CRAWLER EXCAVATOR

SERVICE MANUAL

R125LCR-9A

HYUNDAI

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication R12...

Order the manual at mid-west-tech.com >

4. WEIGHT

Item	R125LCR-9A		R125LCRD-9A	
	kg	lb	kg	lb
Upper structure assembly	6950	15320	←	
Main frame weld assembly	1253	2760	←	
Engine assembly	538	1190	←	
Main pump assembly	90	200	←	
Main control valve assembly	140	310	←	
Swing motor assembly	120	260	←	
Hydraulic oil tank assembly	125	280	←	
Fuel tank assembly	110	240	←	
Counterweight	2000	4410	←	
Cab assembly	450	990	←	
Lower chassis assembly	5230	11530	6030	13290
Track frame weld assembly	1280	1820	1430	3150
Swing bearing	195	430	←	
Travel motor assembly	140	310	←	
Turning joint	56	120	←	
Track recoil spring	95	210	←	
Idler	108	240	←	
Carrier roller	12	26	←	
Track roller	24	53	←	
Sprocket	40	88	←	
Track-chain assembly (500 mm standard triple grouser shoe)	716	1580	←	
Dozer blade assembly	-		485	1070
Front attachment assembly (4.30 m boom, 2.26 m arm, 0.40 m³ SAE heaped bucket)	1520	3350	←	
4.30 m boom assembly	710	1570	←	
2.26 m arm assembly	340	750	←	
0.40 m³ SAE heaped bucket	410	910	←	
Boom cylinder assembly	200	440	←	
Arm cylinder assembly	120	270	←	
Bucket cylinder assembly	80	180	←	
Bucket control rod assembly	90	200	←	
Dozer blade cylinder assembly	-		55	120

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication... Order the manual at mid-west-tech.com >

5. LIFTING CAPACITIES

1) R125LCR-9A

(1) 4.30 m (14' 1") boom, 2.26 m (7' 5") arm equipped with 0.40 m³ (SAE heaped) bucket and 500 mm (20") triple grouser shoe and 2000 kg (4410 lb) counterweight.

· : Rating over-front · : Rating over-side or 360 degree

Load point height		Load radius								At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Capacity		Reach
												m (ft)
6.0 m (20.0 ft)	kg					*1780	*1780			*1770	1550	5.97
	lb					*3920	*3920			*3900	3420	(19.6)
4.5 m (15.0 ft)	kg					*1820	*1820	*1480	1470	1690	1120	6.90
	lb					*4010	*4010	*3260	3240	3730	2470	(22.6)
3.0 m (10.0 ft)	kg			*2850	*2850	*2300	*2300	*2090	1430	1460	940	7.34
	lb			*6280	*6280	*5070	*5070	*4610	3150	3220	2070	(24.1)
1.5 m (5.0 ft)	kg			*4670	4290	*2980	2210	2030	1340	1390	890	7.41
	lb			*10300	9460	*6570	4870	4480	2950	3060	1960	(24.3)
Ground Line	kg			*5790	3890	3130	2030	1950	1260	1470	940	7.13
	lb			*12760	8580	6900	4480	4300	2780	3240	2070	(23.4)
-1.5 m (-5.0 ft)	kg	*5690	*5690	*5970	3790	3040	1950	1920	1230	1760	1140	6.42
	lb	*12540	*12540	*13160	8360	6700	4300	4230	2710	3880	2510	(21.1)
-3.0 m (-10 ft)	kg	*8700	*8700	*5360	3860	3070	1980			*2290	1760	5.08
	lb	*19180	*19180	*11820	8510	6770	4370			*5050	3880	(16.7)

Note 1. Lifting capacity are based on SAE J1097 and ISO 10567.
2. Lifting capacity of the ROBEX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook located on the back of the bucket.
4. *indicates load limited by hydraulic capacity.

(2) 4.30 m (14' 1") boom, 1.96 m (6' 5") arm equipped with 0.40 m³ (SAE heaped) bucket and 500 mm (20") triple grouser shoe and 2000 kg (4410 lb) counterweight.

Load point height		Load radius								At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Capacity		Reach
												m (ft)
6.0 m (20.0 ft)	kg					*1780	*1780			*1900	1740	5.61
	lb					*3920	*3920			*4190	3840	(18.4)
4.5 m (15.0 ft)	kg					*2040	*2040			1840	1230	6.59
	lb					*4500	*4500			4060	2710	(21.6)
3.0 m (10.0 ft)	kg			*3270	*3270	*2500	2410	2110	1410	1570	1020	7.06
	lb			*7210	*7210	*5510	5310	4650	3110	3460	2250	(23.2)
1.5 m (5.0 ft)	kg			*5030	4200	*3160	2190	2030	1340	1500	970	7.13
	lb			*11090	9260	*6970	4830	4480	2950	3310	2140	(23.4)
Ground Line	kg			*5940	3870	3130	2030	1960	1270	1590	1030	6.83
	lb			*13100	8530	6900	4480	4320	2800	3510	2270	(22.4)
-1.5 m (-5.0 ft)	kg	*6190	*6190	*5920	3820	3060	1970			1940	1270	6.08
	lb	*13650	*13650	*13050	8420	6750	4340			4280	2800	(19.9)
-3.0 m (-10 ft)	kg	*9140	*9140	*5120	3940	3130	2040					
	lb	*20150	*20150	*11290	8690	6900	4500					

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication... Order the manual at mid-west-tech.com >

2) R125LCRD-9A (with dozer blade)

(1) 4.30 m (14' 1") boom, 2.26 m (7' 5") arm equipped with 0.40 m³ (SAE heaped) bucket and 500 mm (20") triple grouser shoe and 2000 kg (4410 lb) counterweight with dozer blade down.

· : Rating over-front · : Rating over-side or 360 degree

Load point height		Load radius								At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Capacity		Reach
												m (ft)
6.0 m (20.0 ft)	kg					*1780	*1780			*1770	*1770	5.97
	lb					*3920	*3920			*3900	*3900	(19.6)
4.5 m (15.0 ft)	kg					*1820	*1820	*1480	*1480	*1850	1350	6.90
	lb					*4010	*4010	*3260	*3260	*4080	2980	(22.6)
3.0 m (10.0 ft)	kg			*2850	*2850	*2300	*2300	*2090	1700	*1940	1150	7.34
	lb			*6280	*6280	*5070	*5070	*4610	3750	*4280	2540	(24.1)
1.5 m (5.0 ft)	kg			*4670	*4670	*2980	2630	*2370	1610	*2060	1090	7.41
	lb			*10300	*10300	*6570	5800	*5220	3550	*4540	2400	(24.3)
Ground Line	kg			*5790	4710	*3560	2440	*2630	1530	*2180	1150	7.13
	lb			*12760	10380	*7850	5380	*5800	3370	*4810	2540	(23.4)
-1.5 m (-5.0 ft)	kg	*5690	*5690	*5970	4600	*3770	2360	*2660	1500	*2300	1380	6.42
	lb	*12540	*12540	*13160	10140	*8310	5200	*5860	3310	*5070	3040	(21.1)
-3.0 m (-10 ft)	kg	*8700	*8700	*5360	4680	*3430	2390			*2290	2100	5.08
	lb	*19180	*19180	*11820	10320	*7560	5270			*5050	4630	(16.7)

Note 1. Lifting capacity are based on SAE J1097 and ISO 10567.
2. Lifting capacity of the ROBEX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook located on the back of the bucket.
4. *indicates load limited by hydraulic capacity.

(2) 4.30 m (14' 1") boom, 1.96 m (6' 5") arm equipped with 0.40 m³ (SAE heaped) bucket and 500 mm (20") triple grouser shoe and 2000 kg (4410 lb) counterweight with dozer blade down.

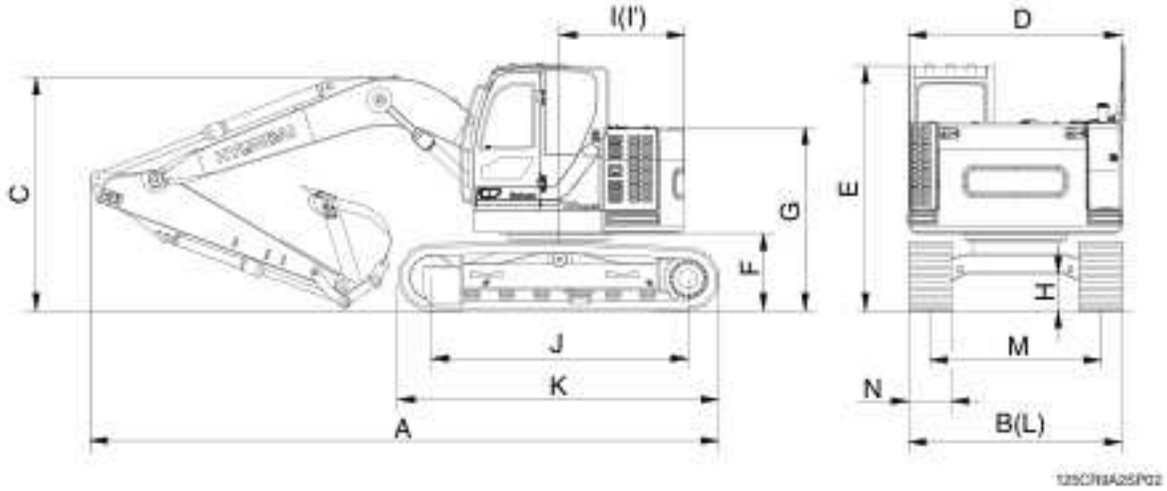
Load point height		Load radius								At max. reach		
		1.5 m (5 ft)		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		Capacity		Reach
												m (ft)
6.0 m (20.0 ft)	kg					*1780	*1780			*1900	*1900	5.61
	lb					*3920	*3920			*4190	*4190	(18.4)
4.5 m (15.0 ft)	kg					*2040	*2040			*1970	1470	6.59
	lb					*4500	*4500			*4340	3240	(21.6)
3.0 m (10.0 ft)	kg			*3270	*3270	*2500	*2500	*2230	1690	*2070	1250	7.06
	lb			*7210	*7210	*5510	*5510	*4920	3730	*4560	2760	(23.2)
1.5 m (5.0 ft)	kg			*5030	5030	*3160	2610	*2480	1610	*2190	1180	7.13
	lb			*11090	11090	*6970	5750	*5470	3550	*4830	2600	(23.4)
Ground Line	kg			*5940	4690	*3660	2440	*2690	1540	*2320	1250	6.83
	lb			*13100	10340	*8070	5380	*5930	3400	*5110	2760	(22.4)
-1.5 m (-5.0 ft)	kg	*6190	*6190	*5920	4640	*3790	2380			*2420	1540	6.08
	lb	*13650	*13650	*13050	10230	*8360	5250			*5340	3400	(19.9)
-3.0 m (-10 ft)	kg	*9140	*9140	*5120	4750	*3240	2450					
	lb	*20150	*20150	*11290	10470	*7140	5400					

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication... Order the manual at mid-west-tech.com >

2. SPECIFICATIONS

1) R125LCR-9A

· 4.30 m (14' 1") BOOM and 2.26 m (7' 5") ARM



Description		Unit	Specification
Operating weight		kg (lb)	12500 (27560)
Bucket capacity (SAE heaped), standard		m^3 (yd^3)	0.40 (0.52)
Overall length	A	mm (ft-in)	6860 (22' 6")
Overall width, with 500 mm shoe	B		2500 (8' 2")
Overall height	C		2740 (9' 0")
Superstructure width	D		2490 (8' 2")
Overall height of cab	E		2900 (9' 6")
Ground clearance of counterweight	F		890 (2' 11")
Engine cover height	G		2215 (7' 3")
Minimum ground clearance	H		440 (1' 5")
Rear-end distance	I		1500 (4' 11")
Rear-end swing radius	I'		1500 (4' 11")
Distance between tumblers	J		2780 (9' 1")
Undercarriage length	K		3490 (11' 5")
Undercarriage width	L		2500 (8' 2")
Track gauge	M		1990 (6' 6")
Track shoe width, standard	N		500 (20")
Travel speed (low/high)		km/hr (mph)	3.6/6.1 (2.2/3.8)
Swing speed		rpm	12.6
Gradeability		Degree (%)	35 (70)
Ground pressure (500 mm shoe)		kgf/cm^2(psi)	0.42 (5.91)
Max traction force		kg (lb)	10300 (22710)

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication... Order the manual at mid-west-tech.com >

4. ENGINE FAULT CODE

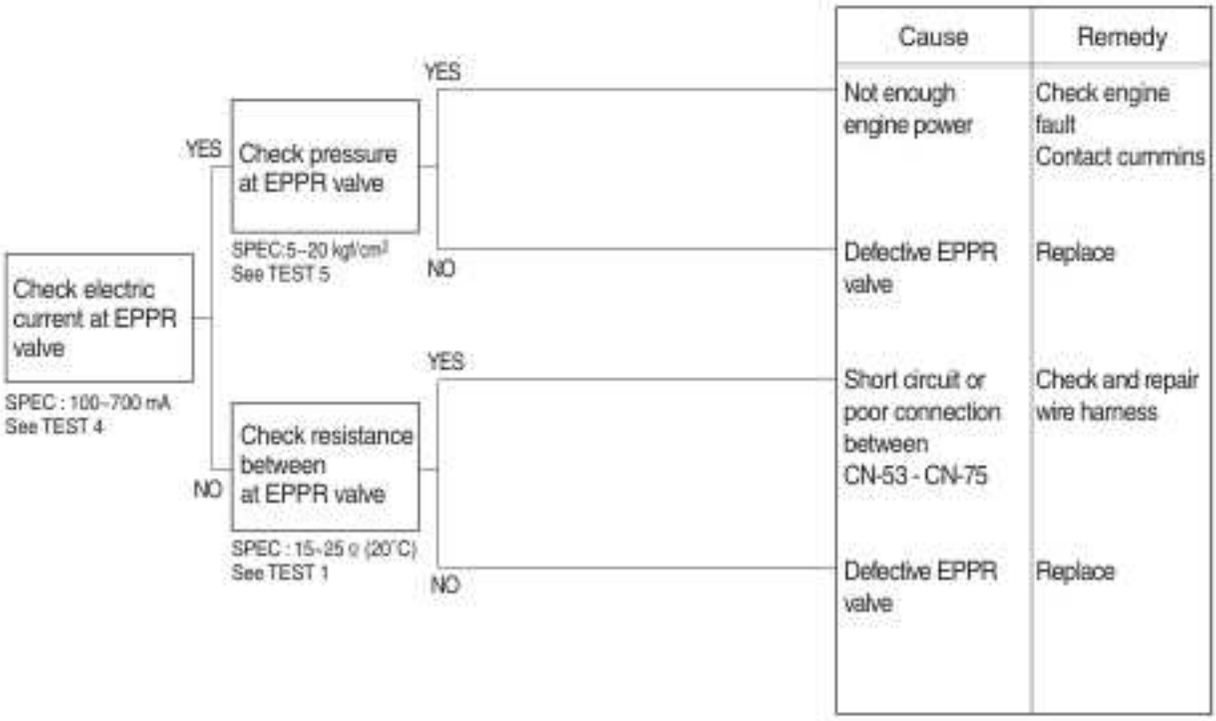
J1939 Code	Description	Refer to Procedure
27-3	Engine Exhaust Gas Recirculation Valve Position Sensor : Voltage Above Normal	Valve Position Sensor - Test
27-4	Engine Exhaust Gas Recirculation Valve Position Sensor : Voltage Below Normal	Valve Position Sensor - Test
29-2	Accelerator Pedal Position 2 : Erratic, Intermittent, or Incorrect (Engines equipped with a throttle switch)	Throttle Switch Circuit - Test
29-2	Accelerator Pedal Position 2 : Erratic, Intermittent or Incorrect (Engines equipped with an analog throttle)	Analog Throttle Position Sensor Circuit - Test
29-3	Accelerator Pedal Position 2 : Voltage Above Normal (Engines equipped with an analog throttle)	Analog Throttle Position Sensor Circuit - Test
29-3	Accelerator Pedal Position 2 : Voltage Above Normal (Engines equipped with a digital throttle)	Digital Throttle Position Sensor Circuit - Test
29-4	Accelerator Pedal Position 2 : Voltage Below Normal (Engines equipped with an analog throttle)	Analog Throttle Position Sensor Circuit - Test
29-4	Accelerator Pedal Position 2 : Voltage Below Normal (Engines equipped with a digital throttle)	Digital Throttle Position Sensor Circuit - Test
29-8	Accelerator Pedal Position 2 : Abnormal Frequency, Pulse Width or Period	Digital Throttle Position Sensor Circuit - Test
91-2	Accelerator Pedal Position 1 : Erratic, Intermittent, or Incorrect (Engines equipped with a throttle switch)	Throttle Switch Circuit - Test
91-2	Accelerator Pedal Position 1 : Erratic, Intermittent or Incorrect (Engines equipped with an analog throttle)	Analog Throttle Position Sensor Circuit - Test
91-3	Accelerator Pedal Position 1 : Voltage Above Normal (Engines equipped with an analog throttle)	Analog Throttle Position Sensor Circuit - Test
91-3	Accelerator Pedal Position 1 : Voltage Above Normal (Engines equipped with a digital throttle)	Digital Throttle Position Sensor Circuit - Test
91-4	Accelerator Pedal Position 1 : Voltage Below Normal (Engines equipped with an analog throttle)	Analog Throttle Position Sensor Circuit - Test
91-4	Accelerator Pedal Position 1 : Voltage Below Normal (Engines equipped with a digital throttle)	Digital Throttle Position Sensor Circuit - Test
91-8	Accelerator Pedal Position 1 : Abnormal Frequency, Pulse Width or Period	Digital Throttle Position Sensor Circuit - Test
97-15	Water In Fuel Indicator : High - least severe (1)	Fuel System Water Separator Has Water
97-16	Water In Fuel Indicator : High - moderate severity (2)	Fuel System Water Separator Has Water
100-1	Engine Oil Pressure : Low - most severe (3)	Low Engine Oil Pressure
100-3	Engine Oil Pressure : Voltage Above Normal	Engine Pressure Sensor Open or Short Circuit - Test
100-4	Engine Oil Pressure : Voltage Below Normal	Engine Pressure Sensor Open or Short Circuit - Test
100-17	Engine Oil Pressure : Low - least severe (1)	Low Engine Oil Pressure
100-21	Engine Oil Pressure : Data Drifted Low	5 V Sensor Supply Circuit - Test
102-16	Engine Intake Manifold #1 Pressure : High - moderate severity (2)	Intake Manifold Air Pressure Is High
102-18	Engine Intake Manifold #1 Pressure : Low - moderate severity (2)	Intake Manifold Air Pressure Is Low

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication... Order the manual at mid-west-tech.com >

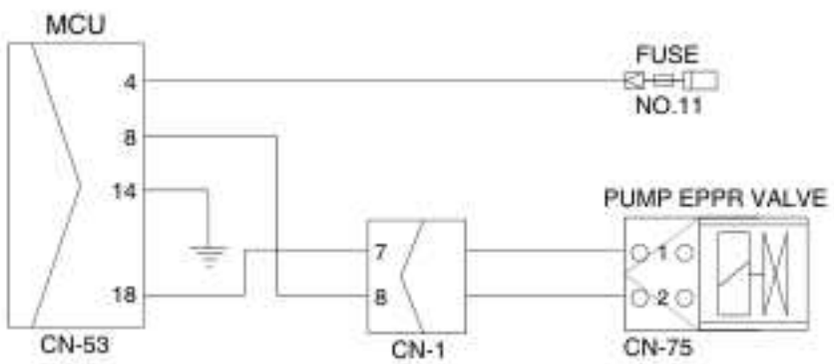
2. ENGINE STALL

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

1) INSPECTION PROCEDURE



Wiring diagram



14520AEM501

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication... Order the manual at mid-west-tech.com >

(19) Shrink fit taper bearing (3) on drive shaft, complete drive shaft sub assembly.



125LCR8SM102

Casing assembly

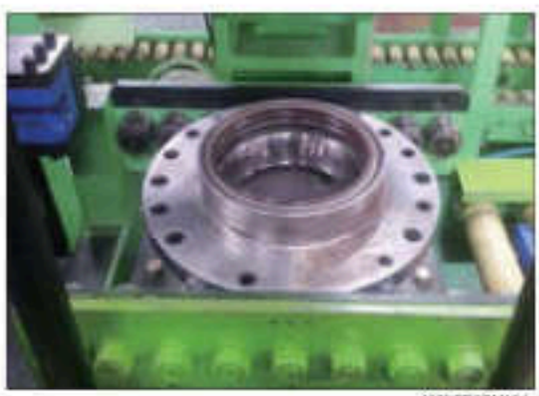
(20) Press outer ring of the taper bearing in the casing (8) by using the jig.



125LCR8SM103

(21) Press in oil seal (27) by using the jig.

※ Be careful of the direction of the assembly.



125LCR8SM104

(22) Assemble drive shaft sub assembly.

※ Be careful of damage of oil seal.



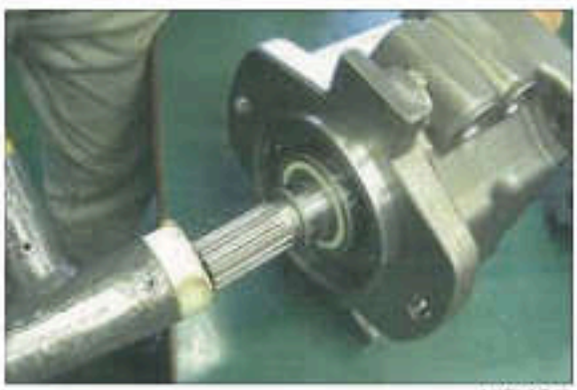
125LCR8SM105

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication... Order the manual at mid-west-tech.com >

(3) Fit tilting bush (214) of swash plate (212) to tilting pin (531), and fit swash plate (212) with shoe plate (211) to swash plate support (251) correctly.
- Confirm with fingers of both hands that swash plate can be removed smoothly.
- Apply grease to sliding sections of swash plate (212) and swash plate support (251), and drive shaft (111, 113) can be fitted easily.
- Take care not to damage shoe plate (211) surface.


140Z98MP24

(4) To pump casing (271, 272), fit drive shaft (111, 113) set with bearing (123), bearing spacer (127) and stop ring (824).


140Z98MP25

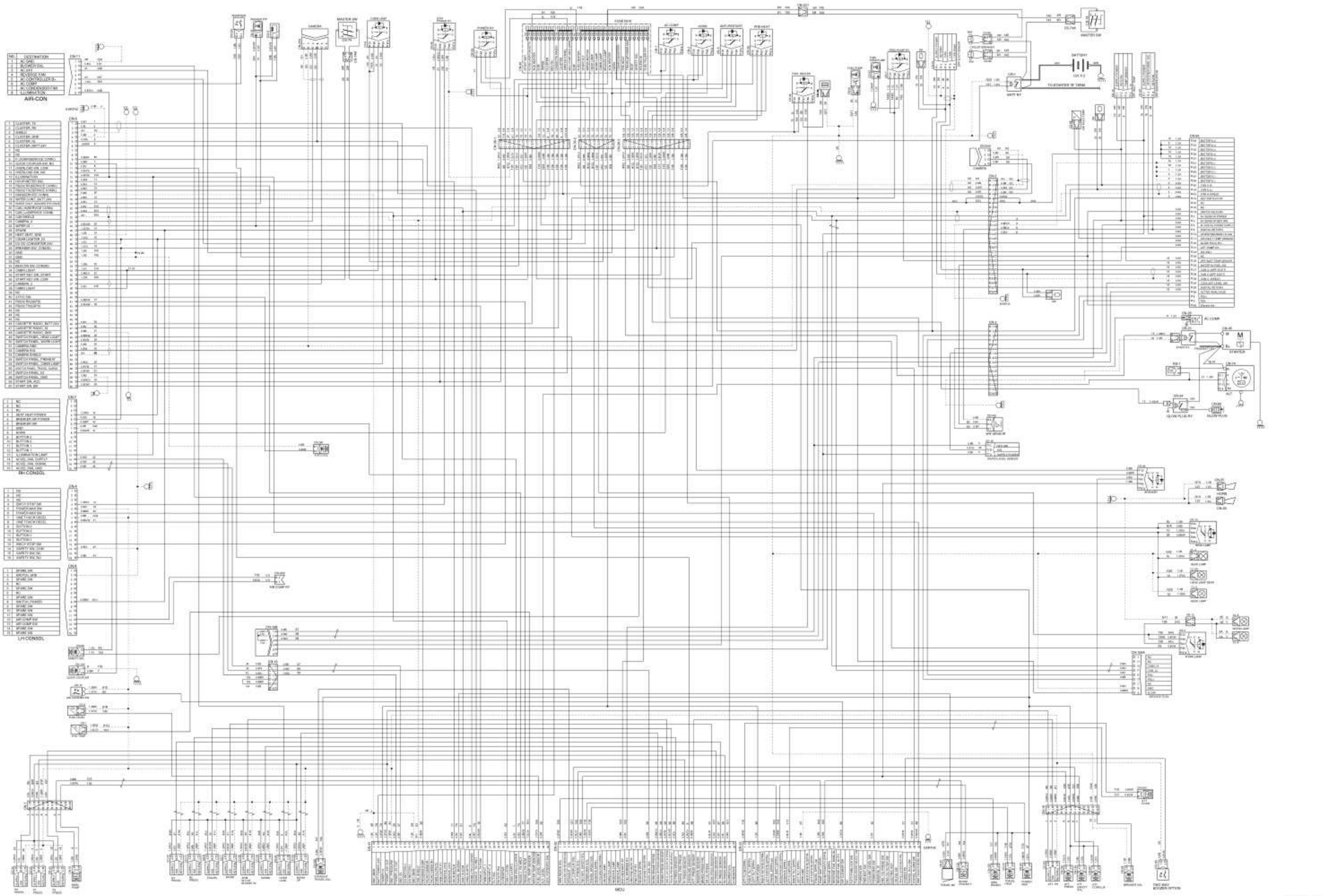
(5) In assemble of front pump, assemble seal cover (F) (261) to pump casing (271) and fix it with hexagon socket head bolt (406).
- Apply grease lightly to oil seal in seal cover (F) (261).
- For assemble oil seal (774), taking full care not to damage it.


140Z98MP26

(6) Assemble piston cylinder subassembly [cylinder (141), piston subassembly (151, 152), set plate (153), spherical bush (156) and cylinder spring (157)]. Fitting spline phases of cylinder, spherical bush (156) and drive shaft (111, 113), insert piston cylinder subassembly into pump casing (271, 272).


140Z98MP27

MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication... Order the manual at mid-west-tech.com >



MidWestTech | Hyundai R125LCR-9A Crawler Excavator Service Manual | Publication R125LCR-9A
Order the manual at mid-west-tech.com >