KOBELCO

SERVICE MANUAL

HYDRAULIC EXCAVATOR

SK235SR-1E

SK235SRLC-1E

SK235SRNLC-1E

S5YF0002E

Issued: December, 2003

APPLICABLE:
SK235SR-1E YF02-01201~
SK235SRLC-1E YU02-00501~
SK235SRNLC-1E YU02-00501~
SK235SR-1E YF03-01300~
SK235SRLC-1E YU03-00648~
SK235SRNLC-1E YU03-00648~

MidWestTech | Kobelco SK235SR-1E, SK235SRLC-1E, SK235SRNLC-1E Hydraulic Excavator Service Manual | Publication S5YF0002E_gb

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

KOBELCO

Book code No. S5YF0202E①

SHOP MANUAL

SK235SR-1E
SK235SRLC-1E
SK235SRNLC-1E

YF02

SPECIFICATION

TABLE OF CONTENTS

1. NAME OF COMPONENTS 1
2. GENERAL DIMENSION 2
3. WEIGHT OF COMPONENTS 3
4. TRANSPORTATION 4
5. SPECIFICATIONS AND PERFORMANCE 6
6. TYPE OF CRAWLER 7
7. TYPE OF BUCKET 8
8. COMBINATIONS OF ATTACHMENT 9
9. ENGINE SPECIFICATION 10

KOBELCO CONSTRUCTION MACHINERY CO., LTD.

MidWestTech | Kobelco SK235SR-1E, SK235SRLC-1E, SK235SRNLC-1E Hydraulic Exc... Order the manual at mid-west-tech.com >

KOBELCO

Book code No. S5YF03 02E①

SHOP MANUAL

SK235SR-1E
SK235SRLC-1E
SK235SRNLC-1E

YF03

ATTACHMENT DIMENSION

TABLE OF CONTENTS

1. BOOM
   - 1.1 Boom dimensional drawing 1
   - 1.2 Boom maintenance standard 2
2. ARM
   - 2.1 Arm dimensional drawing 4
   - 2.2 Arm maintenance standard 5
3. BUCKET
   - 3.1 Bucket dimensional drawing 7
   - 3.2 Bucket dimensional table 7
   - 3.3 Detail dimensional drawing of lug section 8
   - 3.4 Detail dimensional drawing of boss section 9

KOBELCO CONSTRUCTION MACHINERY CO., LTD.

MidWestTech | Kobelco SK235SR-1E, SK235SRLC-1E, SK235SRNLC-1E Hydraulic Ex... Order the manual at mid-west-tech.com >

KOBELCO

Book code No. S5YF11 02E①

SHOP MANUAL

SK235SR-1E
SK235SRLC-1E
SK235SRNLC-1E

YF11

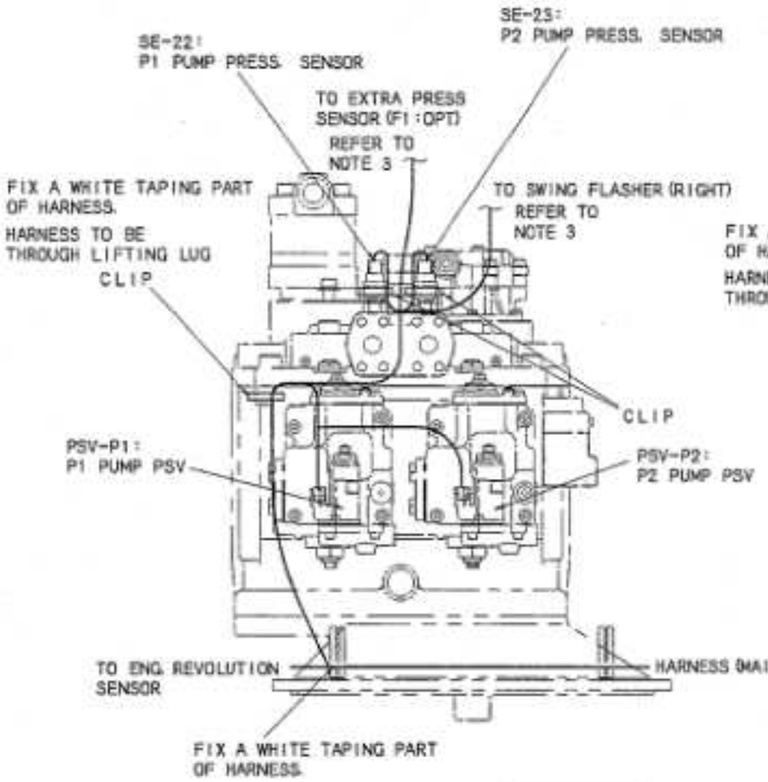
TOOLS

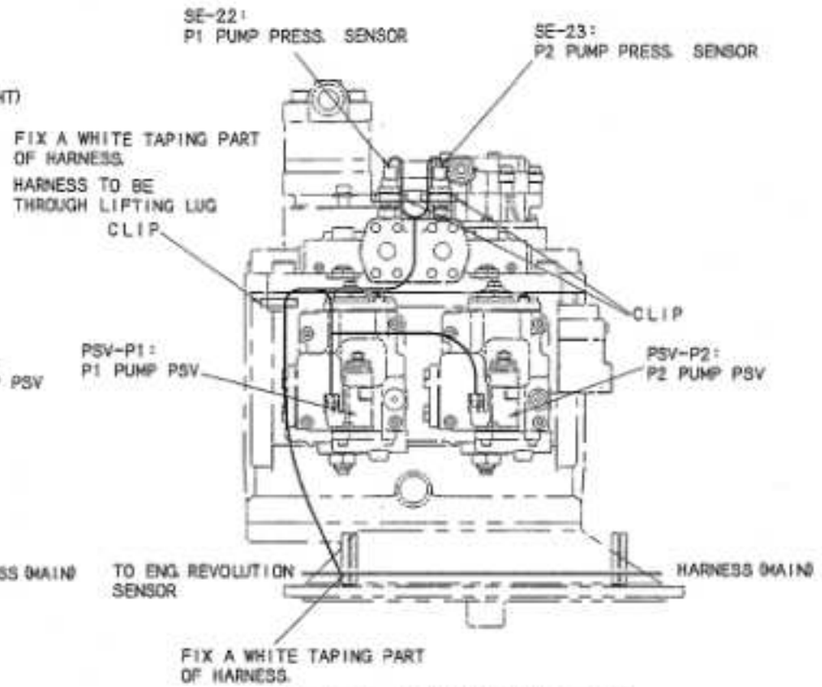
TABLE OF CONTENTS

1. TIGHTENING TORQUES FOR CAPSCREWS AND NUTS 1
2. SCREW SIZE 2
3. TIGHTENING TORQUES FOR NUTS AND SLEEVES 3
4. PLUG 4
5. SPECIAL SPANNER FOR TUBE 7
6. SPECIAL TOOLS 8
7. APPLICATION OF SCREW LOCKING COMPOUND AND SEALING COMPOUND 10
8. SUCTION STOPPER 11
9. COUNTER WEIGHT LIFTING JIG 12
10. UPPER FRAME LIFTING JIG 13
11. ENGINE MOUNTING PEDESTAL 15
12. TRACK SPRING SET JIG 15

KOBELCO CONSTRUCTION MACHINERY CO., LTD.

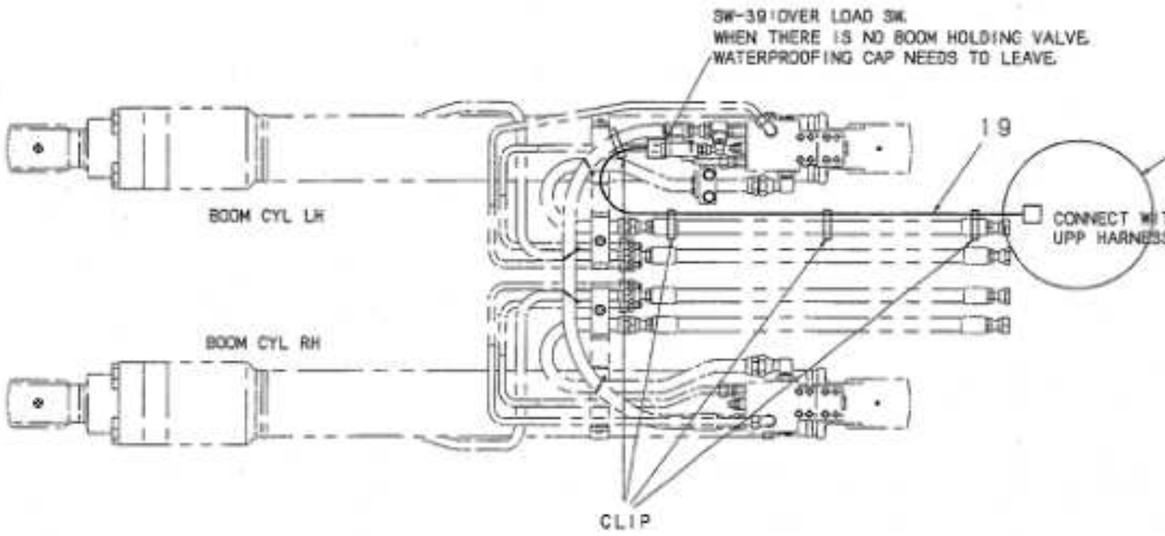
MidWestTech | Kobelco SK235SR-1E, SK235SRLC-1E, SK235SRNLC-1E Hydraulic Ex... Order the manual at mid-west-tech.com >





NOTES
1. TIGHTENING TORQUE OF BATTERY TERMINAL
   TIGHTENING TORQUE : 0.35 kgf·m
   {2.5 lbf·ft}
2. TIGHTENING TORQUE M8 : 2.35 kgf·m
   {17.0 lbf·ft}
3. REMOVE THE TAPE WHICH IS FIXING THE
   CONNECTOR AND CONNECT WITH EQUIPMENT.

DETAIL OF PUMP KCME·KCMA



DETAIL OF BOOM FOOT ONLY KCME

DETAIL OF PUMP OCEANIA

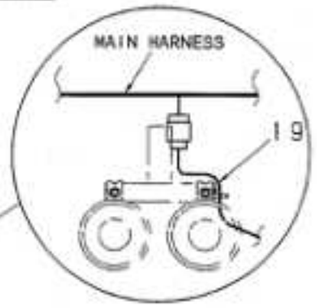


Fig.19 (3/3) Upper harness assy

MidWestTech | Kobelco SK235SR-1E, SK235SRLC-1E, SK235SRNLC-1E Hydraulic Excavator Service Manual | Publication S5YF0002E_gb
Order the manual at mid-west-tech.com >

6.3 MAINTENANCE STANDARDS

6.3.1 INSPECTION PROCEDURE AND REMEDY

Table 6-3

Interval	Check Item	Checking Procedure	Remedy
2,000Hrs.	Seal for oil leakage outside	Check oil leakage outside	Replace O ring or dust seal , if any oil leakage can be found.
4,000Hrs. In principle, disassemble and check regardless of oil leakage or not.	All sealing parts		Replace all sealing parts such as slipper seal with back-up ring and O ring.
	All sliding parts	Check abnormal wear, scoring or corrosion caused by foreign matters or seizure.	Repair or replace referring to their limit of service.
When disassembled for repair	All parts	Check them for seizure, foreign matters, abnormal wear, and defect of seals.	Repair or replace referring to their limit of service. O rings and dust seal should be replaced.

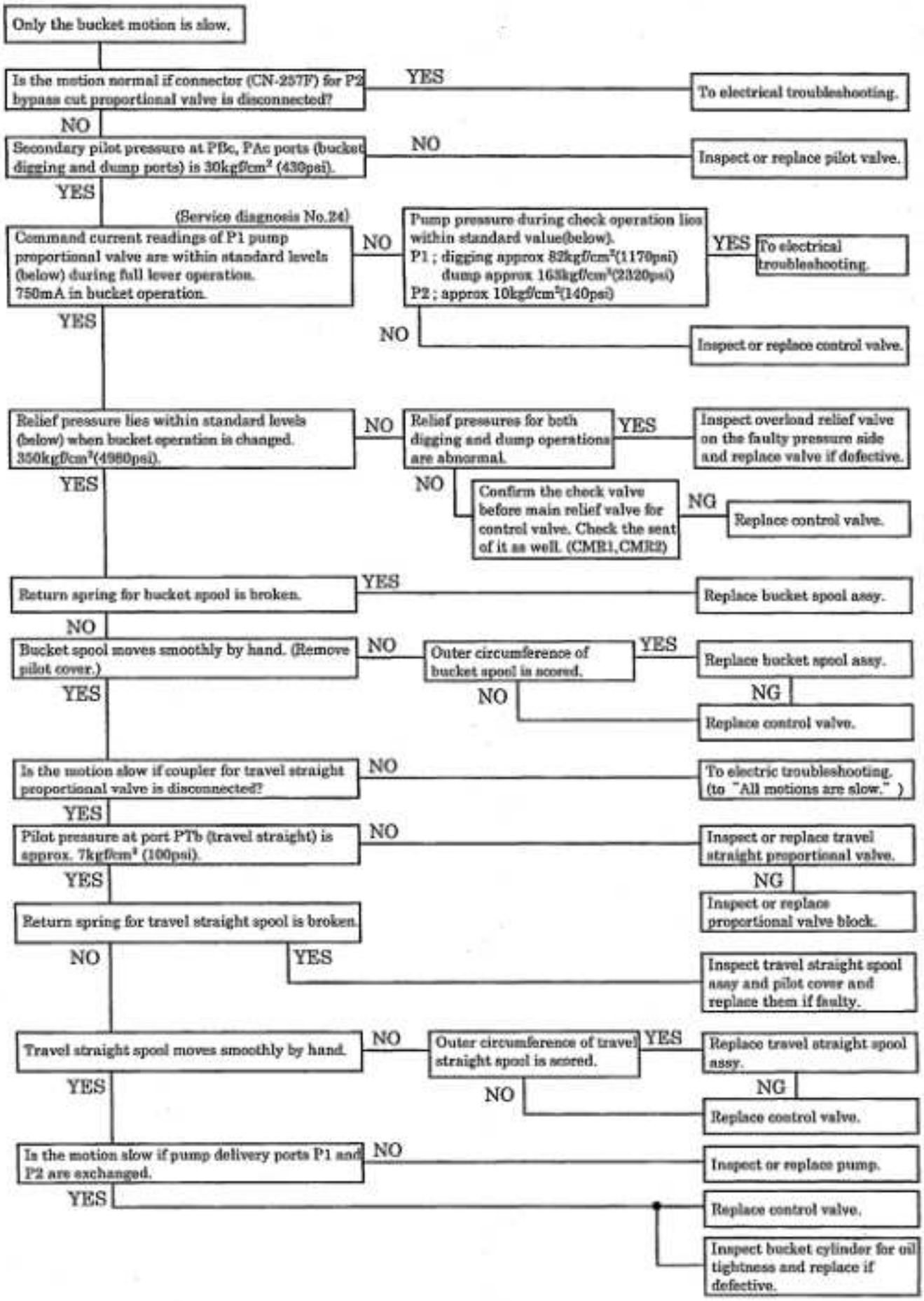
6.3.2 SERVICE LIMIT OF THE PARTS

Table 6-4

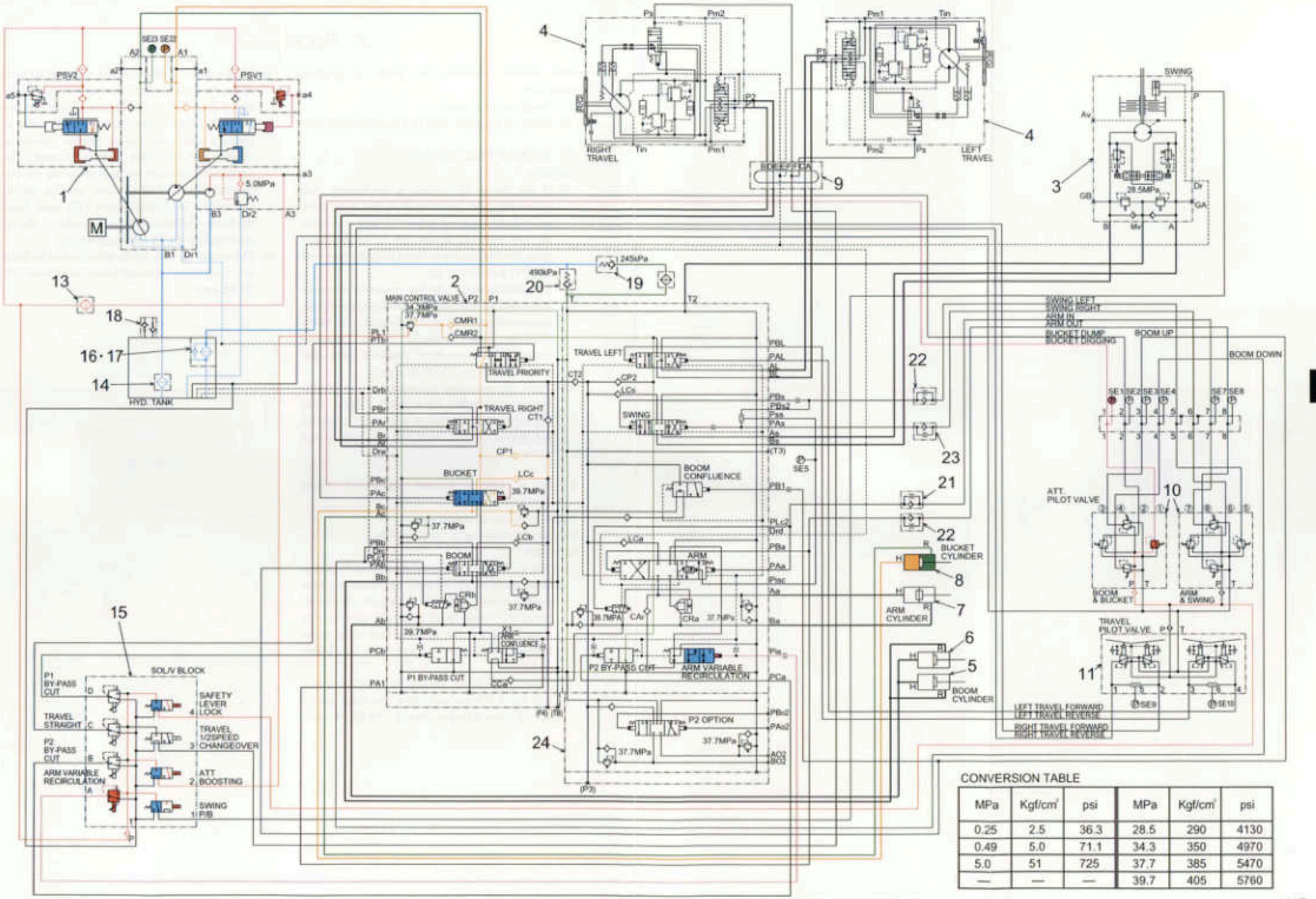
Parts		Maintenance Standards	Remedy
Body, Stem	Sliding surface with sealing sections	Plating worn or peeled due to seizure or contamination.	Replace
	Sliding surface between body and stem other than sealing sections	1) Worn abnormally or damaged more than 0.1mm (0.004in) in depth due to seizure or contamination.	Replace
		2) Damaged less than 0.1mm (0.004in) in depth.	Smooth with oilstone.
	Sliding surface with thrust plate	1) Worn more than 0.5mm (0.02in) or abnormality.	Replace
		2) Worn less than 0.5mm (0.02in).	Smooth
		3) Damage due to seizure or contamination repairable within wear limit 0.5mm (0.02in).	Smooth
Cover	Sliding surface with thrust plate	1) Worn more than 0.5mm (0.02in) or abnormality.	Replace
		2) Worn less than 0.5mm (0.02in).	Smooth
		3) Damage due to seizure or contamination repairable within wear limit 0.5mm (0.02in).	Smooth

MidWestTech | Kobelco SK235SR-1E, SK235SRLC-1E, SK235SRNLC-1E Hydraulic Exca... Order the manual at mid-west-tech.com >

(2)-2



MidWestTech | Kobelco SK235SR-1E, SK235SRLC-1E, SK235SRNLC-1E Hydraulic Exc... Order the manual at mid-west-tech.com >



CONVERSION TABLE

MPa	Kgf/cm²	psi	MPa	Kgf/cm²	psi
0.25	2.5	36.3	28.5	290	4130
0.49	5.0	71.1	34.3	350	4970
5.0	51	725	37.7	385	5470
—	—	—	39.7	405	5760

BUCKET CIRCUIT : BUCKET DIGGING OPERATION AT ATT BOOSTING

MidWestTech | Kobelco SK235SR-1E, SK235SRLC-1E, SK235SRNLC-1E Hydraulic Excavator Service Manual | Publication S5YF0002E_gb

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