FORKLIFT

SERVICE MANUAL

HLF20-5

HYUNDAI

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(4) Power train devices

Item			Specification
Torque converter	Model		280-D1(KOREA POWERTRAIN)
	Type		3 Element, 1 stage, 2 phase
	Stall ratio		2.8
Transmission	Type		Power shift
	Gear shift(FR/RR)		1/1
	Adjustment		Electrical single lever type, kick-down system
	Overhaul ratio	FR	16.028 : 1
		RR	18.317 : 1
Axle	Type		Front-wheel drive type, fixed location
	Gear		Hyoid gear type
Wheels	Quantity(FR/RR)		2/2
	Front(drive)	2.0-2.5	21 × 7 × 15C
		3.0	21 × 8 × 15C
	Rear(steer)	2.0-2.5	16 × 6 × 10.5C
		3.0	16 × 6 × 10.5C
Brakes	Travel		Front wheel, duo-servo & auto adjustment type
	Parking		Toggle, internal expanding mechanical type
Steering	Type		Full hydraulic, power steering
	Steering algle		75.6° to both right and left angle, respectively

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Trouble symptom	Probable cause	Remedy
5. Power is not transmitted (Continue)	· Foreign matter intruding into oil passage to clutch. · Shaft spline worn.	· Disassemble, check and repair or replace. · Disassemble, check and replace.
6. Oil leakage (Transmission and torque converter)	· Oil leaks from oil seal.	· Disassemble and check for wear of seal lips and mating sliding surfaces (pump boss, coupling etc.) Replace oil seal, pump boss, coupling, etc.
	· Oil leaks from case joining surfaces.	· Check and retighten or replace packing.
	· Oil leaks from joint or pipe.	· Check and repair or replace gasket.
	· Oil leaks from drain plug.	· Check and retighten or gasket.
	· Oil leaks from a crack.	· Check and replace cracked part.

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ON-VEHICLE SERVICE WIRE HARNESS REPAIR

The ECM/PCM harness electrically connects the ECM/PCM to the various solenoids, electrically and sensors in vehicle engine and passenger compartment.

Wire harnesses should be replaced with proper part number harnesses. When signal wires are spliced, into a harness, use wire with high temperature insulation only.

With the low current and voltage levels found in the system, it is important that the best possible bond at all wire splices be made by soldering the splices, as shown in Figure 1.

Molded on connectors require complete replacement of the connector. This means splicing a new connector assembly into the harness.

Refer to Figure 1 for wiring diagrams.

CONNECTORS AND TERMINALS

Use care when probing a connector or replacing terminals in them. It is possible to short between opposite terminals. If this happens to the wrong terminal pair, it is possible to damage certain components. Always use jumper wires between connectors, for circuit checking. NEVER probe through the Weather-Pack seals. Use tachometer adapter J 35812, or equivalent, which provides an easy hook up of the tach lead. The connector test adapter kit J 35616, or equivalent, contains an assortment of flexible connectors, used to probe terminals during diagnosis. Fuse remover and test tool BT 8616, or equivalent, is used for removing a fuse and to adapt fuse holder, with a meter, for diagnosis.

When diagnosing, open circuits are often difficult to locate by sight, because oxidation, or terminal misalignment are hidden by the connectors. Merely wiggling a connector on a sensor, or in the wiring harness, may correct the open circuit condition. This should always be considered, when an open circuit, or failed sensor is indicated. Intermittent problems may, also, be caused by oxidized or loose connections.

Before making a connector repair, be certain of the type of connector. Weather-Pack and Meter Pack connectors look similar, but are serviced differently.

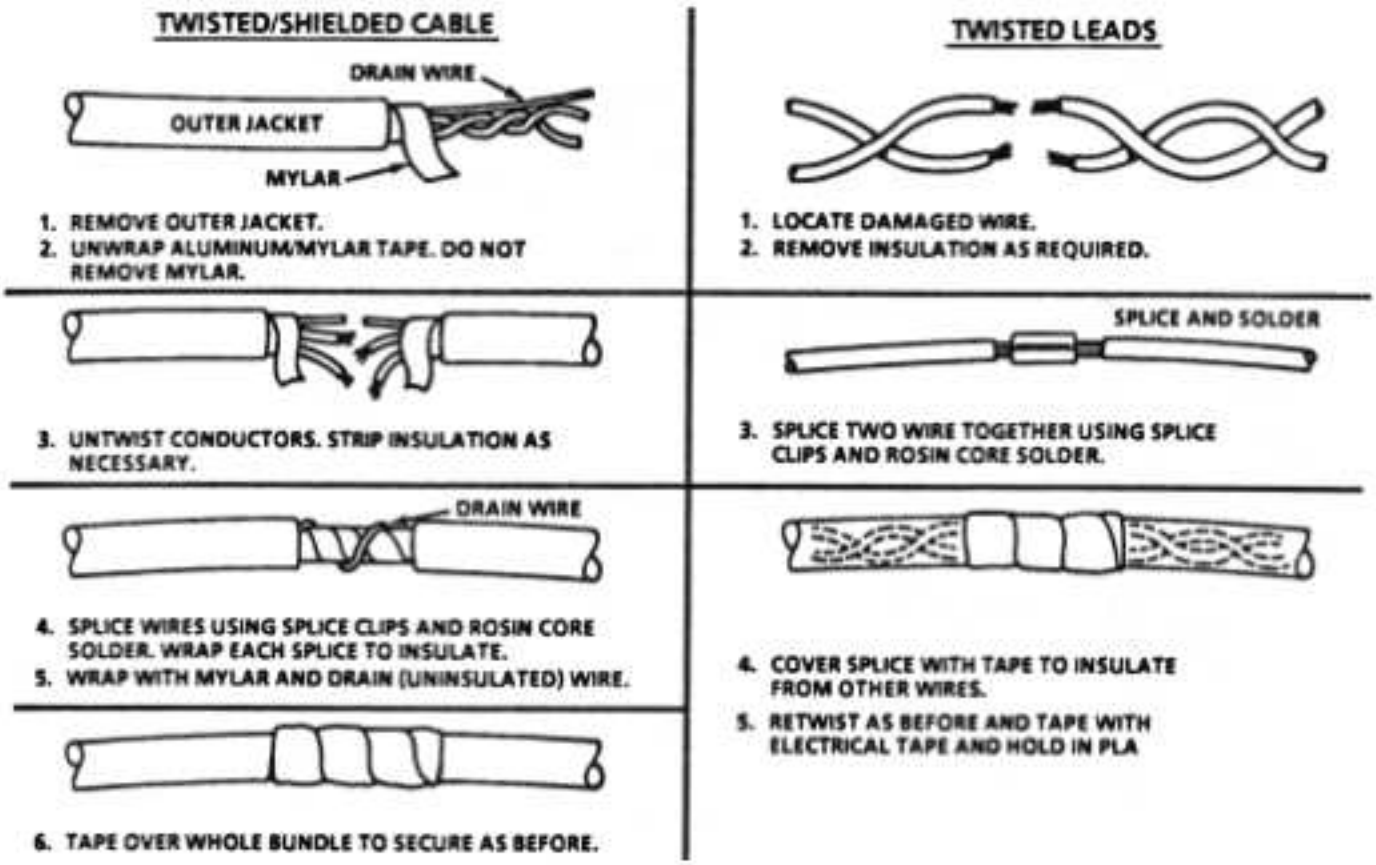
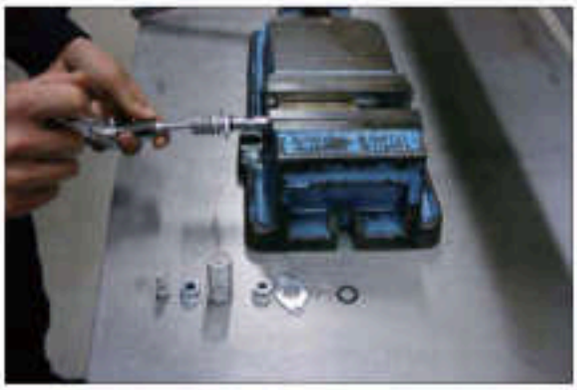


FIGURE 1 WIRE HARNESS REPAIR

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(17) Using a jig, vise a spool assembly. Assemble in the order of O-ring, dust wiper, seal plate, spring seat, and plug of each spool.
· Tightening torque : 2.0kgf · m(14.5lbf · ft)



D250CV19

(18) Install spool assembly into the block assembly.



D250CV20

(19) Cover the return cap onto the return spring side of spool assembly and then tighten the socket bolt as following torque.
· Tightening torque : 1.2kgf · m



D250CV21

(20) On the opposite side of the return cap, install O-ring, dust wiper and seal plate to the spool in order.



D250CV22

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COOLING SYSTEM



It is important to remember that the cooling system of this engine be maintained properly to insure the longevity of the engine. Maintenance of the cooling system is critical to not only the engine but the fuel system as well. Because the LPR is connected into the cooling system low coolant levels and restricted or plugged radiator cores can impact the performance of the fuel system. Therefore proper maintenance of the cooling system should include removing dust, dirt and debris from the radiator core on regular intervals. To properly maintain the cooling system follow the recommend maintenance schedule in this section.

Cooling System inspections should be performed as prescribed when inspecting the cooling system check for the following:

- Plugged or restricted radiator core clean with compressed air, blow dust and debris from the core and the fan shroud
- Check the radiator cap to insure proper sealing if damage replace
- Check for coolant leaks at the radiator tank seams and inlet joints repair or replace as necessary
- Check for leaks at the radiator hose connections, tighten hose clamps if necessary
- Check Radiator hoses for swelling, separation, cracks deterioration in the hoses, or hardening, if any of these conditions exist the hose should be replaced with the OEM replacement parts
- Check coolant level if low add with 50/50 mixture, Do not add plain water
- Replace coolant per the recommended schedule in this section

Checking the Coolant Level

Do not remove the cooling system pressure cap when the engine is hot. Allow the engine to cool and then remove the cap slowly allowing pressure to vent. Hot coolant under pressure may discharge violently.

1. Check coolant level in coolant recovery tank. Add specified coolant as required.

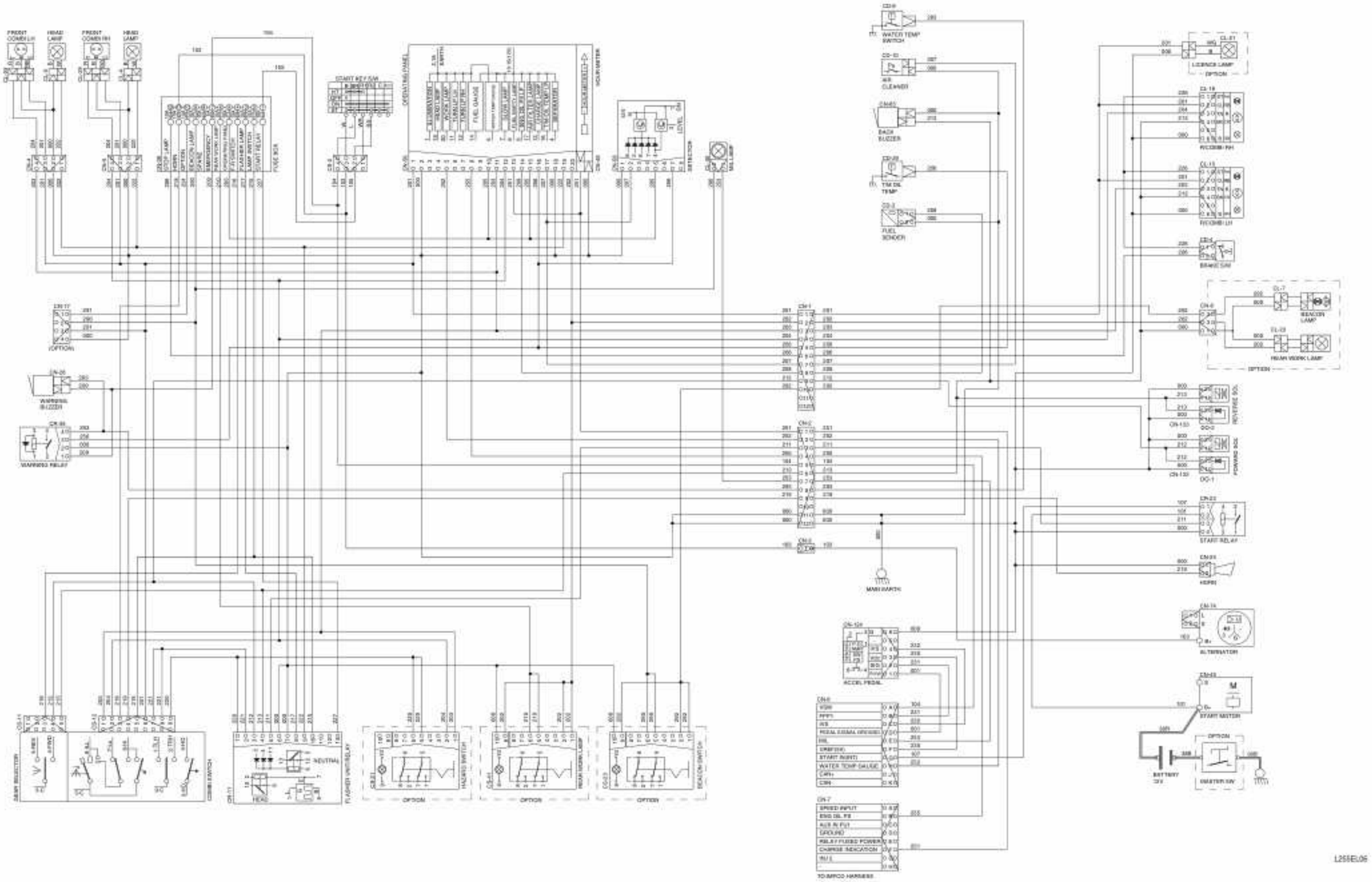
IMPORTANT:
Engine manufacturers and the fuel system supplier do not recommend the use of "stop leak" additives to repair leaks in the cooling system. If leaks are present the radiator should be removed and repaired.

If the radiator requires repair insure that the radiator core repairs did not result in a significant reduction in the cooling capacity of the radiator.

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GROUP 2 ELECTRICAL CIRCUIT

1. HLF20/25/30-5(Tier II)



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