KOBELCO

SERVICE MANUAL

HYDRAULIC EXCAVATOR

SK115DZLC IV

SK120LC IV

Revision Date: 01/1995

Applicable: SK115DZLC IV YWU1001~
SK120LC IV LPU1001~, YPU1001~

S5LPU0005E(PLM)

MidWestTech | Kobelco SK115DZLC IV, SK120LC IV Hydraulic Excavator Service Manual | Publication S5LPU0005E(PLM)
Order the manual at mid-west-tech.com >

SHOP MANUAL model YWU LPU · YPU

TABLE OF CONTENTS

1. SPECIFICATION YPU01
2. OPERATION AND CONTROLS (Refer to Operators Manual)
3. LOCATION AND WEIGHT OF COMPONENTS YPU03
4. MAINTENANCE STANDARDS AND TEST PROCEDURES YPU04
5. .....
6. PREVENTIVE MAINTENANCE (Refer to Operators Manual)
7. WORKING STANDARDS YPU07
8. STANDARD MAN-HOUR TABLE YPU08

○How to Index each Shop Manual Section
The GENERAL of this shop manual consists of 8 headings as shown above. Each section can be easily referred to by indexes appended to the margin of the page as indicated on the right. Please use the indexes for speedy reference.



KOBELCO

GENERAL

MidWestTech | Kobelco SK115DZLC IV, SK120LC IV Hydraulic Excavator Service Manual |... Order the manual at mid-west-tech.com >

YWU
LPU
YPU

List of Shop Manual GENERAL Section

Index No.	Title	Book Code No. / Distribution Year-Month		
YPU01	SPECIFICATION	S5YPU0105E 1995-01		
—	OPERATION	Refer to Operators Manual		
YPU03	LOCATION AND WEIGHT OF COMPONENTS	S5YPU0305E 1995-01		
YPU04	MAINTENANCE STANDARDS AND TEST PROCEDURES	S5YPU0405E 1995-01		
—	PREVENTIVE MAINTENANCE	Refer to Operators Manual		
YPU07	WORKING STANDARDS	S5YPU0705E 1995-01		
	Applicable Machines	YWU1001~ LPU1001~ YPU1001~		

MidWestTech | Kobelco SK115DZLC IV, SK120LC IV Hydraulic Excavator Service Manual |... Order the manual at mid-west-tech.com >

Book code No. S5YPU01 05E

KOBELCO

SHOP MANUAL

YWU
LPU · YPU

YPU01

SPECIFICATION

TABLE OF CONTENTS

1. LOCATION OF COMPONENTS 1
2. GENERAL DIMENSIONS 2
3. SPECIFICATIONS AND PERFORMANCE 4
4. TYPE OF SHOES 5
5. TYPE AND COMBINATION OF ATTACHMENTS ... 6
6. WORKING RANGES OF ATTACHMENTS 8
7. LIFTING-UP ABILITY DIAGRAM 10
8. ENGINE SPECIFICATIONS 17

KOBELCO CONSTRUCTION MACHINERY(U.S.A.) INC.

MidWestTech | Kobelco SK115DZLC IV, SK120LC IV Hydraulic Excavator Service Manual |... Order the manual at mid-west-tech.com >

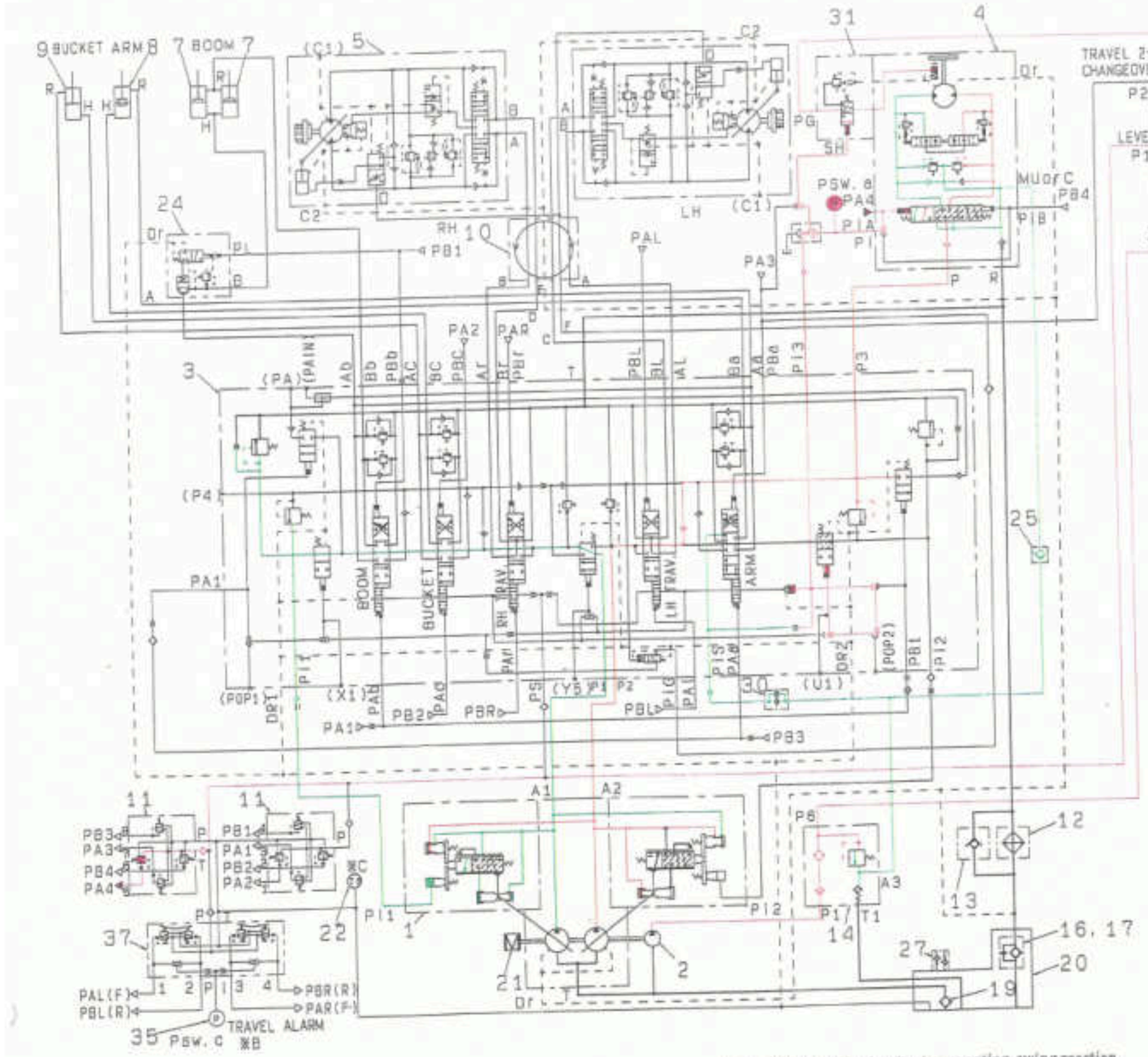


Fig. 7 Swing (LH) circuit at preventing swing reaction

6. SWING CIRCUIT

The following are explained in this section:

1) Swing pilot circuit
2) Parking auto brake for swing
3) Delay brake by reducing valve
4) Anti-cavitation circuit to dampen inertia force in swing action
5) Swing flasher lights in swing action
6) Prevention of reaction by the swing-reractionless valve

6.1 SWING PILOT CIRCUIT

Function ; If swing action is taken, the secondary proportionate pilot pressure PA4 or PB4 comes out of the pilot valve (11) and actuates the swing spool.

6.2 AUTO SWING PARKING BRAKE

Objective ; To prevent swing drift when operation is neutral.

Principle ; When swing action is performed, the spring action is released by primary pilot pressure.

Function ; In both the swing action and the arm digging, the secondary pilot pressure enters port SH of the reducing valve and changes over the spool. Then the primary pilot pressure releases the parking brake by way of port PG.

6.3 DELAY BRAKE BY REDUCING VALVE

Objective ; To prevent the parking brake when swing inertia occurs.

Principle ; The release oil is throttled to delay braking.

Function ; If operation is brought to neutral, the oil returned from the brake release cylinder is delayed 5~8 seconds afterwards.

6.4 ANTI-CAVITATION CIRCUIT WHEN SWING INERTIA OCCURS

Objective ; To prevent anti-cavitation when swing action is decelerated of stopped.

Principle ; If the operating lever is at deceleration or at neutral when swing inertia occurs, the relieved pilot pump oil is replenished to prevent anti-cavitation.

Function ; The boost oil of 7kgf/cm² (100 psi) comes out of port A3 of the manifold block, passes through the check valve (25) and enters port C of the swing control valve to replenish oil.

6.5 LIGHTING OF SWING FLASHER AT SWING ACTION

Objective ; To warn around the swing action is being performed.

Principle ; The selected secondary proportionate pilot pressure causes the swing flasher to flash alternately during swing action.

Function ; If the pressure switch PSW.a is turned on by secondary swing proportionate pilot pressure, the oscillator in the flasher unit is turned on which turns on the swing flasher.

6.6 PREVENTION OF SWING REACTION BY SWING-REACTIONLESS VALVE

Objective ; To prevent swing reaction within 1 time after swing action stops.

Principle ; While the motor is being reversed, high pressure oil is bypassed from A to B and visa versa, thereby preventing reversing pressure from occurring.

Function ; Reversing prevention is performed in the swing-reactionless valve of the swing motor.

MidWestTech | Kobelco SK115DZLC IV, SK120LC IV Hydraulic Excavator Service Manual | Publication S5LPU0005E(PLM)

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