CRAWLER EXCAVATOR

SERVICE MANUAL

R305LVS (China)

HYUNDAI

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8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	HYUNDAI HE 6.7
Type	4-cycle turbocharged diesel engine
Cooling method	Water cooling
Number of cylinders and arrangement	6 cylinders, in-line
Firing order	1-5-3-6-2-4
Combustion chamber type	Direct injection type
Cylinder bore × stroke	107 × 124 mm (4.21" × 4.88")
Piston displacement	6700 cc (409cu in)
Compression ratio	17.2 : 1
Rated gross horse power (SAE J1995)	227 Hp at 1900 rpm (169 kW at 1900 rpm)
Maximum torque	97.0 kgf·m (701 lbf·ft) at 1400 rpm
Engine oil quantity	24 ℓ(6.3 U.S. gal)
Dry weight	556 kg (1226 lb)
High idling speed	1850± 50 rpm
Low idling speed	800± 100 rpm
Rated fuel consumption	166.3 g/Hp·hr at 1900 rpm
Starting motor	24 V-4.5 kW
Alternator	24 V-90 A
Battery	2 × 12 V × 160 Ah

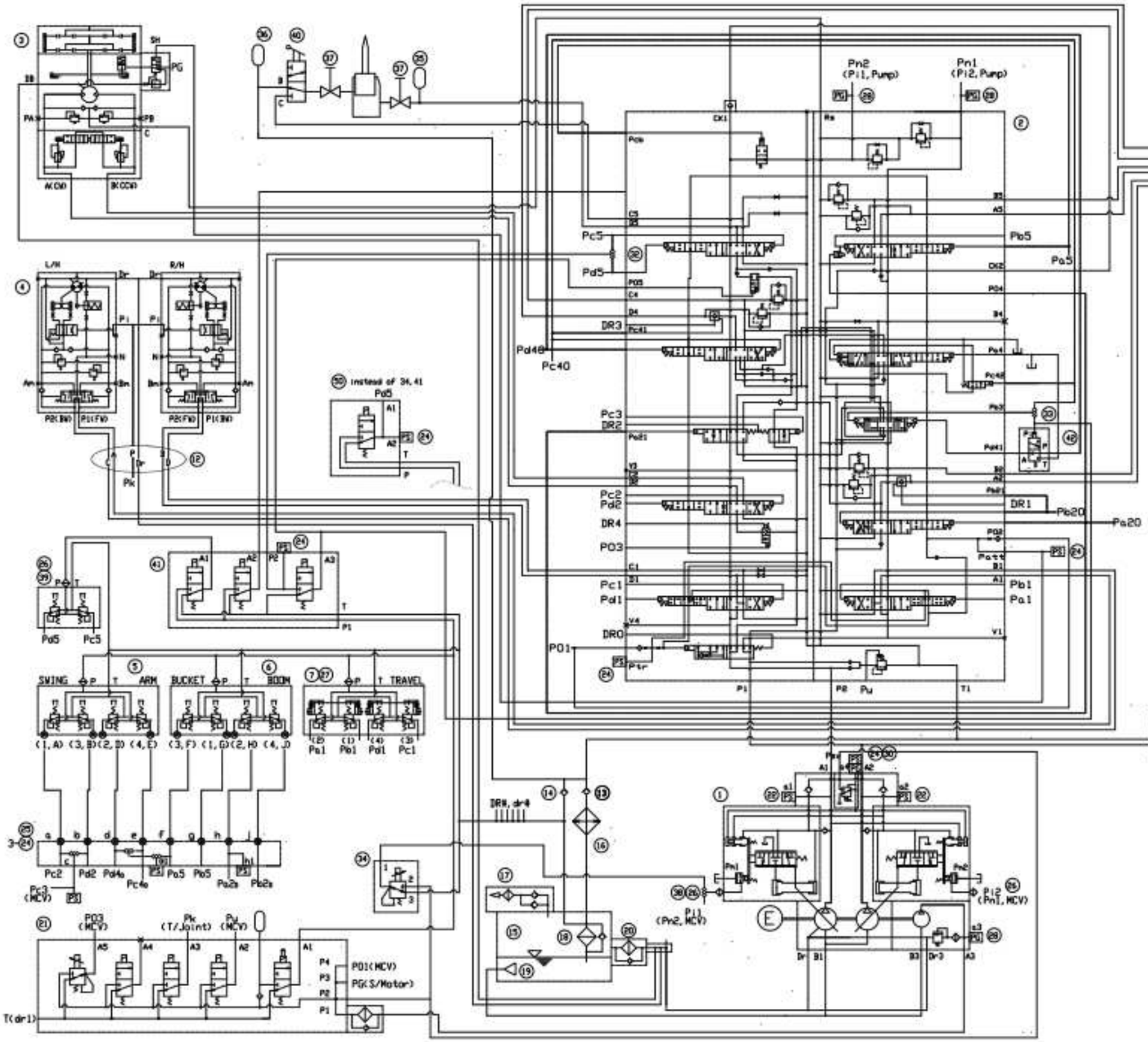
2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 140 cc/rev
Maximum pressure	350 kgf/cm² (4980 psi) [380 kgf/cm² (5400 psi)]
Rated oil flow	2 × 252ℓ/min (66.6 U.S. gpm / 55.4 U.K. gpm)

[ ] : Power boost

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GROUP 1 HYDRAULIC CIRCUIT



ITEM	PARTS NO	PARTS NAME	QTY	
50	3106-91220	Solenoid valve	1	Breaker
48	3106-91720	Solenoid valve	1	Q/Coupler
42	3106-20150	Pilot selector valve	1	2Way (Upto Flow Sum)
41	3106-20050	Solenoid valve	1	
40	31EM-91620	Selector valve	1	
39	3106-20300	Breaker pedal	1	
38	31N6-30130	Shuttle valve	2	1Way 2Way
37	3108-91550	Stop valve	2	
36	3108-91680	Accumulator	1	
35	3108-91670	Accumulator	1	
34	3106-20130	EPPR valve	1	
33	31N6-24130	Shuttle valve	2	
32	3106-90460	Shuttle valve	1	
28	31E4-11130	Pressure sensor	4	
27	31N6-25070	Last guard filter	1	
26	31N6-25060	Last guard filter	3	
25	3109-20170	Shuttle valve block	1	
24	3108-40580	Pressure sensor	7	50k
22	3108-40500	Pressure sensor	2	500k
21	3106-20042	Accumulator	1	0.7L, 15k
		Solenoid valve block	1	
		Pilot filter	1	3106-20320
20	31NB-01350	Drain filter	1	
19	3106-01130	Strainer	1	
18	31N4-01460	Return filter	1	
	E131-0856	Bypass valve	1	
17	31NA-00040	Air breather	1	
16	1308-40061	Oil cooler	1	
15	3108-01024	Hydraulic tank	1	
14	31ER-11121	Check valve	1	3.0k
13	3106-11110	Check valve	1	1.5k
12	3106-40040	Turning joint	1	
11	3108-50110	Bucket cylinder	1	
10	3108-50131	Arm cylinder	1	
9	3108-50110	Boom cylinder-Right	1	
8	3108-50120	Boom cylinder-Left	1	
7	3106-20100	RCV pedal	1	
6	3108-20065	RCV lever-Right	1	
5	3108-20055	RCV lever-Left	1	
4	3808-40101	Travel motor	2	
3	3808-10151	Swing motor	1	
2	3108-17400	MCV	1	HMX02
1	3108-10010	Main pump	1	

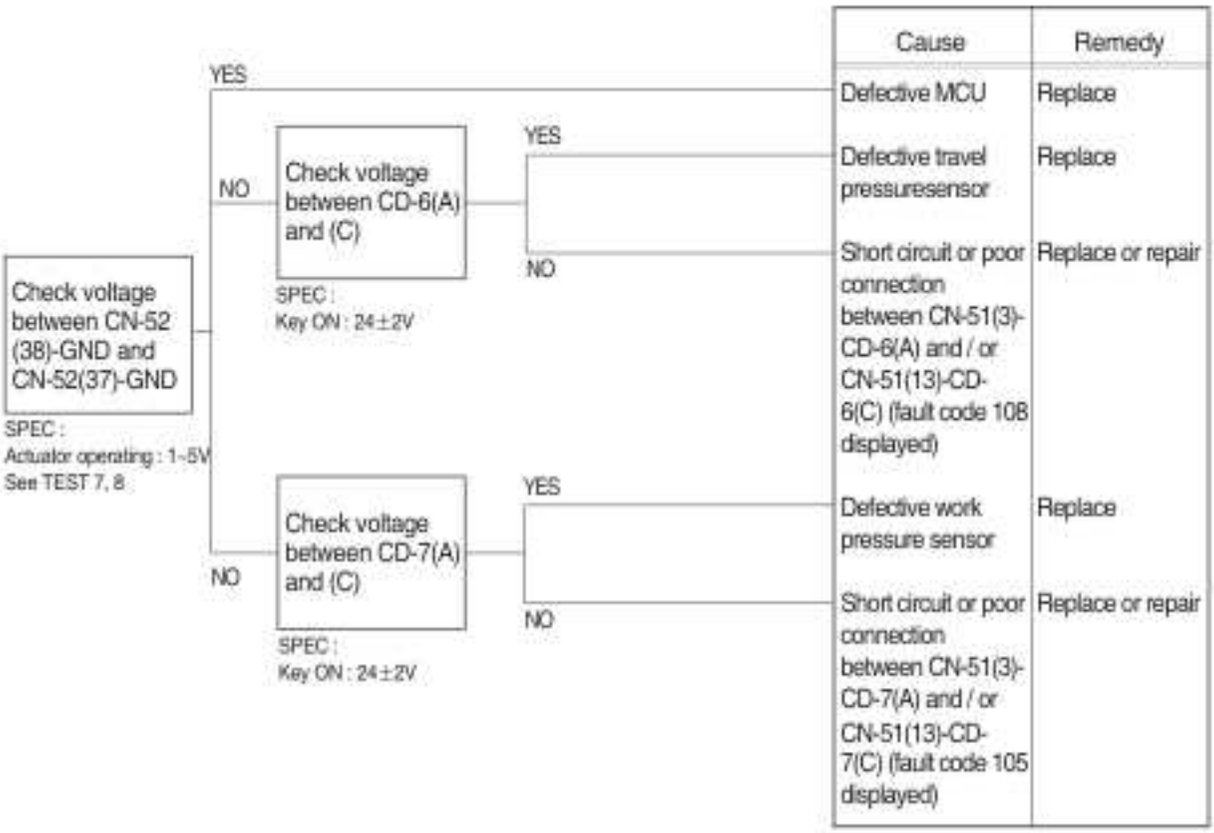
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5. AUTO DECEL SYSTEM DOES NOT WORK

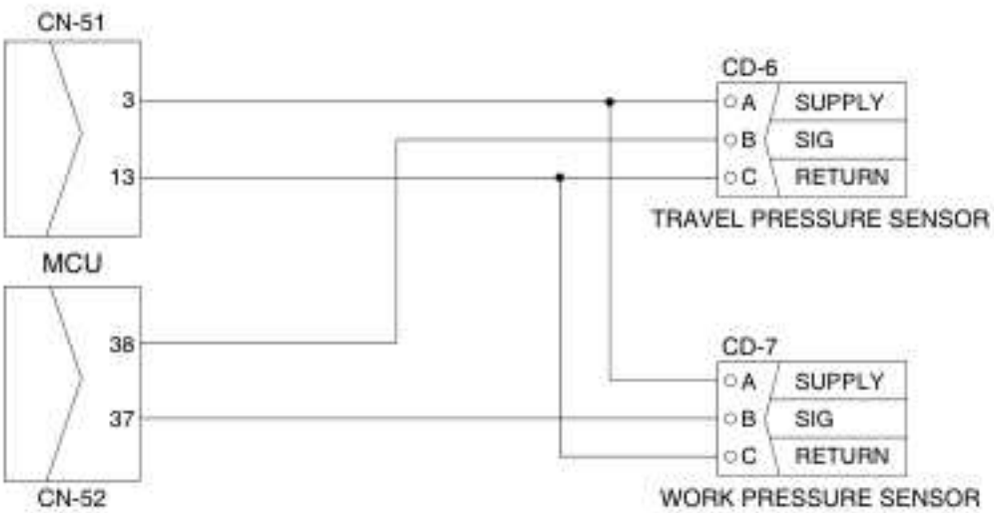
- Fault code : HCESPN 105, FMI 0~4 (work pressure sensor)
  HCESPN 108, FMI 0~4 (travel oil pressure sensor)

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

1) INSPECTION PROCEDURE



Wiring diagram



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③ Disassemble drive shaft sub assy by using the press machine.

※ The drive shaft sub assy fall all together, so becareful when removing it.



④ Disassemble sph. roller bearing (3), cover (7), oil seal (30), and sleeve (28) from the drive shaft (2).

※ Do not reuse oil seal (30).



(8) Separate sph. roller bearing (4) from casing (9) by using the press machine.



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(28)Assemble piston ring (30), piston ring 252 (30) and 278 (31) into brake piston (29).



(29)Assemble brake piston into shaft casing.

※ Be careful of the direction of assembling brake piston.



(30)Assemble brake spring (32).

※ Quantity : Spring-10pieces, Holes-11pieces

※ Do not assemble on the top of brake piston.



(31)Insert O-ring (69), after fastening orifice screw (4) with standard torque.

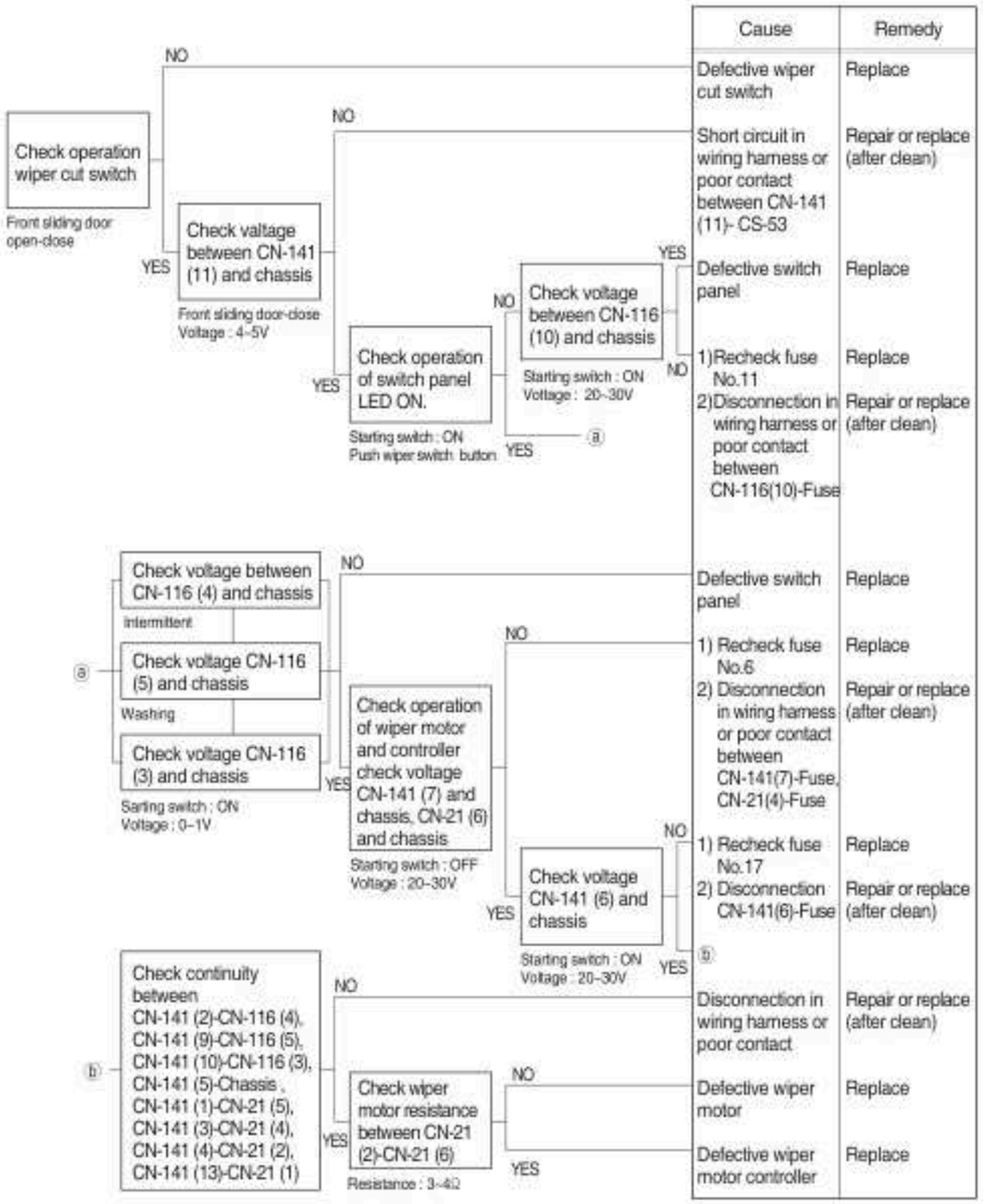
- Quantity and size : (4) 2 pieces- ø 1.0
  (56) 1pieces- ø 1.5
- Tightening torque : 7 kgf · m (50.63 lbf · ft)

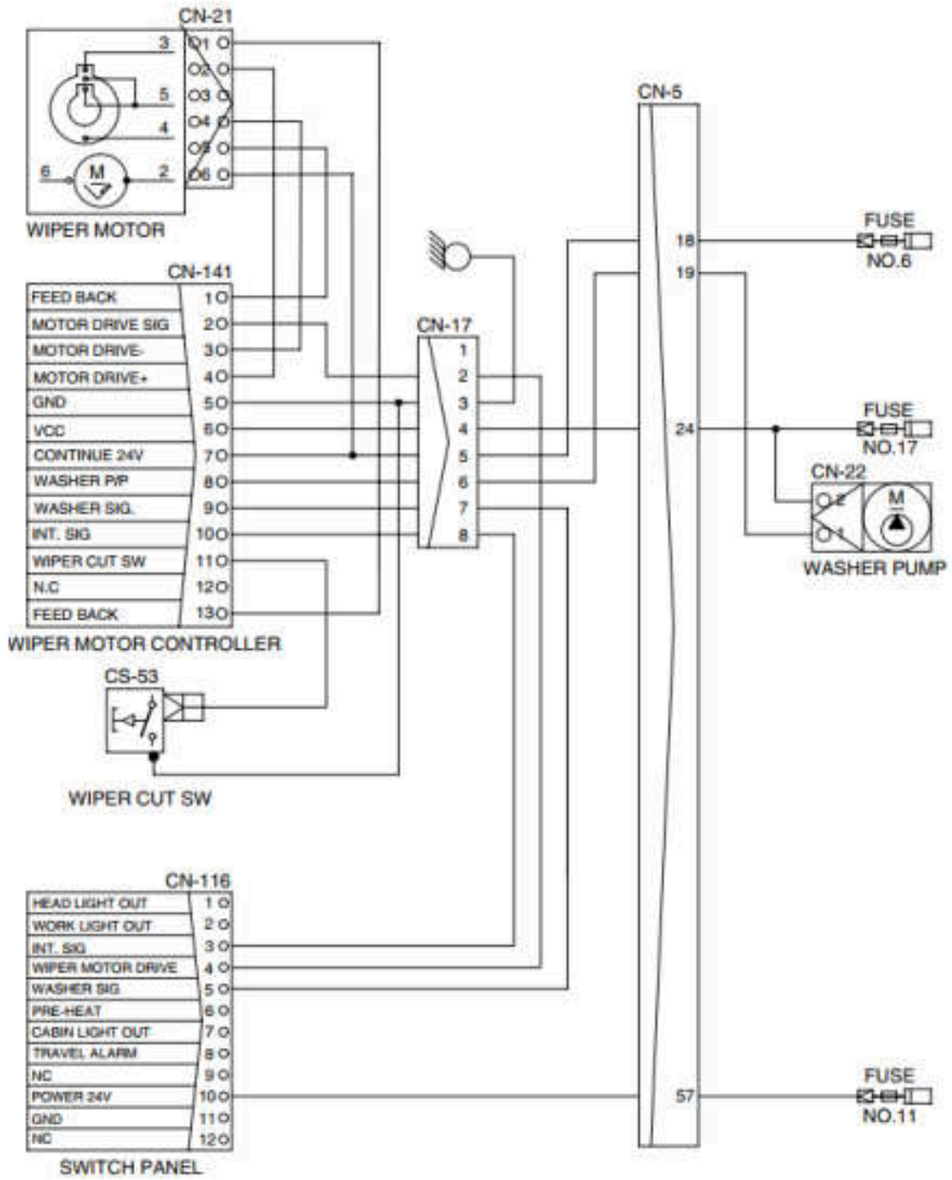


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13. WHEN STARTING SWITCH IS TURNED ON, WIPER MOTOR DOES NOT OPERATE

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted and the fuse No. 6, 11 and 17 is not blown out.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.





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