CRAWLER EXCAVATOR

SERVICE MANUAL

HX145LCR Tier 3

HYUNDAI

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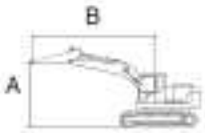
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Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX145LCRT3 W/DOZER	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	3000	2800	600	-	Up	-	-	-

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



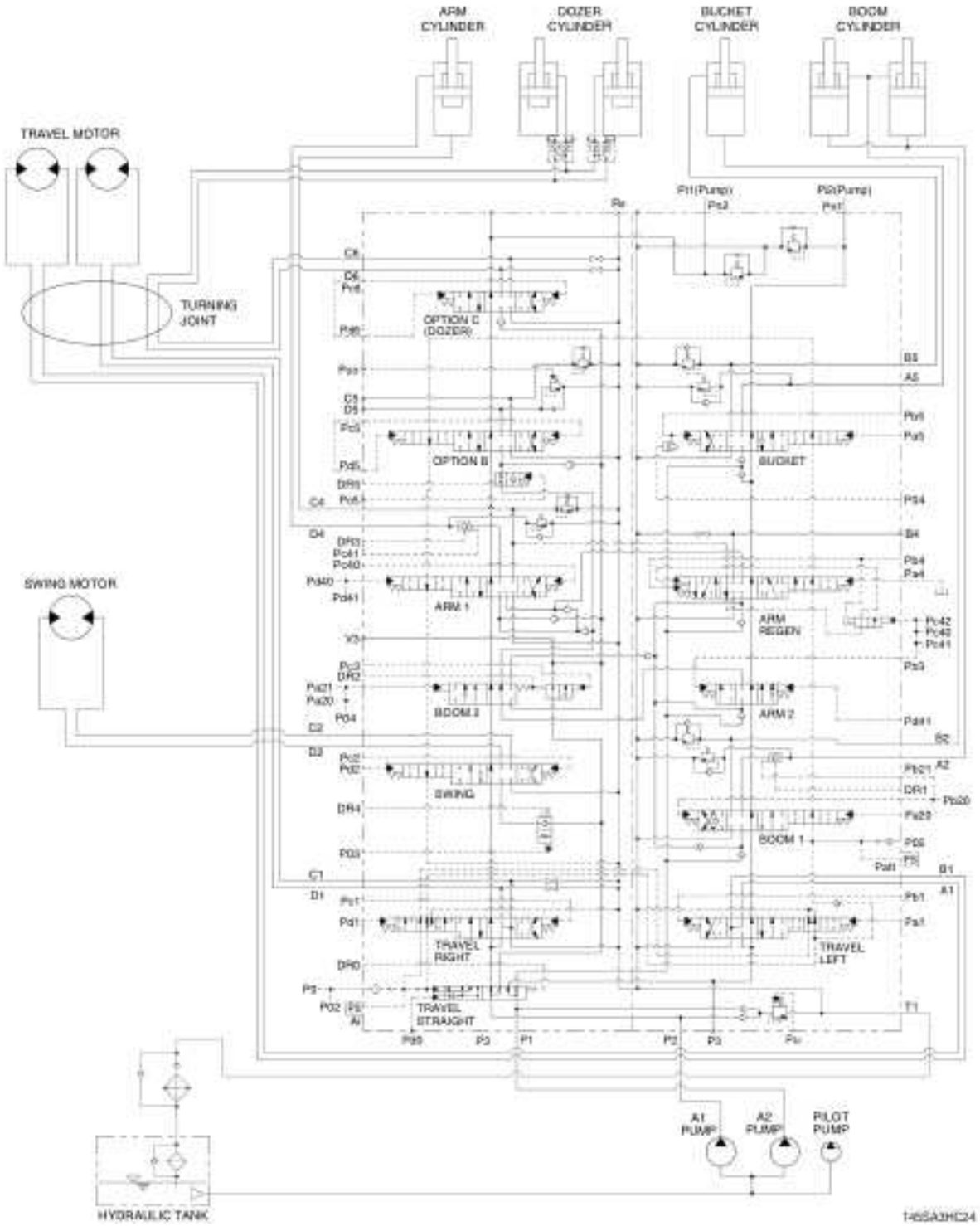
Lift-point height (A)		Lift-point radius (B)								At max. reach		
		1.5 m (4.9 ft)		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg									*2450	*2450	4.28
	lb									*5400	*5400	(14.0)
6.0 m (19.7 ft)	kg					*3290	*3290			*2070	*2070	5.86
	lb					*7250	*7250			*4560	*4560	(19.2)
4.5 m (14.8 ft)	kg					*3580	*3580	*3180	2530	*1960	*1960	6.76
	lb					*7890	*7890	*7010	5580	*4320	*4320	(22.2)
3.0 m (9.8 ft)	kg			*5770	*5770	*4880	3820	3820	2450	*1980	1800	7.25
	lb			*12720	*12720	*10760	8420	8420	5400	*4370	3970	(23.8)
1.5 m (4.9 ft)	kg			*8900	6530	*5770	3560	3690	2340	*2100	1700	7.40
	lb			*19620	14400	*12720	7850	8140	5160	*4630	3750	(24.3)
0.0 m (0.0 ft)	kg			*8300	6090	5570	3360	3590	2240	*2360	1720	7.24
	lb			*18300	13430	12280	7410	7910	4940	*5200	3790	(23.7)
-1.5 m (-4.9 ft)	kg	*4720	*4720	*9180	5980	5460	3260	3530	2200	*2870	1880	6.74
	lb	*10410	*10410	*20240	13180	12040	7190	7780	4850	*6330	4140	(22.1)
-3.0 m (-9.8 ft)	kg	*7780	*7780	*7460	6040	*5170	3270			*3520	2310	5.82
	lb	*17150	*17150	*16450	13320	*11400	7210			*7760	5090	(19.1)

Note 1. Lifting capacity are based on ISO 10567.
2. Lifting capacity of the HX 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 your HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.
Failure to comply to the rated load can cause possible personal injury or property damage.
Make adjustments to the rated load as necessory for non-standard configurations.

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2. COMBINED SWING AND BOOM UP OPERATION



When the swing and boom up functions are operated simultaneously, the swing spool and boom spools in the main control valve are moved to the functional position by the pilot oil pressure (Pc2, Pd2, Pa20, Pa21) from the remote control valve.

The oil from the A1 pump flows into the swing motor through swing spool and the boom cylinder through boom 2 spool.

The oil from the A2 pump flows into the boom cylinders through the boom 1 spool in the right control valve.

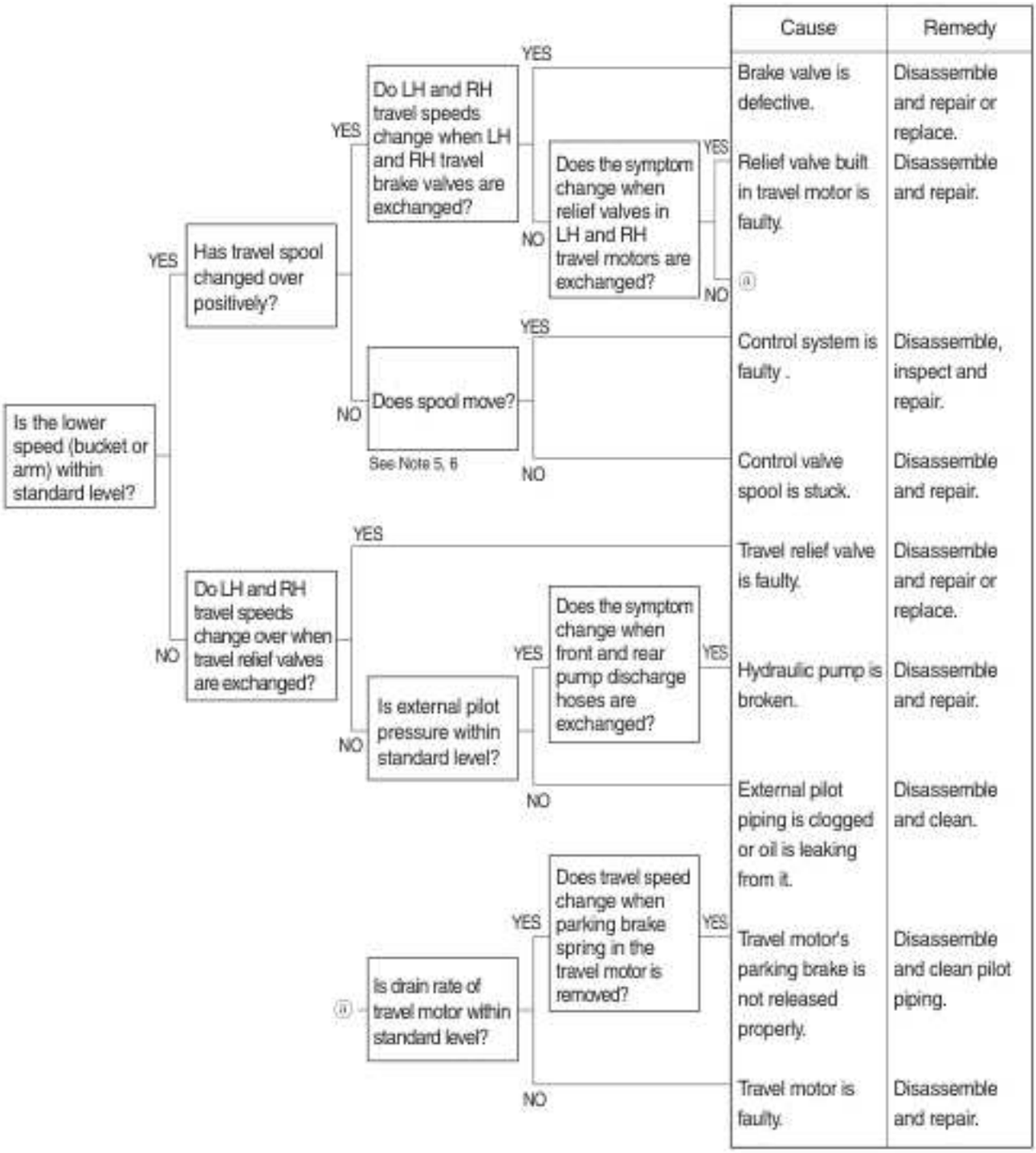
The super structure swings and the boom is operated.

Refer to page 3-9 for the boom priority system.

※ The circuit diagram may differ from the equipment, so please check before a repair.

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2) SPEED ON ONE SIDE FALLS AND THE MACHINE CURVES



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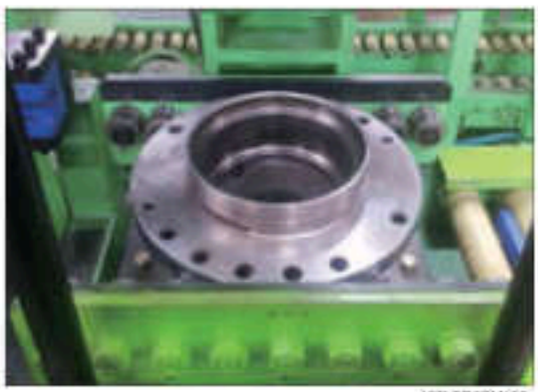
(19) Shrink fit taper roller bearing (3) on drive shaft, complete drive shaft sub assembly.



125LCR8SM102

Casing assembly

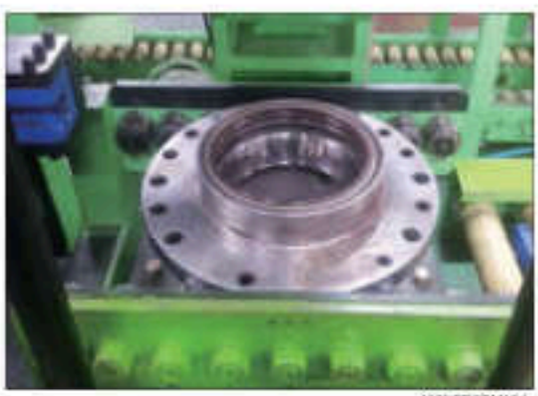
(20) Press outer ring of the taper roller bearing in the casing (8) by using the jig.



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

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(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.

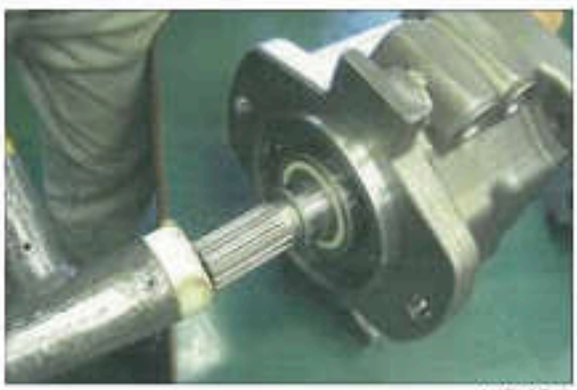
※ Confirm with fingers of both hands that swash plate can be removed smoothly.

※ 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.



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



(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.



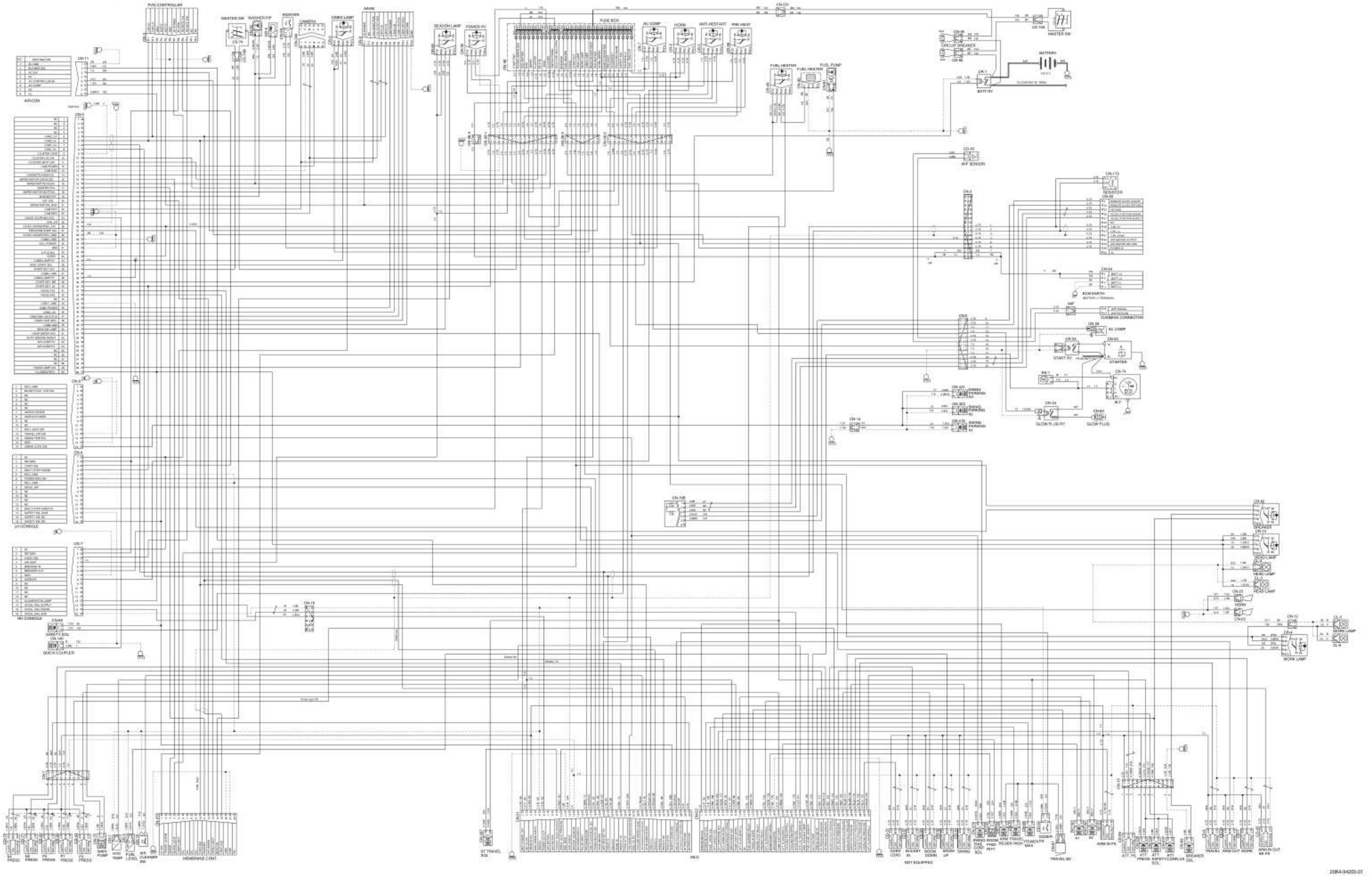
(6) Assemble piston cylinder subassembly [cylinder (141), piston subassembly (151, 152), set plate (153), spherical bush (156) and cylinder spring (157)]. Fitting spline phases of cylinder, spherical bush (156) and drive shaft (111, 113), insert piston cylinder subassembly into pump casing (271, 272).



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ELECTRICAL CIRCUIT (1/2)

- MACHINE SERIAL NO. : -#0004



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