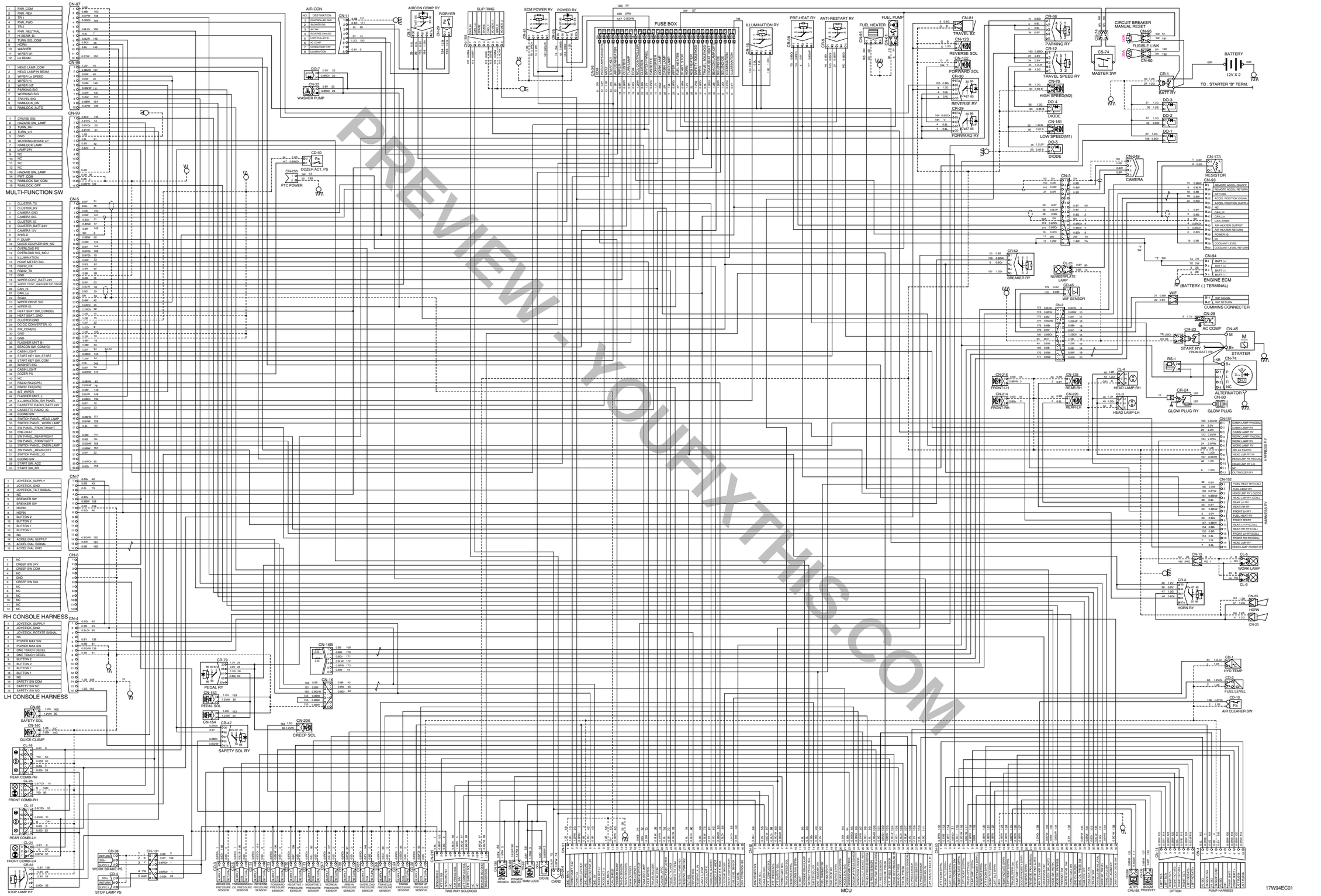
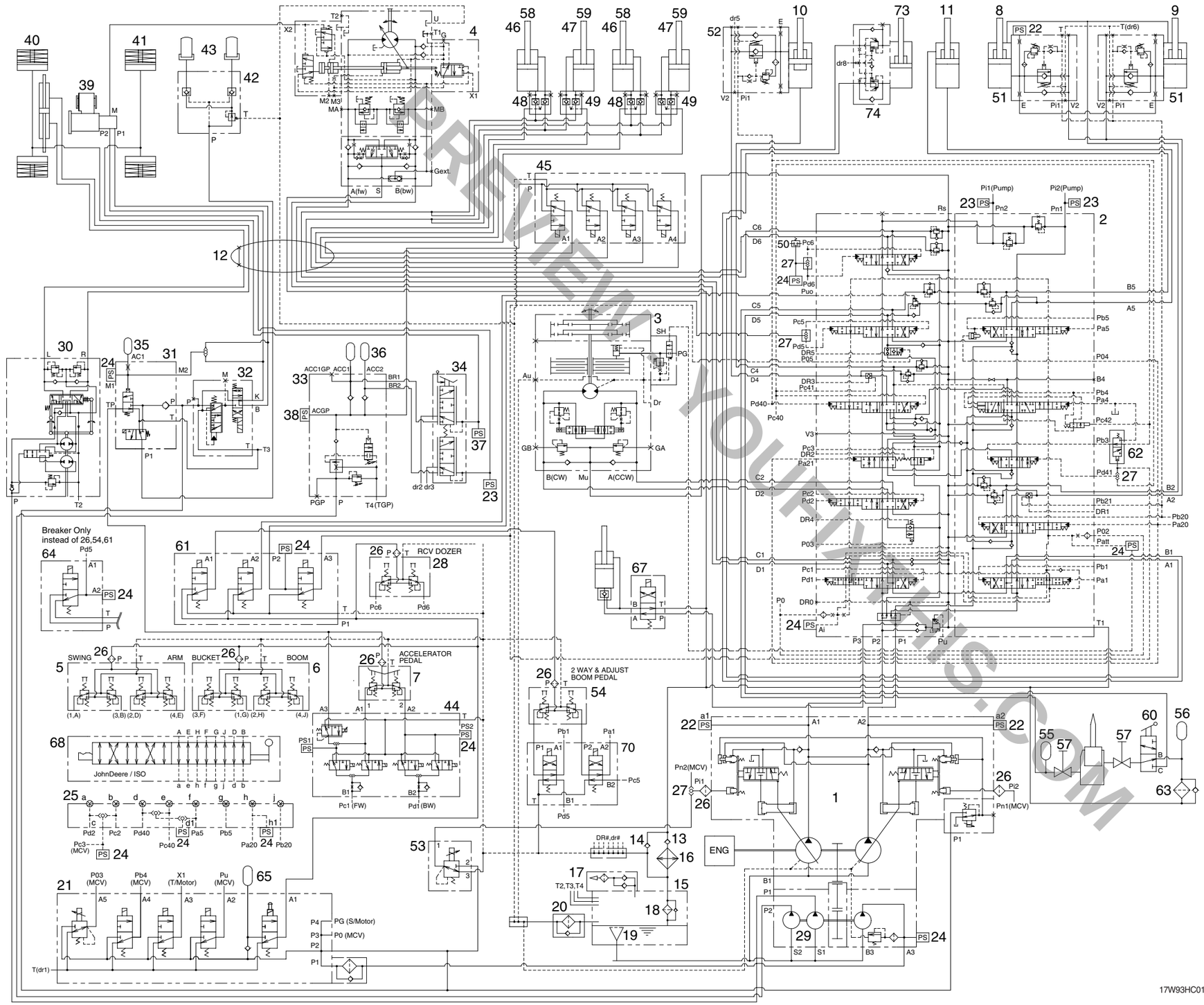
GROUP 2 ELECTRICAL CIRCUIT (1/3)



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GROUP 1 HYDRAULIC CIRCUIT



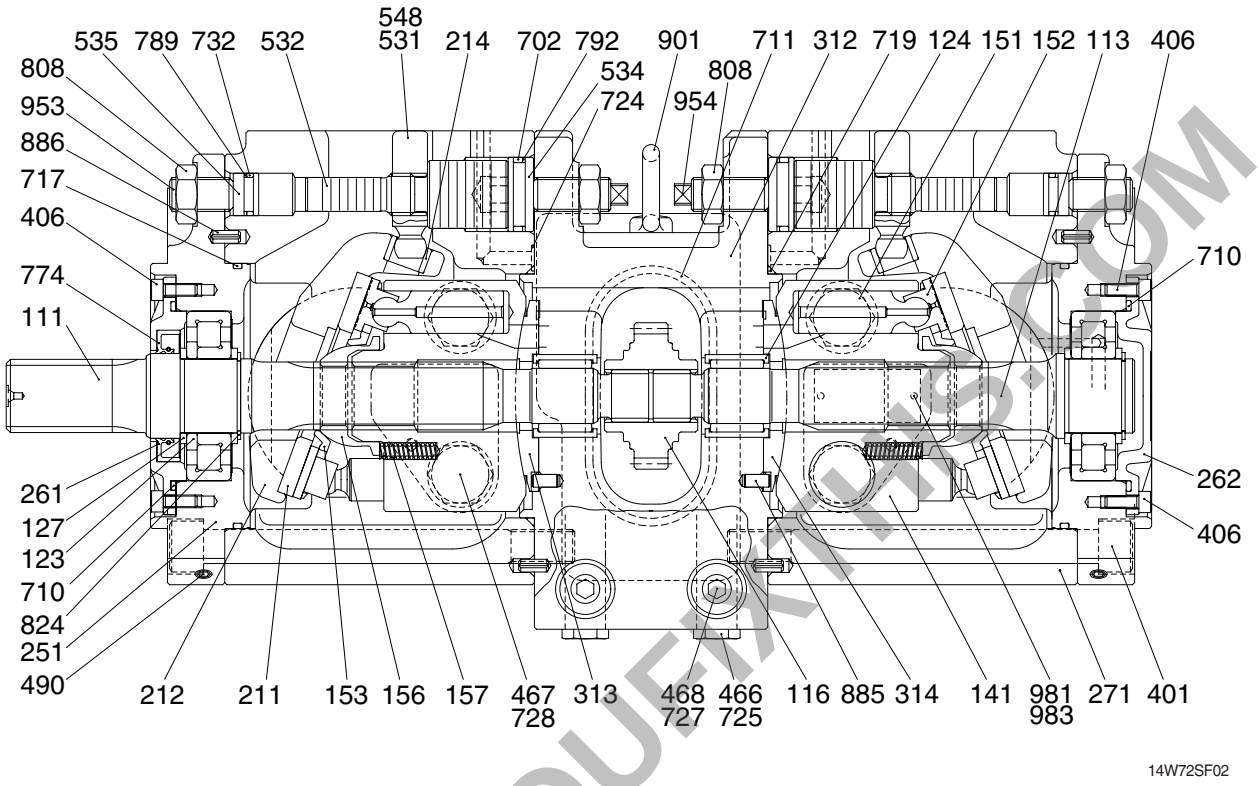
1 Main pump
2 Main control valve
3 Swing motor
4 Travel motor
5 RCV lever(LH)
6 RCV lever(RH)
7 Accelerator pedal
8 Boom cylinder(LH)
9 Boom cylinder(RH)
10 Arm cylinder
11 Bucket cylinder
12 Turning joint
13 Check valve
14 Check valve
15 Hydraulic tank
16 Oil cooler
17 Air breather
18 Bypass valve & return element
19 Strainer assy
20 Drain filter
21 5 solenoid valve & pilot line filter
22 Pressure sensor(500k)
23 Pressure sensor(100k)
24 Pressure sensor(50k)
25 Shuttle block
26 Last guard filter
27 Shuttle valve
28 RCV dozer(option)
29 Power train pump
30 Steering valve
31 Travel control valve
32 TCV valve
33 Brake supply valve
34 Brake valve
35 Accumulator(option)
36 Accumulator(option)
37 Pressure sensor(5k)
38 Pressure sensor(200k)
39 Transmission
40 Front axle
41 Rear axle
42 Locking valve
43 Oscillating cylinder
44 5 solenoid valve(option)
45 4 solenoid valve(option)
46 Outrigger cylinder(LH, option)
47 Outrigger cylinder(RH, option)
48 Pilot check valve(LH, option)
49 Pilot check valve(RH, option)
50 Pressure switch(option)
51 Boom safety lock valve(option)
52 Arm safety lock valve(option)
53 EPPR valve(option)
54 2 way & adjust boom pedal(option)
55 Accumulator(option)
56 Accumulator(option)
57 Stop valve(option)
58 Dozer cylinder(LH, option)
59 Dozer cylinder(RH, option)
60 Breaker selector valve(option)
61 Solenoid valve(option)
62 Selector valve(option)
63 Breaker return filter(option)
64 Breaker solenoid valve(option)
65 Accumulator(option)
67 Quick clamp solenoid valve(option)
68 Pattern change valve(option)
70 Selector solenoid valve(option)
73 Adjustable boom cylinder(option)
74 Adjustable boom safety lock valve(option)

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1) MAIN PUMP (1/2)

The main pump consists of two piston pumps(front & rear) and valve block.



111	Drive shaft (F)	312	Valve block	724	O-ring
113	Drive shaft (R)	313	Valve plate (R)	725	O-ring
116	Gear	314	Valve plate (L)	727	O-ring
123	Roller bearing	401	Hexagon socket bolt	728	O-ring
124	Needle bearing	406	Hexagon socket bolt	732	O-ring
127	Bearing spacer	466	VP Plug	774	Oil seal
141	Cylinder block	467	VP Plug	789	Back up ring
151	Piston	468	VP Plug	792	Back up ring
152	Shoe	490	Plug	808	Hexagon head nut
153	Push-plate	531	Tilting pin	824	Snap ring
156	Bushing	532	Servo piston	885	Pin
157	Cylinder spring	534	Stopper (L)	886	Spring pin
211	Shoe plate	535	Stopper (S)	901	Eye bolt
212	Swash plate	548	Pin	953	Set screw
214	Bushing	702	O-ring	954	Set screw
251	Support	710	O-ring	981	Plate
261	Seal cover (F)	711	O-ring	983	Pin
262	Seal cover (R)	717	O-ring		
271	Pump casing	719	O-ring		

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GROUP 2 TIGHTENING TORQUE

1. MAJOR COMPONENTS

No.	Descriptions		Bolt size	Torque	
				kgf · m	lbf · ft
1	Engine	Engine mounting bolt (bracket-frame, FR)	M20 × 2.5	55±3.5	398±25.3
2		Engine mounting bolt (bracket-frame, RR)	M24 × 3.0	90±7.0	651±50.6
3		Engine mounting bolt (engine-bracket)	M12 × 1.75	10.0±1.0	72.3±7.2
4		Radiator mounting bolt, nut	M16 × 2.0	29.7±4.5	215±32.5
5		Coupling mounting bolt	M18 × 2.5	32.0±1.0	231±7.2
6	Hydraulic system Power train system	Main pump housing mounting bolt	M10 × 1.5	4.8±0.3	34.7±2.2
7		Main pump mounting bolt	M16 × 2.0	25.0±2.5	181±18.1
8		Main control valve mounting bolt	M12 × 1.75	12.2±1.3	88.2±9.4
9		Travel motor mounting bolt	M16 × 2.0	29.6±3.2	214±23.1
10		Fuel tank mounting bolt	M20 × 2.5	46±5.1	333±36.9
11		Hydraulic oil tank mounting bolt	M20 × 2.5	46±5.1	333±36.9
12		Turning joint mounting bolt, nut	M12 × 1.75	12.3±1.3	89±9.4
13	Under carriage	Swing motor mounting bolt	M20 × 2.5	57.9±8.7	419±62.9
14		Swing bearing upper mounting bolt	M20 × 2.5	58±6.3	420±45.6
15		Swing bearing lower mounting bolt	M20 × 2.5	58±6.3	420±45.6
16		Real axle mounting bolt, nut	M20 × 1.5	58±6.3	420±45.6
17		Transmission bracket mounting bolt	M20 × 2.5	58±6.3	420±45.6
18		Transmission mounting bolt	M16 × 2.0	29.7±4.5	215±32.5
19		Oscillating cylinder mounting bolt	M22 × 1.5	83.2±9.2	602±66.5
20		Oscillating cylinder support mountiog bolt	M16 × 2.0	29.6±3.2	214±23.1
21		Wheel nut	M22 × 1.5	$60\ ^{0}_{-5}$	$433\ ^{0}_{-36.2}$
22		Front drive shaft mounting bolt, nut	M10 × 1.25	5.9±0.6	42.7±4.3
23		Rear drive shaft mounting bolt, nut	M10 × 1.25	5.9±0.6	42.7±4.3
24	Others	Counterweight mounting bolt	M30 × 3.0	199±30	1439±217
25		Cab mounting bolt, nut	M12 × 1.75	12.8±3.0	92.6±21.7
26		Operator's seat mounting bolt	M 8 × 1.25	4.05±0.8	29.3±5.8

※ For tightening torque of engine and hydraulic components, see engine maintenance guide and service manual.

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3. MACHINE ERROR CODES TABLE

Error code		Description
HCESPN	FMI	
101	3	Hydraulic oil temperature sensor circuit - Voltage above normal, or shorted to high source.
	4	Hydraulic oil temperature circuit - Voltage below normal, or shorted to low source.
105	0	Working pressure sensor data above normal range.
	1	Working pressure sensor data below normal range.
	2	Working pressure sensor data error.
	4	Working pressure sensor circuit - Voltage below normal, or shorted to Low source.
108	0	Travel oil pressure sensor data above normal range.
	1	Travel oil pressure sensor data below normal range.
	2	Travel oil pressure sensor data error.
	4	Travel oil pressure sensor circuit - Voltage below normal, or shorted to low source.
120	0	Main pump 1 (P1) pressure sensor data above normal range.
	1	Main pump 1 (P1) pressure sensor data below normal range.
	2	Main pump 1 (P1) pressure sensor data error.
	4	Main pump 1 (P1) pressure sensor circuit - Voltage below normal, or shorted to low source.
121	0	Main pump 2 (P2) pressure sensor data above normal range.
	1	Main pump 2 (P2) pressure sensor data below normal range.
	2	Main pump 2 (P2) pressure sensor data error.
	4	Main pump 2 (P2) pressure sensor circuit - Voltage below normal, or shorted to low source.
122	0	Overload pressure sensor data above normal range.
	1	Overload pressure sensor data below normal range.
	2	Overload pressure sensor data error.
	4	Overload pressure sensor circuit - Voltage below normal, or shorted to low source.
123	0	Negative 1 pressure sensor data above normal range.
	1	Negative 1 pressure sensor data below normal range.
	2	Negative 1 pressure sensor data error.
	4	Negative 1 pressure sensor circuit - Voltage below normal, or shorted to low source.
124	0	Negative 2 Pressure sensor data above normal range.
	1	Negative 2 Pressure sensor data below normal range.
	2	Negative 2 Pressure sensor data error.
	4	Negative 2 Pressure sensor circuit - Voltage below normal, or shorted to low source.
125	0	Pilot pump (P3) pressure sensor data above normal range.
	1	Pilot pump (P3) pressure sensor data below normal range.
	2	Pilot pump (P3) pressure sensor data error.
	4	Pilot pump (P3) pressure sensor circuit - Voltage below normal, or shorted to low source.
127	0	Boom up pilot pressure sensor data above normal range.
	1	Boom up pilot pressure sensor data below normal range.
	2	Boom up pilot pressure sensor data error.
	4	Boom up pilot pressure sensor circuit - Voltage below normal, or shorted to low source.
133	0	Arm in/out & bucket in pilot pressure sensor data above normal range.
	1	Arm in/out & bucket in pilot pressure sensor data below normal range.
	2	Arm in/out & bucket in pilot pressure sensor data error.
	4	Arm in/out & bucket in pilot pressure sensor circuit - Voltage below normal, or shorted to low source.

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1. REMOVAL AND INSTALL

1) REMOVAL

(1) Lower the work equipment to the ground and stop the engine.

(2) Operate the control levers and pedals several times to release the remaining pressure in the hydraulic piping

(3) Loosen the breather slowly to release the pressure inside the hydraulic tank.

⚠ Escaping fluid under pressure can penetrate the skin causing serious injury.

(4) Loosen the drain plug under the hydraulic tank and drain the oil from the hydraulic tank.

· Hydraulic tank quantity : 124 ℓ (32.8 U.S. gal)

(5) Remove socket bolts (13) and disconnect hoses (1,2).

(6) Disconnect pilot line hoses (5, 6, 7, 8, 9, 10, 11).

(7) Remove socket bolts (14) and disconnect pump suction pipe (4).

※ When pump suction tube is disconnected, the oil inside the piping will flow out, so catch it in oil pan.

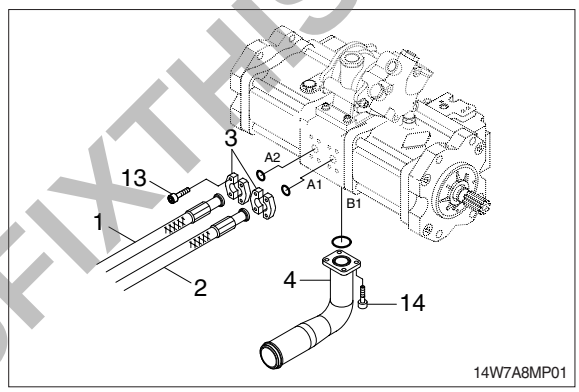
(8) Sling the pump assembly and remove the pump mounting bolts.

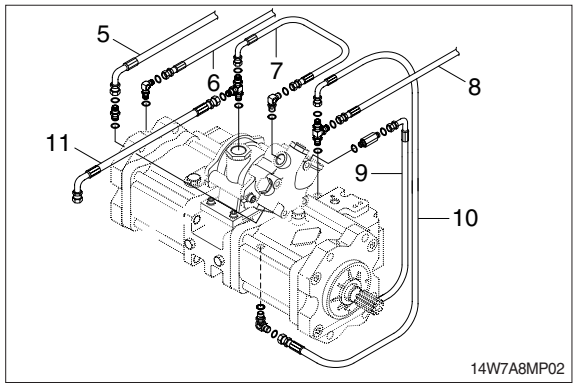
· Weight : 100 kg (220 lb)

※ Pull out the pump assembly from housing.

When removing the pump assembly, check that all the hoses have been disconnected.







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1. INTRODUCTION

1) MACHINE IN GENERAL

(1) If even a minor fault is left intact and operation is continued, a fatal failure may be caused, entailing a large sum of expenses and long hours of restoration.
Therefore when even a small trouble occurs, do not rely on your intuition and experience, but look for the cause based on the troubleshooting principle and perform maintenance and adjustment to prevent major failure from occurring. Keep in mind that a fault results from a combination of different causes.

(2) The following lists up commonly occurring faults and possible causes with this machine. For the troubleshooting of the engine, refer to the coming troubleshooting and repair.

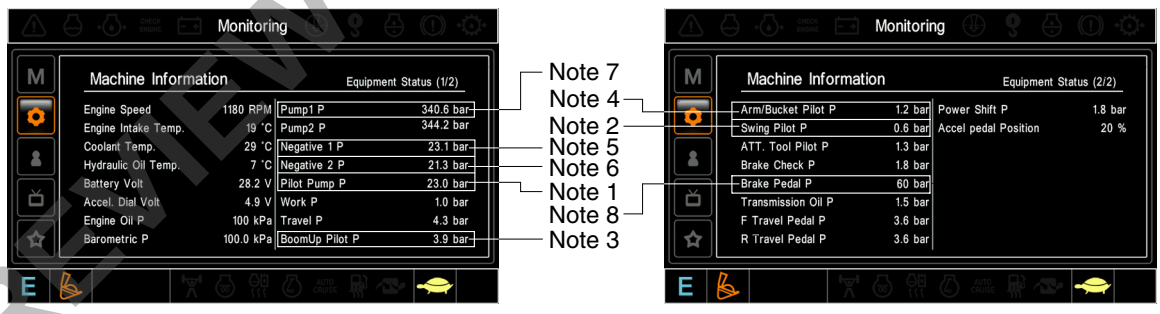
(3) When carrying out troubleshooting, do not hurry to disassemble the components.
It will become impossible to find the cause of the problem.

(4) Ask user or operator the following.
① Was there any strange thing about machine before failure occurred?
② Under what conditions did the failure occur?
③ Have any repairs been carried out before the failure?

(5) Check before troubleshooting.
① Check oil and fuel level.
② Check for any external leakage of oil from components.
③ Check for loose or damage of wiring and connections.

2) MACHINE STATUS MONITORING ON THE CLUSTER

(1) The machine status such as the engine rpm, oil temperature, voltage and pressure etc. can be checked by this menu.



Analog 1 Analog 2

14W96HS01

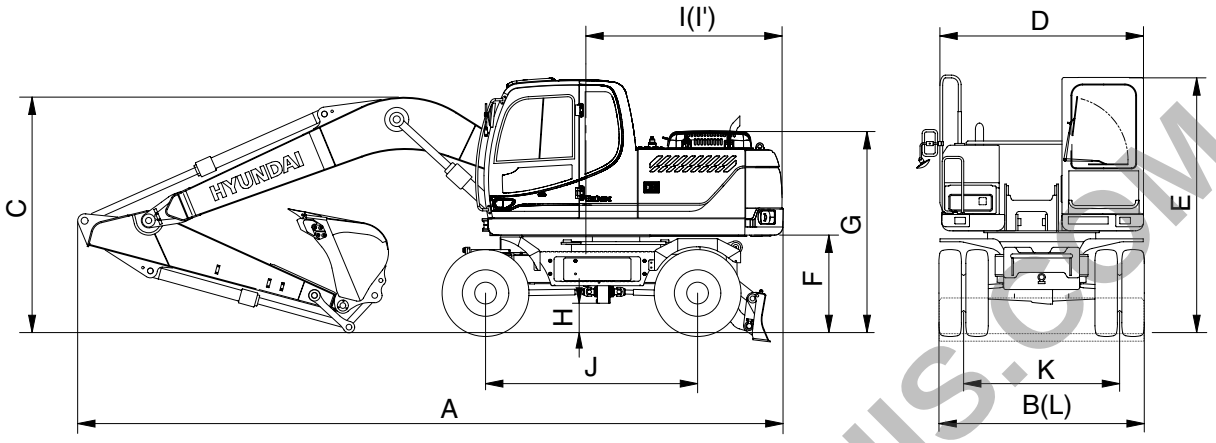
(2) Specification

No.	Description	Specification
Note 1	Pilot pump pressure	40^{+2}_{0} bar
Note 2	Swing pilot pressure	0~40 bar
Note 3	Boom up pilot pressure	0~40 bar
Note 4	Arm/bucket pilot pressure	0~40 bar
Note 5	P1 pump control pressure	0~25 bar
Note 6	P2 pump control pressure	0~25 bar
Note 7	Pump 1 pressure	350 bar
Note 8	Brake pedal pressure	60±3 bar

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2. SPECIFICATIONS

1) 5.1 m (16' 9") ONE PIECE BOOM, 2.2 m (7' 3") ARM AND REAR DOZER BLADE



17W92SP02

Description		Unit	Specification
Operating weight		kg (lb)	17300 (38140)
Bucket capacity (SAE heaped), standard		m^3 (yd^3)	0.76 (0.99)
Overall length	A	mm (ft-in)	8650 (28' 5")
Overall width	B		2500 (8' 2")
Overall height	C		3610 (11' 10")
Upperstructure width	D		2475 (8' 1")
Cab height	E		3190 (10' 6")
Ground clearance of counterweight	F		1270 (4' 2")
Engine cover height	G		2520 (8' 3")
Minimum ground clearance	H		375 (1' 3")
Rear-end distance	I		2480 (8' 2")
Rear-end swing radius	I'		2480 (8' 2")
Wheel base	J		2600 (8' 6")
Tread	K		1914 (6' 3")
Dozer blade width	L		2500 (8' 2")
Travel speed	Low	km/hr (mph)	10 (6.2)
	High		37 (23.0)
	Creep		3.0 (1.9)
Swing speed		rpm	11.0
Gradeability		Degree (%)	35 (70)
Max traction force		kgf (lbf)	9440 (20810)

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1. STRUCTURE

This service manual has been prepared as an aid to improve the quality of repairs by giving the serviceman an accurate understanding of the product and by showing him the correct way to perform repairs and make judgements. Make sure you understand the contents of this manual and use it to full effect at every opportunity.
This service manual mainly contains the necessary technical information for operations performed in a service workshop.
For ease of understanding, the manual is divided into the following sections.

SECTION 1 GENERAL
This section explains the safety hints and gives the specification of the machine and major components.

SECTION 2 STRUCTURE AND FUNCTION
This section explains the structure and function of each component. It serves not only to give an understanding of the structure, but also serves as reference material for troubleshooting.

SECTION 3 HYDRAULIC SYSTEM
This section explains the hydraulic circuit, single and combined operation.

SECTION 4 ELECTRICAL SYSTEM
This section explains the electrical circuit, monitoring system and each component. It serves not only to give an understanding electrical system, but also serves as reference material for trouble shooting.

SECTION 5 MECHATRONICS SYSTEM
This section explains the computer aided power optimization system and each component.

SECTION 6 TROUBLESHOOTING
This section explains the troubleshooting charts correlating **problems** to **causes**.

SECTION 7 MAINTENANCE STANDARD
This section gives the judgement standards when inspecting disassembled parts.

SECTION 8 DISASSEMBLY AND ASSEMBLY
This section explains the order to be followed when removing, installing, disassembling or assembling each component, as well as precautions to be taken for these operations.

SECTION 9 COMPONENT MOUNTING TORQUE
This section shows bolt specifications and standard torque values needed when mounting components to the machine.

The specifications contained in this shop manual are subject to change at any time and without any advance notice. Contact your HYUNDAI distributor for the latest information.

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2) REGULATOR

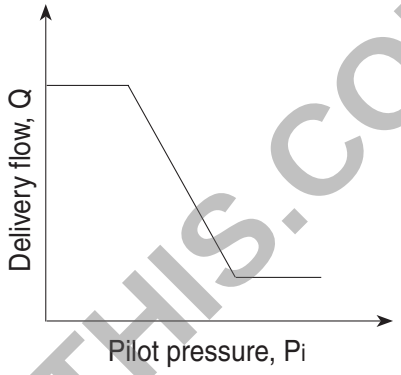
Regulator consists of the negative flow control, total horse power control and power shift control function.

(1) Negative flow control

By changing the pilot pressure Pi, the pump tilting angle (delivery flow) is regulated arbitrarily, as shown in the figure.

This regulator is of the negative flow control in which the delivery flow Q decreases as the pilot pressure Pi rises.

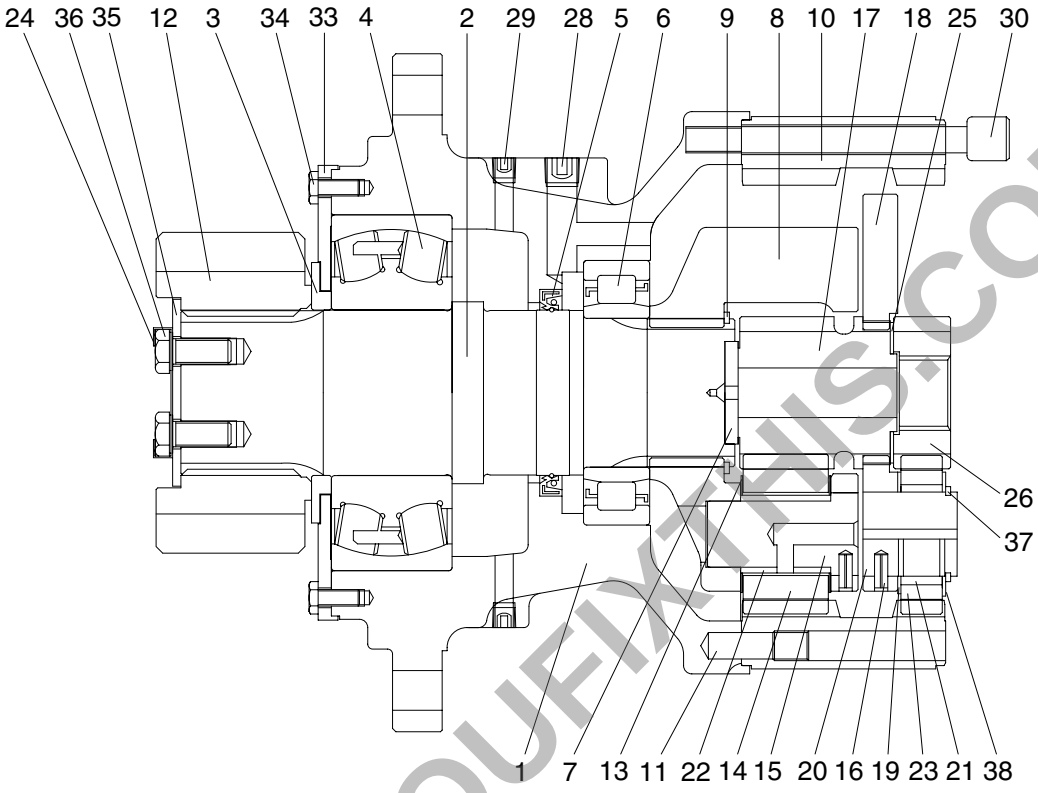
With this mechanism, when the pilot pressure corresponding to the flow required for the work is commanded, the pump discharges the required flow only, and so it does not consume the power uselessly.



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2) REDUCTION GEAR



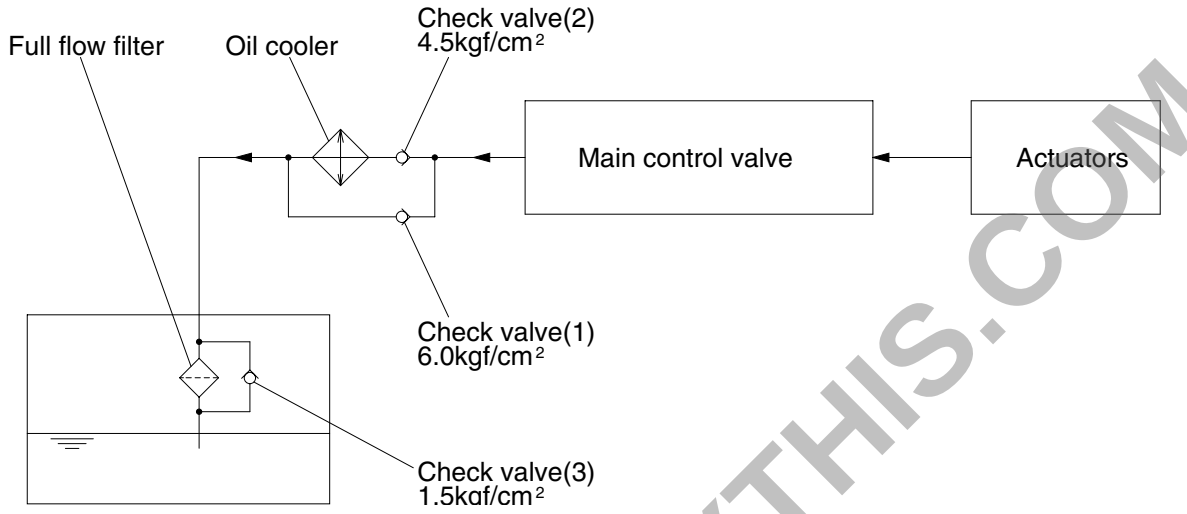
16092SM03

1	Casing	13	Thrust washer	25	Side plate 3
2	Drive shaft	14	Planet gear 2	26	Sun gear 1
3	Spacer	15	Pin & bushing	28	Plug
4	Roller bearing	16	Spring pin	29	Plug
5	Oil seal	17	Sun gear 2	30	Socket bolt
6	Roller bearing	18	Carrier 1	33	Cover plate
7	Thrust plate	19	Side plate 1	34	Hexagon bolt
8	Carrier 2	20	Pin 1	35	Lock plate
9	Stop ring	21	Needle cage	36	Hexagon bolt
10	Ring gear	22	Bushing 2	37	Stop ring
11	Knock pin	23	Planet gear 1	38	Side plate 2
12	Pinion gear	24	Lock washer		

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2. RETURN CIRCUIT



17W73CI01

All oil from each actuator returns to the hydraulic tank through the control valve.
The bypass check valves are provided in the return circuit.
The setting pressure of bypass check valves are 4.5 kgf/cm² (64 psi) and 6.0 kgf/cm² (85 psi). Usually, oil returns to the hydraulic tank from the left side of control valve through oil cooler.
When oil temperature is low, viscosity becomes higher and flow resistance increases when passing through the oil cooler. When the oil pressure exceeds 6.0 kgf/cm² (85 psi), the oil returns directly to the hydraulic tank, resulting in the oil temperature being raised quickly at an appropriate level.
When the oil cooler is clogged, the oil returns directly to the hydraulic tank through bypass check valve (1).
The return filter and bypass relief valve are provided in the hydraulic tank.
The oil returned from right and left side of control valve is combined and filtered by the return filter. A bypass relief valve is provided in the full-flow filter.
When the filter element is clogged, the bypass relief valve opens at 1.5 kgf/cm² (21 psi) differential pressure.

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2. STARTING CIRCUIT

1) OPERATING FLOW

Battery(+) terminal → Battery relay [CR-1] → Fusible link [CN-60] → Master switch [CS-74] → Fuse box [No.4] → I/conn [CN-5 (36)] → Start switch [CS-2 (1)]

(1) When start key switch is in ON position

- Start switch ON [CS-2 (2)] → I/conn [CN-5 (60)] → Battery relay [CR-1] → Battery relay operating (all power is supplied with the electric component)
- Start switch ON [CS-2 (3)] → GPS connection [CN-125 (2) →(4)] → I/conn [CN-5 (59)]
  - Power relay [CR-35 (86) (87)] → Fuse box [No.12]
  - ECM power relay [CR-45 (2) →(5)] → Fuse box [No.9]

(2) When start key switch is in START position

Start switch START [CS-2 (5)] → I/conn [CN-5 (35)] → Anti-restart relay [CR-5 (2)→(5)] → I/conn [CN-2 (7)] → Start relay [CR-23]

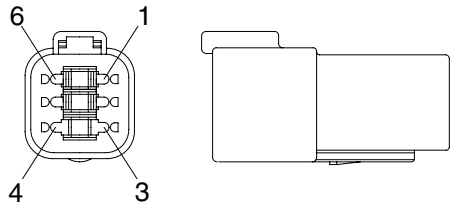
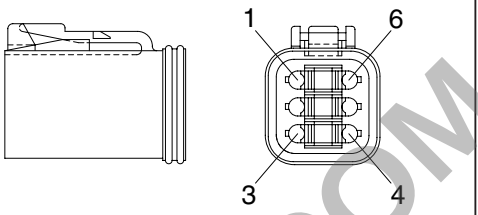
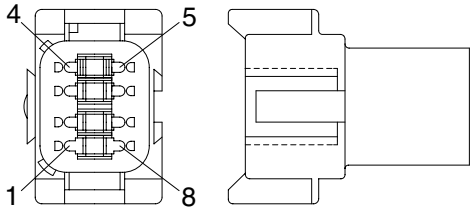
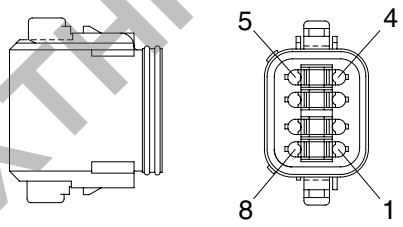
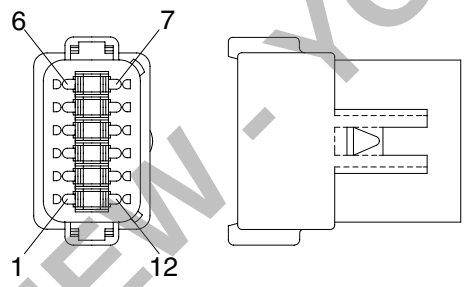
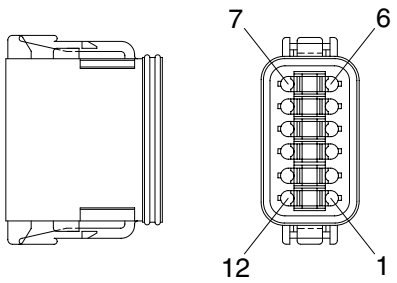
2) CHECK POINT

Engine	Start switch	Check point	Voltage
OPERATING	START	① - GND (battery) ② - GND (start key) ③ - GND (battery relay M4) ④ - GND (starter B^+) ⑤ - GND (starter M) ⑥ - GND (start relay) ⑦ - GND (battery relay M8)	20~25 V

※ GND : Ground

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No. of pin	Receptacle connector (female)	Plug connector (male)
6	 DT06-6S	 DT04-6P
8	 DT06-8S	 DT04-8P
12	 DT06-12S	 DT04-12P

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SECTION 6 TROUBLESHOOTING

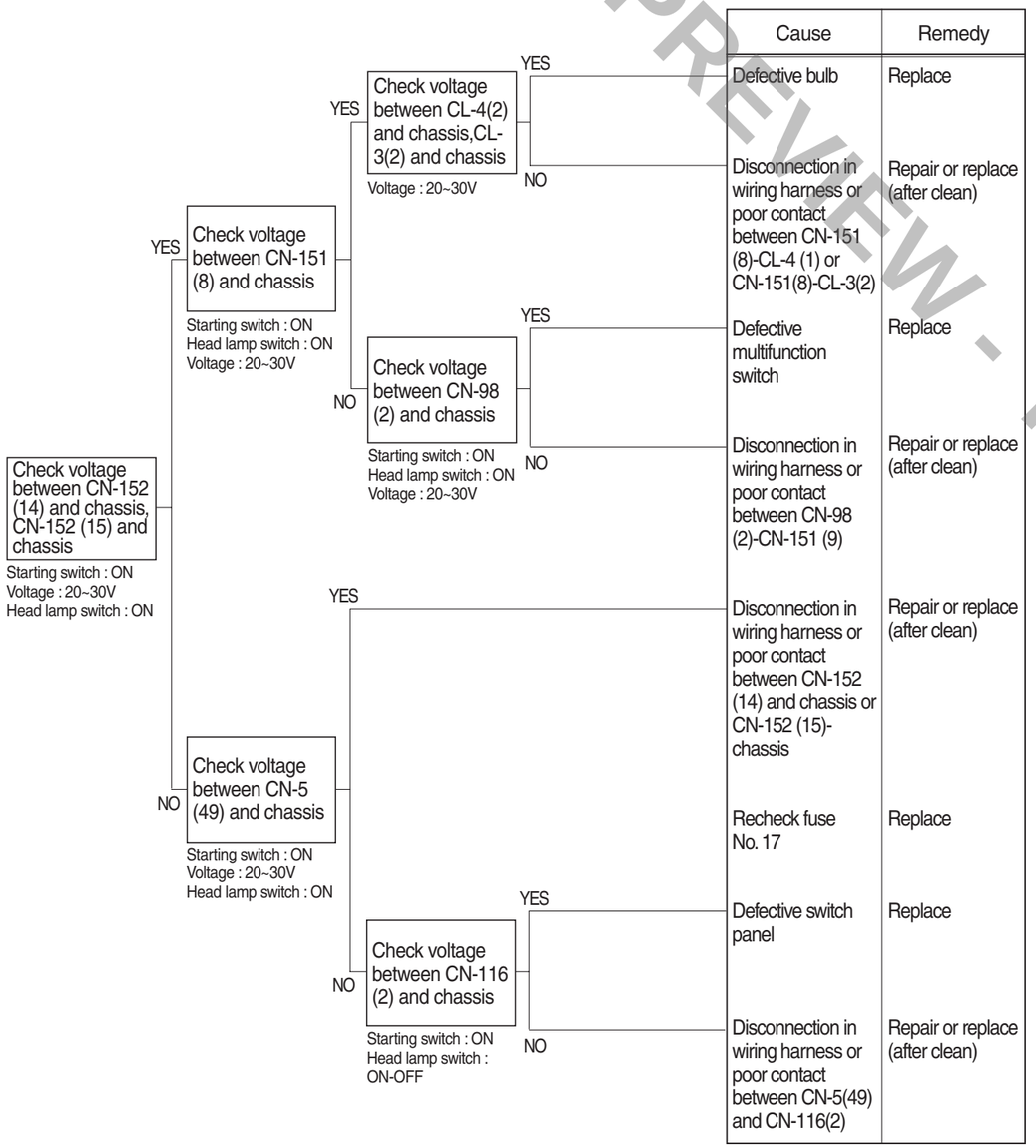
Group 1 Before Troubleshooting ····· 6-1
Group 2 Hydraulic and Mechanical System ····· 6-4
Group 3 Electrical System ····· 6-25
Group 4 Mechatronics System ····· 6-41

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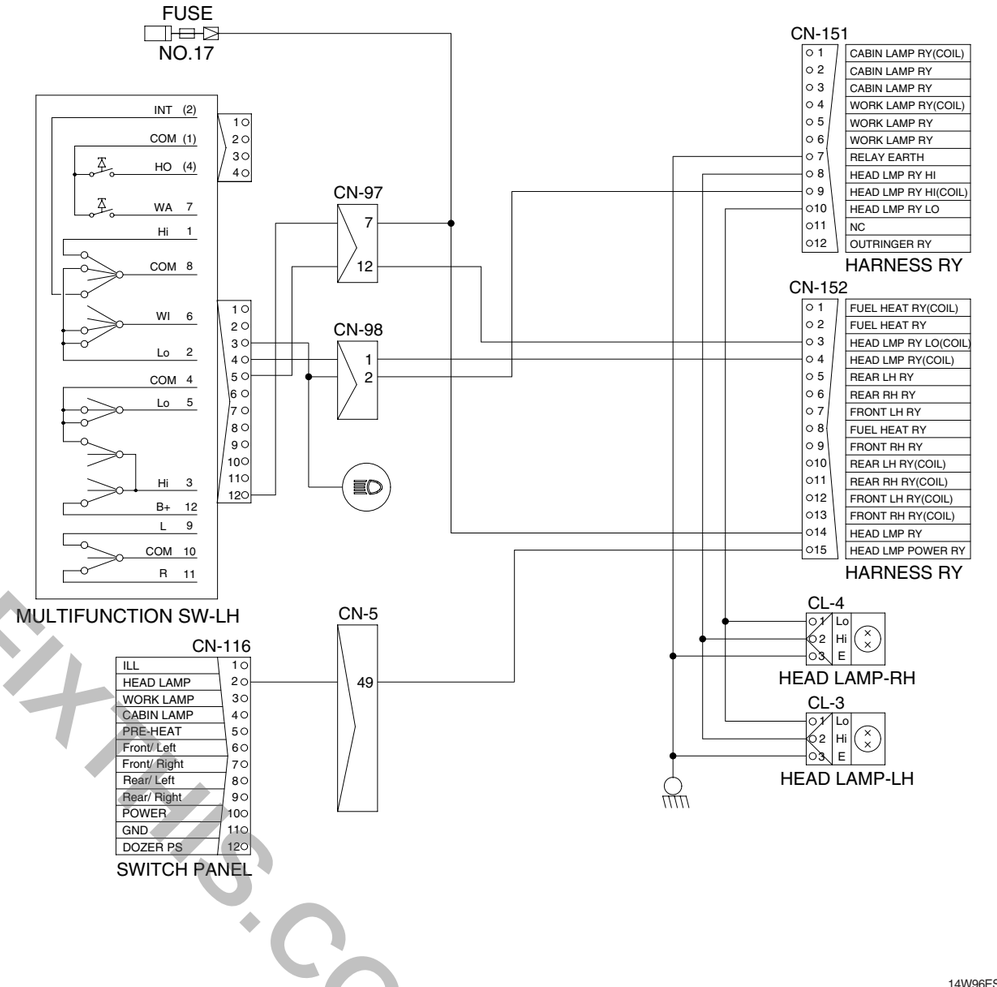
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15. WHEN STARTING SWITCH IS TURNED ON, HEAD LAMP DOES NOT LIGHTS UP

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and short of fuse No.17.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



Cause	Remedy
Defective bulb	Replace
Disconnection in wiring harness or poor contact between CN-151 (8)-CL-4 (1) or CN-151(8)-CL-3(2)	Repair or replace (after clean)
Defective multifunction switch	Replace
Disconnection in wiring harness or poor contact between CN-98 (2)-CN-151 (9)	Repair or replace (after clean)
Disconnection in wiring harness or poor contact between CN-152 (14) and chassis or CN-152 (15)-chassis	Repair or replace (after clean)
Recheck fuse No. 17	Replace
Defective switch panel	Replace
Disconnection in wiring harness or poor contact between CN-5(49) and CN-116(2)	Repair or replace (after clean)



14W96ES15

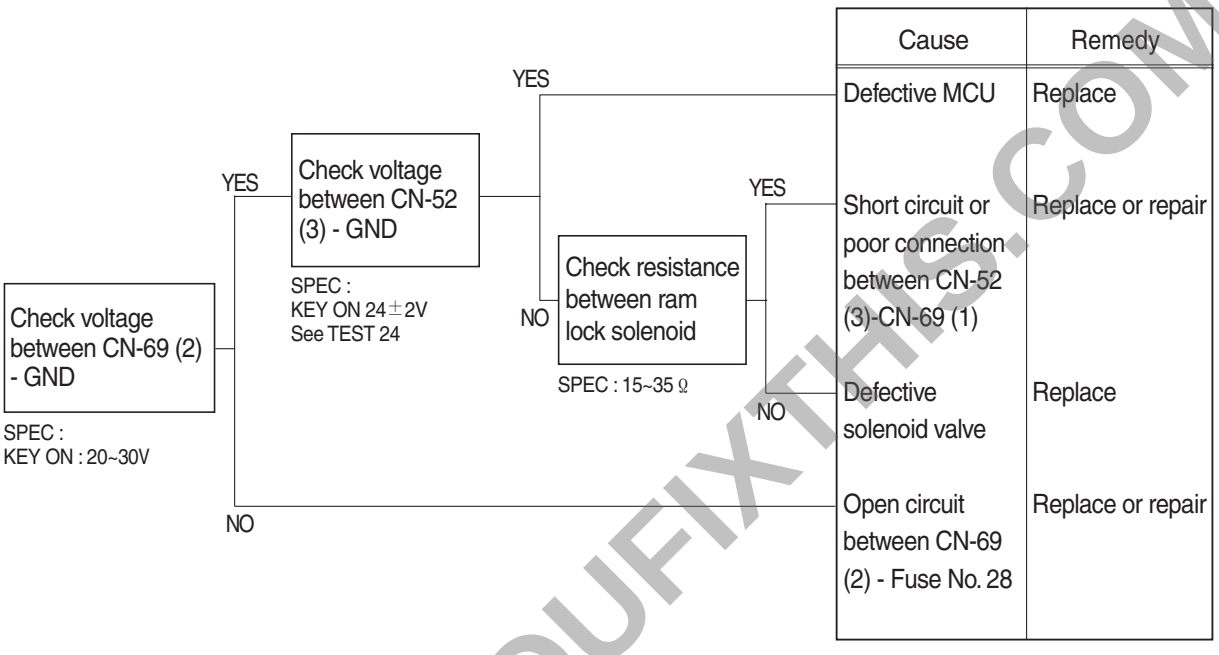
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21. MALFUNCTION OF RAM LOCK SOLENOID

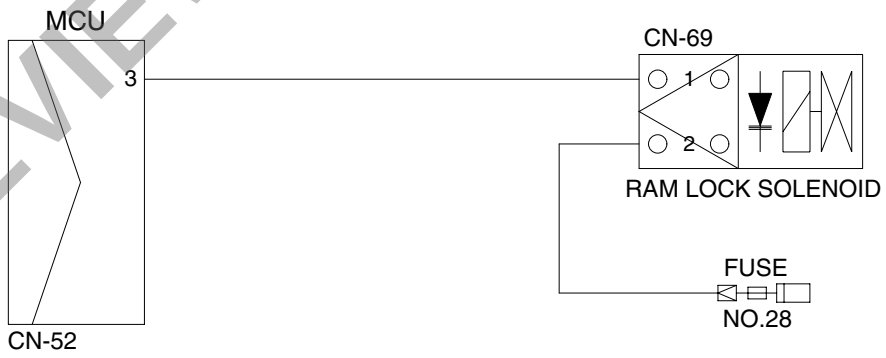
· Fault code : HCESPN 525, FMI 5 or 6

※ Before carrying out below procedure, check all the related connectors are properly inserted.

1) INSPECTION PROCEDURE



Wiring diagram



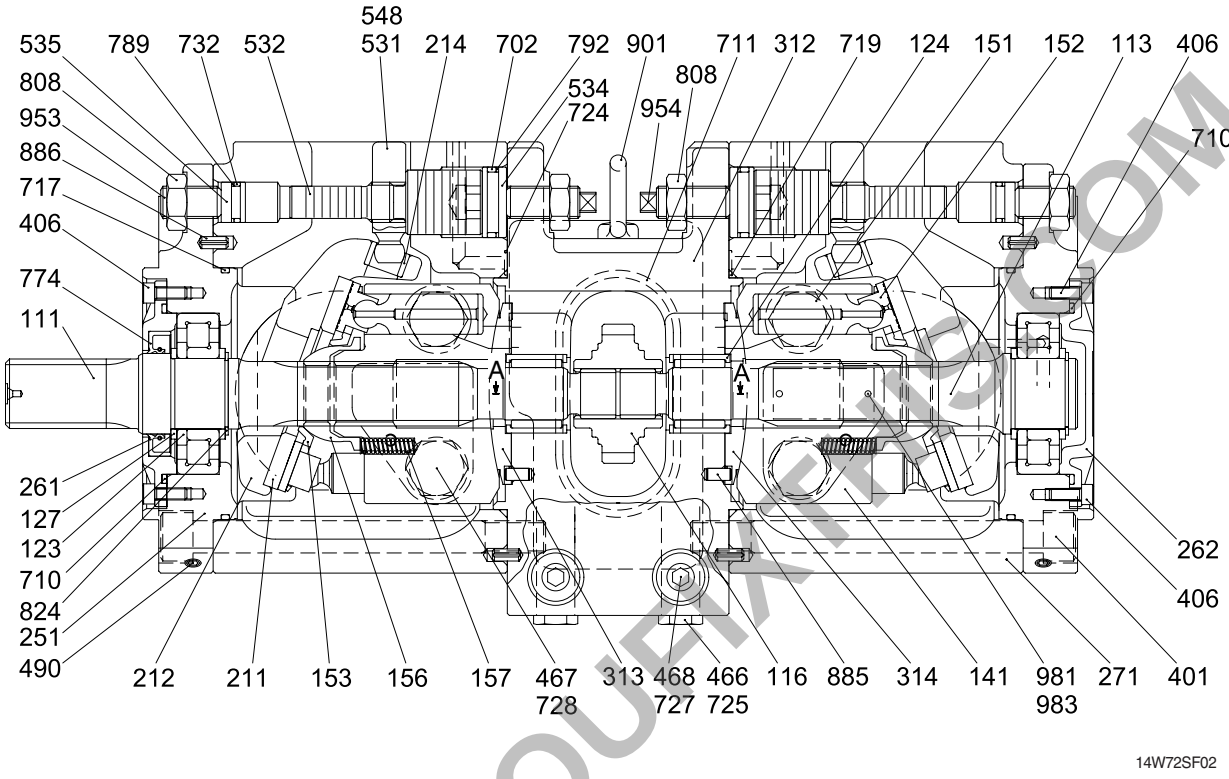
14W96MS25

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2. MAIN PUMP (1/2)

1) STRUCTURE



14W72SF02

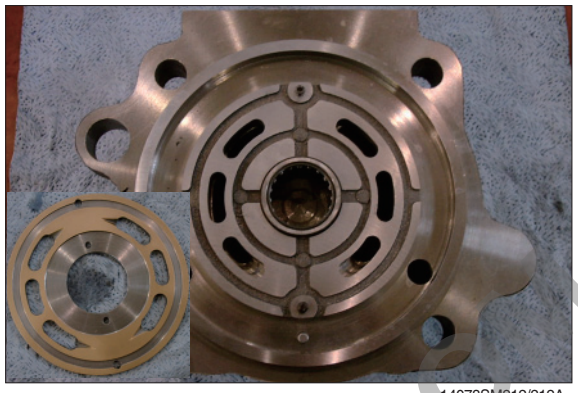
111	Drive shaft (F)	312	Valve block	724	O-ring
113	Drive shaft (R)	313	Valve plate (R)	725	O-ring
116	Gear	314	Valve plate (L)	727	O-ring
123	Roller bearing	401	Hexagon socket bolt	728	O-ring
124	Needle bearing	406	Hexagon socket bolt	732	O-ring
127	Bearing spacer	466	VP Plug	774	Oil seal
141	Cylinder block	467	VP Plug	789	Back up ring
151	Piston	468	VP Plug	792	Back up ring
152	Shoe	490	Plug	808	Hexagon head nut
153	Push-plate	531	Tilting pin	824	Snap ring
156	Bushing	532	Servo piston	885	Pin
157	Cylinder spring	534	Stopper (L)	886	Spring pin
211	Shoe plate	535	Stopper (S)	901	Eye bolt
212	Swash plate	548	Pin	953	Set screw
214	Bushing	702	O-ring	954	Set screw
251	Support	710	O-ring	981	Plate
261	Seal cover (F)	711	O-ring	983	Pin
262	Seal cover (R)	717	O-ring		
271	Pump casing	719	O-ring		

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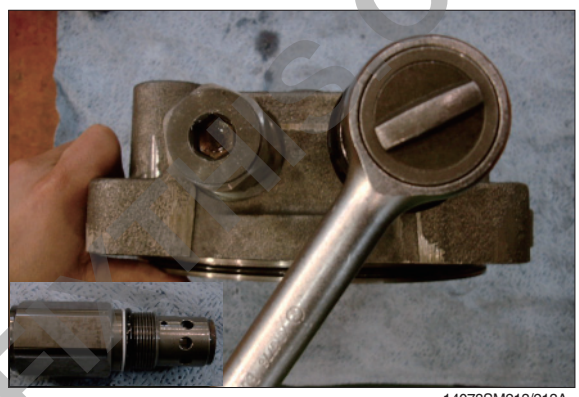
(3) Disassemble rear cover assy sub

① Disassemble pin (8, 23), valve plate (24) from rear cover (21).



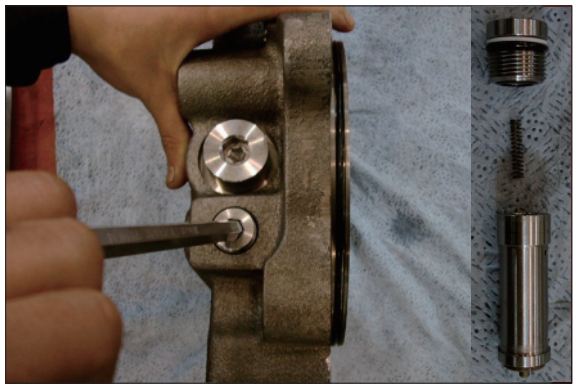
14078SM212/212A

② Using a torque wrench, disassemble relief valve assy (31) 2 set from rear cover (21).



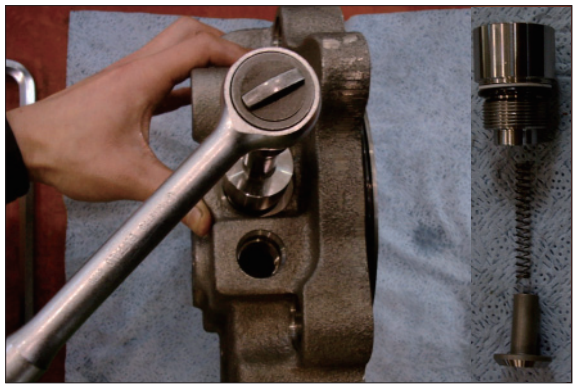
14078SM213/213A

③ After disassembling plug with a L-wrench from rear cover (21), disassemble respectively back up ring, O-ring, O-ring, spring, anti-inversion valve assy (32)



14078SM214/214A

④ Disassemble make up check valve assy with a torque wrench from rear cover (21).



14078SM215/215A

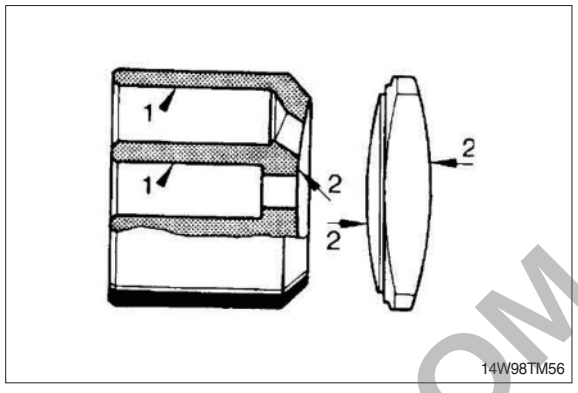
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(5) Cylinder block / Control lens

1 Bores free of scoring, no evidence of wear

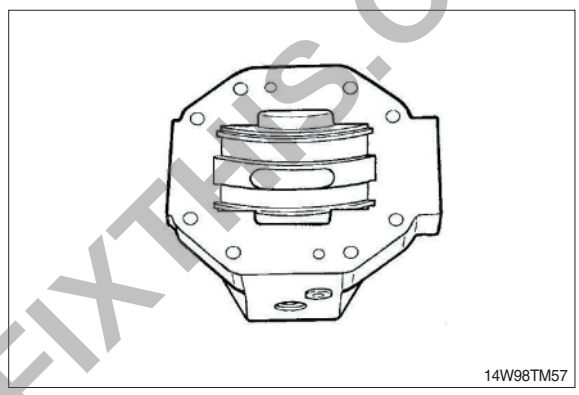
2 Faces smooth and even, free of cracks and scoring



14W98TM56

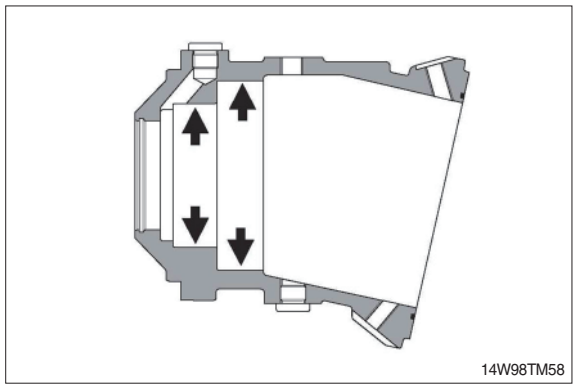
(6) Control housing

Sliding surface and side guides free of scoring and no wear.


14W98TM57

(7) Visual check

Bearing areas free of scoring and no evidence of wear.

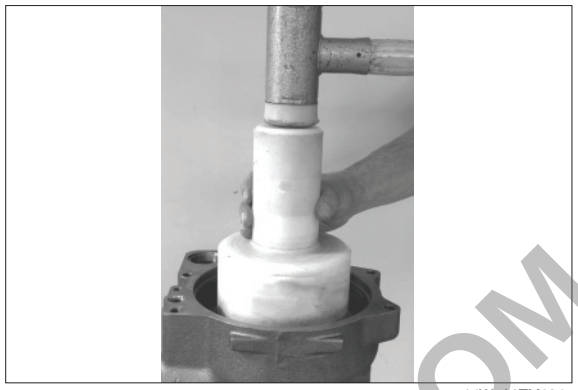

14W98TM58

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(49) By means of the mounting tool locate the ring until contact is obtained.

(S) Mounting tool 5870 506 161

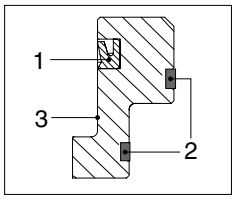


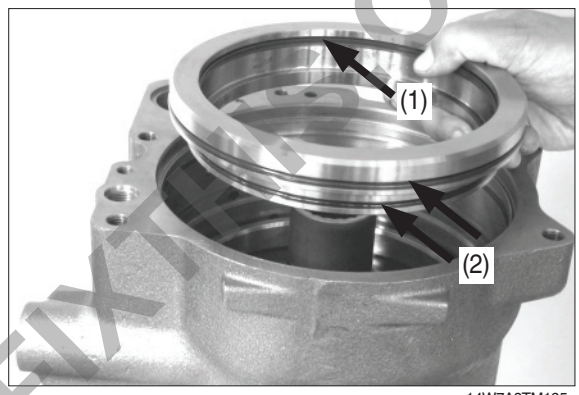
14W7A8TM124

(50) Oil the sealing faces and the sealing elements.

Insert the seal (1) with the sealing lip showing to the oil sump-also see detail sketch.

Put both O-rings (2) into the ring grooves of the pressure ring (3) and insert the preassembled pressure ring-observe the installation position.

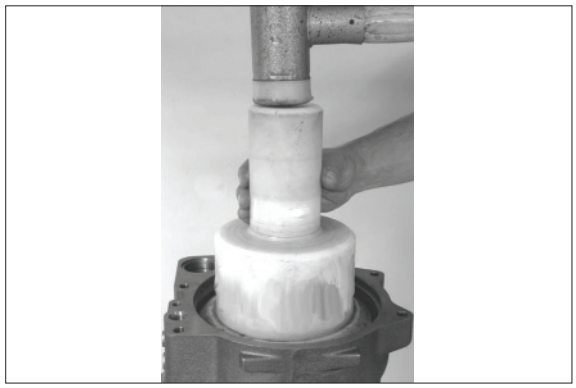




14W7A8TM125

(51) By means of the mounting tool locate the pressure ring until contact.

(S) Mounting tool 5870 506 161



14W7A8TM126

(52) Insert the compression spring.

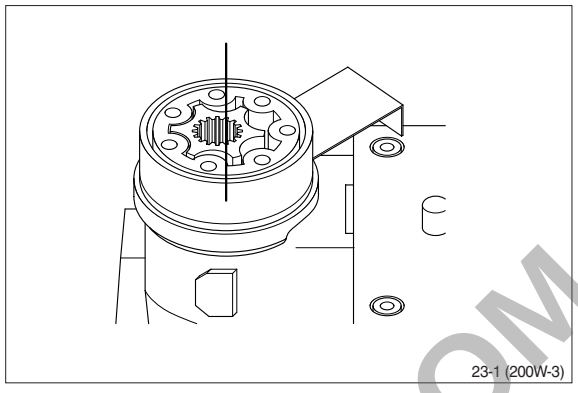


14W7A8TM127

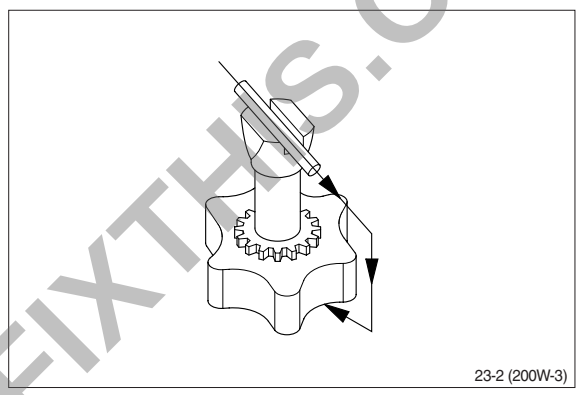
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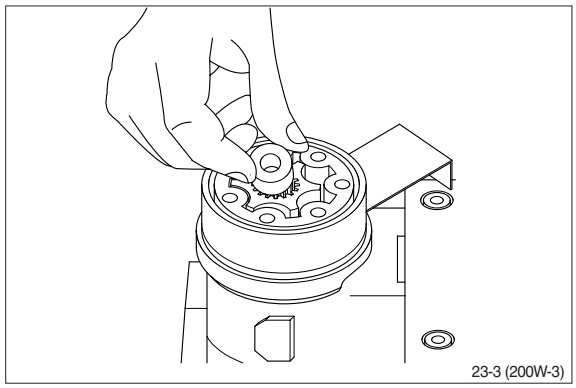
(26) Grease the two O-rings with mineral oil approx. viscosity 500 cST at 20˚C and place them in the two grooves in the gear rim. Fit the gearwheel and rim on the cardan shaft.


23-1 (200W-3)

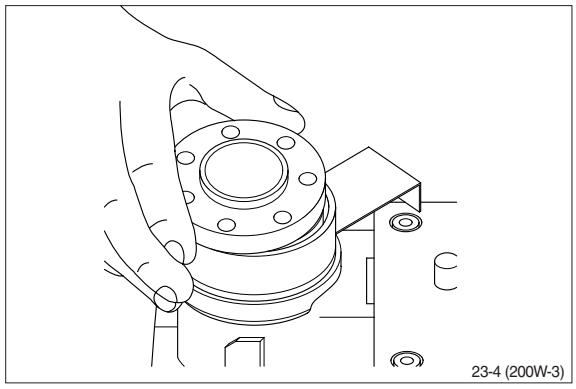
(27) Fit the gearwheel (rotor) and cardan shaft so that a tooth base in the rotor is positioned in relation to the shaft slot as shown. Turn the gear rim so that the seven through holes match the holes in the housing.


23-2 (200W-3)

(28) Fit the spacer, if any.


23-3 (200W-3)

(29) Place the end cover in position.


23-4 (200W-3)

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(11) Comment on sketch:

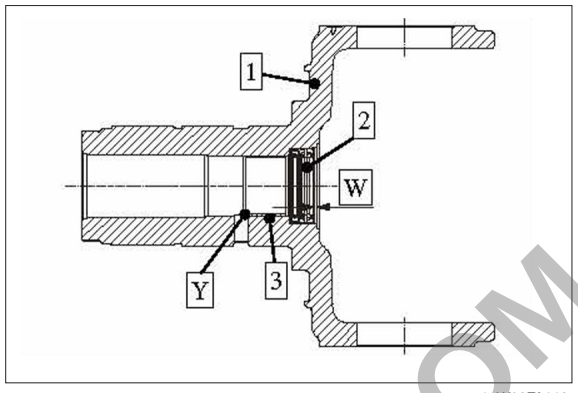
1 = Knuckle housing

2 = Shaft seal ring

3 = Bushing

W = Installation dimension – shaft seal ring ..... 3.5±0.2 mm

Y = Lubrication groove outlet (V-point) must be mounted in 6 o'clock position and showing to the oil chamber side (referred to the axle fitted into the vehicle)



17W98FA113

※ Just before fitting wet contact face shaft seal ring / knuckle housing with sealing agent.

Apply grease on seal and dust lip of the seal ring.

(12) Grease O-ring (see arrow) and insert it into the groove of the bearing pin.


17W98FA114

(13) Place sealing cap (see arrow) and mount the tapered roller bearing until contact position is obtained.


17W98FA115

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(8) Mount second axle bevel gear with thrust washer and constant spacer (see also figure RA053).

※ Mount the pressure disk with the coated surface showing to the outer disk.

※ Thickness and arrangement of the disk package must be identical on both sides of the differential gear.



17W98RA059

(9) Check axial play of the second axle bevel gear 0.0 … 0.15 mm.

※ If the axial play is not within the specified tolerance, correct with the corresponding outer disks.

After the resetting procedure remove the second axle bevel gear together with the disk package from the differential carrier.

Then oil and reassemble all single parts.



17W98RA060

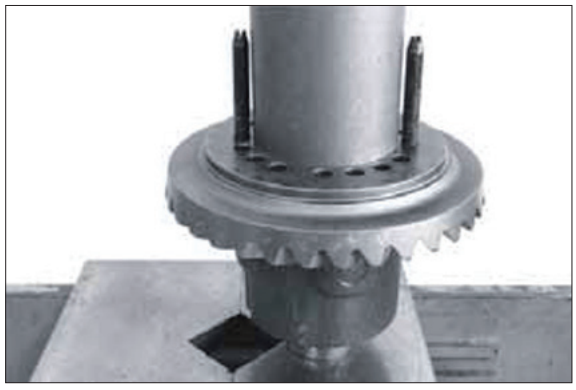
(10) Mount two adjusting screws (S) and insert cover.

(S) Adjusting screws (M12 × 1.5)
5870 204 027



17W98RA061

(11) Press crown wheel onto the cover / differential carrier until contact position is obtained.

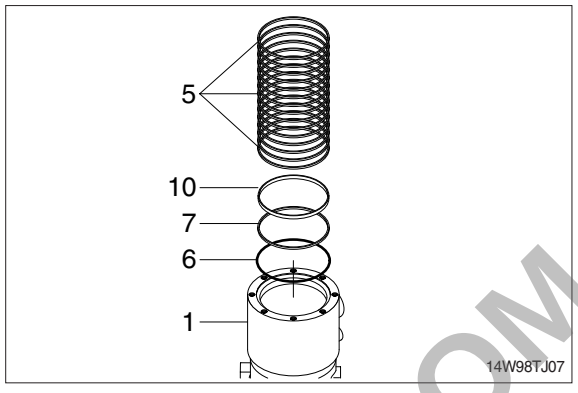


17W98RA062

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(5) Remove seventeen slipper seal (5), O-ring (6, 7) and wear ring (10) from hub (1).



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