SERVICE MANUAL

E175B - E195B

ROPS Tier III

Crawler Excavators

Print No. 84392407A

NEW HOLLAND CONSTRUCTION

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GENERAL



CONTENTS

Group 1 - Specifications

Main components T1-1-1
Hydraulic components E175B T1-1-5
Hydraulic components E195B T1-1-8
Excavator performance..... T1-1-11
Digging data E175B (Monoblock Version)..... T1-1-12
Digging data E175B (Triple Articulation Version) T1-1-13
Transporting dimensions E175B (Monoblock Version)..... T1-1-14
Transporting dimensions E175B (Triple Articulation Version) T1-1-15
Bucket applications as a function of the arms E175B T1-1-16
Digging data E195B (Monoblock Version)..... T1-1-17
Digging data E195B (Triple Articulation Version) T1-1-18
Transporting dimensions E195B (Monoblock Version)..... T1-1-19
Transporting dimensions E195B (Triple Articulation Version) T1-1-20
Bucket applications as a function of the arms E195B T1-1-21

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SYSTEM



CONTENTS

Group 1 - Mechatro Control System

1 Preface T2-1-1
2 Summary of Mechatro control system T2-1-2
2.1 Mechatro control system in general T2-1-2
2.2 Unload valve control T2-1-4
2.3 Positive control & P-Q control... T2-1-5
2.4 Boom up conflux control T2-1-7
2.5 Arm in recirculation & conflux control T2-1-8
2.6 Arm-in anti-cavitation control T2-1-10
2.7 Arm-out conflux control T2-1-11
2.8 Bucket digging (dump) conflux control T2-1-12
2.9 Bucket digging anti-cavitation control T2-1-13
2.10 Swing priority control T2-1-15
2.11 Travel straight control T2-1-16
2.12 Pressure release control..... T2-1-18
2.13 N&B switch control (option) T2-1-19
2.14 Option conflux control (option).. T2-1-20
3 Mechatro controller T2-1-21
3.1 Summary of multi display T2-1-21
3.2 Self diagnosis display T2-1-27
3.3 Service diagnosis display function T2-1-29
3.4 Trouble history diagnosis..... T2-1-39
3.5 Trouble diagnosis mode T2-1-40
3.6 Set procedure of maintenance schedule T2-1-41
3.7 Adjusting procedure of display . T2-1-42
3.8 Mechatro control equipment T2-1-48

Group 2 - Hydraulic circuits

1 Summary T2-2-1
2 Hydraulic circuits and components T2-2-2
3 N&B hydraulic circuit (option) T2-2-4
4 Holding valve for boom & arm (option)T2-2-6
5 Positioning circuit (triple articulation version) T2-2-8
6 Color coding standard for hydraulic circuits T2-2-10
7 Neutral circuit T2-2-10
8 Travel circuit T2-2-12
9 Bucket circuit T2-2-14
10 Boom circuit T2-2-16
11 Swing circuit T2-2-20
12 Arm circuit T2-2-22
13 Combined circuit T2-2-28
14 Pressure draining (releasing) circuit . T2-2-32

Group 3 - electrical system

Electrical system main components..... T2-3-1
Electrical system (Overall system)..... T2-3-1
Electrical system diagram T2-3-13
Electrical system diagram (No. 1)..... T2-3-15
Electrical system diagram (No. 2)..... T2-3-17
Electrical system diagram (No. 3)..... T2-3-19
Electrical system diagram (No. 4)..... T2-3-21
Electrical system diagram (No. 5)..... T2-3-23
Wiring harness T2-3-24
Cluster gauge wiring harness assembly..... T2-3-25
Platform wiring harness assembly T2-3-27
Upper frame wiring harness assembly . T2-3-29
Engine wiring harness (KSB & STOP) . T2-3-30

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2. Service diagnosis display screen (Example)
The service diagnosis display screen list is shown below. The conditions for display are H mode, engine low speed and lever to neutral position.)

1) Service diagnosis "**Mode No.1**"

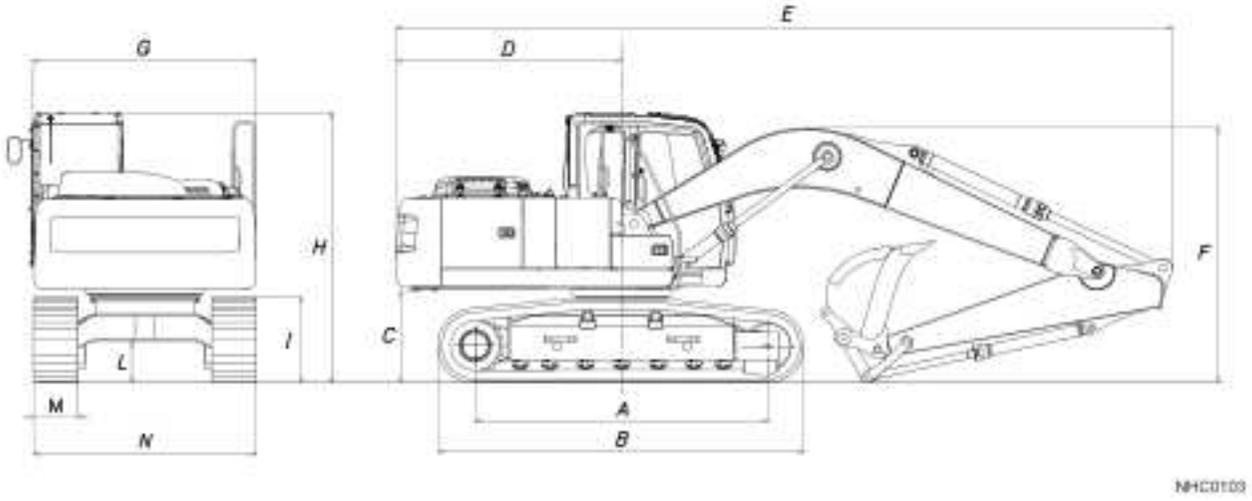
No.	Displays	Contents	No.	Displays	Contents
1	NO.1 MAIN CONT. P/N YN22E00386F1 PROGRAM VERSION 1-VER 51.00 2-VER 0.00 SERVICE DIAG 1	 P/No. indication Program version indication MERIT controller program version Service diagnosis mode	4	NO.4 RELAY K-1 AIS RELAY 2 ON K-2 SAFETY RLY ON K-3 ENG STOP OFF KEY SWITCH ON START SWITCH OFF CHARGE LIVE K-4 LOCK LEVER OFF SWITCH ON	 Indicated value Indicated value Indicated value Key switch Starter switch Alternator Indicated value Switch
2	NO.2 ENG G-3 SPEED SET 1000 MEAS. 1000 G-5 ENG PRS. LIVE WATER TEMP. 20 °C OFF MODE H H-1 ACCEL VOLT. 0.3 V POS. 0% G-1 MOTOR STEP 30 POS. 0% COIL A 1.5 A COIL B 1.5 A G-2 LIMIT SW. OFF	 No load setting rpm Actual rpm Engine oil pressure Coolant temperature sensor / Coolant temperature switch Work mode Potentiometer voltage Voltage % indication Number of step Step % indication A phase current B phase current Limit switch	5	NO.5 PRESS.SENSOR B-1 BOOM RAISE 0.4 V 0.0 M B-2 BOOM LOWER 0.4 V 0.0 M B-3 ARM OUT 0.4 V 0.0 M B-4 ARM IN 0.4 V 0.0 M B-5 BUCKET DIG. 0.4 V 0.0 M B-6 BUCKET DUMP 0.4 V 0.0 M	 Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value
3	NO.3 SOL.VALVE F-1 POWER BOOST COMP. OFF MEAS. OFF SWITCH OFF F-2 SWING-BRAKE COMP. ON MEAS. ON RELEASE SW OFF F-3 1/2-TRAVEL COMP. OFF MEAS. OFF SWITCH OFF	 Set value in computer Measured value Switch Set value in computer Measured value Switch Set value in computer Measured value Switch	6	NO.6 PRESS.SENSOR B-7 SWING 0.4 V 0.0 M B-9 TRAVEL (R) 0.4 V 0.0 M B-10 TRAVEL (L) 0.4 V 0.0 M B-16 P1-OPT. 0.4 V 0.0 M B-17 P2 OPT. 0.5 V 0.0 M B-18 DOZER 1 0.0 V 0.0 M B-19 DOZER 2 0.0 V 0.0 M	 Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value Sensor voltage / Pressure converted value

SWK00079

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TRANSPORTING DIMENSIONS E175B

(Monoblock Version)



VERSIONS	A	B	C	D	E	F	G	H	I	L
E175BL	3280	4087	1021	2520	(1) 8723	(1) 2973	2490	3019	950	490
					(2) 8672	(2) 2846				
					(3) 8678	(3) 2928				
E175BLC	3280	4087	1021	2520	(1) 8723	(1) 2973	2490	3019	950	490
					(2) 8672	(2) 2846				
					(3) 8678	(3) 2928				

Arm:
(1) 2200 mm
(2) 2600 mm
(3) 3100 mm

(dimensions in mm)

			E175BL				E175BLC				
M	Track shoe width	(mm)	500	600	700	800	500	600	700	800	900
N	Gauge	(mm)	2490	2590	2690	2790	2690	2790	2890	2990	3090
(*) Working weight		(kg)	17250	17500	17750	18000	17550	17800	18050	18300	18550
Spec. ground pres.		(bar)	0.46	0.39	0.34	0.30	0.47	0.39	0.34	0.30	0.27

(*) With arm 3100 mm and bucket 0.51 m^3

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2. HYDRAULIC CIRCUITS AND COMPONENTS (E195B)

HYDRAULIC DIAGRAM READING KEY	
Item	Component name
1	Hyd. pump assy
2	Control valve (main)
3	Swing motor unit
4	Travel motor unit
5	Boom cylinder (RH & LH)
6	Arm cylider
7	Bucket cylinder
8	Swivel joint
9	Pilot valve (ATT)
10	Pilot valve (travel)
11	Inline filter
12	Suction strainer
13	Solenoid valve assy
14	Return filter
15	Air breather
16	Restrictor
17	Shuttle valve
18	Short-circuit valve
19	Low pressure sensor block

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Table 61

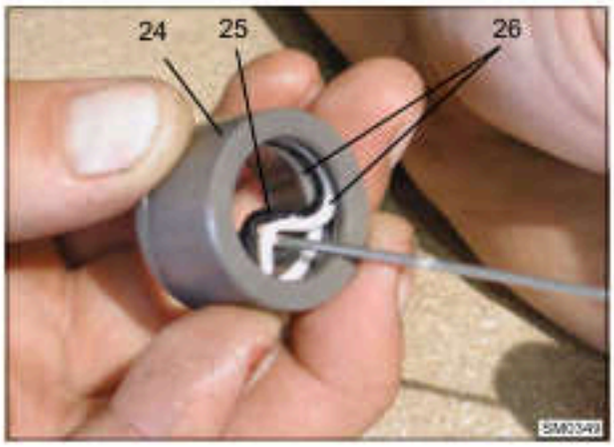
Error code	D153		
Trouble			
Judging condition			
Symptom			
Control in the event of failure			
Returned in normal condition			
Service diagnosis checking screen	Screen No.		
	Screen No.		
	Screen No.		
Checking object			Checking contents and remedy
1			
2			
3	•		

Table 62

Error code	**E012**		
Trouble	P1 pump proportional valve and output transistor ON are failure.		
Judging condition	The feed-back value from proportional valve is 1000 mA or more.		
Symptom	The delicate operability of P2 pump related attachment becomes poor.		
Control in the event of failure	Set proportional valve output rate of P1 and P2 pumps to 0 mA. (Hydraulic pump emergency mode)		
Returned in normal condition	Not returned automatically under normal condition. Switch the power OFF once and turns on it again.		
Service diagnosis checking screen	Screen No.	9	E-1 PUMP P1
	Screen No.		
	Screen No.		
Checking object			Checking contents and remedy
1	• P1 pump proportional valve PSV-P1		When E012 is cancelled and other error occurs by turning starter switch on after exchanging the connector with other sensor. Check sensor unit for possible failure. If failure found, replace it. When replacing of connector is executed, turn off power source once.
2	• Wiring between P1 pump proportional valve and controller CN-141F CN-105F		When E012 is displayed after turning the starter switch on after the connector is exchanged with other sensor. Check wiring for possible failure according to the wiring checking procedure and repair it if necessary. When replacing of connector is executed, turn off power source once.
3	• Mechatro controller		Check that the error is corrected after replacement of controller.

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29. Remove the O-ring seal (**25**) and the backup rings (**26**) from their seats in the free piston (**24**).



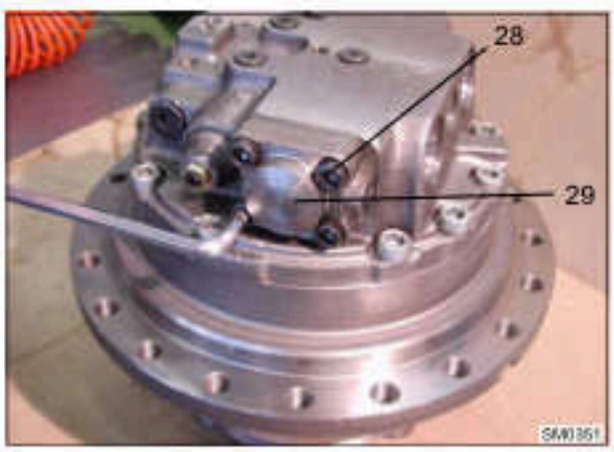
30. Remove the O-ring seal (**27**) from relief valve (**23**). Repeate the same steps for the 2nd relief valve disassembly.



Disassembly of the counterbalance valve assy

31. Unscrew the nos. 4 socket head screws M12x40 (**28**), grade 12.9 of the first flanged plug assy (**29**) by a male hex head wrench.

: 10 mm

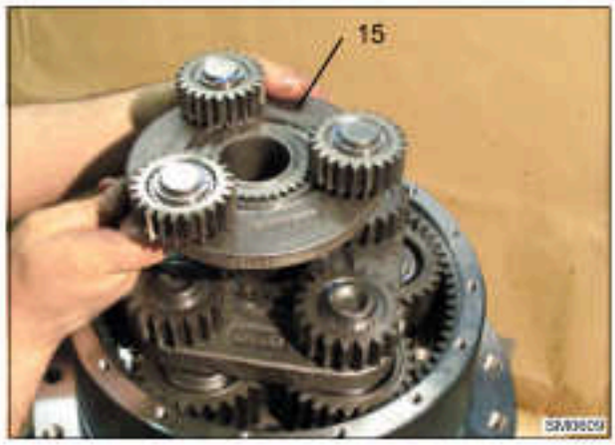


32. Take out the first flanged plug assy (**29**) and the spring seat.

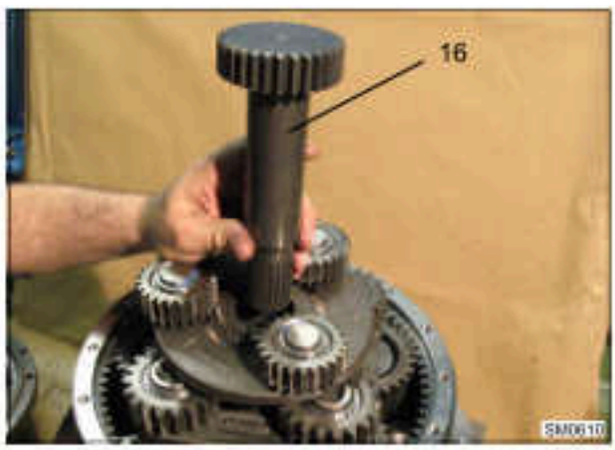


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18. Insert the 1st reduction assembly (**15**).



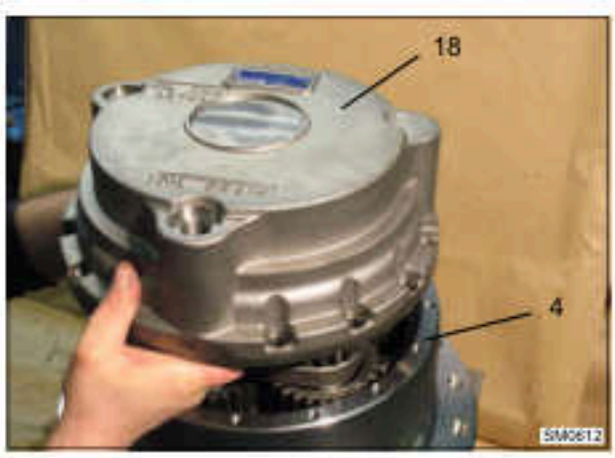
19. Insert the 1st reduction sun gear (**16**).



20. Assemble the O-ring (**17**) into its seat in the cover (**18**).

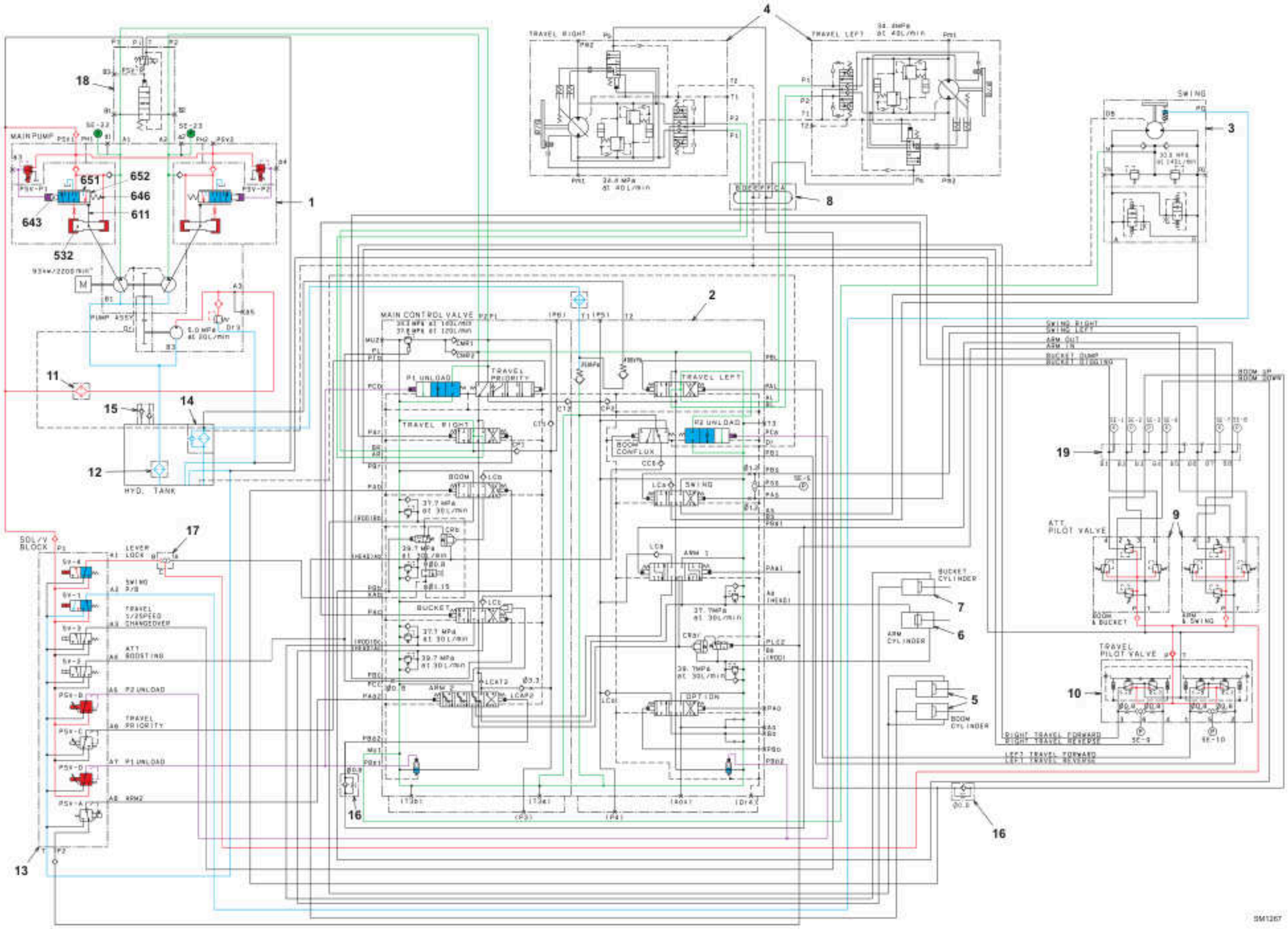


21. Place the end cover (**18**) on the gearbox housing (**4**).



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NEUTRAL CIRCUIT: Positive control function at safety lock lever down (unloked position)



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