KOBELCO

SERVICE MANUAL

HYDRAULIC EXCAVATOR

SK115SR-1ES

SK135SR(LC)-1ES

SK135SRL-1ES

S5YY0107E

Issued: September, 2004

APPLICABLE:

SK115SR-1ES	YV04-03001~
SK135SR-1ES	YY04-06001~
SK135SRLC-1ES	YH04-03001~
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3. BUCKET

3.1 HOE BUCKET

(1) Hoe bucket dimensional drawing

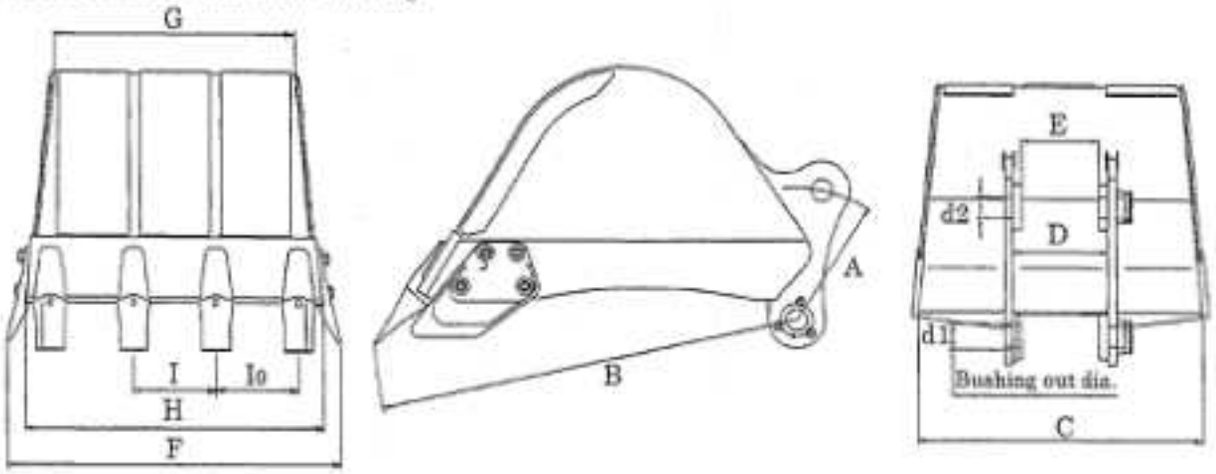


Fig. 3-1 Hoe bucket dimensional drawing

Table 3-1

No.	NAME	No.	NAME
A	Distance between pin and bracket	G	Outer width of bucket bottom
B	Distance between bucket pin and tooth end	H	Bucket outer width of front side
C	Inner width of bucket top end	I	Pitch between teeth
D	Inner width of lug	Io	Pitch between teeth
E	Inner width of bracket	d1	Outer width of bushing
F	Outer width of side cutter	d2	Pin dia.

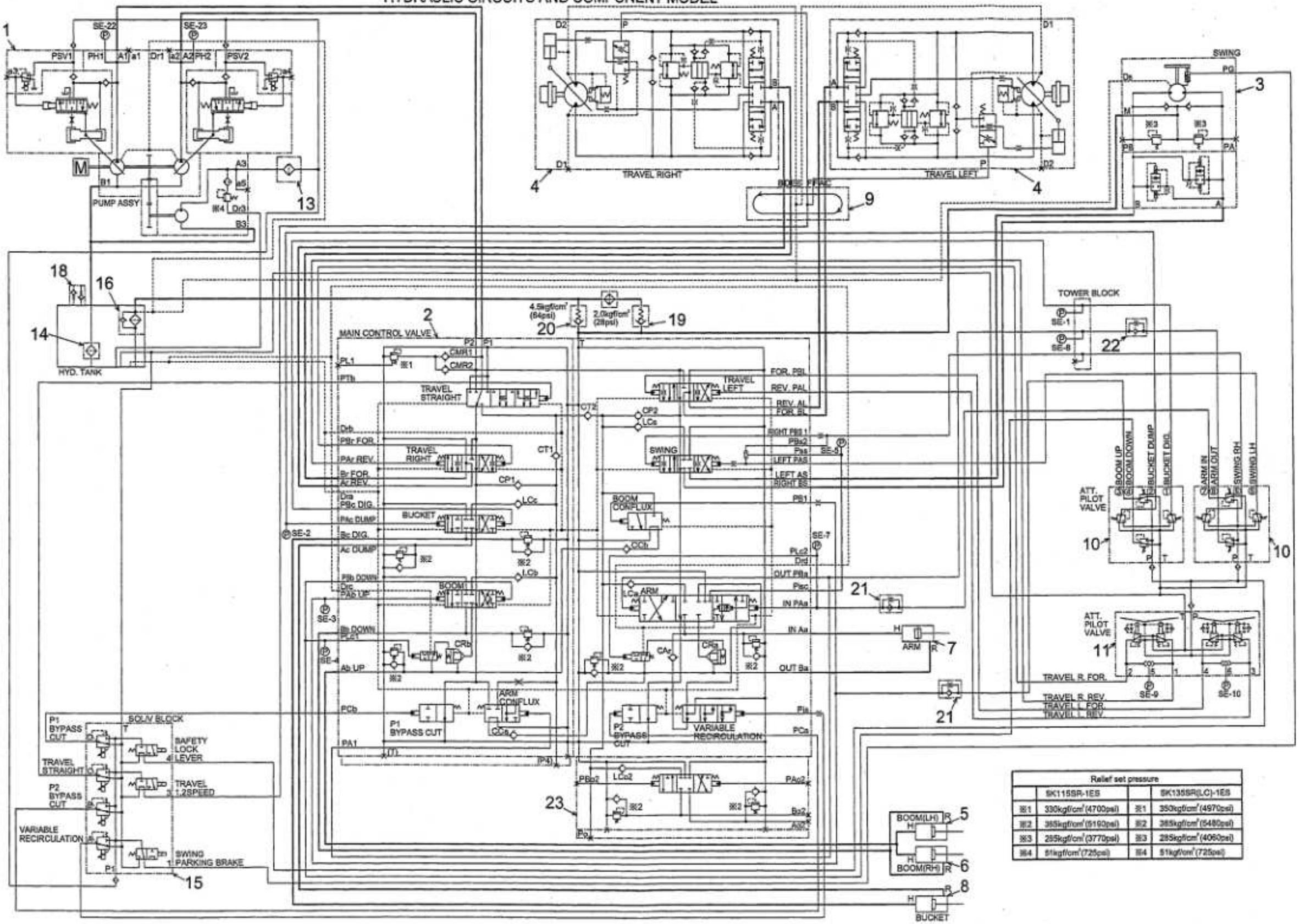
(2) Hoe bucket dimensional table

1) SK135SR(LC)-1ES, SK135SRL-1ES Table 3-2 (1/2) Unit : mm (ft-in)

Type	Hoe bucket						
Capacity	〔STD〕 0.50m³ (0.65cu-yd)	0.24m³ (0.31cu-yd)	0.31m³ (0.41cu-yd)	0.38m³ (0.50cu-yd)	0.45m³ (0.59cu-yd)	0.57m³ (0.75cu-yd)	0.70m³ (0.92cu-yd)
Assy No.	YY61B00008F2	YY61B00022F2	YY61B00021F2	YY61B00020F2	YY61B00031F2	YY61B00019F2	YY61B00032F2
A	370 (14.6")	←	←	←	←	←	←
B	R1,225 (4')	←	←	←	←	←	←
C	862 (33.9")	462 (18.2")	562 (22.1")	662 (26.1")	772 (30.4")	962 (37.9")	1,112 (3'8")
D	324 (12.8")	←	←	←	←	←	←
E	252 (9.92")	←	←	←	←	←	←
F	1,000 (3'3")	593 (23.3")	700 (27.6")	800 (31.5")	910 (35.8")	1,100 (3'7")	—
G	739 (29.1")	383 (15.1")	439 (17.3")	539 (21.2")	649 (25.6")	839 (33.0")	989 (38.9")
H	900 (35.4")	500 (19.7")	600 (23.6")	700 (27.6")	810 (31.9")	1,000 (3'3")	1,150 (3'9")
I	193.5 (7.62")	187 (7.36")	237 (9.33")	191 (7.52")	228 (8.98")	218.5 (8.60")	256 (10.1")
Io	193.5 (7.62")	187 (7.36")	237 (9.33")	191 (7.52")	228 (8.98")	218.5 (8.60")	256 (10.1")
d1	Ø80 (3.15")	←	←	←	←	←	←
d2	Ø65 (2.56")	←	←	←	←	←	←

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HYDRAULIC CIRCUITS AND COMPONENT MODEL



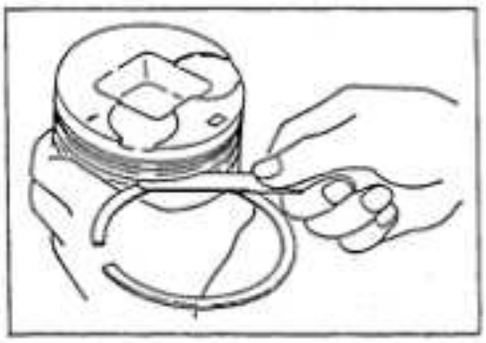
Relief set pressure			
	SK115SR-1ES		SK135SR(LC)-1ES
※1	330kgf/cm² (4700psi)	※1	350kgf/cm² (4970psi)
※2	365kgf/cm² (5190psi)	※2	385kgf/cm² (5480psi)
※3	265kgf/cm² (3770psi)	※3	285kgf/cm² (4060psi)
※4	51kgf/cm² (725psi)	※4	51kgf/cm² (725psi)

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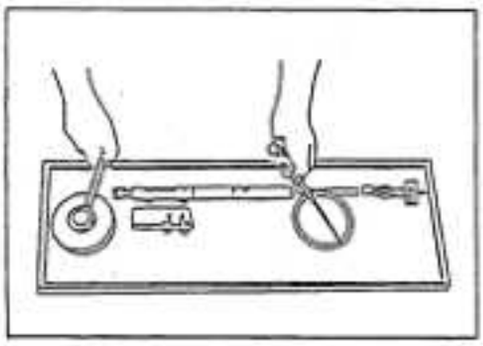
CLEARANCE BETWEEN THE GROOVE OF PISTON RING AND RING

	Standard value	Service limit	Remedy
No. 1 pressure ring	0.085~0.110 (0.003"~0.004")	0.25 (0.010")	Replace.
No. 2 pressure ring	0.030~0.055 (0.001"~0.002")	0.15 (0.006")	
Oil ring	0.030~0.070 (0.001"~0.003")	0.15 (0.006")	



TENSION OF PISTON RING

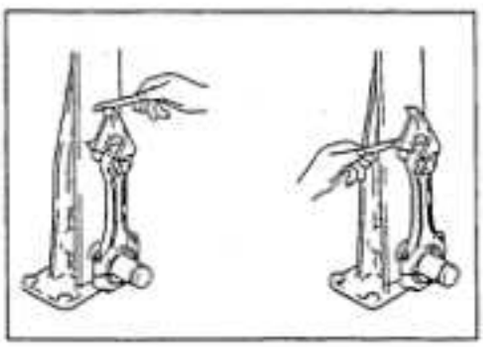
	Standard valve	Service limit	Remedy
No. 1 pressure ring	2.15~2.85 (0.085"~0.112")	1.0 (0.04")	Replace.
No. 2 pressure ring	1.43~1.97 (0.056"~0.078")	0.5 (0.02")	
Oil ring	6~8 (0.24~0.31)	4.0 (0.16")	



CONNECTING ROD AND CONNECTING ROD BEARING

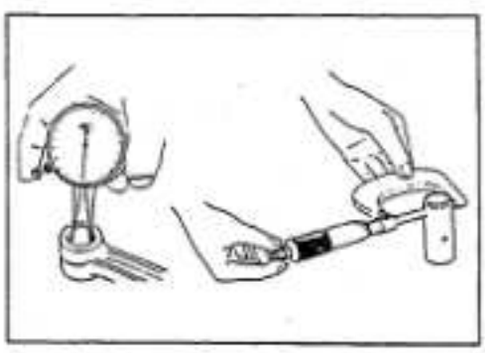
DISTORTION AND PARALLELISM OF CONNECTING ROD

	Standard value	Service limit	Remedy
Distortion mm (in) [per 100mm (in)]	less than 0.05 (0.002)	more than 0.2 (0.08)	Correct or replace.
Parallelism [per 100mm (in)]	less than 0.05 (0.002)	more than 0.2 (0.08)	

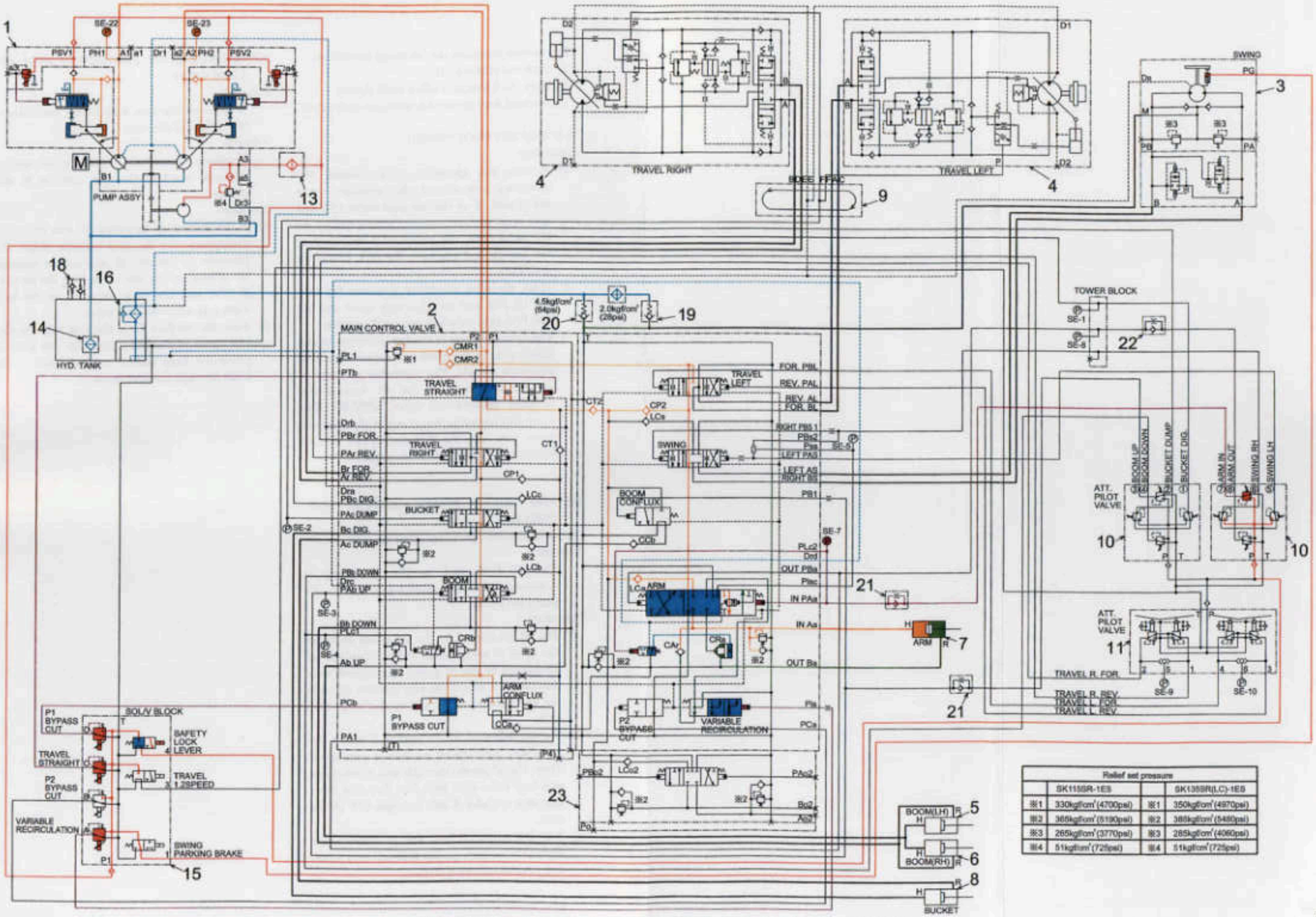


CLEARANCE BETWEEN SMALL END BUSHING AND PISTON PIN

	Standard value	Service limit	Remedy
Clearance mm (in)	0.012~0.025 (0.0047~0.0010)	more than 0.05 (0.002)	Replace.



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Relief set pressure			
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※3	265kgf/cm²(3770psi)	※3	285kgf/cm²(4060psi)
※4	51kgf/cm²(725psi)	※4	51kgf/cm²(725psi)

ARM CIRCUIT ; ARM IN HEAVY LOAD OPERATION, CONFLUX FUNCTION

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