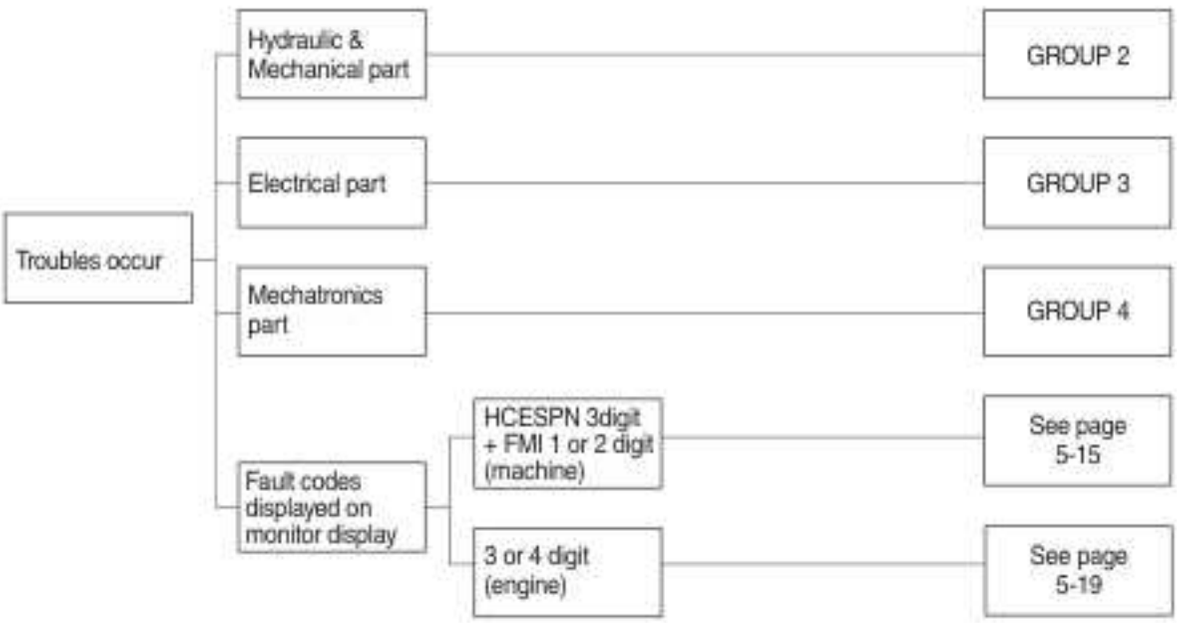
GROUP 1 BEFORE TROUBLESHOOTING

1. INTRODUCTION

When a trouble is occurred in the machine, this section will help an operator to maintain the machine with easy.

The trouble of machine is parted Hydraulic & Mechanical system, Electrical system and Mechatronics system. At each system part, an operator can check the machine according to the troubleshooting process diagram.

※ Before carring out troubleshooting procedure, check monitoring menu in the cluster.



MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX3... Order the manual at mid-west-tech.com >

③ Disassemble drive shaft sub assy by using the press machine.

※ The drive shaft sub assy fall all together, so becareful when removing it.



④ Disassemble sph. roller bearing (3), cover (7), oil seal (30), and sleeve (28) from the drive shaft (2).

※ Do not reuse oil seal (30).



(8) Separate sph. roller bearing (4) from casing (9) by using the press machine.



MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX3... Order the manual at mid-west-tech.com >

3) DISASSEMBLY

The figure in ( ) shown after the part name in the explanation sentence shows its number in the structure figures (8-31~34).

(1) Place control valve on working bench.

※ Disassemble it in clean place and pay attention not to damage flange faces and plate faces.



(2) Disassembling of main spools

- Travel (301), bucket (304), swing (305), option (308), arm 2 (306), boom 2 (307), swing priority (311).

① Loosen the hexagon the socket head bolts (273) and remove the spring cover (201, 202) and the O-ring (261).

- Hexagon key wrench : 6 mm



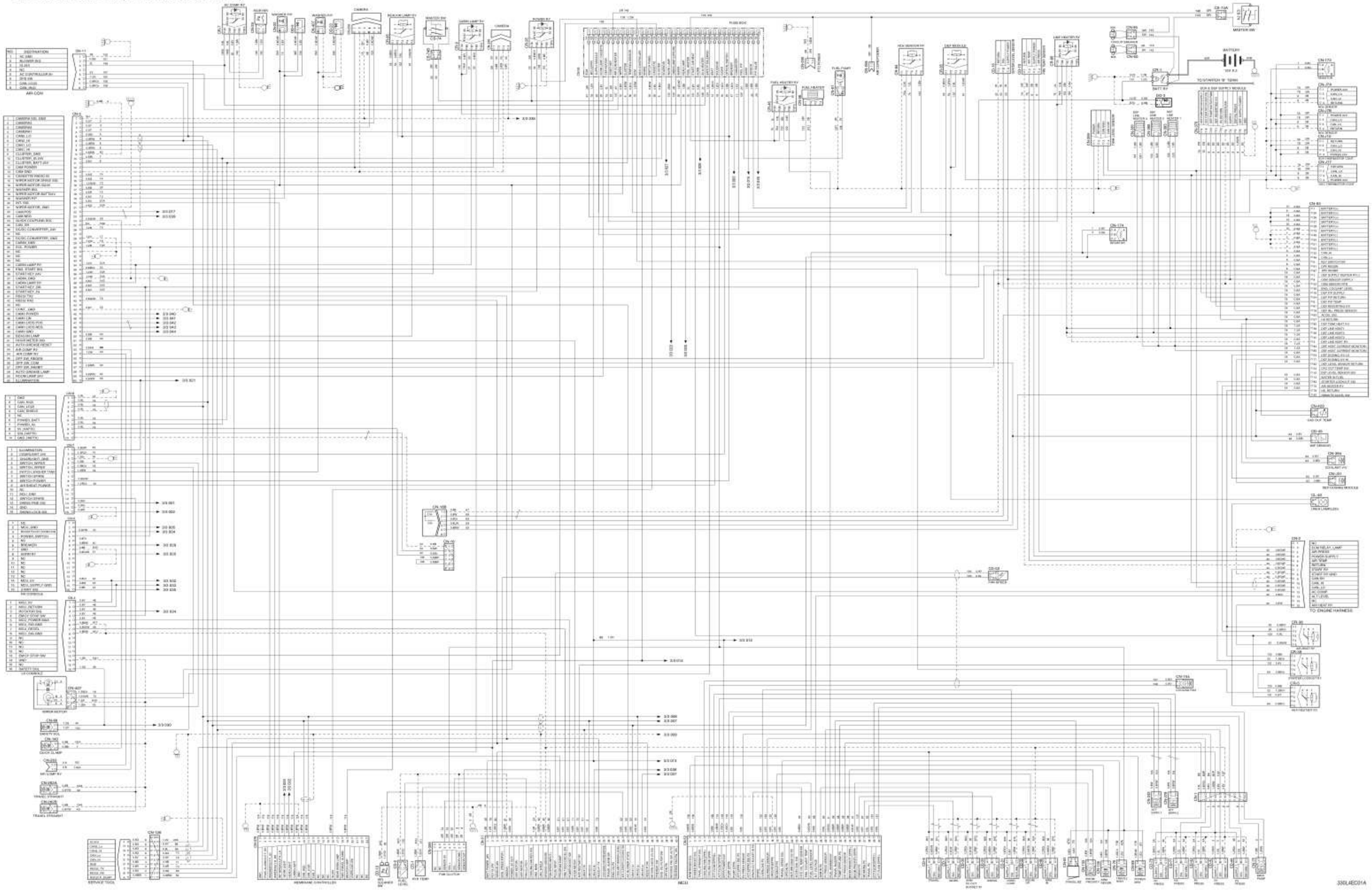
② Pull out the spool, spring, spring seats (322), stopper (335 or 339) and spacer bolt (336) in the spool assembly condition from the casing.

※ When pulling out the spool assembly from housing, pay attention not to damage the housing.



MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX3... Order the manual at mid-west-tech.com >

· ELECTRICAL CIRCUIT (1/5, SERIAL NO. : -#0256)



MidWestTech | Hyundai HX330L Crawler Excavator Service Manual | Publication HX330L

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