NEW HOLLAND

CRAWLER EXCAVATOR

E80B TIER 4

REPAIR MANUAL

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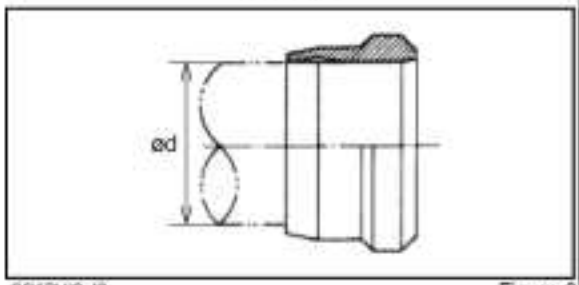
TIGHTENING TORQUES FOR NUTS AND SLEEVES

Table 3 indicates standard tightening torques applicable to cases where no particular note is given.
Overtightening or undertightening of nuts and sleeves in FLARELESS JOINT may develop oil leaks through pipe connections.
Always tighten nuts and sleeves to proper torques.

Table 3

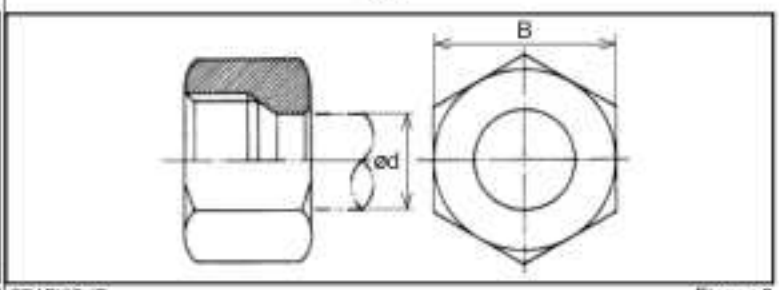
Manufacturer's name	Working pressure MPa (psi)	Tube size OD × thickness mm (in)	Opposing flats (HEX) mm	Tightening torque Nm (pound-ft)
Nippon A.M.C.	29.4 (4270)	ø10×1.5 (0.394×0.059)	19	49.0±9.8 (36±7.2)
		ø15×2.0 (0.591×0.079)	27	118±12 (87±8.7)
		ø18×2.5 (0.709×0.098)	32	147±15 (110±11)
		ø22×3.0 (0.866×0.118)	36	216±22 (160±16)
		ø28×4.0 (1.10×0.157)	41	275±27 (200±20)
Ihara Koatu	29.4 (4270)	ø35×5.0 (1.38×0.197)	55	441±44 (330±33)

SLEEVE



GRAPHIC_ID Figure 8

NUT



GRAPHIC_ID Figure 9

Tube size ød	Parts No.		Tube size ød	Opposing flats (HEX) mm	Parts No.	
	Ihara Koatu	Nippon A.M.C.			Ihara Koatu	Nippon A.M.C.
6	ZF93S06000	—	6	14	ZF93N06000	—
8	ZF93S08000	—	8	17	ZF93N08000	—
10	ZF93S10000	ZA93S10000	10	19	ZF93N10000	ZA93N10000
12	ZF93S12000	—	12	22	ZF93N12000	—
15	ZF93S15000	ZA93S15000	15	27	ZF93N15000	ZA93N15000
18	ZF93S18000	ZA93S18000	18	32	ZF93N18000	ZA93N18000
22	ZF93S22000	ZA93S22000	22	36	ZF93N22000	ZA93N22000
28	ZF93S28000	ZA93S28000	28	41	ZF93N28000	ZA93N28000
32	ZF93S32000	—	32	50	ZF93N32000	—
35	ZF93S35000	ZA93S35000	35	55	ZF93N35000	ZA93N35000
38	ZF93S38000	—	38	60	ZF93N38000	—

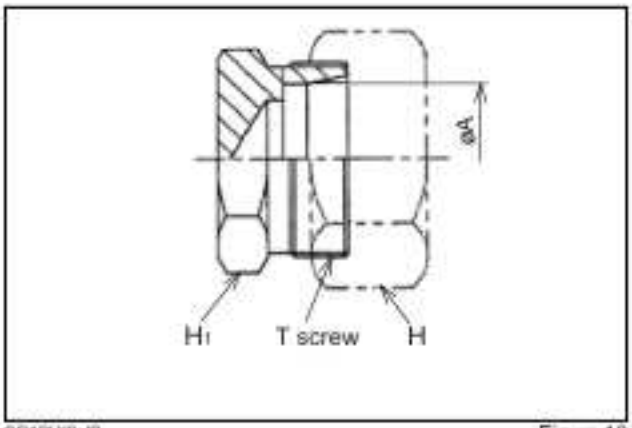
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PLUGS

PLUG FOR HYDRAULIC PIPE JOINT

1. Cap nut (Joint plug)

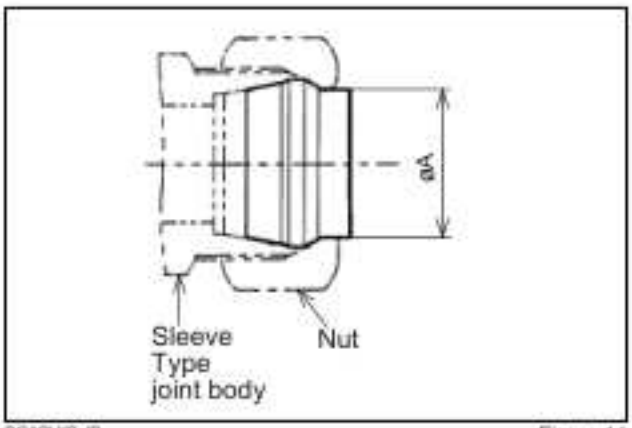
Applicable tube O.D.: A	Cap nut parts No.	T screw	Opposing flats	
			H_1	H
6	ZF83H06000	M12x1.5	14	14
8	ZF83H08000	M14x1.5	17	17
10	ZF83H10000	M16x1.5	17	19
12	ZF83H12000	M18x1.5	19	22
15	ZF83H15000	M22x1.5	24	27
18	ZF83H18000	M26x1.5	27	32
22	ZF83H22000	M30x1.5	32	36
28	ZF83H28000	M36x1.5	38	41



GRAPHIC_ID Figure 10

2. Plug (Tube plug)

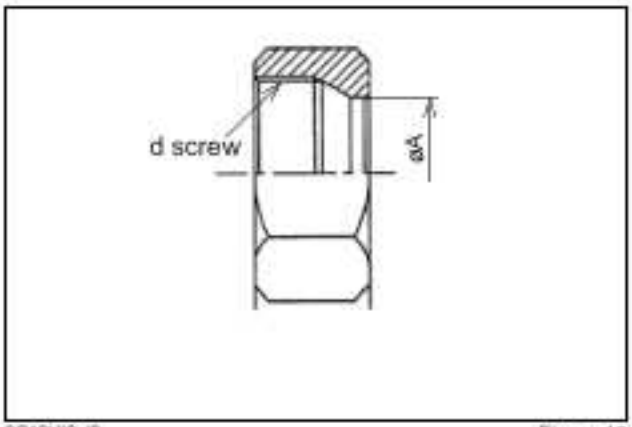
Applicable tube O.D.: A	Plug parts No.
6	ZF83P06000
8	ZF83P08000
10	ZF83P10000
12	ZF83P12000
15	ZF83P15000
18	ZF83P18000
22	ZF83P22000
28	ZF83P28000



GRAPHIC_ID Figure 11

3. Nut

Applicable tube O.D.: A	Cap nut parts No.	d screw	Opposing flats
6	ZF93N06000	M12x1.5	14
8	ZF93N08000	M14x1.5	17
10	ZF93N10000	M16x1.5	19
12	ZF93N12000	M18x1.5	22
15	ZF93N15000	M22x1.5	27
18	ZF93N18000	M26x1.5	32
22	ZF93N22000	M30x1.5	36
28	ZF93N28000	M36x1.5	41
32	ZF93N32000	M42X1.5	50
35	ZF93N35000	M45X1.5	55
38	ZF93N38000	M48X1.5	60



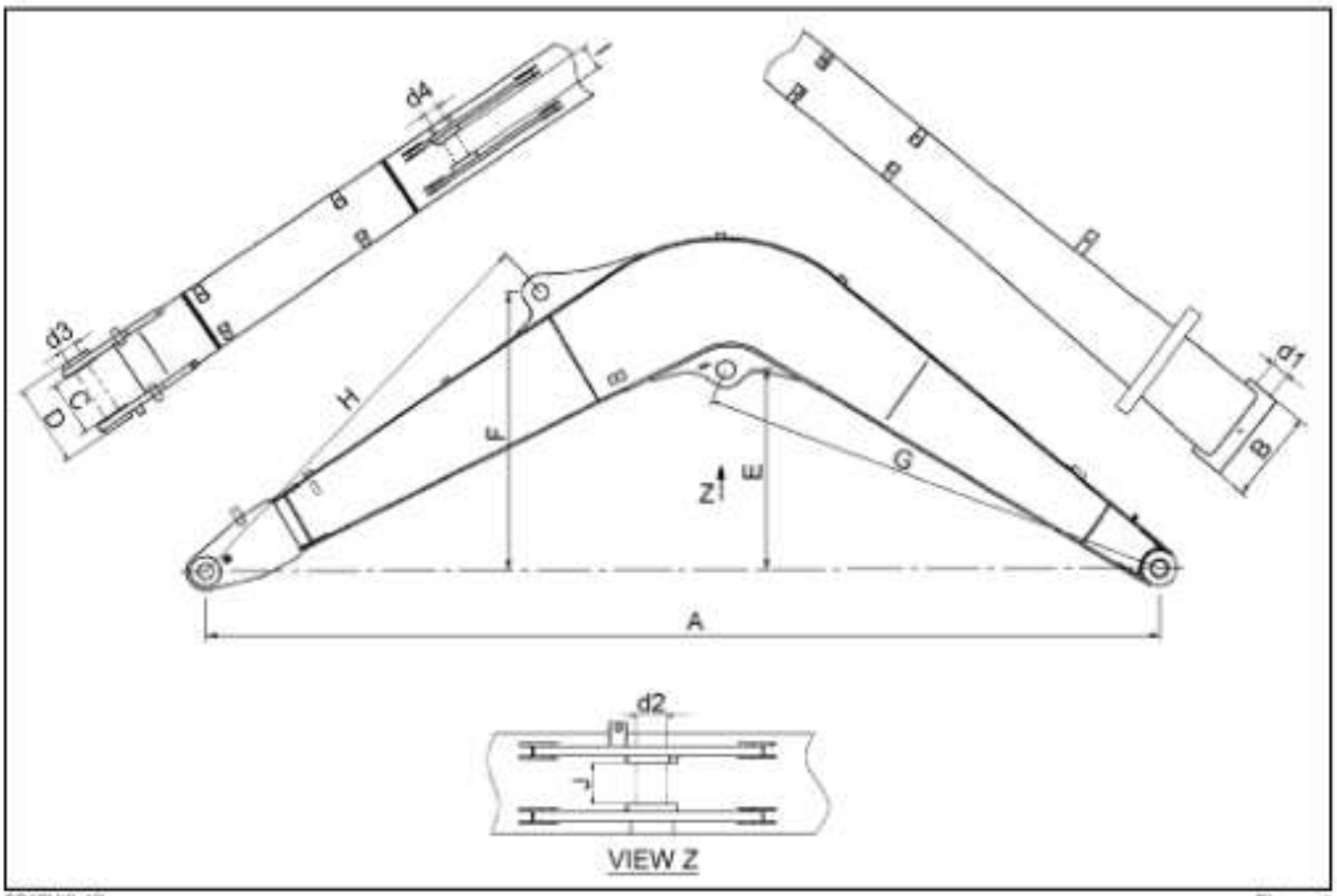
GRAPHIC_ID Figure 12

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ATTACHMENT DIMENSIONS

BOOM

Boom Dimensional Drawing



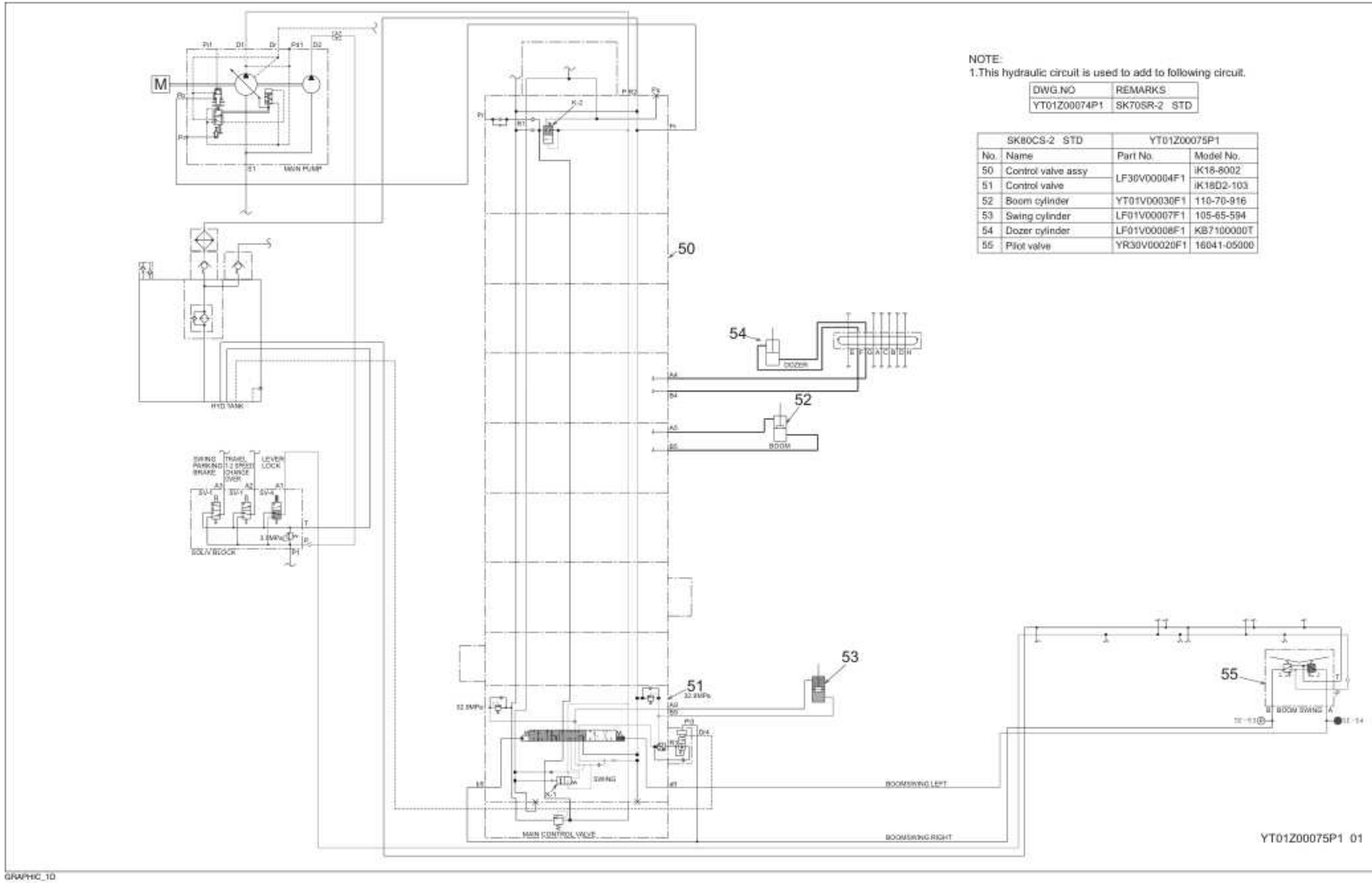
GRAPHIC_10

Figure 1

3.67 m (12ft-1in) Boom	LF02B00022P1	Unit : mm (ft-in)
Code	Item	Dimension
A	Boom length	3,670 (12ft-5in)
B	Boom foot width	360 (14.2in)
C	Boom end inner width	215 (8.46in)
D	Boom end outer width	303 (11.9in)
E	Height of boom cylinder rod pin	762 (2ft-6in)
F	Height of arm cylinder (head side) pin	1,102 (3ft-7in)
G	Distance between pins of boss	R1,858.5 (6ft-1in)
H	Distance between of pins of bracket	R1,730 (5ft-8in)
I	Arm cylinder (head side) inner width	100 (3.94in)
J	Inner width of bracket on the arm cylinder (rod side) mounting section	100 (3.94in)
d1	Boom foot pin dia.	Ø 60 (2.36in)
d2	Boom cylinder (rod side) pin dia.	Ø 70 (2.76in)
d3	Pin dia. of arm end	Ø 60 (2.36in)
d4	Arm cylinder (head side) pin dia.	Ø 60 (2.36in)

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SECTION 3 - SYSTEMS
CHAPTER 2 - HYDRAULIC SYSTEM



NOTE:
1.This hydraulic circuit is used to add to following circuit.

DWG.NO	REMARKS
YT01Z00074P1	SK70SR-2 STD

	SK80CS-2 STD	YT01Z00075P1	
No.	Name	Part No.	Model No.
50	Control valve assy	LF30V00004F1	iK18-8002
51	Control valve		iK18D2-103
52	Boom cylinder	YT01V00030F1	110-70-916
53	Swing cylinder	LF01V00007F1	105-65-594
54	Dozer cylinder	LF01V00008F1	KB7100000T
55	Pilot valve	YR30V00020F1	16041-05000

GRAPHIC_1D

Figure 12

BOOM SWING CIRCUIT: BOOM SWING OPERATION (LEFT)

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Table 55

Error code		R044		
Trouble		Washer motor relay error		
Judging condition		The mechatro controller output line to washer motor relay is short-circuited with the power source.		
Symptom		Washer motor does not move.		
Control in the event of failure		Relay output is stopped.		
Returned in normal condition		When the power is OFF		
Service diagnosis checking screen		Screen No.	25	MOTOR RELAY
		Screen No.		
		Screen No.		
Checking object				Checking contents and remedy
1	• Washer motor relay R-32			When error is cancelled after removing washer motor relay, check relay unit for failure, replace it with new one if failed. When resistance between relays (1) and (2) is 0Ω it is in abnormal condition. 
2	• Wiring between washer motor relay and controller CN-112F, CN2-1 •Fuse & relay box E-1			When R044 is left displayed with the relay removed Check that no power 24V is produced on relay (-) line according to the wiring checking procedure and replace it if necessary. When no failure found after checking on wiring and R044 is left displayed Replace fuse/relay box.
3	• Mechatro controller			Check that the error is corrected after replacement of controller.

Table 56

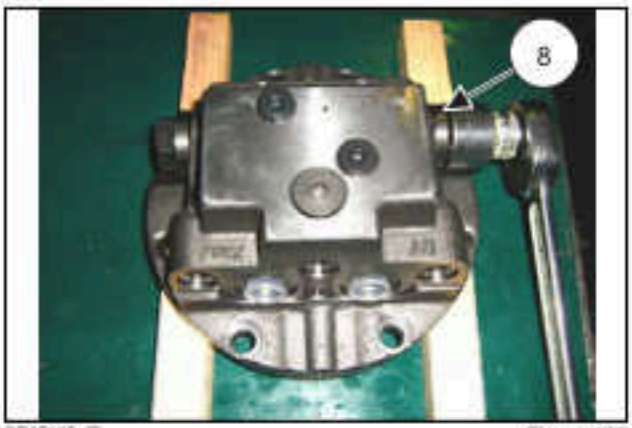
Error code		R134		
Trouble		Swing flasher right relay error		
Judging condition		The mechatro controller output line to swing right flasher relay is short-circuited with the power source.		
Symptom		Right swing flasher does not light.		
Control in the event of failure		Relay output is stopped.		
Returned in normal condition		When the power is OFF		
Service diagnosis checking screen		Screen No.	22	D13
		Screen No.		
		Screen No.		
Checking object				Checking contents and remedy
1	• Swing right flasher relay R-19			When error is cancelled after removing connector (CN-74F) of swing flasher relay, check relay unit for failure, replace it with new one if failed. When resistance between relays (HB) and (HC) is 0Ω it is in abnormal condition. 
2	• Wiring between swing right flasher relay and controller CN-74F, CN-109F			When R134 is left displayed with the relay removed Check that no power 24V is produced on relay (-) line (as shown right upper figure C) according to the wiring checking procedure and replace it if necessary.
3	• Mechatro controller			Check that the error is corrected after replacement of controller.

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7. Remove the cover (8) from the motor cover (3) as shown by the right figure.

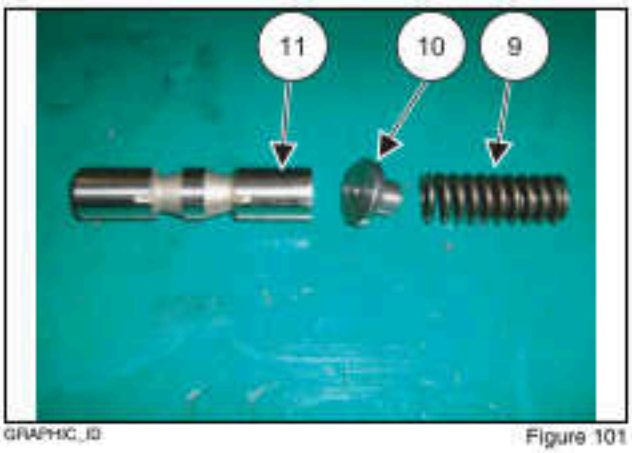
⚠ WARNING ⚠

The strong spring force is applied to the cover (8). Loosen bolts gradually with care to ensure safe and prevent the cover from damaging when removing.



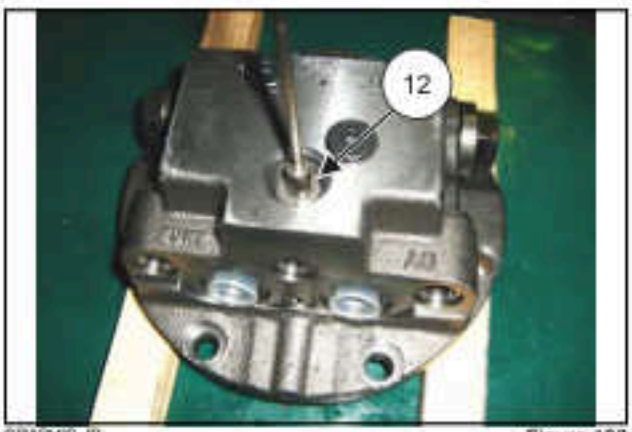
GRAPHIC_ID Figure 100

8. Remove the spring (9), pusher (10), and spool (11) from the motor cover. These parts are located under the cover (8).



GRAPHIC_ID Figure 101

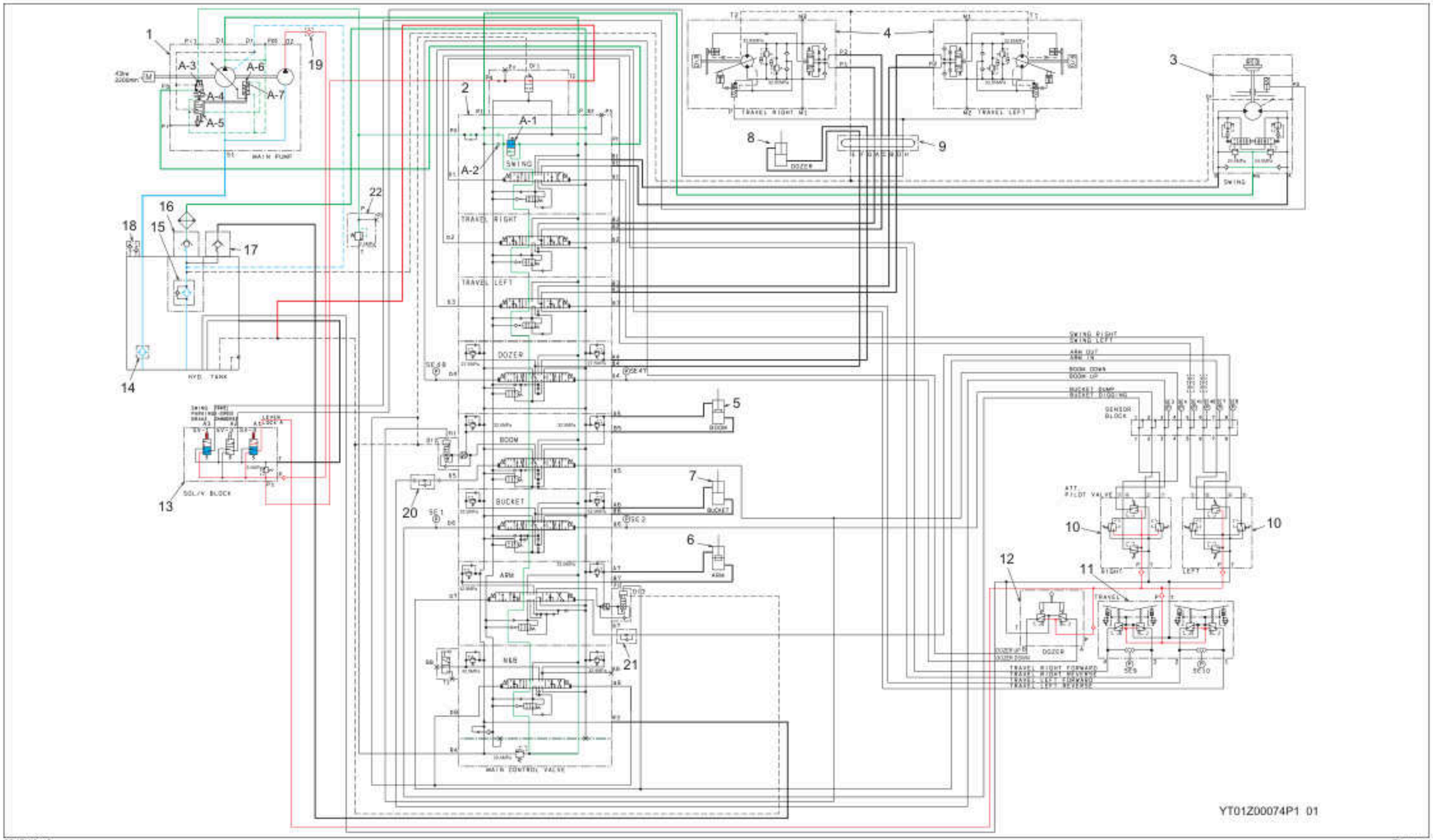
9. Remove the plug (12) from top of the motor cover.



GRAPHIC_ID Figure 102

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SECTION 3 - SYSTEMS
CHAPTER 2 - HYDRAULIC SYSTEM



GRAPHIC_1D

Figure 3

NEUTRAL CIRCUIT: SAFETY LOCK LEVER ON

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