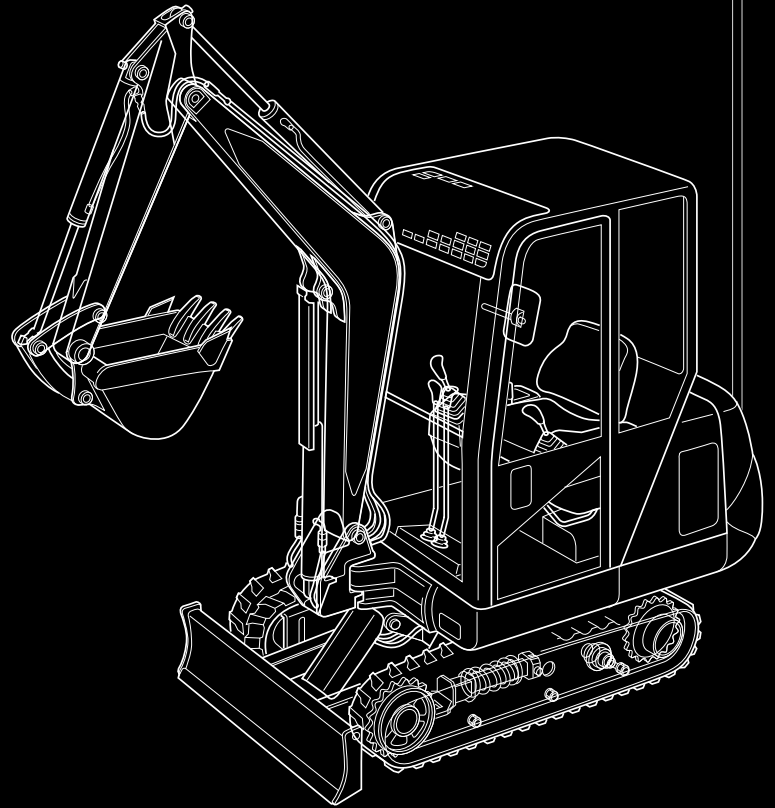


H15B-2
H15B-Plus2

HANIX
Japanese Craftsmanship



H15B-2
H15B-Plus2

Service Manual

Japanese Craftsmanship

INTRODUCTION

To insure a long life for the machine and the engine and to prevent failure and problems, proper operation, maintenance and repairs are indispensable.

This service manual includes an “outline,” “structure and operation,” “inspection and adjustment,” “disassembly and assembly,” “standard maintenance,” and “repair and replacement of parts” of the machine which are necessary to carry out the inspections and repairs in the repair shop.

We hope that this manual helps you to efficiently and effectively carry out repairs by providing an accurate description of the product and the correct repair techniques.

CONTENTS

1. Precautions on Maintenance
2. Outline
3. Attachment
4. Engine
5. Main Pump
6. Hydraulic Oil Filter
7. Control Valve
8. Joystick
9. Slew Motor
10. Travelling Motor
11. Hydraulic Cylinder
12. Swivel Joint
13. Crawler
14. Spring Case and Grease Cylinder
15. Idler
16. Sprocket
17. Track Roller
18. Electrical Equipment
19. Troubleshooting

1 PRECAUTIONS ON MAINTENANCE

1. Correct operation

Correct operation means to follow the correct “procedure” and “method.”

Procedure focuses on speed and accuracy of each job.

In the method, are addressed what type of facility, tools, instruments, materials, oil should be used, how and which part should be checked, adjusted or disassembled, and what matters to attend to.

2. Precautions on operation

1. Safety check

Check that stoppers and sleepers are correctly installed for the vehicle jack-up operation.

2. Preparation

Prepare all of the tools and inspect and adjust the instruments.

3. For efficiency

1) Understand the state before disassembly.

What is the problem? Is disassembly absolutely necessary?

2) Before disassembly

Determine whether match marks are necessary. For the electrical system, disconnect the cable from the battery terminal.

3) Precautions for disassembly

In stead of checking all of the disassembled parts at once, check each part individually as it is disassembled. When removing the hydraulic unit or the hoses, mount a dust cap on the connection.

4) Repair of disassembled parts

Keep the disassembled parts in order. Clearly distinguish the parts to be replaced with new parts from those to be reused. Packings, seals, rings, split pins must be replaced.

NOTE:

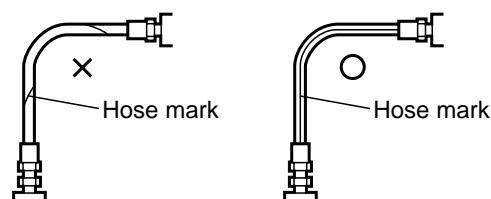
Electrical equipment, rubbers and V belts (which are easily affected by water and oil) must be handled carefully in order to prevent soiling them.

5) Clean disassembled parts

Thoroughly clean the disassembled parts.

6) Assembly

Perform the assembly correctly (tightening torque, application of Three Bond, screw lock, grease, use of seal tape, etc.). Also install the hose correctly.

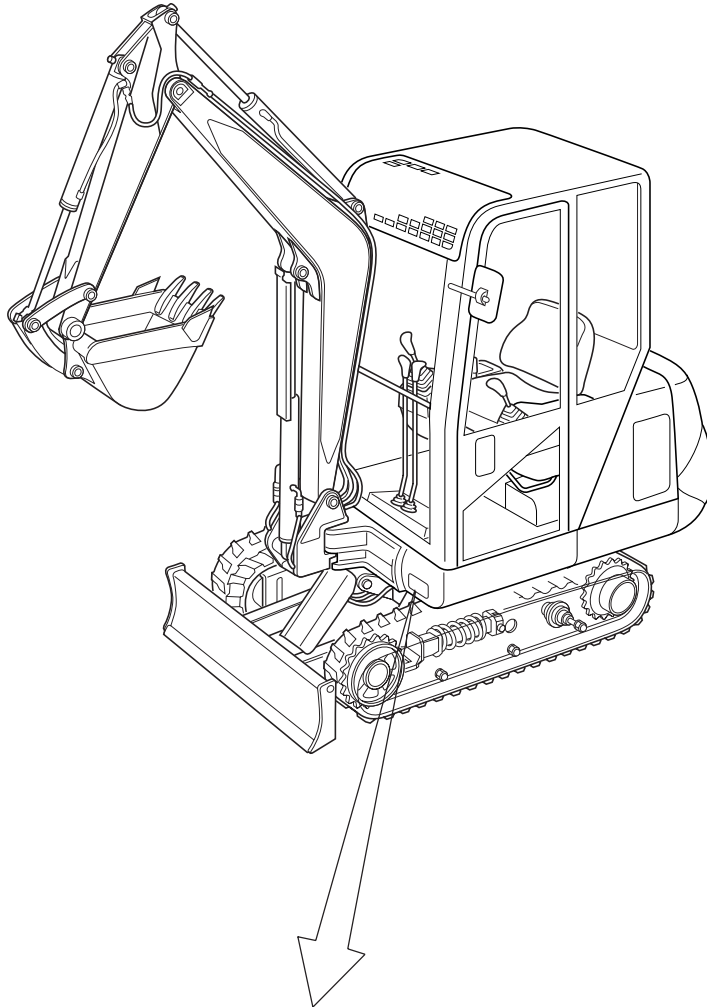


2 OUTLINE

CONTENTS

- 2-1 Location of serial No.
- 2-2 Name of each part
- 2-3 Dimensions and specification
- 2-4 Weight list
- 2-5 Oil and grease supply points
- 2-6 List of supply oil and grease
- 2-7 When to repair
- 2-8 Hydraulic circuit diagram

2-1 Location of Serial Number

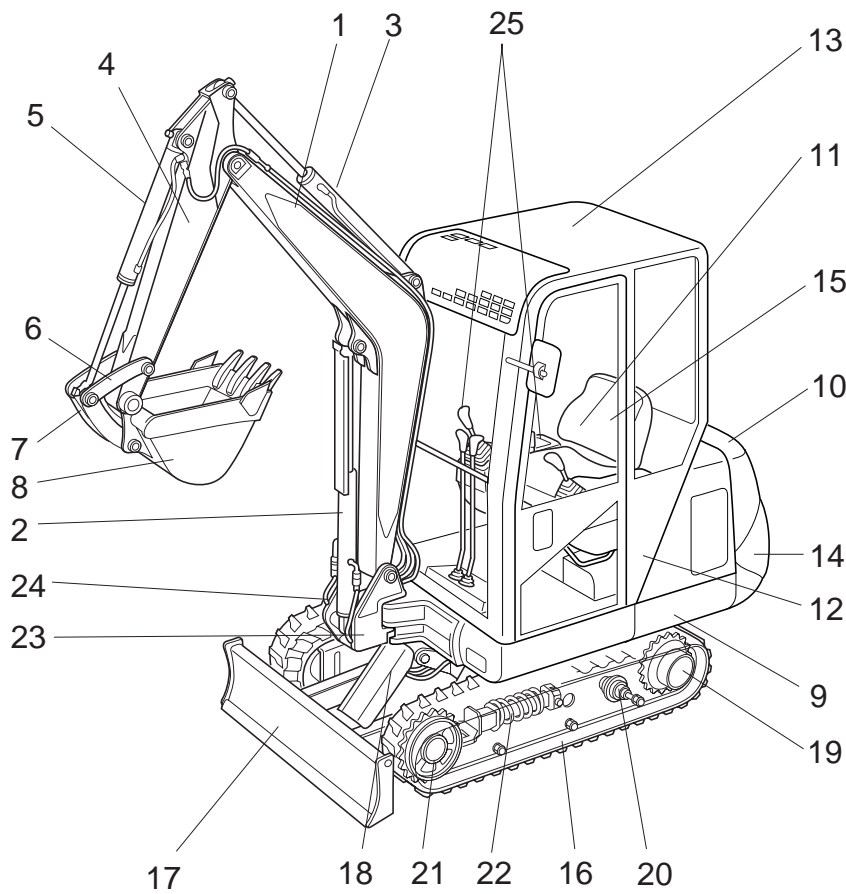


MACHINE	MODEL	<input type="text"/>	CE
	NO.	<input type="text"/>	
	WEIGHT	<input type="text"/>	
	YEAR	<input type="text"/>	
ENGINE	MODEL	<input type="text"/>	
	NO.	<input type="text"/>	
	POEWER	<input type="text"/>	
HANIX EUROPE LTD.			
Oldham Street, Denton, Manchester M34 3SW, United Kingdom.			
MADE IN U.K.			

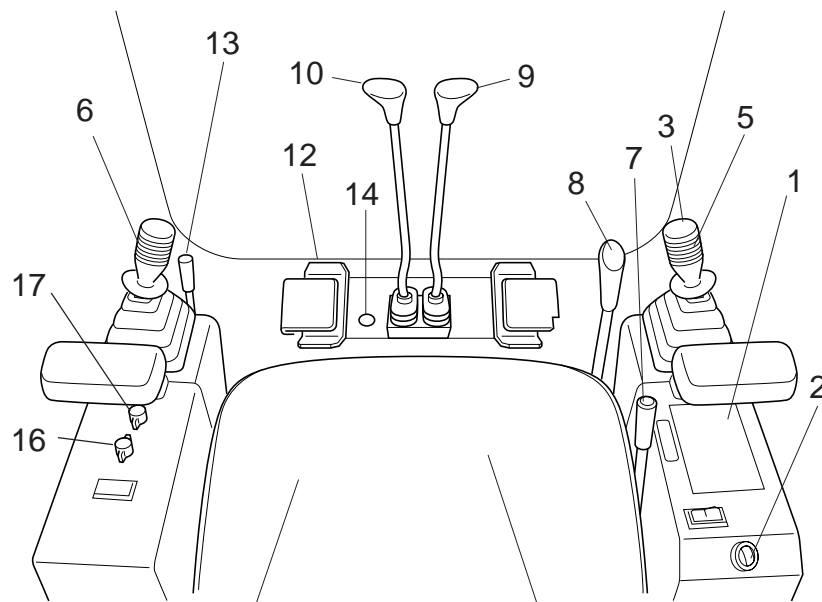
Model name

Serial No.

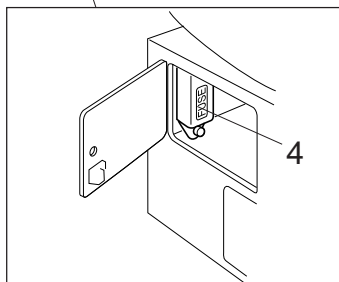
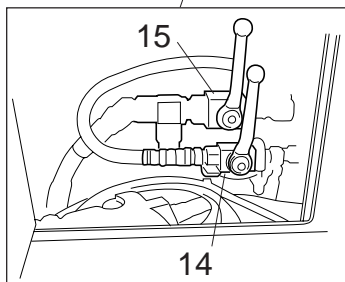
2-2 Name of each part



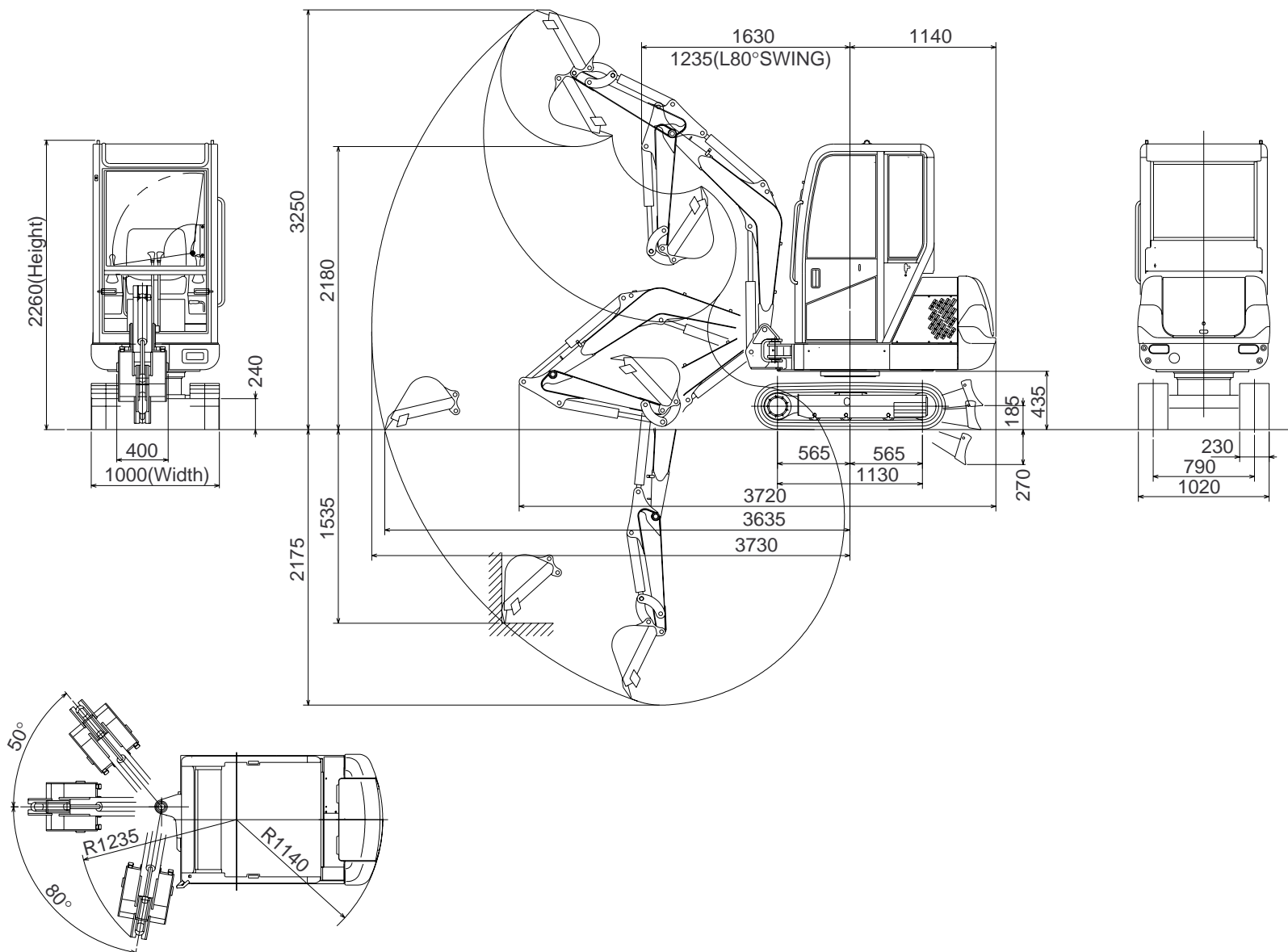
1. Boom
2. Boom cylinder
3. Arm cylinder
4. Arm
5. Bucket cylinder
6. Bucket links
7. Dump link
8. Bucket
9. Swing frame
10. Engine cover
11. Fuel tank
12. Hydraulic tank
13. Roof
14. Counter weight
15. Operator's seat
16. Crawler
17. Dozer blade
18. Dozer cylinder
19. Drive/Track motor
20. Track roller
21. Front idler
22. Grease cylinder
23. Swing post
24. Swing cylinder
25. Operation levers



1. Meter unit
2. Starter switch
3. Horn switch
4. Fuse box
5. Right operation lever
6. Left operation lever
7. Accelerator lever
8. Dozer operation lever
9. Right travelling lever
10. Left travelling lever
11. Swing pedal
12. P.T.O. pedal
13. Operation lock lever
14. Swing lock pin
15. P.T.O. select lever
16. Heater switch(for Cabin)
17. Wiper switch(for Cabin)
18. Manual boom lowering lever



2-3 Dimensions and Specifications



	Model		Unit	H15B-2
Machine weight	Cabin rubber		Kg(lb)	1570(3461)
	Cabin steel			1620(3571)
	Standard bucket capacity		m ³ (ft ³)	0.04(1.41)
	Standard bucket width		mm(in)	400(15.7)
Engine	Type			mitsubishi L3E
	Displacement		cc(in ³)	952(58.1)
	Rated output		kW(ps)/min ⁻¹	12.5(17)/2400
Working range	Max.digging depth		mm(in)	2150(84.6)
	Max. digging depth with blade down		mm(in)	2290(90.2)
	Max.vertical digging depth		mm(in)	1510(59.4)
	Max.digging height		mm(in)	3275(129)
	Max.dumping height		mm(in)	2205(86.8)
	Max.digging radius		mm(in)	3730(147)
	Min.turning radius	front	mm(in)	1630(64.2)
		swing	mm(in)	1235(48.6)
	Rear end radius		mm(in)	1140(44.9)
Boom swing angle		Angle	Left80°/Right50°	
Dimensions	Overall length		mm(in)	3720(146)
	Overall width		mm(in)	1020(40.2)
	Overall height		mm(in)	2260(89.0)
	Dozer(width × height)		mm(in)	1000 × 240(39.4 × 9.4)
Performance	Travelling speed		km(mile)/h	2.1(1.3)/3.9(2.4)
	Slew speed		min ⁻¹	11.5
	Gradeability		Angle	30°
	Max.digging force(bucket)		kN(lbf)	14.4(3237)
	Max.digging force(arm)		kN(lbf)	8.8(1978)
Undercarriage	Ground pressure	Cabin rubber	KPa(psi)	27.4(3.97)
		Cabin steel		27.4(3.97)
	Shoe width × tumbler center		mm(in)	230 × 1130(9.1 × 44.5)
	Type of travelling motor			Piston shoe-in type
Crawler tension system			Grease cylinder	
Hydraulic pressure	Type of hydraulic pump			Gear × 3
	Main pump oil flow Qty.		ℓ (in ³ · gallon)/min	15.7(958 · 3.45 · 4.15US) × 3
	P.T.O oil flow Qty.		ℓ (in ³ · gallon)/min	31.4(1916 · 6.9 · 8.3US)
	Pressure P1,P2,P3		MPa(psi)	18.6(2700)
Capacity	Hyd.oil capacity		ℓ (in ³ · gallon)	24(1465 · 5.3 · 6.3US)
	Engine oil capacity		ℓ (in ³ · gallon)	3.6(220 · 0.79 · 0.95US)
	Fuel capacity		ℓ (in ³ · gallon)	20(1220 · 4.4 · 5.3US)
	Cooling water capacity		ℓ (in ³ · gallon)	4.3(262 · 0.95 · 1.14US)
Noise level Lw/LpA		dB		

2-4 Weight list

Unit: kg(lb)

Part name		Part name	
Boom	58(128)	Slew bearing	17.7(39)
Arm	24.5(54)	Track frame	101(223)
Bucket	32.3(71.2)	Dozer	36.5(80.5)
Dump link	3.6(7.9)	Crawler(steel)	74(163)×2
Bucket link(R)	1.6(3.5)	Crawler(rubber)	51(113)×2
Bucket link(L)	1.9(4.2)	Idler	8(18)×2
Boom joint pin	1.8(4)	Adjust cylinder	10.6(23)×2
Arm joint pin	1.9(4.2)	Track roller	2.9(6.4)×6
Bucket pin	0.8(1.8)×2	Sprocket	4(9)×2
Swing post	24.5(54)	Slew motor	23(51)
Swing post pin	3.2(7)	Turning motor	14(31)×2
Swing frame	162(357)	Joystick	3.5(8)×2
Hydraulic oil tank	29(64)	Console box	9.6(21)×2
Fuel tank	16(35.3)	Engine	94(207)
Engine cover(A)	17.6(38.8)	Radiator	6.9(15.2)
Engine cover(B)	2.7(6)	Battery	12.5(15)
Counter weight	83(183)	Seat plate	12(26.5)
Operator cabin	200(441)	Swivel joint	8(18)
Boom cylinder	12.5(28)	Pump	5.4(12)
Arm cylinder	12(26)	Control valve	24(53)
Bucket cylinder	12(26)	TOPS ROOF	85(187)
Swing cylinder	12.5(28)	CABIN	200(441)
Dozer cylinder	8.5(18.7)		