CRAWLER EXCAVATOR

SERVICE MANUAL

R850LC-9

HYUNDAI

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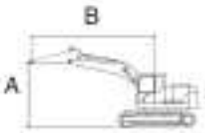
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Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outtriger	
R850LC-9	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		7200	2950	12500	700	-	-	-	-	-

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



Lift-point height (A)		Lift-point radius (B)								At max. reach		
		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
												m (ft)
9.0 m (29.5 ft)	kg					*18530	*18530			*17780	*17780	7.56
	lb					*40850	*40850			*39200	*39200	(24.8)
7.5 m (24.6 ft)	kg					*21200	*21200			*17080	*17080	8.62
	lb					*46740	*46740			*37650	*37650	(28.3)
6.0 m (19.7 ft)	kg			*26280	*26280	*22010	*22010	*19300	16620	*17030	15650	9.32
	lb			*57940	*57940	*48520	*48520	*42550	36640	*37540	34500	(30.6)
4.5 m (14.8 ft)	kg			*28690	*28690	*23100	21470	*19620	16200	*17480	14270	9.74
	lb			*63250	*63250	*50930	47330	*43250	35710	*38540	31460	(31.9)
3.0 m (9.8 ft)	kg			*30410	28540	*23950	20570	*19850	15720	*17830	13590	9.91
	lb			*67040	62920	*52800	45350	*43760	34660	*39310	29960	(32.5)
1.5 m (4.9 ft)	kg			*30540	27420	*24070	19860	*19610	15310	*17380	13470	9.84
	lb			*67330	60450	*53070	43780	*43230	33750	*38320	29700	(32.3)
0.0 m (0.0 ft)	kg			*28960	26910	*23120	19440	*18510	15070	*16780	13920	9.55
	lb			*63850	59330	*50970	42860	*40810	33220	*36990	30690	(31.3)
-1.5 m (-4.9 ft)	kg	*30530	*30530	*25790	*25790	*20780	19320			*15810	15130	8.98
	lb	*67310	*67310	*56860	*56860	*45810	42590			*34860	33360	(29.5)
-3.0 m (-9.8 ft)	kg	*23960	*23960	*20770	*20770	*16350	*16350			*14010	*14010	8.11
	lb	*52820	*52820	*45790	*45790	*36050	*36050			*30890	*30890	(26.6)
-4.5 m (-14.8 ft)	kg	*14500	*14500	*12650	*12650					*10160	*10160	6.79
	lb	*31970	*31970	*27890	*27890					*22400	*22400	(22.3)

Note 1. Lifting capacity are based on 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 Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.
Lifting capacities will vary with different work tools, ground conditions and attachments.
The difference between the weight of a work tool attachment must be subtracted.
Consult with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.

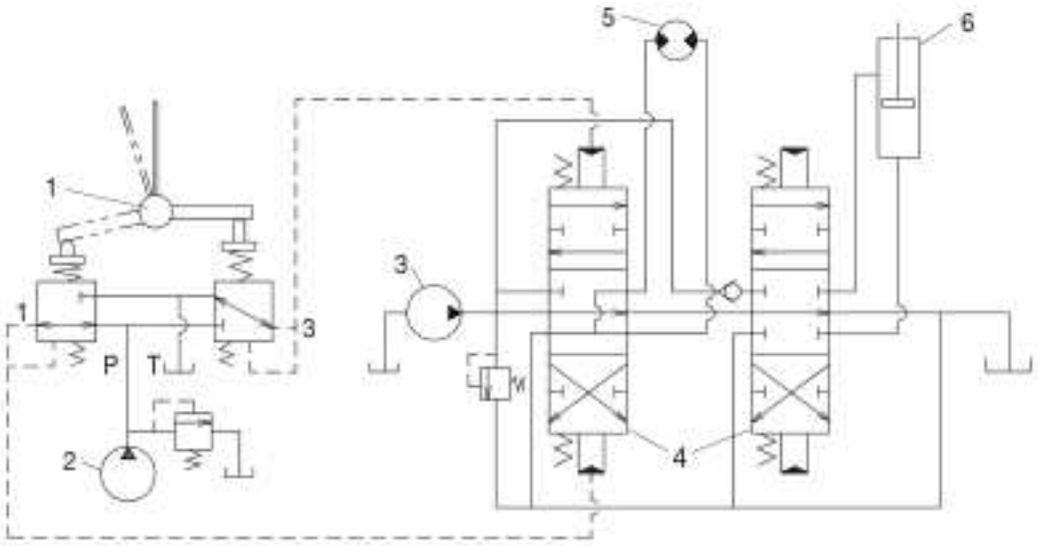
⚠ Failure to comply to the rated load can cause serious injury, death, or property damage.
Make adjustments to the rated load as necessory for non-standard configurations.

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3) OPERATION

The operation of the pilot valve will be described on the basis of the hydraulic circuit diagram shown below and the attached operation explanation drawing.

The diagram shown below is the typical application example of the pilot valve.



2-75

1	Pilot valve	3	Main pump	5	Hydraulic motor
2	Pilot pump	4	Main control valve	6	Hydraulic cylinder

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Fault code J1939 SPN J1939 FMI	Reason	Effect (only when fault code is active)
311 651 6	Current detected at No.1 injector when voltage is turned off.	The injector for cylinder number 1 is turned off.
312 655 6	Current detected at No.5 injector when voltage is turned off.	The injector for cylinder number 5 is turned off.
313 653 6	Current detected at No.3 injector when the voltage is turned off	The injector for cylinder number 3 is turned off.
314 656 6	Current detected at No 6 injector when the voltage is turned off.	The injector for cylinder number 6 is turned off.
315 652 6	Current detected at No.2 injector when the voltage is turned off.	The injector for cylinder number 2 is turned off.
319 251 2	Real time clock lost power.	None on performance. Data in the ECM will not have accurate time and date information.
321 654 6	Current detected at No.4 injector when the voltage is turned on.	The injector for cylinder number 4 is turned off.
322 656 5	Injector solenoid driver cylinder 1 circuit-current below normal, or open circuit. Current detected at injector number 1 when voltage is turned off.	The current to the injector is shut off. The engine can possibly misfire or run rough.
323 656 5	Injector solenoid driver cylinder 5 circuit-current below normal, or open circuit. Current detected at injector number 5 when voltage is turned off.	The current to the injector is shut off. The engine can possibly misfire or run rough.
324 656 5	Injector solenoid driver cylinder 3 circuit-current below normal, or open circuit. Current detected at injector number 3 when voltage is turned off.	The current to the injector is shut off. The engine can possibly misfire or run rough.
325 656 5	Injector solenoid driver cylinder 6 circuit-current below normal, or open circuit. Current detected at injector number 6 when voltage is turned off.	The current to the injector is shut off. The engine can possibly misfire or run rough.
331 656 5	Injector solenoid driver cylinder 2 circuit-current below normal, or open circuit. Current detected at injector number 2 when voltage is turned off.	The current to the injector is shut off. The engine can possibly misfire or run rough.
332 656 5	Injector solenoid driver cylinder 4 circuit-current below normal, or open circuit. Current detected at injector number 4 when voltage is turned off.	The current to the injector is shut off. The engine can possibly misfire or run rough.
341 630 2	Severe loss of data from the ECM.	Possible no noticeable performance effects OR engine dying OR hard starting. Fault information, trip information and maintenance monitor data may be inaccurate.
343 629 12	Internal ECM error.	Possible none on performance or severe derate.
349 191 16	A frequency greater than calibrated threshold was detected at the tail shaft governor signal pin of the 31-pin machine connector.	Calibration dependent power and speed derate.
352 620 4	Low voltage detected on the ECM voltage supply line to some sensors (VSEN 1 supply).	Engine is derated to no air setting.
386 620 3	High voltage detected on the ECM voltage supply line to some sensors (VSEN 1 supply).	Engine is derated to no air setting.

※ Some fault codes are not applied to this machine.

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(35) Assemble pin, spring - 3EA using hammer and caulking with caulking jig.





(36) Assemble 1st sun gear to input pinion shaft .



(37) Tighten snap ring to the groove of input pinion shaft.



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⑮ Disassemble shoe plate (8) from body (1).



⑯ Using a plier jig, disassemble snap ring (4) and shaft assy (5).



(2) Disassemble cylinder block assy sub

① Disassemble piston assy (14), set plate (13) from cylinder block assy.

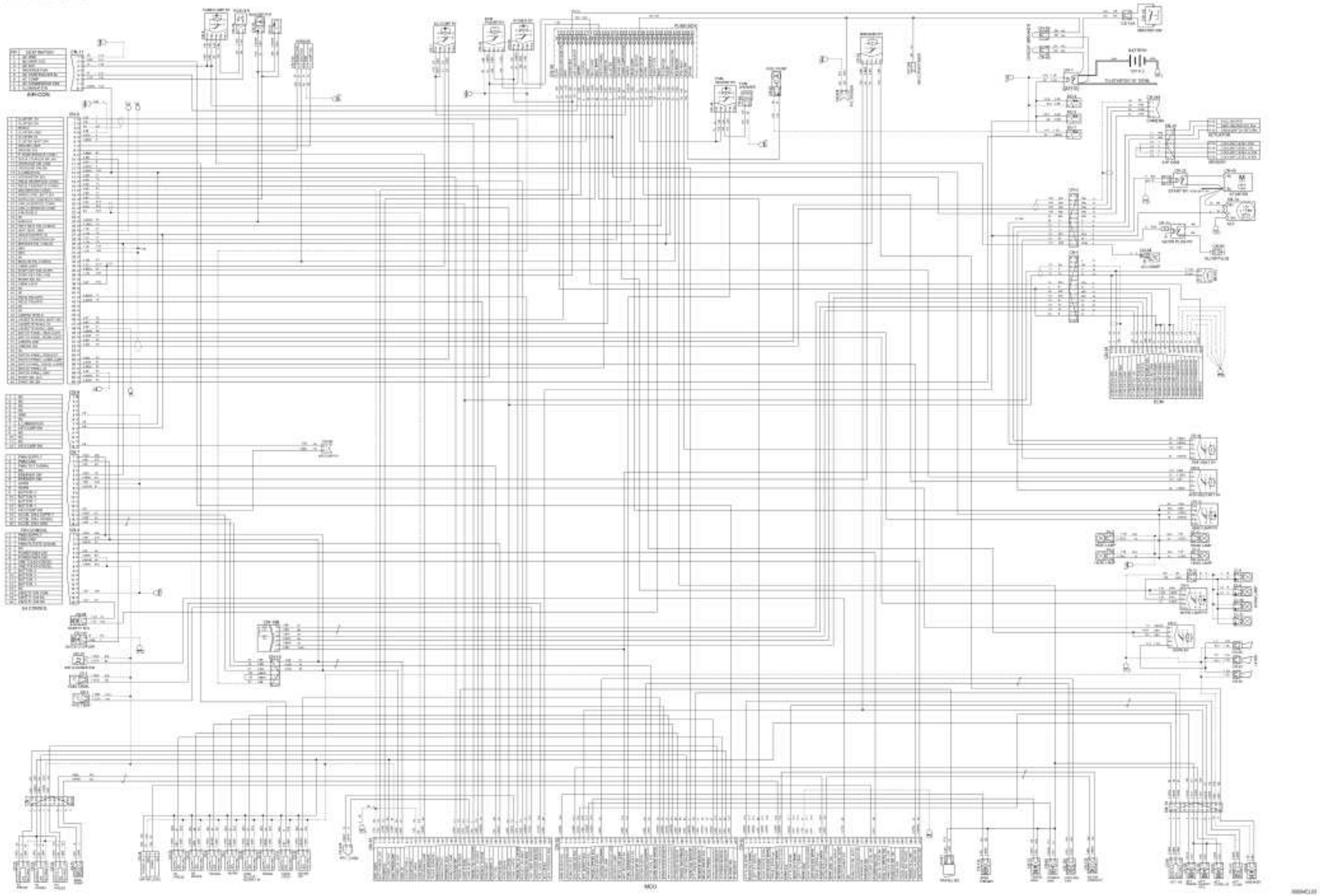


② Disassemble ball guide (12), friction plate (15), plate (16) and ball guide seat (11) from cylinder block (9).



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· ELECTRICAL CIRCUIT (1/2)



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