5.4 IDLER ADJUSTER ASSY

5.4.1 CONSTRUCTION

IDLER ADJUSTER ASSY		LC54D00002F1	
No.	NAME	Q'TY	REMARKS
1	GREASE CYLINDER	1	
2	COLLAR	1	
3	SPRING	1	
4	BRACKET	1	
5	NUT	1	M64×P3
6	SPRING PIN	1	∅10×90
7	OIL SEAL	1	
8	O RING	1	1B G90
9	PISTON	1	
10	PIN	2	
11	COVER	1	

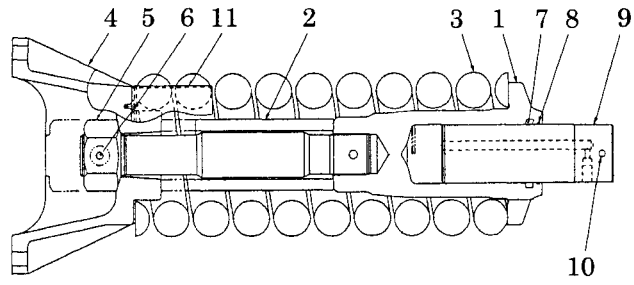
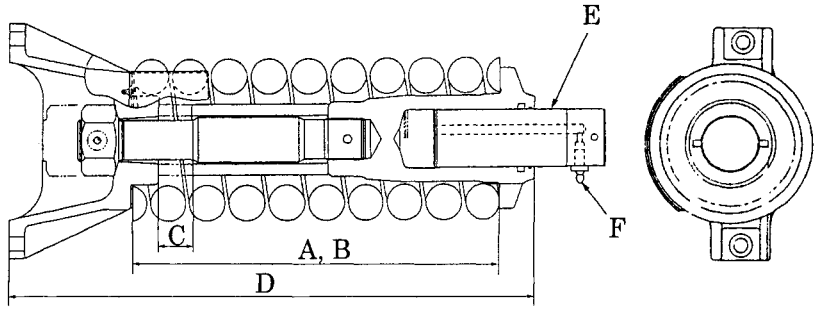


Fig. 5-14 Idler adjuster assy

5.4.2 DISASSEMBLY AND ASSEMBLY

No.	ITEM	STANDARD VALUE
A	Installed length of spring	573mm (22.6in)
B	Free length of spring	About. 700mm (27.6in)
C	Stroke	53mm (2.09in)
D	Set length	930mm (36.6in)
E	Outside view of piston	Nor scoring and rusting
F	Tightening torque of grease nipple	6kgf·m (43ft·lbs)



6. SPROCKET

6.1 REMOVING

(1) Preparation for removal
Remove crawler referring to Section 2. "Crawler", lift up crawler frame with attachment, and put it on square timbers to float and stabilize.

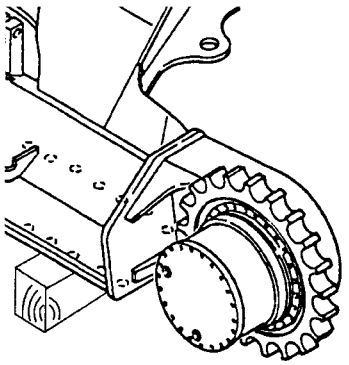


Fig. 6-1 Preparation for removal

(2) Removing sprocket
Loosen twenty six capscrews (3) M20×55, for the attaching of the sprocket by means of a socket and remove the sprocket (1).
Weight of sprocket : 77kg (170 lbs)

: 30mm

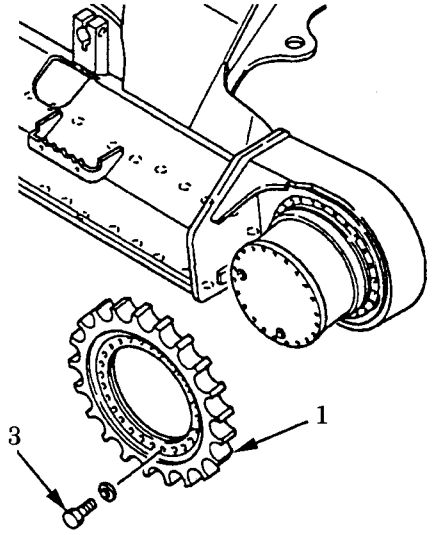


Fig. 6-2 Removing sprocket

6.2 INSTALLING

(1) Check before installing
Check the mating portion of the travel reduction unit and the sprocket, eliminate burrs and contamination thoroughly and install the sprocket.

(2) Securing sprocket temporarily
Coat the sprocket attaching capscrews (3) with Locktite #262 and fasten the sprocket temporarily.

(3) Securing sprocket completely
Remove the wooden blocks under the truck frame, bring the machine down on the ground and tighten the sprocket.

: 30mm,
Tightening torque : 55kgf·m (400ft·lbs)

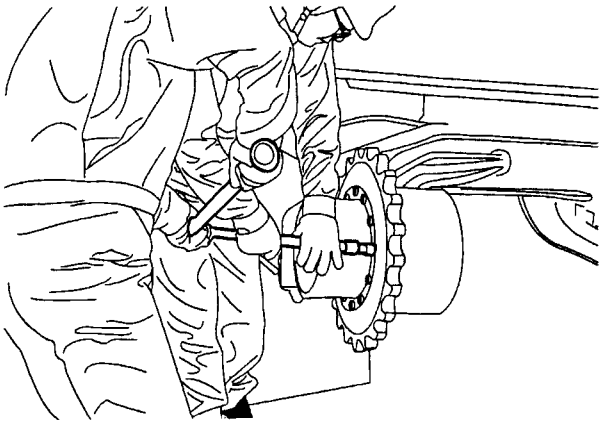
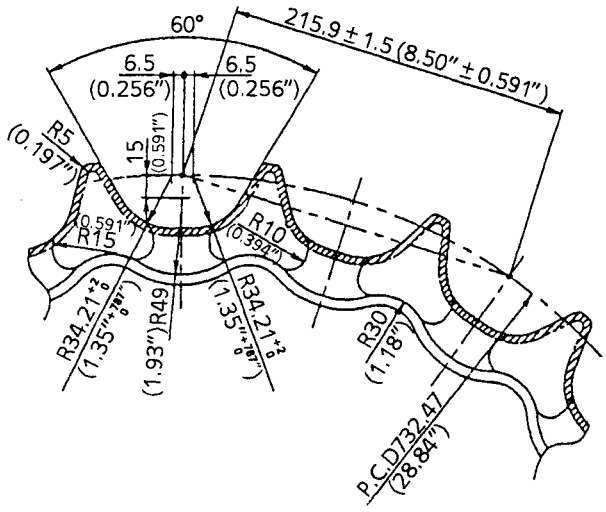


Fig. 6-3 Securing sprocket temporarily

6.3 MAINTENANCE STANDARD (2404N431)

Table 6-1

SPECIFICATION	PITCH	215.9mm (8.5in)	NUMBER OF TEETH	21
	ROLLER DIA.	Ø68 (2.68in)	PITCH DIA.	732.47 (28.8in)



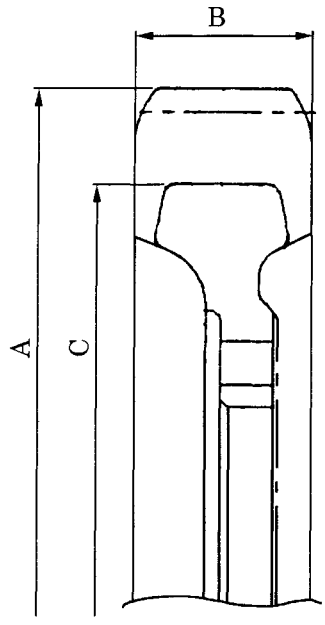


Fig. 6-4 Sprocket

Table 6-2 Unit:mm(in)

No.	NAME	STANDARD VALUE	REPAIRABLE LEVEL	SERVICE LIMIT	REMEDY
A	O.D. of sprocket	Ø755 (29.7)	Ø747 (29.4)	Ø745 (29.3)	Reinforcement weld, repair or replace.
B	Width of sprocket teeth	85 $^{0}_{-3}$ (3.35 $^{0}_{-0.118}$)	79 (3.11)	77 (3.03)	Replace.
C	O.D. of sprocket bottom	Ø664.05 (26.1)	Ø656 (25.8)	Ø654 (25.7)	Reinforcement weld, repair or replace.

6.4 TOOLS AND JIGS

(1) Tightening tools

NAME	OPPOSING FLATS
Socket	30

(2) Sprocket tooth profile gauge : W

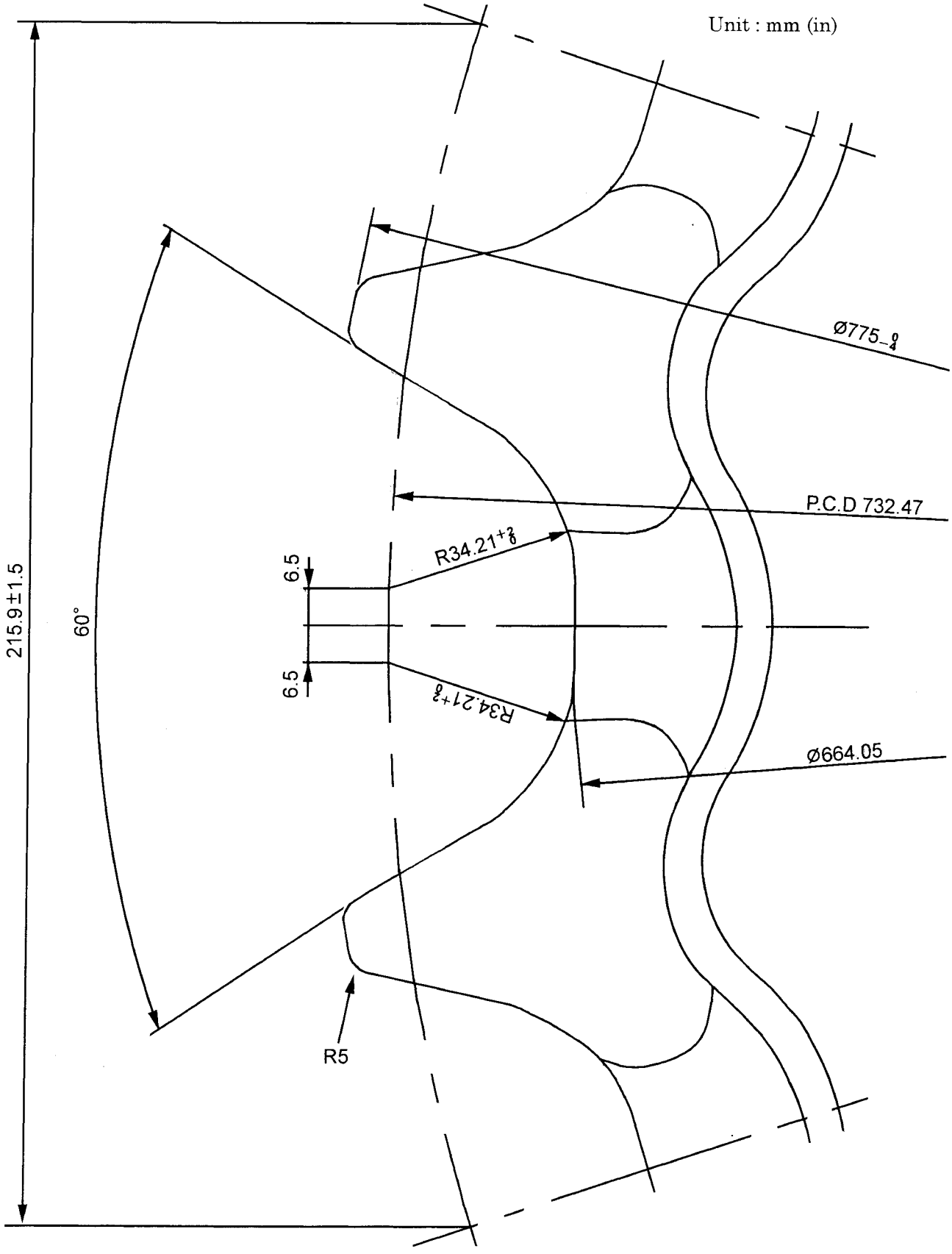
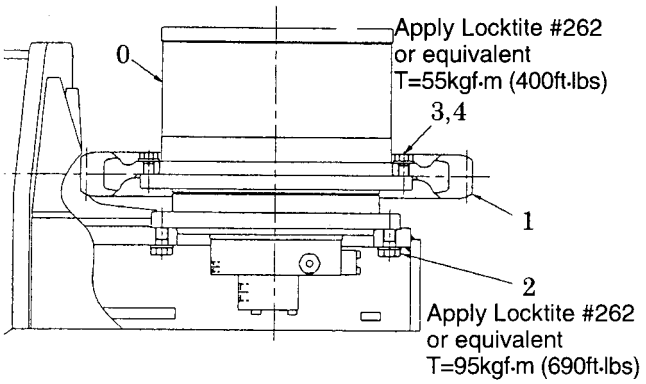


Fig. 6-5 Tooth profile gauge (Full scale)

7. TRAVEL MOTOR

7.1 TRAVEL MOTOR

TRAVEL MOTOR		LC53D00001F1	
No.	NAME	Q'TY	REMARKS
0	TRAVEL MOTOR ASSY	2	LC15V00005F1
1	SPROCKET	2	2404N431
2	CAPSCREW	36	M24×65
3	CAPSCREW	52	M20×55
4	WASHER	52	



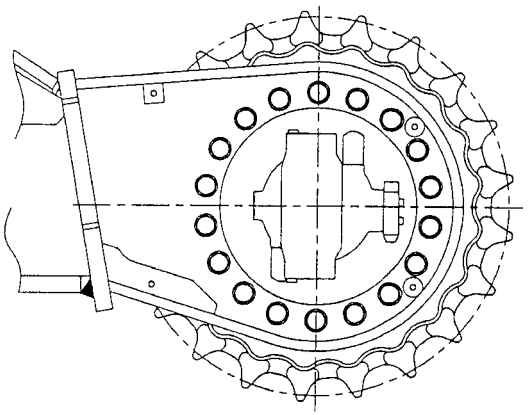


Fig. 7-1 Installing travel motor

7.2 REMOVING

(1) Preparation for removal

Remove crawler, lift up crawler frame using attachment, and put it on square timbers to float and stabilize.

To release inner pressure from the hydraulic circuit after stopping the engine. Put the starter switch in the "ON" position and, with the safety lock lever in operating condition, operate the left / right travel lever in full stroke several times and press the travel 1-2 speed change switch several times to release the inner pressure from the hydraulic circuit. When you press the valve from above the gum cap of the air breather on top of the hydraulic tank, the internal pressure of the hydraulic tank is released.

(2) Removing cover (1),(2), (3), (4)

Remove sems bolt (11) M12×25 and also remove covers (1),(2), (3), (4).

: 19mm

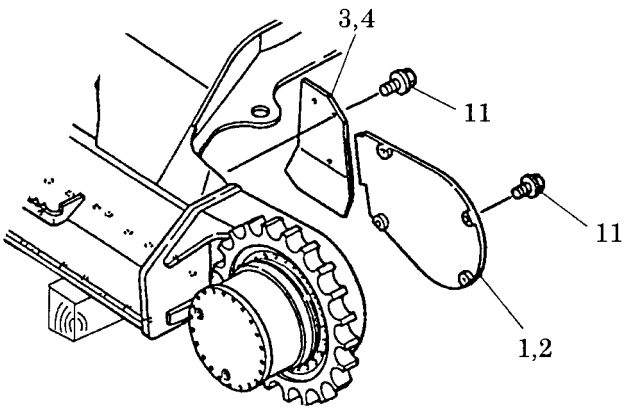


Fig. 7-2 Removing and installing cover (1), (2), (3), (4)

(3) Preparation of oil pan

(4) Removing hydraulic pipe

Remove all pipes connecting to travel motor. Then plug up all pipes and joint section to protect them from entry of dust.

: 19mm, 27mm, 32mm, 41mm
Refer to tool 4.plug (1).

Hydraulic pipe plug 4-1
ORS plug 4-1
} See LC11 Tools

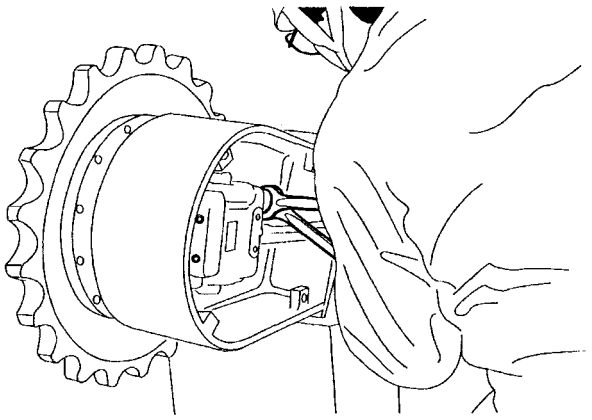


Fig. 7-3 Removing and installing hydraulic pipe

(5) Removing sprocket
Removing fifty two (both side) capscrews (3) M20 and washer (4).

: 30mm

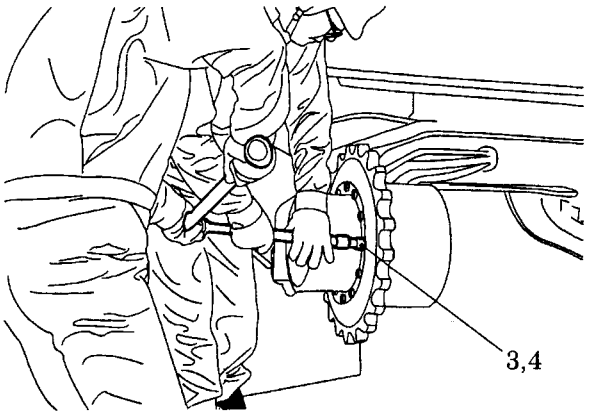


Fig. 7-4 Removing and installing sprocket

(6) Loosening travel motor attaching bolts (2)
Apply match marks on travel motor and crawler frame, and remove thirty six (both side) capscrews (2) M24.

: 36mm

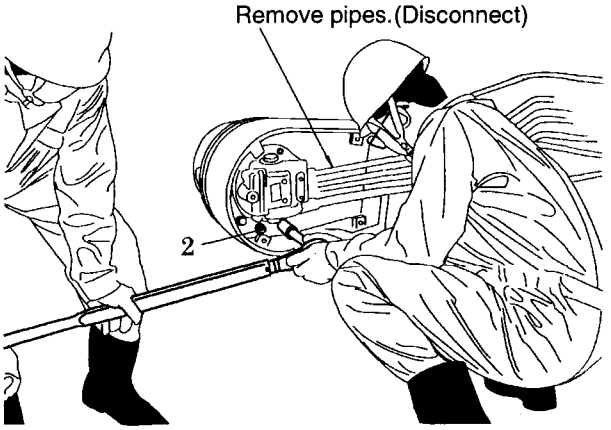


Fig. 7-5 Removing and installing travel motor attaching bolts

(7) Slinging travel motor assy
Sling travel motor with nylon sling applied on the side close to sprocket installing section and remove the motor.

Weight of motor : About. 360kg (793 lbs)

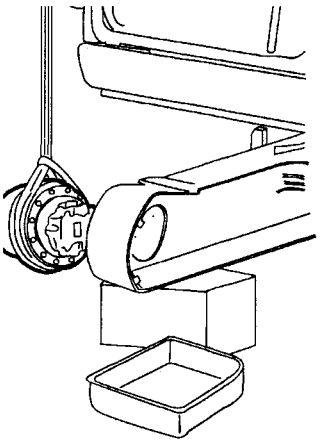


Fig. 7-6 Slinging travel motor

7.3 INSTALLING

Installing of the travel motor piping is performed in the reverse order of removal.

1) Cleaning
Check that contact surface of travel motor and crawler frame is free from burr and stain.

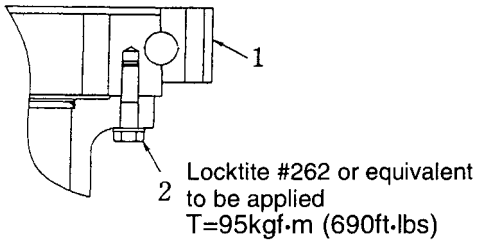
2) Tightening torque
Tighten capscrew and hydraulic pipes to the torque specified in "Tightening Torque".

NAME	SIZE	Tools HEX	No.	Tightening Torque kgf·m(ft·lbs)	RE-MARKS
Sems bolt	M12	19	11	8.5 (61)	Apply Locktite #262
Capscrew	M24	36	2	95 (690)	
	M20	30	3	55 (400)	
Flareless nut for pipes, sleeve	Ø10×1.5	19	—	5 (36)	
	Ø18×2.5	32	—	15 (110)	
	Ø28	41	—	28 (200)	
Connector	PF1/4	19	—	3.7 (27)	
	PF1/2	27	—	11 (80)	
	PF1	41	—	26 (190)	

8. SWING BEARING

8.1 SWING BEARING ASSY

SWING BEARING ASSY		LC40F00003F1	
No.	NAME	Q'TY	REMARKS
1	SWING BEARING	1	LC40F00009F1
2	CAPSCREW	36	M24×90



SECTION A-A

NOTE: Fill grease bath with 15.7kg (34 lbs) of grease NLGI-2 (containing molybdenum disulfide) or equivalent.

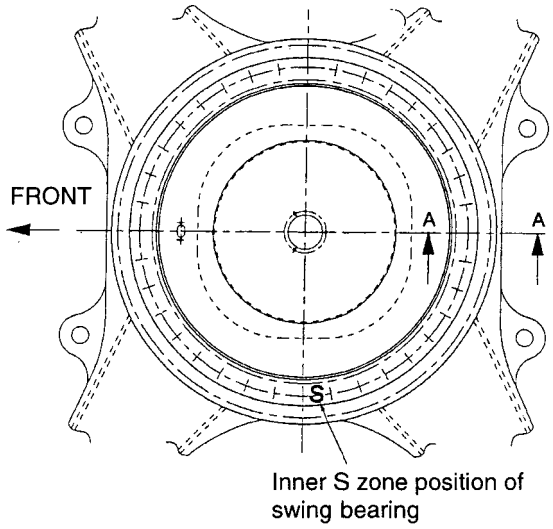


Fig. 8-1 Swing bearing assy

8.2 REMOVING

(1) Matchmarks
Remove upper structure, apply matchmarks on inner race of swing bearing and lower frame.

(2) Remove thirty six capscrews (2) M24×90 for installation inner race.
: 36mm

(3) Drawing out grease
Remove grease in grease bath.

(4) Removing swing bearing
Attach eyebolt on swing bearing and sling it.

Weight of swing bearing : 570kg (1,260 lbs)

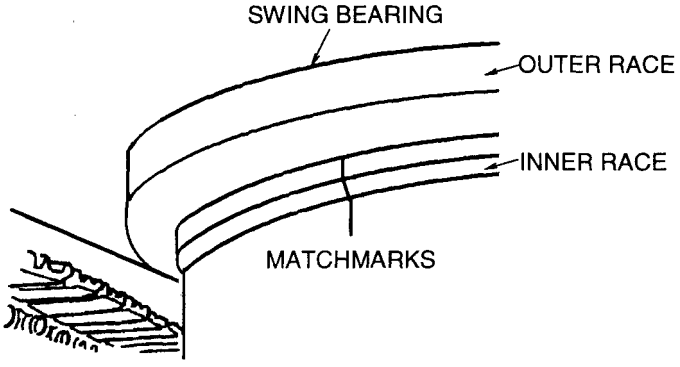


Fig. 8-2 Matchmarks

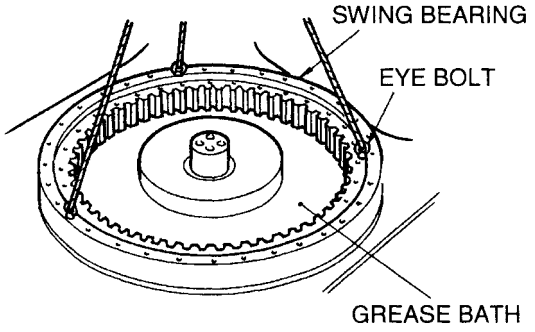


Fig. 8-3 Removing and installing swing bearing

8.3 INSTALLING

(1) Cleaning

Clean it completely so that installing surfaces of swing bearing and lower frame are free from dust and stain.

(2) Installing

Install swing bearing on lower frame meeting the matchmarks and positioning the S mark on inner race as shown in the figure.

(3) Temporary fastening of inner race

Coat the threads of the capscrews (2) with Locktite #262 and tighten all the capscrews (2) temporarily.

: 36mm

(4) Regular tightening of inner race

Tighten the capscrews (2) at 180 degrees intervals alternately to a specified torque.

:36mm,

Tightening torque :

95kgf·m (690ft·lbs)

(5) Filling grease.

Fill grease bath with 15.7kg (34 lbs) of grease NLGI-2 (containing molybdenum disulfide) or equivalent.

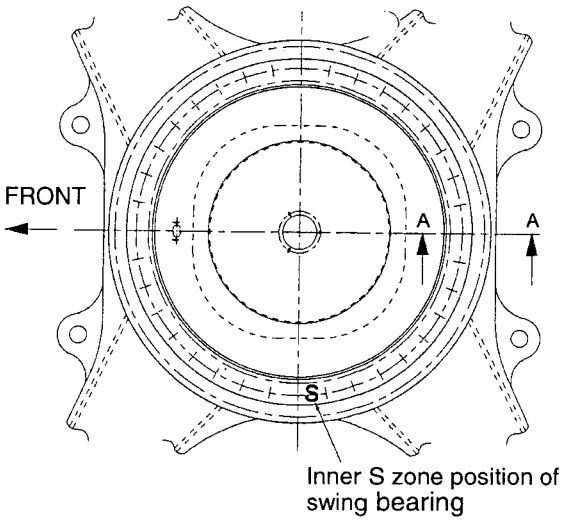


Fig. 8-4 Location of S mark on swing bearing

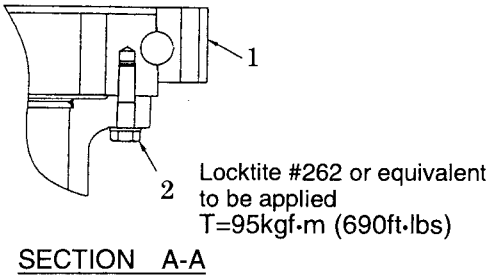


Fig. 8-5 Removing and installing capscrew (2)

8.4 CONSTRUCTION

ASSY PART NO.			LC40F00009F1		
No.	NAME	Q'TY	No.	NAME	Q'TY
1	OUTER RACE	1	6	SEAL	1
2	INNER RACE	1	7	TAPER PIN	1
3	BALL	84	8	PLUG	1
4	RETAINER	84	9	GREASE NIPPLE (PT1/8)	1
5	SEAL	2	10	O RING ; 1A P50	1

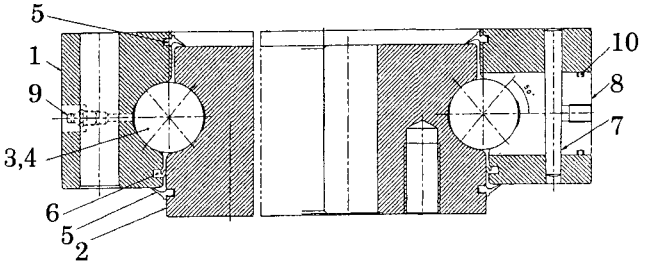


Fig. 8-6 Cross-sectional view of swing bearing

8.5 DISASSEMBLY AND ASSEMBLY

(1) Disassembly

1) Take out seal (5) fitted in the groove in the outer circumference under inner race (2) and seal (5) fitted in the groove in the inner circumference on top of outer race (1) and place them level on a square wooden block or something.
2) Draw out taper pin (7), using a hammer and an extrusion rod.
3) Draw out plug (8), utilizing an pull bolt inserted in the screwed hole (M10) in the center of the plug and using a puller.

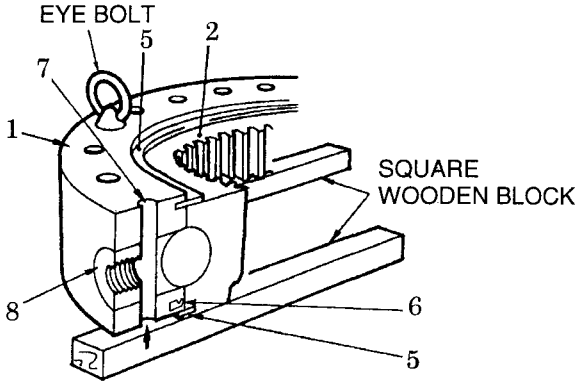


Fig. 8-7 Removing swing bearing