FORKLIFT

SERVICE MANUAL

HDF50-7S

HYUNDAI

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(4) Definition of the error codes

① Introduction

The error codes consists of two hexadecimal numbers.

The first number shows the type of signal, the second number shows signal and the type of the error.

② Description of error codes

First No.	Meaning of number
1 hex	Digital input signals
2 hex	Analog input signals
3 hex	Speed signals
4 hex	Speed signals
7 hex	Analog current output signals
8 hex	Analog current output signals
9 hex	Digital output signals
A hex	Digital output signals
B hex	Clutch errors
D hex	Power supply
E hex	High speed signals
F hex	General errors

③ List of error codes

Number	Meaning of error code	
11 hex	Logical error at gear range signal	
12 hex	Logical error at direction select signal	
21 hex	Short circuit to battery voltage at clutch cutoff input	
22 hex	Short circuit to ground or open circuit at clutch cutoff input	
23 hex	Short circuit to battery voltage at load sensor input	not used
24 hex	Short circuit to ground or open circuit at load sensor input	not used
25 hex	Short circuit to battery voltage or open circuit at temperature sensor input	
26 hex	Short circuit to ground at temperature sensor input	
31 hex	Short circuit to battery voltage at engine speed input	
32 hex	Short circuit to ground or open circuit at engine speed input	
33 hex	Logical error at engine speed input	
34 hex	Short circuit to battery voltage at turbine speed input	
35 hex	Short circuit to ground or open circuit at turbine speed input	
36 hex	Logical error at turbine speed input	
37 hex	Short circuit to battery voltage at internal speed input	
38 hex	Short circuit to ground or open circuit at internal speed input	
39 hex	Logical error at internal speed input	

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GROUP 1 STRUCTURE AND FUNCTION

1. OUTLINE

There are two brake systems, the foot brake system and the hand brake system.

In the foot (wheel) brake system, oil pressure is generated in the master cylinder by treading on the brake pedal. This pressure causes the wheel cylinder pistons to extend, expanding the brake shoes and pressing them against the brake drums to attain braking force.

In the hand (parking) brake system, the brake shoes are expanded by operating the brake lever. Force from the lever is transmitted to the brake shoes through the hand brake cables and a lever arm in each wheel brake assembly.

The wheel brake is the duo-servo type. With force applied to both the primary and secondary shoes, this type provides a large amount of brake force.
In addition, the brake equipped with automatic adjusters which constantly adjust the clearance between the shoe and the drum, compensation for wear due to the shoe friction and thus keeping the clearance constant.

2. SPECIFICATION

1) WHEEL BRAKE(DRY TYPE)

Item		Specification
Type		Front wheel, duo-servo & auto adjustment type
Service brake shoe size		ø 314 × 80mm(12.4 × 3.15in)
Wheel cylinder bore diameter		ø 34.93mm(1.37in)
Master cylinder bore diameter		ø 40mm(1.57in)
Pedal adjustment	Free height	122–128mm(4.8–5.0in)
	Idle strock	4–6.5mm(0.16–0.25in)
Brake drum diameter	Normal	315mm(12.4in)
Wheel cylinder installation torque		2.04–2.55kgf · m(14.8–18.4lbf · ft)
Backing plate installation torque		15–17kgf · m(108–123lbf · ft)
Brake oil		Only use for brake fluid DOT3

2) PARKING BRAKE

Item	Specification	
	Dry type	Wet type
Type	Toggle, internal expanding mechanical type	
Parking lever stroke	281mm	322mm
Parking cable stroke	20mm	48mm

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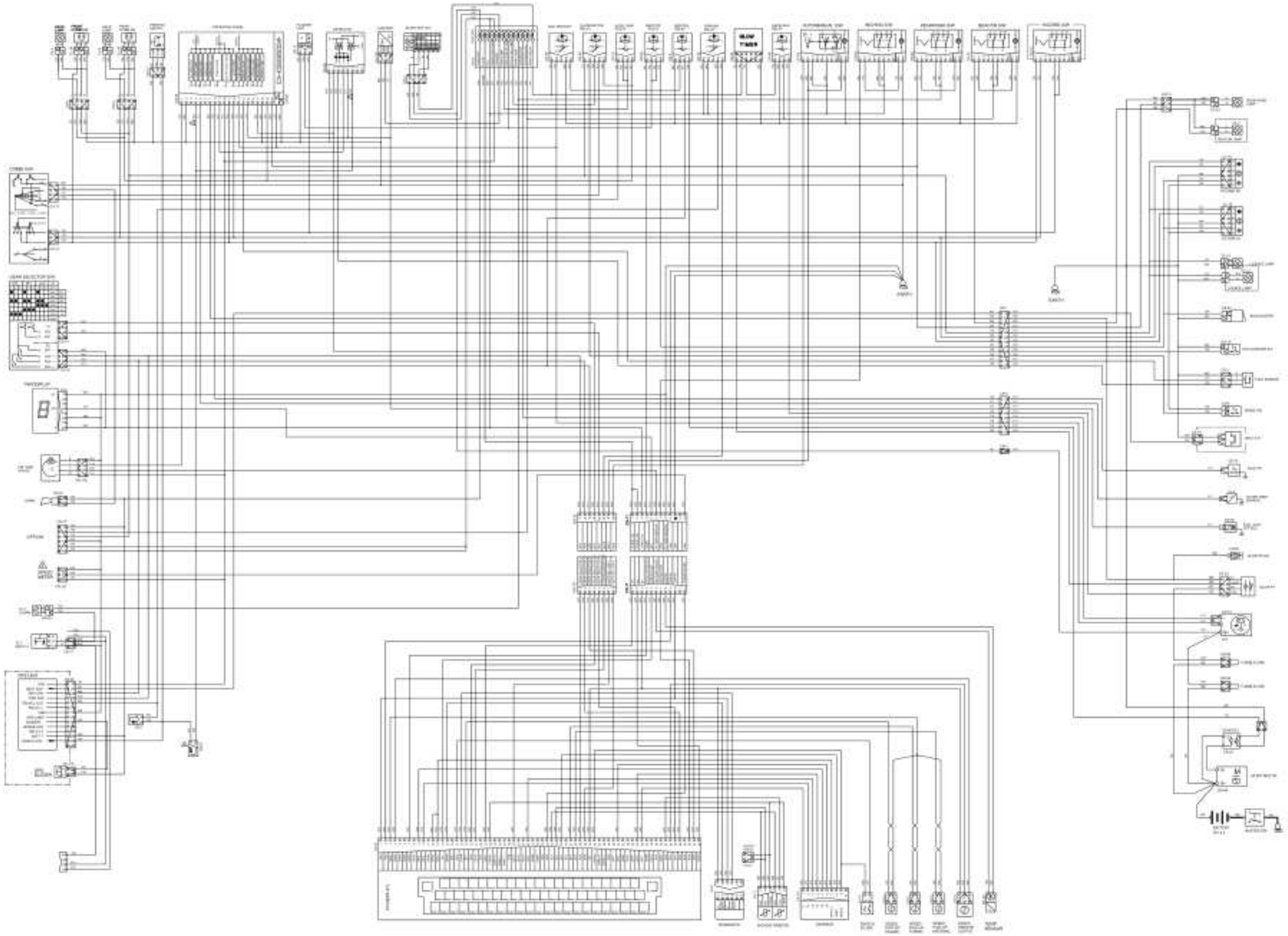
GROUP 4 CONNECTOR DESTINATION

Connector number	Type	No. of pin	Destination	Connector part No.	
				Female	Male
CN-1	KET	12	I/conn(Dashboard harness-frame harness)	S814-012001	S814-012100
CN-2	KET	8	I/conn(Dashboard harness-frame harness)	S814-008001	S814-008100
CN-3	KET	1	I/conn(Dashboard harness-frame harness)	MG640944-5	MG650943-5
CN-4	KET	4	LH support harness	S810-004201	-
CN-5	KET	4	Support harness	S810-004201	-
CN-8	AMP	8	Transmission display	929504-3	-
CN-10	AMP	8	I/conn(Dashboard harness-T/M harness)	S816-008002	S816-108002
CN-11	AMP	12	I/conn(Dashboard harness-T/M harness)	S816-012002	S816-112002
CN-12	KET	3	Rear support harness	S810-003201	-
CN-17	KET	6	Option	MG640515-4	-
CN-18	KET	2	Inching sensor	-	S814-102100
CN-19	KET	2	Output check	S814-002100	MG610320
CN-25	MOLEX	2	Horn	35825-0211	-
CN-36	-	2	Fuse box	F12890010	-
CN-45	RING TERM	2	Start motor	S820-308000	-
CN-48	KET	2	Hour meter	S822-014000	S822-114000
CN-50	AMP	68	Transmission control unit	963598-1	-
CN-51	AMP	6	Diagnostic	926682-3	-
CN-56	MOLEX	20	Operating panel	35109-2010	-
CN-58	KET	8	Detector(Indicator)	S810-008201	-
CN-60	-	2	Fusible link	21N4-01311	S813-130201
CN-62	-	6	Glow timer	S810-006202	-
CN-65	KET	2	Back buzzer	S822-014000	S822-114000
CN-74	KET	2	Alternator	MG640188-4	-
CN-79	SUMITOMO	1	Fuel shut off solenoid	6180-1181	-
CN-80	RING TERM	1	Glow plug	S820-204000	-
CN-95	AMP	2	Fusible link	21N4-01320	S813-130201
CN-112	ZF	16	Gearbox	21L7-60290	-
CN-119	KET	4	Transmission temperature gauge	S810-004201	-
CN-138	KET	3	Converter	S810-003201	-
Switch					
CS-2	KET	4	Start switch	S810-004201	-
CS-11	KET	4	Combination switch	S810-004201	-
CS-12	KET	3	Combination switch	S810-003201	-
CS-14	PACKARD	4	Gear selector switch	12010974	-
CS-15	PACKARD	4	Gear selector switch	12015797	-
CS-17	KET	3	Parking switch	S810-003201	-

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GROUP 2 ELECTRICAL CIRCUIT

1. HDF50/70-7S



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