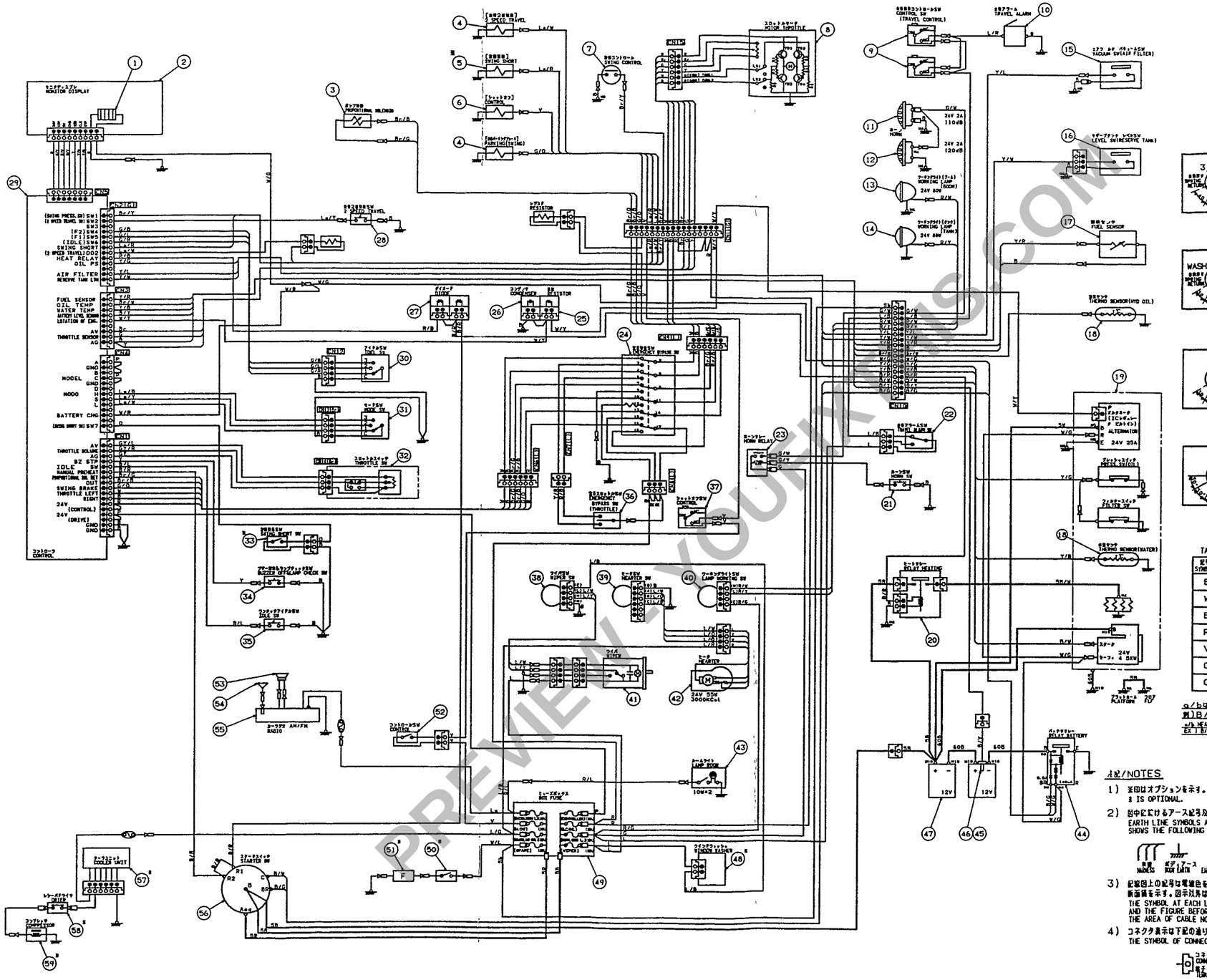
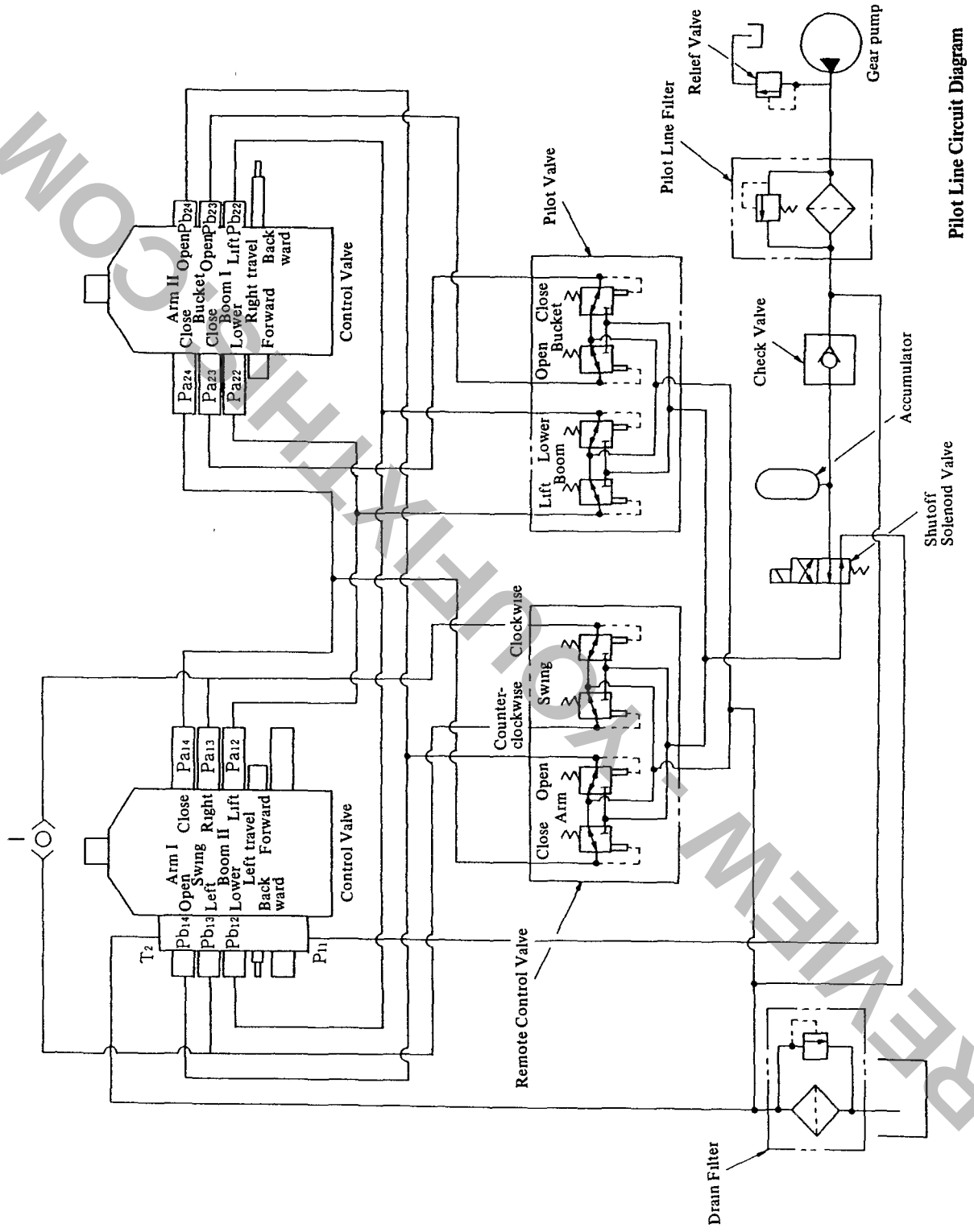


SYM	DESCRIPTION	QTY
1	METER,HOUR	1
2	MONITOR DISPLAY ASSY	1
3	PUMP,HYD	1
4	VALVE,SOLENOID	2
5	VALVE;SOLENOID	1
6	VALVE,SOLENOID	1
7	SWITCH,PRESSURE	1
8	MOTOR,THROTTLE	1
9	SWITCH;LIMIT	2
10	ALARM,TRAVEL	1
11	HORN,ERECTRIC	1
12	HORN,ERECTRIC	1
13	LAMP,WORKING	1
14	LAMP,WORKING	1
15	SENSOR,VACUUM	1
16	SWITCH,LIMIT	1
17	SENSOR;FUEL	1
18	SENSOR;THERMO	2
19	ENGINE DIESEL	1
20	RELAY,HEATING	1
21	KNOB(SWITCH)	1
22	SWITCH,ROCKER(HORN)	1
23	RELAY,HORN	1
24	SWITCH	1
25	RESISTOR	1
26	CONDENSER	1
27	DIODE	2
28	PUSH BUTTON DIMMER	1
29	CONTROLLER	1
30	SWITCH,ROTARY(IDLE)	1
31	SWITCH,ROTARY(MODE)	1
32	SWITCH(THROTTLE)	1
33	SWITCH,ROCKER(SWING)	1
34	PUSH BUTTON	1
35	KNOB(SWITCH)	1
36	SWITCH;TOGGLE	1
37	SWITCH;LIMIT	1
38	SWITCH;ROTARY(WIPER)	1
39	SWITCH;ROTARY(HEATER)	1
40	SWITCH;ROTARY(LAMP)	1
41	MOTOR;WIPER	1
42	HEATER;CAR	1
43	LAMP;ROOM	1
44	RELAY;BATTERY	1
45	BATTERY(SENSOR)	1
46	SENSOR SPECIAL	1
47	BATTERY	1
※ 48	WINDOW WASHER TANK	1
49	BOX;FUSE	1
※ 50	SWITCH;TOGGLE	1
※ 51	FAN	1
52	SWITCH,ROCKER(CONTROL)	1
53	SPEAKER	1
54	ANTENNA	1
※ 55	RADIO SET	1
56	SWITCH;STARTER	1
※ 57	COOLER PART [DRIER]	1
※ 58	COOLER PART [COMPRESSOR]	1
※ 59	COOLER PART [COOLER UNIT]	1

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

5. Maintenance procedure

(1) Disassembling and assembling tools

Standard tools

No.	Tool name	Standard	Model and dimensions	Applicable place
1	Preset type torque wrench	JIS B4650	Nominal size 60 (0.2 - 0.6 kgf-m) (1.4 - 4.3 ft/lbs)	(1-30)(19)(29)
2			Nominal size 230 (0.7 - 2.3 kgf-m) (5.1 - 16.6 ft/lbs)	(1-7)(37-7)
3			Nominal size 900 (2 - 9 kgf-m) (14.5 - 65.1 ft/lbs)	(1-14)(37-3)(41) (43)(50)
4			Nominal size 2800 (6 - 28 kgf-m) (43.4 - 202.5 ft/lbs)	(33-4)(47)
5			Nominal size 4200 (10 - 42 kgf-m) (72.3 - 303.8 ft/lbs)	(38)
6	Ratchet handle for socket wrench	JIS B4641		
7	Socket for socket wrench	JIS B4636	Width across flats 14 (0.55")	(37-7)
8			Width across flats 22 (0.87")	(41)
9			Width across flats 27 (1.06")	(38)
10	Hex. bit for socket wrench		Width across flats 2.5 (0.1")	(19)(29)
11			Width across flats 4 (0.16")	(1-30)(45)
12			Width across flats 6 (0.24")	(1-7)
13			Width across flats 8 (0.31")	(1-5)(37-3)(43)
14			Width across flats 10 (0.39")	(1-8)(33-4)(50)
15			Width across flats 12 (0.47")	(47)
16	Wrench	JIS B4636	Width across flats 14 (0.55")	(37-7)
17			Width across flats 22 (0.87")	(41)
18			Width across flats 27 (1.06")	(38)

Continued on the next page.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

(3) Disassembling

Proceed with the following for disassembling:

Process photo	Disassembling procedure
 MS63271	1. Loosen the plug (38-6), and remove the relief valve (38). Then, the plug is lightly press-fit to the relief housing S/A (38-1). If they become disassembled, grasp the circumference of the relief housing S/A (2-7-1) with long-nose pliers, and turn the relief housing S/A (2-7-1) for removal. Caution: Don't loosen the set screw (38-7) or nut (38-8). Here, don't disassemble the relief valve unless necessary. When grasping the circumference with long-nose pliers, protect the circumference with cloth.
 MS63272	2. Loosen the plugs (43) and (41), and remove the spool (39) and spring (40). Caution: Turning the spool, slowly pull it out. Take care to prevent damaging the circumference.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

4. Troubleshooting

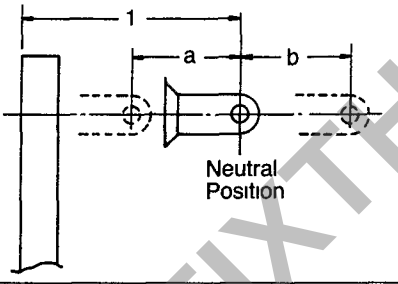
If any abnormalities should occur during operation, inspect them and take appropriate countermeasures or remedies by referring to the following table.

(1) Troubleshooting table for piston motor

Abnormality	Possible cause	
I. The motor does not run.	1. Any device other than the piston motor or reduction gear may malfunction.	Check whether the pressurized fluid is delivered to the inlet side of the motor or not. Then, inspect each device, and repair if necessary.
	2. The sliding area of the motor is abnormally worn allowing the pressurized oil to idle.	Replace the abnormally worn part. Remove damage and burrs from the surface, and completely clean all parts. Then, reassemble the parts.
	3. Improper operation results from damage of an important part in the motor. In this case, abnormal noise is heard from the motor itself.	Disassemble, and replace the damaged part. Completely wash all parts, and reassemble them.
	4. The relief valve activates since the motor is excessively loaded.	Check the load state, and operate the machine under a load which matches the relief set pressure.
II. The motor revolution speed is insufficient	1. Since oil is not supplied to the motor at the specified flow rate because of trouble in the hydraulic pump, pressure regulating valve, etc. the revolution speed is insufficient.	Inspect whether the oil is supplied to the inlet of the motor at the specified flow rate or not, and then inspect the devices nad repair if necessary.

Continued on the next page.

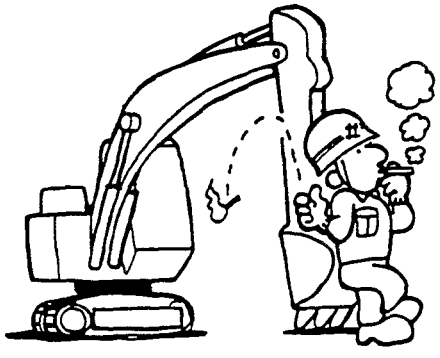
PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Item		Conditions	Performance standards	
Setting pressure	•Main relief valve (Traveling line)	•Engine rated rotation •Hydraulic oil temperature 45°~55°C (113~131°F)	300kg/cm² (4266psi)	
	•Port relief valve (Boom line)		250kg/cm² (3555psi)	
	•Port relief valve (Bucket line)		260kg/cm² (3697psi)	
	•Port relief valve (Arm line)		260kg/cm² (3697psi)	
Valve spool stroke	•L H travel control valve		1=36mm (1 417″) a=b=8mm (0 315″)	
	•R H travel control valve			
Control lever stroke	•Swing control lever	•Engine full. •Hydraulic oil temperature 45°~55°C (113~131°F)	70mm (5 51″)	
	•Arm control lever		IN	OUT
			80mm (2 76″)	80mm (2 56″)
	•Travel control lever		Forward	Backward
			35mm (0 98″)	30mm (1 18″)
	•Bucket control lever		70mm (5 12″)	
	•Boom control lever-down		80mm (2 17″)	
	•Boom control lever-hoist		80mm (2.56″)	
Control lever operating force	•Swing operation force	•Hang a spring balance on the lower part of the operation lever grip and measure •At engine rated rpm •Oil temperature at 45°C~55°C (113~131°F) •Indicates minimum operating force when actuator starts to move, and minimum force to operate full stroke	0 9→2 0kg (3 3→3 5lbs)	
	•Arm operating force		0 9→2.3kg (3 5→4 6lbs)	
	•Travel operating force		6 0→7.0kg (29 3→31 0lbs)	
	•Bucket operating force		0.9→2 0kg (3 7lbs)	
	•Boom operating force-lower		0 9→7.0kg (2 9lbs)	
	•Boom operating force-hoist		1 4→2.9kg (4.2lbs)	
Swing performance	•Flow at time of swivel stop	•With the boom horizontal, the arm cylinder at maximum extension and the bucket in a no-load state, measure the flow (at tooth end) after the completion of one swivel •At engine rated rpm, oil temperature 45°C~55°C (113~131°F)	65°	

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

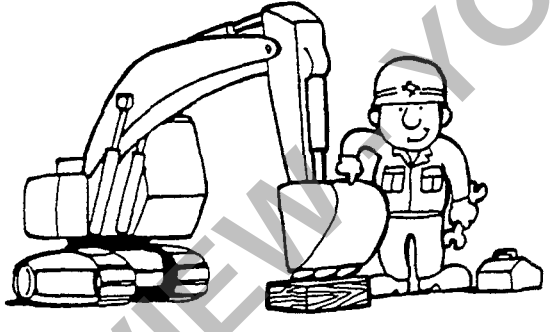
Prevention of fire

- For washing parts, use non flammable solvent Gasoline and kerosene are flammable and dangerous
- Prohibit smoking during washing



For inspecting the machine

- Park the machine on hard, flat ground
- Lower the attachment to ground

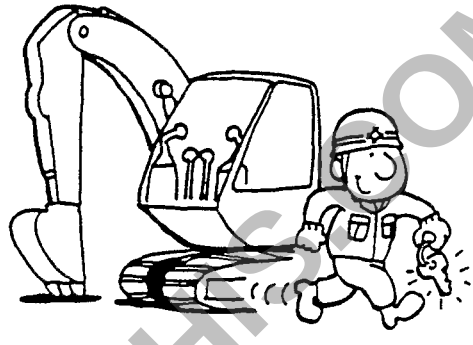


⚠ CAUTION

To carry out inspection with the attachment in the air for some unavoidable reasons, place safety block or pillar underneath.

Do not work on machine while in motion.

- Maintenance on a moving machine may cause severe personal injury



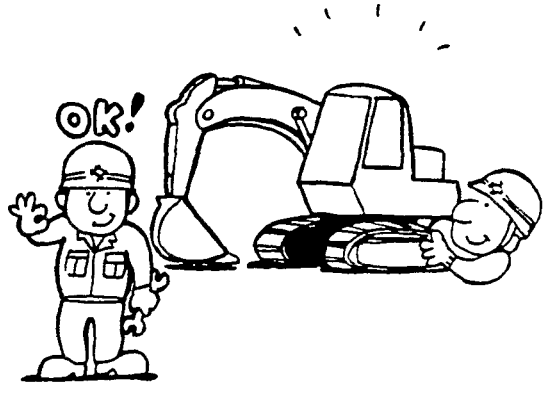
⚠ CAUTION

Particulary be careful about rotating machinery such as fan, etc so that your clothes will not be caught in it

If performing maintenance underneath the machine . . . ??

- Put the "UNDER INSPECTION/MAINTENANCE" sign on operator's seat.
- Carry out inspection and maintenance work with more than 2 people together

And . Always keep in mind what the other workers are doing.



PREVIEW YOUFIXTHIS.COM

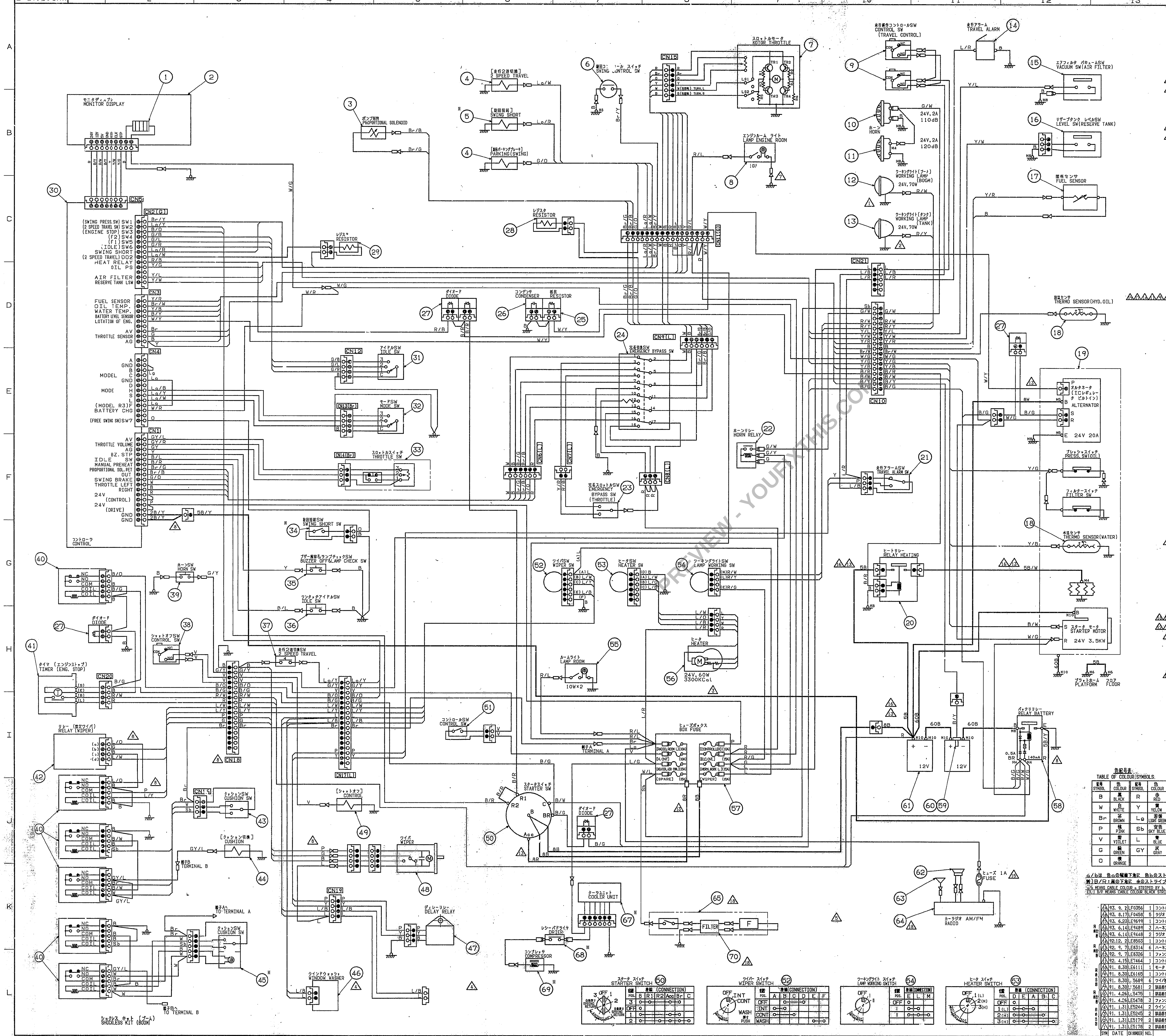
Download full manual at youfixthis.com

Parts list

Code	Part name	Q'ty
1	Ring, inner	1
2	Oil seal	1
3	Bearing	1
4	Spring	1
5	Cam plate	1
6	Return plate	1
7	Piston assy	9
8	Friction plate	1
9	Mating plate	1
10	O-ring	1
11	Piston	1
12	O-ring	1
13	O-ring	1
14	Spring	10
15	Parallel pin	2
16	Cover	1
17	Spring	4
18	Teflon ring	4
19	Bushing	4
20	Balance plate	1
21	Needle bearing	1
22	Snap ring	1
23	Cylinder assy	1
24	Housing	1
25	Plug	1
26	Plug	1
27	Cap	2
28	Spring	2
29	Back-up ring	2
30	O-ring	2
31	Check	2
32	Plug	3
33	Seat	2
34	Piston	2
35	Poppet	2
36	Spring	2
37	O-ring	2
38	Back-up ring	2
39	Spring seat	2
40	Sleeve	2
41	Piston	2
42	Cap	2
43	O-ring	2
44	Back-up ring	2

Swing Reducer Sectional Drawing

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com



	PART NO.	DESCRIPTION	SYM	MATERIAL GROUP	QTY	TOTAL WT.(kg)	STANDARD NO.	REMARKS
	KHR0270	METER;HOUR メータ;アワー	1		1		KNR0254Y-B	KIMURA YOUKO 木村洋行
	KNR0254Y-B	MONITOR DISPLAY ASSY モニタ ディスプレー Assy	2		1			STANLEY スタンレー
	KNJ0886U-A	PUMP;HYD ポンプ;油圧 (電磁比例弁)	3		1			KAYABA カヤバ工業
	KHJ0144U-A	VALVE;SOLENOID バルブ;ソレノイド	4		2			UCHIDA 内田油圧
※	KRJ2803U-A	VALVE;SOLENOID バルブ;ソレノイド	5		1			UCHIDA 内田油圧
	KHR0340Y-A	SWITCH;PRESSURE スイッチ;プレッシャ	6		1			TEXAS テキサス
△10	KHR128[illegible]	MOTOR;THROTTLE モータ;スロットル	7		1			EIKOU 永興電機
△7	KHR1243Y-A	LAMP;ROOM ライト;ルーム	8		1			ICHIKO 市光工業
	KHJ0436Y-A	SWITCH;LIMIT スイッチ;リミット	9		2			TATEISHI DENKI 立石電機
	KHR0781Y-A	HORN;ERECTRIC ホーン;電気	10		1			IMASEN 今仙電機
	KHR0638Y-A	HORN;ERECTRIC ホーン;電気	11		1			IMASEN 今仙電機
△1	KHR1171E-A	LAMP;WORKING ライト;ワーキング	12		1			NIGHT BEAM ナイトビーム
△2	KHR1169E-A	LAMP;WORKING ライト;ワーキング	13		1			SUZUKI YOUHIN 鈴木用品
	KHR0664E-A	ALARM;TRAVEL アラーム;走行	14		1			YAMAGUCHI 山口電気
	KHH0009Y-A	SENSOR;VACUUM センサ;バキューム	15		1			TOKYO ROKI 東京濾器
	KHH0007	SWITCH;LIMIT スイッチ;リミット	16		1		KHH0005Y-A	NIHON DENSO 日本電装
	KHR0744Y-A	SENSOR;FUEL センサ;フューエル	17		1			KANTO SEIKI 関東精器
	KMH0367	SENSOR;THERMO センサ;サーモ	18		2		KMH0370H-B	KANTO SEIKI 関東精器
	KNH0175H-B	ENGINE;DIESEL エンジン;ディーゼル	19		1			ISUZU イスズ
	AEH0021	RELAY;HEATING リレー;ヒート	20		1		KNH0175H-B	ISUZU イスズ
	KHR0787E-A	SWITCH;ROCKER(HORN) スイッチ;ロッカー(走行アラーム)	21		1			HITACHI 常陸電装
	KHR0292E-A	RELAY;HORN リレー;ホーン	22		1			NEW ERA ニューエラー
	KHR0205Y-A	SWITCH;TOGGLE スイッチ;トグル	23		1			NIHON KAIHEIKI 日本開閉器
	KHR0666E-A	SWITCH スイッチ (冗長)	24		1			MIZUHO ミズホ
	KHR0357	RESISTER レジスタ	25		1		KNR0348E-B	EHIME ISUZU エヒメイスズ
	KHR0358	CONDENSER コンデンサ	26		1		KNR0348E-B	EHIME ISUZU エヒメイスズ
	KRR0094	DIODE ダイオード	27		5		KNR0348E-B	EHIME ISUZU エヒメイスズ
	KHR0762	RESISTOR レジスタ	28		1		KHR0761E-A	MIZUHO ミズホ
	KHR0761E-A	RESISTOR レジスタ	29		1			MIZUHO ミズホ
△19△17△14△11△9△6	~~KHR1363E-B~~ KHR1367E-B	CONTROLLER コントローラ 輸入品	30					STANLEY スタンレー
	KHR0669E-A	SWITCH;ROTARY(IDEL) スイッチ;ロータリ(アイドル)	31		1			HITACHI 常陸電装
	KHR0670	SWITCH;ROTARY(MODE) スイッチ;ロータリ(モード)	32		1		KHR0669E-A	HITACHI 常陸電装
	KHR0344Y-A	SWITCH(THROTTLE) スイッチ(スロットル)	33		1			HITACHI 常陸電装
※	KHR1049E-A	SWITCH;ROCKER(SWING) スイッチ;ロッカー(フリースイング)	34		1			HITACHI 常陸電装
	KHR0286E-A	PUSH BUTTON プッシュボタン	35		1			MIYAMA ミヤマ
	KHJ0588	KNOB(SWITCH) ノブ(アイドル ス[illegible]チ)	36		1		KHJ0587Y-B	NISHIYAMA ニシヤマ
	C4E9898 1001	PUSH BUTTON DIMMER プッシュボタン ディマ	37		1		CE4-9898	EHIME ISUZU エヒメイスズ
	KHJ0317Y-A	SWITCH;LIMIT スイッチ;リミット	38		1			TATEISHI 立石電機
	KHJ0587Y-B	KNOB(SWITCH) ノブ(ホーン スイッチ付)	39		1			NISHIYAMA ニシヤマ
	KHR1071E-A	RELAY リレー	40		4			NILES ナイルス
	KHR1063Y-A	TIMER DILAY RELAY タイマ ディレー リレー	41		1			FURUHASHI 古橋電装
	KHR1068E-A	RELAY INTERMIT リレー インターミット	42		1			MITSUBA DENKI 三ツ葉電機
	KHR0760	SWITCH;ROCKER(CUSHION) スイッチ;ロッカー(クッション)	43		1		KHR0759E-A	HITACHI 常陸電装
	KHJ0310U-A	VALVE;SOLENOID バルブ;ソレノイド	44		1			NISHINA 仁科工業
※	KHR0871	SWITCH;ROCKER(CUSHION) スイッチ;ロッカー(クッション)	45		1		KHR0865E-A	HITACHI 常陸電装
	KHR0186	WINDOW WASHER TANK ウインド ウォッシャ タンク	46		1		KHR0183Y-A	JIDEKO ジデコ
	KHR0896E-A	RELAY;DELAY リレー;ディレー	47		1			MIZUHO ミズホ
	KHR0313E-A	MOTOR;WIPER モータ;ワイパ	48		1			MITSUBA DENKI 三ツ葉電機
	KHJ0119U-A	VALVE;SOLENOID バルブ;ソレノイド	49		1			UCHIDA 内田油圧
	KHR0367E-A	SWITCH;STARTER スイッチ;スタータ	50		1			BUHIN 部品工業
	KHR0763E-A	SWITCH;ROCKER(CONTROL) スイッチ;ロッカー(コントロール)	51		1			HITACHI 常陸電装
	KHR1047Y-A	SWITCH;ROTARY(WIPER) スイッチ;ロータリ(ワイパ)	52		1			TOKAI RIKA 東海理化
	KHR0668E-A	SWITCH;ROTARY(HEATER) スイッチ;ロータリ(ヒータ)	53		1			TOKAI RIKA 東海理化
	KHR0202Y-A	SWITCH;ROTARY(LAMP) スイッチ;ロータリ(ライト)	54		1			TOKAI RIKA 東海理化
	KHR0100Y-A	LAMP;ROOM ライト;ルーム	55					ICHIKO 市光工業
△3	KHR1173Y-A	HEATER;CAR ヒーター;カー	56		1			NIHON DENSO 日本電装
	KHR0288Y-A	BOX;FUSE ボックス;ヒューズ	57		1			TOKAI RIKA 東海理化
	KHR0210Y-A	RELAY;BATTERY リレー;バッテリー	58		1			FURUHASHI 古橋電装
	KHR0023Y-A	BATTERY(SENSOR) バッテリー(センサ付)	59		1			YUASA 湯浅電池
	KHR0030	SENSOR SPECIAL センサ特殊(液面)	60		1		KHR0023Y-A	YUASA 湯浅電池
	KRR5116Y-A	BATTERY バッテリー	61		1			YUASA 湯浅電池
	KHR0106Y-A	SPEAKER スピーカ	62		1			HITACHI 常陸電装
	KHR0899Y-A	ANTENNA アンテナ	63		1			HARADA 原田工業
△18△15	KHR1703Y-A	RADIO SET ラジオ;カー AM/FM(HIGHTポンド)	64		1			MIZUHO ミズホ自動車
△12△5	KHR1553Y-A	FAN ファン;オート	65		1			SANYO サンヨー
△5		MISSING NUMBER 欠番	66					
※	KHR0036	COOLER PART (DRIER) クーラパーツ (ドライヤ)	67		1		KHR0225Y-A	CENTRAL セントラル
※	KHR0487	COOLER PART (COMPRESSOR) クーラパーツ (コンプレッサ)	68		1		KHR0225Y-A	CENTRAL セントラル
※	KHR0484	COOLER PART (COOLER UNIT) クーラパーツ (クーラユニット)	69		1		KHR0225Y-A	CENTRAL セントラル
△18	KHR1702Y-A	FILTER;NOISE フィルタ;ノイズ	70		1			MIZUHO ミズホ自動車

色記号表 TABLE OF COLOUR SYMBOLS

記号 SYMBOL	色 COLOUR	記号 SYMBOL	色 COLOUR
B	黒 BLACK	R	赤 RED
W	白 WHITE	Y	黄 YELLOW
Br	茶 BROWN	Lg	若葉 LIGHT GREEN
P	桃 PINK	Sb	空色 SKY BLUE
V	紫 VIOLET	L	青 BLUE
G	緑 GREEN	GY	灰 GRAY
O	橙 ORANGE		

a/bは 色aの電線下地に 色bのストライプを表す。
例)B/R:黒の下地に 赤のストライプ。
a/b MEANS CABLE COLOUR a STRIPED BY b.
EX.) B/R MEANS CABLE COLOUR BLACK STRIPED BY RED.

注記/NOTES

1) ※印はオプションを示す。
※ IS OPTIONAL.

2) 図中に於けるアース記号及び配線交差部は下記の通りである。
EARTH LINE SYMBOLS AND CROSS POINT OF LINES IN THIS DRAWING SHOWS THE FOLLOWING.
束線 HARNESS / ボディアース BODY EARTH / アース線付 EARTH WITH CABLE / 2線は接続する CONNECTED EACH OTHER / 2線は接続せず NOT CONNECTED EACH OTHER

3) 配線図上の記号は電線色を示し記号前に付記した数値は電線の断面積を示す。図示以外は0.85sqである。
THE SYMBOL AT EACH LINE SHOWS COLOUR OF CABLE AND THE FIGURE BEFORE THE SYMBOL SHOWS THE AREA OF CABLE. THE AREA OF CABLE NOT INDICATED IS 0.85 mm².

4) コネクタ表示は下記の通りである。
THE SYMBOL OF CONNECTER IN THIS DRAWING SHOWS THE FOLLOWING.
コネクタ CONNECTER BODY (オス)(MALE) 端子 TERMINAL (メス)(FEMALE)
コネクタ CONNECTER BODY (メス)(FEMALE) 端子 TERMINAL (オス)(MALE)
CN コネクタ番号 CONNECTER NO.
( ) コネクタ色(図示以外はWとする) COLOUR OF CONNECTER (COLOUR NOT INDICATED IS W)

REVISION 引替図 DATE:1993. 9. 2

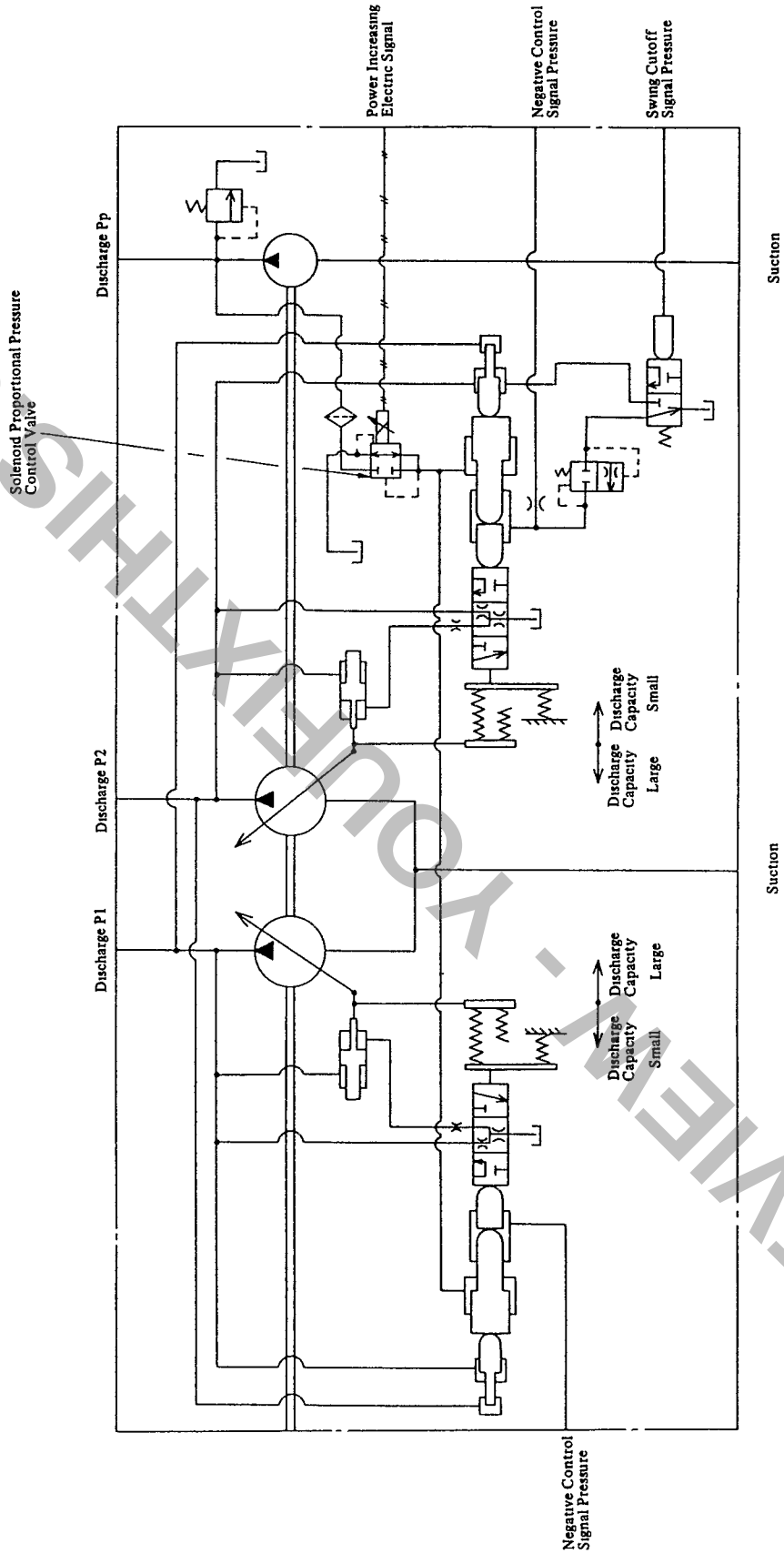
△18 '93.8月出荷~
△19 265U2-5467~
△1 265U2-5399(2/1)~
△2△3 '91.3月組立No1~
△4 '91.3/8ラインオフ9台目予定
△5 '91.4月組立No1~
△6 265U2-5403~
△10△9△8△7 '91.10月組立~
△11 '92.6月組立~
△13△12 '92.12月組立~
△14 次期手配~
△15 '93.7月組立より実施
△16 次期手配
△17 '93.9月組立~

SYM	DATE	CN NUMBER	NO.	REVISION	BY
△19	93. 9. 2	LF0356	1	コントローラ部品番変更	佐々木
△18	93. 8.17	LF0458	5	ラジオ;カー部品番変更、符号(70)追加	佐々木
△17	93. 6.23	LE9699	1	コントローラ部品番変更	安田
△16	93. 6.14	LE9489	3	ハーネス太さ変更	安田
△15	93. 6.14	LE9448	2	ラジオ;カー部品番変更	佐々木
△14	92.12. 2	LE8503	1	コントローラ部品番変更	佐々木
△13	92. 9. 7	LE8314	6	ハーネス変更	福士
△12	92. 9. 7	LE8326	1	ファンオート部品番変更	安田
△11	92. 4.15	LE7464	1	コントローラ部品番変更	和田
△10	91. 8.30	LE6111	1	モータ;スロットル部品番変更	和田
△9	91. 8.30	LE6165	1	コントローラ部品番変更	和田
△8	91. 8.30	L 5689	6	ワイパ配線色及びコントローラアース位置変更	和田
△7	91. 8.30	L 5681	2	部品番変更	和田
△6	91. 4.26	LE5475	1	部品番変更	和田
△5	91. 4.26	LE5478	3	ファンオート部品番変更	和田
△4	91. 1.31	LE5244	2	ウインドウォッシャ取付位置変更	和田
△3	91. 1.31	LE5245	2	部品番変更	安田
△2	91. 1.31	LE5179	2	部品番変更	和田
△1	91. 1.31	LE5178	2	部品番変更	和田

CUSTOMER | MFG. NO. | QTY
PRODUCTION QTY 備付図 DATE:1990. 8. 9

MODEL: LS-2650C2 | GROUP: KNR | CODE: Z872 | WEIGHT(kg): - | H.T. (SEE NOTE)
DRAWN | CHK'D | INSP. | APPR. | SCALE: - | DATE 1990. 8. 9
NAME: DWG;ELECTRIC CIRCUIT 回路図;電気
DWG. NO. KNR0361Z-E △19
SUMITOMO (S.H.I.) CONSTRUCTION MACHINERY CO.,LTD.
参考図番 類似図番 | 住友部品番号表示 (実オS-104による) 有 無 | G T コード | 諸装区分 N

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com



LS-2650C
Hydraulic Pump Circuit Diagram

PREVIEW - YOUFIXTHIS.COM

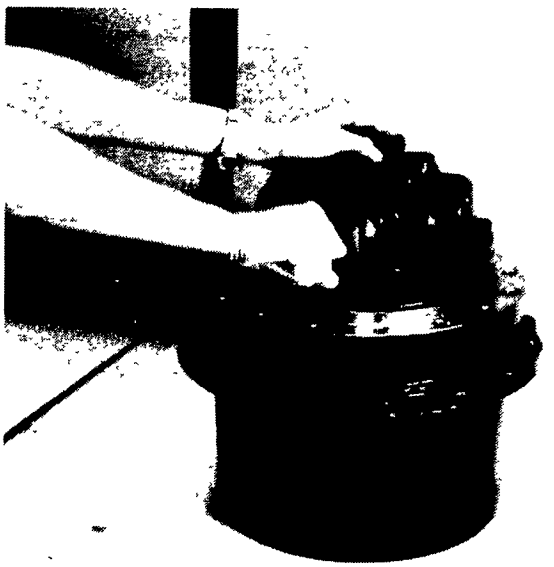
Download full manual at youfixthis.com

Tightening torque

Applicable point	Name	Nominal size	Width across flats (mm)	Tightening torque (kgf-m)
(1- 5)	Plug	PT 3/8	8 (0.31")	3 - 4 (21.7 - 28.9 ft/lbs)
(1- 7)	Plug	PT 1/4	6 (0.24")	1 - 1.5 (7.2 - 10.8 ft/lbs)
(1- 8)	Plug	PT 1/2	10 (0.39")	4 - 5 (28.9 - 36.2 ft/lbs)
(1-14)	Screw	M10	Special	4 - 5 (28.9 - 36.2 ft/lbs)
(1-30) (45)	Plug	NPTF 1/16	4 (0.16")	0.35 - 0.45 (2.5 - 3.3 ft/lbs)
(19) (29)	Orifice	M5 x 51	2.5 (0.10")	0.2 - 0.3 (1.4 - 1.5 ft/lbs)
(33-4)	Plug	M20 x 1.5	10 (0.39")	10 - 12 (72.3 - 86.8 ft/lbs)
(37-3)	Socket head bolt	M10 x 351	8 (0.31")	5.5 - 6.5 (39.8 - 47.0 ft/lbs)
(37-7)	Plug	PF 1/8	14 (0.55")	1.5 - 1.6 (10.8 - 11.6 ft/lbs)
(38)	Relief valve		27 (1.06")	27 - 30 (195.3 - 217.0 ft/lbs)
(41) (43)	Plug	PF 3/8	8 (0.31")	4.8 - 5.7 (34.7 - 41.2 ft/lbs)
(47)	Socket head bolt	M14 x 451	12 (0.47")	18 - 21 (130.2 - 151.9 ft/lbs)
(50)	Plug	PF 1/2	10 (0.39")	7 - 8 (50.6 - 57.9 ft/lbs)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Process photo	Disassembling procedure
 MS63273	3. Loosen the socket head bolt (47), and remove the base plate (32). If it can not be easily removed, lightly hit it in the direction of removal with a plastic hammer. If it still can not be removed, lightly pry it off with a screwdriver. Caution: Take care to prevent the cylinder block (7) from coming off.
 MS63274, MS63275	4. Remove the valve plate (26) and O-ring (31), and pull out the pins (23) and (27) with pliers. Also remove the spring (22). Caution: When pulling out the pins, protect the circumference with cloth or similar against damage. 

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Abnormality	Possible cause	Countermeasure or remedy
II. The motor revolution speed is insufficient	2. Since the volume efficiency of the motor drops, the specified revolution speed can not be achieved.	After disassembly, check the sliding area for abnormal wear. Recondition or replace the worn area.
III. The motor revolution speed varies greatly	1. Since a large amount of pressurized oil idles owing to wear on the sliding area of the motor, the oil flows out at the drain port, and the revolution speed drops excessively and varies. Moreover, the revolution speed variation results from wear in the bearing.	Disassemble, and replace parts which are excessively worn. Completely wash all parts, and reassemble them.
IV. Oil leaks	1. Oil leaks owing to damage of the oil seal or O-ring.	Replace a broken oil seal or O-ring with a new one. When inserting the oil seal, be quite careful not to damage the lip. Since the safe working temperature of the oil seal and O-ring us up to 80°C, it is necessary to take a countermeasure such as a cooler in the hydraulic circuit in order to prevent the temperature of the hydraulic oil from exceeding 80°C.
	2. Because of [I-2][III-1], the motor case is pressurized to break the oil seal, thus resulting in oil leakage. ∘ Pressure resistance of oil seal Ordinary 2kgf/cm² (28.4 psi) Maximum 5 kgf/cm² (71.1 psi)	Referring to [I-2][III-1], repair the motor, and replace with a new oil seal. When inserting the oil seal, take sufficient care to prevent damaging the lip.

Continued on the next page.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

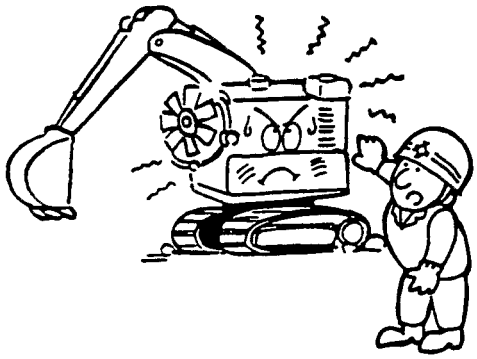
	Item	Conditions	Performance standards
Swing performance	•Swing start required time	•180° turn from start position with the bucket empty and with the arm cylinder at maximum extension. •Bucket empty. •Engine rated rotation, oil temperature 45°~55°C (113~131°F) •S mode	3 4 sec
	•Swing required time	•The time required for one turns after one turn with an empty bucket and with the arm cylinder at maximum extension. •Engine rated rotation, oil temperature 45°~55°C (113~131°F) •S mode	4 7sec
	•Swing due to gravity (max minute or less)	•Required fall time from a position 45° inclined upward to a position 45° inclined downward on a 20° slant plane. •Standard bucket load weight with the arm cylinder fully drawn in and the bucket cylinder fully extended •The bottom of the bucket is 2 5~3m (8 2~9 8ft) from the ground surface •Oil temperature 70~80°C (158~176°F) A Oil temperature 45~55°C (113~131°F) . B •Engine is stopped	N A. (I E) Machine has swing parking brake
	•Swing motor leakage rate	•Relieve the circuit for swing •Engine rated rotation, oil temperature 45°~55°C (113~131°F)	2 ℓ (0 53gal)/minute
Travel performance	•Travel speed (1)	•After auxiliary travel of 10m (32 8ft), required 20m (65 6ft) travel time •Engine rated rotation, oil temperature 45°C~55°C (113~131°F) •S mode	First-speed 18.1 sec Two-speed 13.1 sec
	•Travel speed (2)	•The time required for 10 idle turns of the sprocket after one idle turn with the track lifted one each side. •Engine rated rotation, oil temperature 45°~55°C (113~131°F)	First-speed 17.6 sec Two-speed 12.7 sec
	•Travel bend (1)	•The amount of bend while traveling 20m (65.6ft) on a hard flat surface. •Engine rated rotation, oil temperature 45°~55°C (113~131°F)	Not more than 1m (3 28ft)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

The machine right after operation is hot.

- Touching the engine or other parts with a bare hand right after engine has stopped is very dangerous. You may burn your hands.
- Do not remove the cap for radiator or hydraulic tank right after operation until all internal pressure is released.



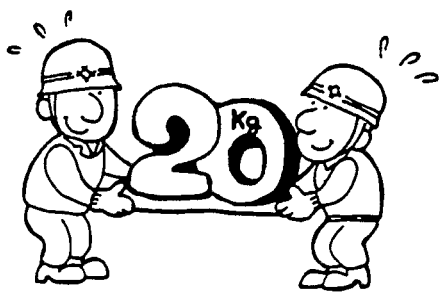
Caution for inspection and adjustment.

- Be careful not to drop bolts, nuts or tools inside the inspection window or oil supply hole of tank when open them



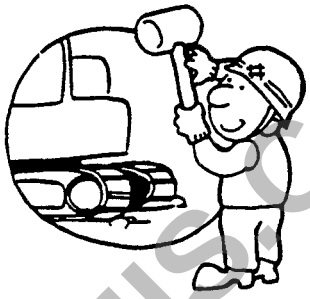
Carrying heavy object

- If the object weight more than 20 kg (44 lbs), carry with two men to more than together or use hoist crane.



Caution for use of tools

- Provide safety equipment when grinding or during hammering work Wipe off oil or dust from tools before using

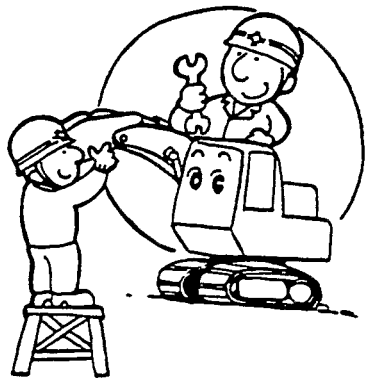


Caution during work on a higher position

- Use scaffolding as much as possible.
- Use steps when getting on and off from them

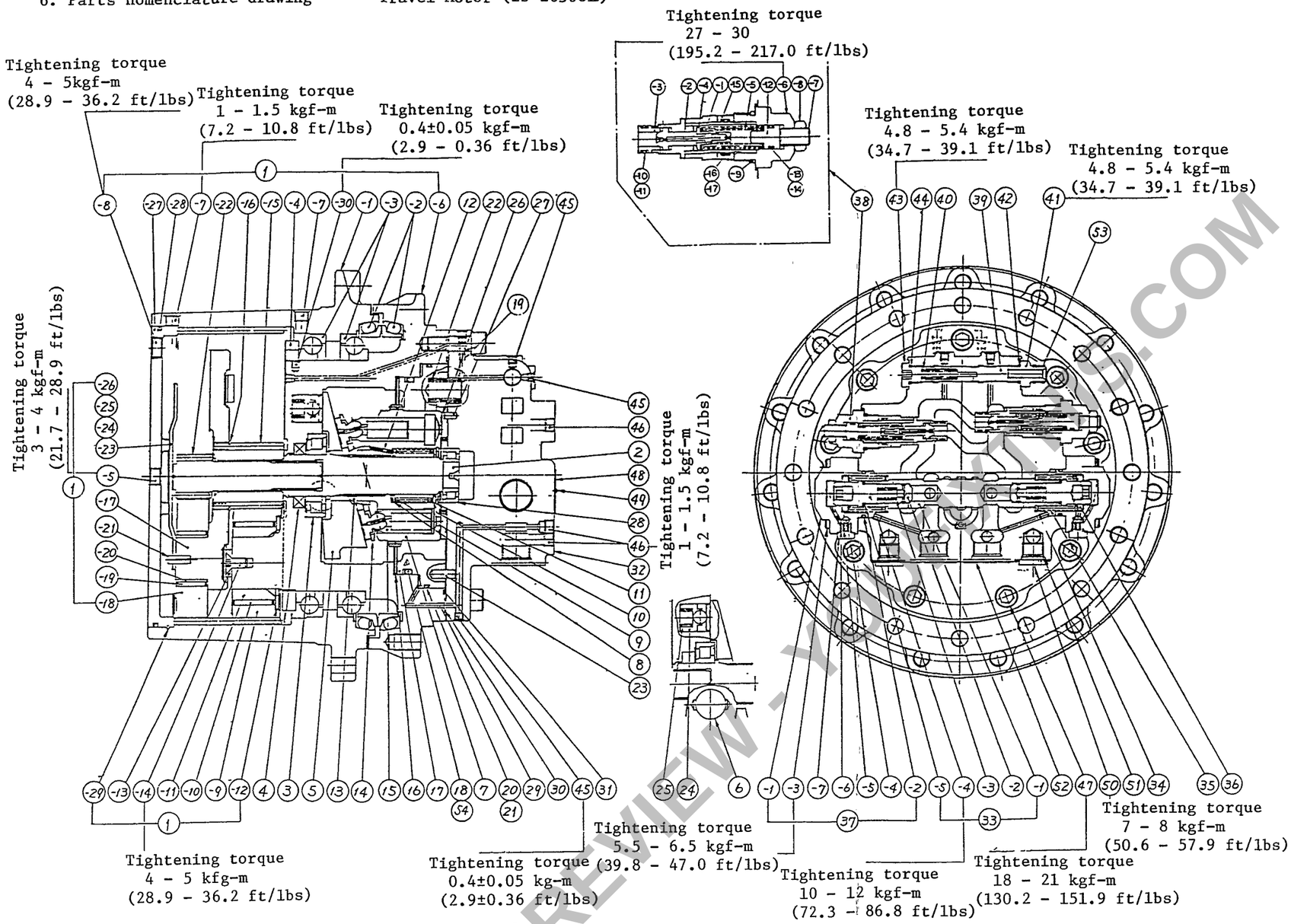
⚠ CAUTION

Do not jum off



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

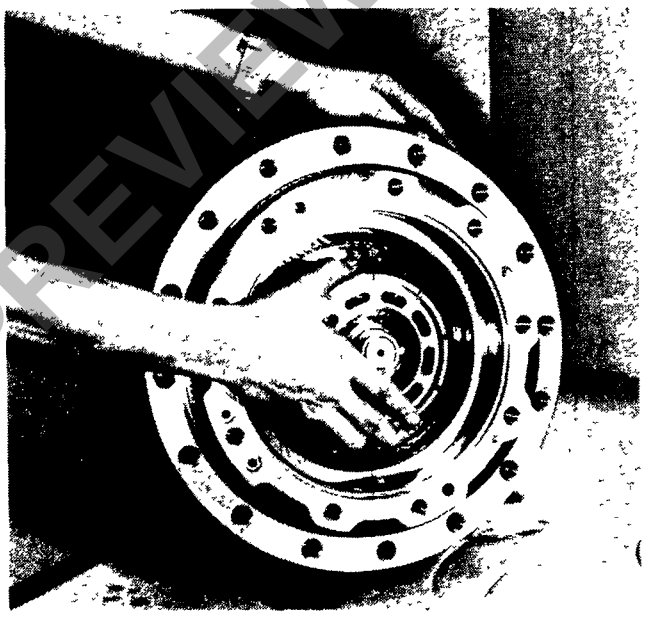


Repair division code	Description
A	'A' part must be replaced every time when disassembled and reassembled, being supplied as part of a repair kit.
B	Supplied as an assembly unit because of quality assurance and assembling convenience.
C	Supplied as a single unit.
D	Parts which can not be supplied.

Repair code	Ref. No.	Part name	Q'ty	Material	Remarks
A	54	Back-up ring	1		JIS B2407 For G18,T3
D	53	Shipping plug	1		
D	52	Shipping plug	2		
A	51	O-ring	2		JIS B2401 1B P18
C	50	Plug	2		
D	49	Drive screw	2		
D	48	Name plate	1		
C	47	Socket head bolt	9		M14 x 45ℓ
A	46	Plug	5		PT 1/4
A	45	Plug	7		
A	44	O-ring	1		JIS B2401 1B P14
C	43	Plug	1		
A	42	O-ring	1		JIS B2401 1B P14
C	41	Plug	1		
C	40	Spring	1		
D	39	Spool	1		
C	19	Orifice	4		
D	-17	Back-up ring	2		JIS B2407 T3 P21
D	-16	O-ring	1		JIS B2401 1B P21
D	-15	Piston	1		
D	-14	Back-up ring	1		JIS B2407 T2 P12.5
D	-13	O-ring	1		JIS B2401 1B P12.5
D	-12	Spring guide	1		
A	-11	Back-up ring	2		JIS B2407 T2 P15
A	-10	O-ring	1		JIS B2401 1A P15
A	-9	O-ring	1		AS568-916 Hs90
D	-8	Nut	1		
D	-7	Set screw	1		
D	-6	Plug	1		
D	-5	Spring	1		
D	-4	Spring sheet	1		
D	-3	Poppet seat	1		
D	-2	Poppet	1		
D	-1	Relief housing ass'y	1		
B2	38	Relief valve ass'y	2		
C	-7	Plug	1		
A	-6	O-ring	1		JIS B2401 1B PB
C	-5	Spring	1		
C	-4	Steel ball	1		
C	-3	Socket head bolt	4		M10 x 35t
A	-2	O-ring	1		JIS B2401 1B G40
C	-1	Cap	1		
C	37	Cap S/A	2		
C	36	Spring seat	2		
C	35	Spring	2		
C	34	Spring seat	2		
A	-5	O-ring	2		JIS B2401 1B P18
C	-4	Plug	2		
C	-3	Spring	2		
C	-2	Check valve	2		
D	-1	Plunger	1		
D	33	Plunger ass'y	1		
D	32	Base plate	1		
A	31	O-ring	1		AS568-269 MS90
A	30	O-ring	3		JIS B2401 1B P10
C	29	Orifice	1		
C	28	Roller bearing	1		
C	27	Pin	1		
C	26	Valve plate	1		
C	25	Spring	2		
D	24	Piston ass'y	2		
C	23	Pin	4		
C	22	Spring	8		
A	21	Back-up ring	1		SUN-3WG-45
A	20	O-ring	1		AS568-267 HS90
A	18	O-ring	1		JIS B2401 1B P180
C	17	Brake piston	1		
C	16	Disk	1		
B1	15	Piston ass'y	9		
C	14	Retainer plate	1		
C	13	Retainer holder	1		
C	12	Pin	3		
C	11	Snap ring	1		
C	10	Collar	1		
C	9	Spring	1		
C	8	Collar	1		
B1	7	Cylinder block	1		
C	6	Steel ball	2		
C	5	Swash plate	1		
A	4	Oil seal	1		
C	3	Roller bearing	1		
C	2	Shaft	1		
C	-30	Plug	2		
C	-29	Wire	1		
A	-28	O-ring	1		
C	-27	Cover	1		
B4	-26	Thrust plate	1		t = 3.2
B4	-25	Thrust plate	1		t = 2.8
B4	-24	Thrust plate	1		t = 2.3
B4	-23	Thrust plate	1		t = 1.8
C	-22	Drive gear	1		
C	-21	Spring pin	3		
C	-20	Inner race	3		
C	-19	Cage & roller	3		
C	-18	Planetary gear A	3		
C	-17	Holder	1		
C	-16	Snap ring	1		
C	-15	Sun gear	1		
C	-14	Screw	4		
C	-13	Thrust plate	1		
C	-12	Thrust washer	4		
C	-11	Floating bush	4		
C	-10	Cage & roller	4		
C	-9	Planetary gear B	4		
A	-8	Plug	2		
A	-7	Plug	2		
D	-6	Housing	1		
C	-5	Plug	5		
C	-4	Ring nut	1		
C	-3	Angular bearing	2		
A	-2	Floating seal	1		
D	-1	Flange holder	1		
B3	1	Reduction gear	1		RGC-85VP-51

Repair code	Ref. No.	Part name	Q'ty	Material	Remarks

PREVIEW - YMIP.COM
Download full manual at: youfixthis.com

Process photo	Disassembling procedure
 MS63276	5. Apply compressed air through the orifice (29) mounting area to remove the brake piston (17).
 MS63277	6. Pull out the cylinder block (7), pin (12), retainer holder (13), retainer plate (14) and piston S/A (15). Caution: Take care to prevent damaging the sliding surface of the cylinder block.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Abnormality	Possible cause	Countermeasure or remedy
IV. Oil leaks	3. Due to clogging by foreign materials, etc. in the drain pipe or long narrow pipe, the back pressure is increased to break the oil seal, thus resulting in fluid leakage. ∘ Pressure resistance of oil seal Ordinary 2 kgf/cm^2 (28.4 psi) Maximum 5 kgf/cm^2 (71.1 psi)	Recheck the piping system which cleans the clogged drain pipe, and reduce the passage resistance of the pipe. Take the above remedy to prevent a pressure of 3 kgf/cm^2(42.7 psi) or more from being applied to the oil seal, and replace the oil seal with a new one. When inserting the oil seal, take sufficient care to prevent damaging the lip.
V. Abnormal noise, revolution variation and pressure variation become excessive due to cavitation.	1. When the motor works as a pump, when the closed circuit is used, when the boost pressure is low (standard: 4 to 5 kgf/cm^2 (56.9 to 71.1 psi)) or when the double counterbalance valve operates improperly, negative pressure is generated on the suction side of the motor, thus resulting in cavitation.	Recheck the hydraulic circuit, and remedy or replace the counterbalance valve to prevent generation of the negative pressure. Then, disassemble the motor and replace are abnormally worn or broken parts. After washing all parts, reassemble them.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 18 of 372 pages

The full manual includes:

- All 372 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Link-Belt LS-2650, LS-2650C Shop Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual