WHEEL LOADER

SERVICE MANUAL

HL930A

HYUNDAI

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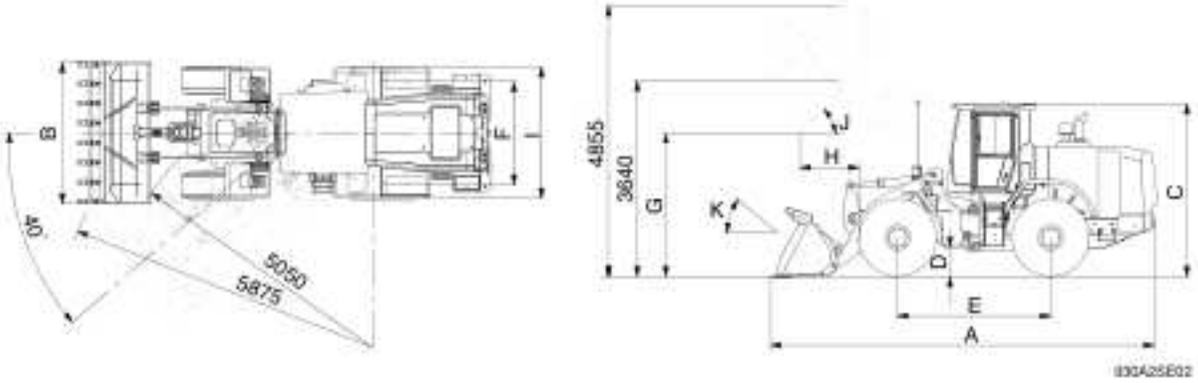
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WITH 1-TOOTH TYPE BUCKET (HL930A)



Description		Unit	Specification
Operating weight		kg (lb)	11420 (25180)
Bucket capacity	Struck	m³ (yd³)	1.5 (2.0)
	Heaped		1.8 (2.4)
Overall length	A	mm (ft-in)	7240 (23' 9")
Overall width	B		2480 (8' 2")
Overall height	C		3170 (10' 5")
Ground clearance	D		370 (1' 3")
Wheelbase	E		2900 (9' 6")
Tread	F		1930 (6' 4")
Dump clearance at 45°	G		2620 (8' 7")
Dump reach (full lift)	H		1145 (3' 9")
Width over tires	I		2375 (7' 10")
Dump angle	J	degree (°)	48
Roll back angle (carry position)	K		47
Cycle time	Lift (with load)	sec	5.8
	Dump (with load)		1.5
	Lower (empty)		3.6
Maximum travel speed		km/hr (mph)	39.5 (24.5)
Braking distance		m (ft-in)	13.0 (42' 8")
Minimum turning radius (center of outside tire)			5.05 (16' 7")
Gradeability		degree (°)	30
Breakout force		kg (lb)	9770 (21540)
Travel speed	Forward - First gear	km/hr (mph)	6.6 (4.1)
	Forward - Second gear		12.1 (7.5)
	Forward - Third gear		23.6 (14.7)
	Forward - Fourth gear		39.5 (24.5)
	Reverse - First gear		7.0 (4.3)
	Reverse - Second gear		12.7 (7.9)
	Reverse - Third gear		24.8 (15.4)

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2. TROUBLESHOOTING

1) TRANSMISSION

※ Diagnose malfunction charts are arranged from most probable and simplest to verify, to least likely, more difficult to verify. Remember the following steps when troubleshooting a problem :

Step 1. Operational check out procedure (See group 3 in section 1.)

Step 2. Operational checks (In this group.)

Step 3. Troubleshooting

Step 4. Tests and/or adjustments (See group 3.)

Problem	Cause	Remedy
Transmission slippage	Low oil level.	Add oil.
	Wrong oil grade.	Change oil.
	Restricted transmission pump suction screen.	Remove and clean screen.
	Leak in transmission control valve or gasket.	Remove valve and inspect gaskets.
	Low transmission pump flow due to worn pump.	Do transmission pump flow test.
	Weak or broken pressure regulating valve spring.	Do transmission system pressure test.
Error code on display	Something wrong in transmission.	Go to transmission fault code group at page 3-54-3-70.

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GROUP 5 CONNECTORS

1. CONNECTOR DESTINATION

Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CN-1	DEUTSCH	48	I/conn (Frame harness-Main harness)	DRB16-48SAE-L018	DRB12-48PAE-L018
CN-2	DEUTSCH	60	I/conn (Front harness-Main harness)	DRB12-60SBE-L018	DRB12-60PBE-L018
CN-4	DEUTSCH	60	I/conn (Engine harness-Main harness)	DRB16-60SAE-L018	DRB12-60PAE-L018
CN-5	DEUTSCH	60	I/conn (Front harness-Main harness)	DRB16-60SBE-L018	DRB12-60PBE-L018
CN-7	AMP	15	I/conn (Main harness-Cab harness)	2-85262-1	368301-1
CN-9	DEUTSCH	6	I/conn (Main harness-Cab harness)	174264-2	174262-2
CN-11	AMP	15	I/conn (Main harness-Aircon harness)	HDP26-24-35SN	HDP24-24-35PN
CN-12	DEUTSCH	35	I/conn (Front harness-Bottom harness)	2-85262-1	368301-1
CN-14	DEUTSCH	12	I/conn (Frame harness-Grill harness)	DT06-12S	DT04-12P
CN-15	KET	11	I/conn (RH console harness-Main harness)	MG651350	MG641353
CN-16	KET	14	I/conn (RH console harness-Main harness)	MG651110	MG641113
CN-18	DEUTSCH	12	LH seat console	DT06-12S	DT04-12P
CN-19	DEUTSCH	2	I/conn (Emer steer harness-Bottom harness)	DT04-2S	DT04-2P
CN-21	AMP	6	Front wiper motor	936257-1	-
CN-22	DEUTSCH	2	Compressor	DTP06-2S	
CN-24	DEUTSCH	12	Grill harness	DT06-12S	-
CN-26	TYCO	10	EHI unit	174655-2	174657-2
CN-26A	AMP	10	Joystick steering	-	174657-2
CN-27	MK II	16	Radio and USB player	PK145-16017	-
CN-27A	MK II	8	USB connector	174984-2	-
CN-31	DEUTSCH	3	Brake priority	DT06-3S	-
CN-36~39	-	-	Fuse box	21WD-15021	-
CN-43	AMP	2	Lock-up	282028	-
CN-45	Ring term	-	Starter	R14-12	ST 710246-2
CN-48	AMP	1	Hour meter	2-520193-2	-
CN-51	AMP	34	MCU	4-1437290-1	-
CN-52	AMP	34	MCU	2-1437285-3	-
CN-53	AMP	26	MCU	1473416-1	
CN-54	AMP	34	MCU	4-1437290-1	
CN-56	KUM	16	Cluster	KPK145-16017	-
CN-57	AMP	20	Monitor	174047-2	-
CN-64	MOLEX	4	Smart key	39012040	-
CN-65	DEUTSCH	2	Back up buzzer	DT06-2S	-
CN-68	DEUTSCH	2	Pilot cut off	DT06-2S	-
CN-71	DEUTSCH	2	Parking solenoid	DT06-2S	-
CN-72	DEUTSCH	2	Cowl open activator	DT06-2S	-

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290F3CD246

- When the worker or pedestrian go near the danger area line (green, radius 3 m), an external danger area of equipping on the main display, the warning buzzer sounds and it displays the green rectangular box for the recognition of the worker and pedestrian. At this time, the operator should stop work immediately, and stop the buzzer by pressing the buzzer stop switch. And then, please work after you check whether the danger factors are solved.



290F3CD247

- When the worker or pedestrian go inside of the danger area line (red, radius 3 m), an internal danger area of equipping on the main display, the warning buzzer sounds and it displays the red rectangular box for the recognition of the worker and pedestrian. At this time, the operator should stop work immediately, and stop the buzzer by pressing the buzzer stop switch. And then, please work after you check whether the danger factors are solved.

(6) Mutimedia





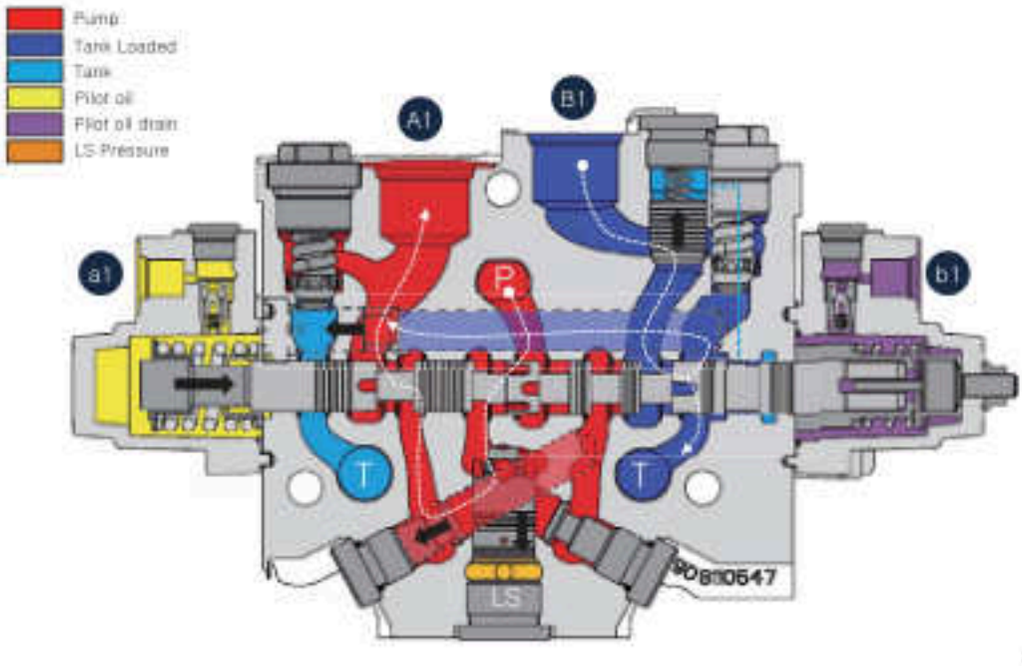
- Media player
- Play video files in USB (mp4, mkv, avi, 3gp, divx, f4v, flv, mpeg, mov, vob, wmv, webm, xvid).
- Play audio files in USB (mp3, mp4, ogg, wma, wav, flac, aac).

- Smart terminal
- The menu features a smartphone and operates the miracast.

⚠ Operation of screen mirroring can be dangerous while driving.
Driver is responsible for accident or other damages. Operate the screen mirroring while stopping for safety.

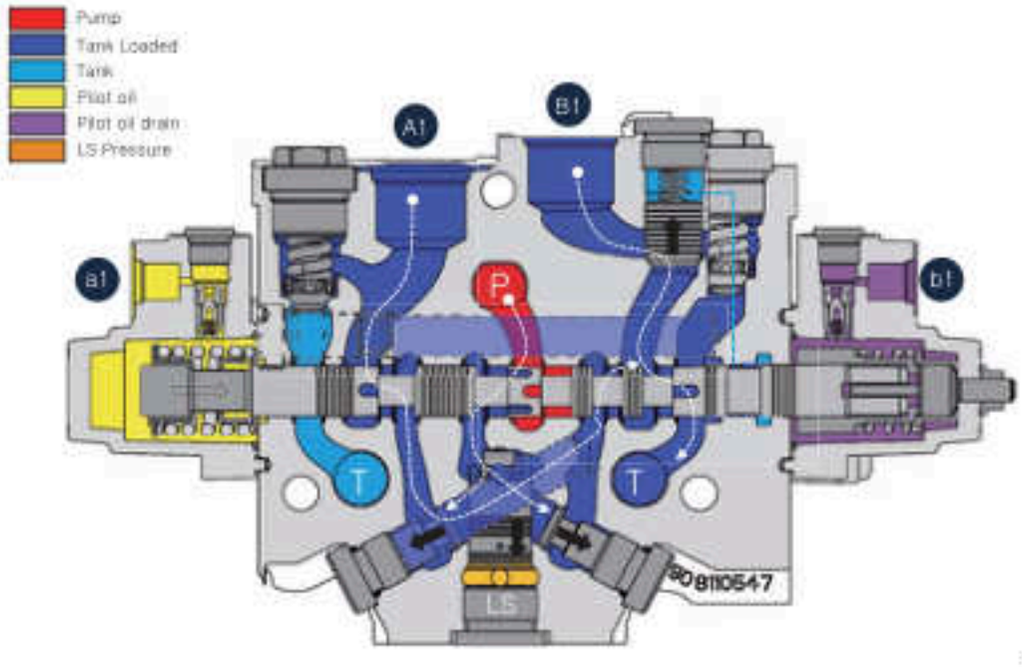
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(4) Boom lower position



When the pilot pressure is led to the port a1, the oil from the pump flows to the cylinder port A1 and oil from the cylinder flows into the tank through the cylinder port B1. If pressure in A1 becomes too low, flow from the tank avoid fullfiled A1 through tank regen channel.

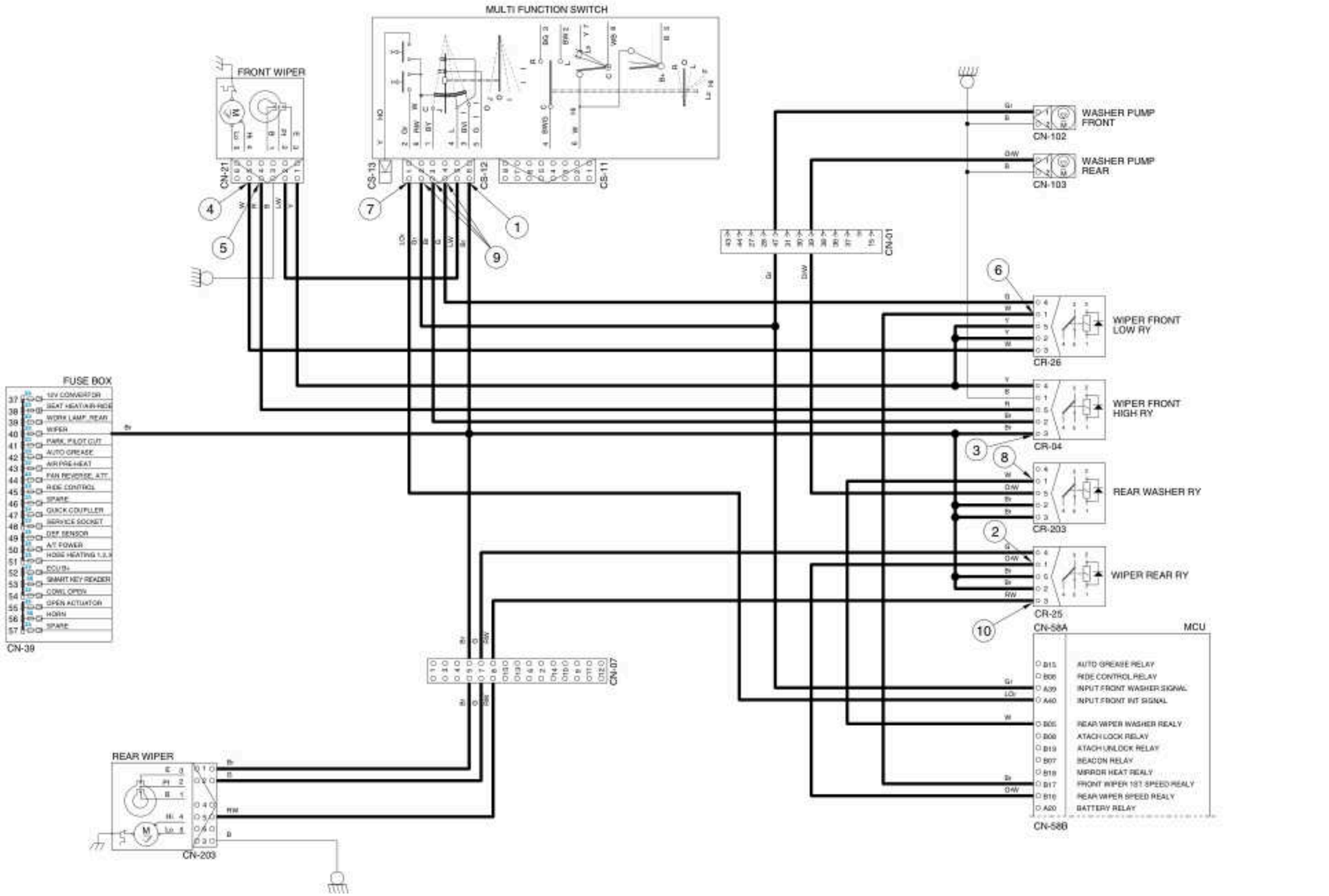
(5) Boom float position



When the pilot pressure is led to the port a1 in 4th position, the oil from the pump flows to the cylinder port A1 & A1 and oil from the cylinder flows into the tank through the cylinder port B1 & A1 to let cylinder free of movement.

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WIPER AND WASHER CIRCUIT



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

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