Service Training

Electric Lift Truck E 12/15/16 with LDC Series 324 -02



E01 / Chapter 2
324 804 46(11.0209)

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ELECTRIC LIFT TRUCK E 12/15/16, SERIES 324 -02

6	Electrical system	1
6.1	Traction controller	5
6.1.1	Current path for forward travel direction	6
6.1.2	Current path for reverse travel direction	7
6.1.3	Freewheel circuit	8
6.1.4	Regen braking on 48V trucks	9
6.1.4.1	Braking circuit stage 1	9
6.1.4.2	Braking circuit stage 2	10
6.1.4.3	Braking circuit stage 3	11
6.1.5	Electronic Traction Controller	12
6.1.5.1	Power supply	14
6.1.5.2	Truck encoding	16
6.1.5.3	Traction enable via the seat switch	17
6.1.5.4	Control of directional contactors	18
6.1.5.4.1	Forward direction of travel	19
6.1.5.4.2	Reverse direction of travel	20
6.1.5.5	Single-pedal models	21
6.1.5.5.1	Modification to singlepedal model	22
6.1.5.6	Turning	23
6.1.5.7	Handbrake current	25
6.1.5.8	Regenerative braking on 48V trucks	26
6.1.5.9	Speed sensor in the traction motor	27
6.1.5.10	Actual current sensor	28
6.1.6	General explanation	30
6.1.7	Truck diagnostics	32
6.1.7.1	Window 1 Truck status data	32
6.1.7.2	Window 2 Information and error codes	33
6.1.7.3	Window 3 Fault history	46
6.1.7.4	Window 31 Confirming fault history	46
6.1.7.5	Window 32 Clearing entire fault history (master version only)	47
6.1.7.6	Window 4 Digital inputs	48
6.1.7.7	Window 5 Digital outputs	49
6.1.7.8	Window 6 Analogue signals	50
6.1.7.9	Wndow 7 setting truck parameters	51
6.1.7.10	Window 71 Setting parameters in window 7 to default settings	52

E01 / Chapter 2
324 804 4601 .0200

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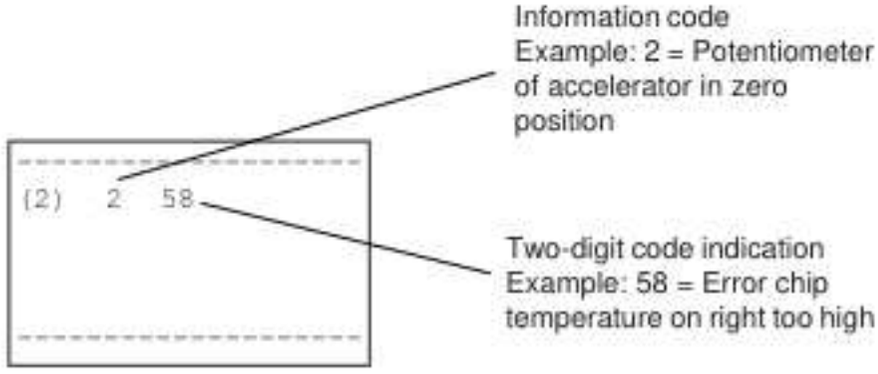
6.1.7.11	Window 72 Setting special truck parameters (master version only)	53
6.1.7.12	Window 73 Default parameters of windows 7 and 72	54
6.1.7.13	Window 74 Special version parameters	55
6.2	Pulse control for the working hydraulics	56
6.2.1	Lift electronics	56
6.2.1.1	Power supply	57
6.2.1.2	Enable signal, temperature switch and speed reduction with discharged battery	58
6.2.1.3	Control of the various work functions	59
6.2.2	Sensos in the control valve block	60
6.2.3	Adjustments	61
6.3	Steering controlLER	62
6.3.1	Functional description	64
6.4	Composite instrument	65
6.4.1	Brush wear indicator	67
6.4.2	Traction motor overheating	68
6.4.3	Hour meter	68
6.4.4	Service interval indicator	69
6.4.5	Service Interval time	70
6.4.6	Battery discharge indicator	71
6.4.7	Operation of diagnostic unit together with composite instrument	73
6.5	Wiring diagram	74
6.5.1	Wiring diagram 24V trucks	74
6.5.2	Wiring diagram 48V trucks	76

7	Hydraulic system	1
7.1	Hydraulic pump motor	1
7.1.1	Hydraulic pump motor 24V	1
7.1.2	Hydraulic pump motor 48V	1
7.1.3	Changing the hydraulic pump motor brushes	1
7.1.4	Removal and installation of the hydraulic pump motor	2
7.2	Control valve	4
7.2.1	Removing the control valve	4
7.2.2	Adjusting the pressure relief valve	4
7.2.3	Distance sensor	6
7.3	Working and steering hydraulics circuit diagram	8

E01 / Chapter 2
324 804 4601 .0200

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6.1.7.2 WINDOW 2 INFORMATION AND ERROR CODES



Window (2) displays the momentary information and error numbers. Information numbers (less than 20) are conditions of the truck which can also occur during the normal operation of the truck. Information numbers are not stored in the error memory (window 3).

An inadmissible configuration of the input signals (error) which can not occur during normal operation are indicated with a number over 20 and stored in the error memory.

NOTE: The displayed information codes and errors give the service engineer an indication of the possible cause of the error. As the electronic controller can only check the input and output signals at the 42-pin connector, it is necessary to check not only the respective component but also the wiring, connector, power supply, switching condition, etc. when an error is indicated. The following table with the error codes and the possible error causes should therefore be considered as a troubleshooting aid and not as an absolutely complete instrument. A combination of errors is also possible. If no number is indicated, the power module is being driven.

The meaning of the condition or error numbers are listed in the following tables.

Information codes 1 to 19

Error codes 20 - 99

NOTE: Error codes from 70 to 99 are internal error codes of the controller. If these error codes do not occur together with other error codes (20 to 99), the error probably lies in the controller.

E01 / Chapter 2
324 804 4601 0200

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No.	Fault Description	Controller Fault Condition	Possible Causes
67	Signal from actual current sensor 1B3 is out of range. Fault in the actual current sensor or in the connecting cables (open cable, short circuit, etc.) Result: shutdown	Voltage at 1X13:10 < 7V in the zero position of pedal or voltage at 1X13:10 > in the zero position of pedal	Fault in path 1X13:12 - 1X6:1 - 1B3 or fault in path 1X13:10 - 1X6:2 - 1B3 or fault in path 1X13:27 - 1X6:3 - 1B3 or actual current sensor faulty
68	Signal from actual current sensor 1B3 is out of range. Fault in the actual current sensor or in the connecting cables (open cable, short circuit, etc.) Result: shutdown	Voltage at 1X13:10 < 7V	Fault in path 1X13:12 - 1X6:1 - 1B3 or fault in path 1X13:10 - 1X6:2 - 1B3 or fault in path 1X13:27 - 1X6:3 - 1B3 or actual current sensor faulty
69 - 85	Safety shutdown. Unclear switching signal levels of the microswitches or internal fault in the traction electronics.	Signal inputs from safety and master controllers are not identical.	Variation in 24V supply for electronics (1X13:13) or undefined signal level at 1X13:8, 1X13:21, 1X13:22 or 1X13:38 (not clearly battery negative or 24V) or defective traction electronics

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7.2 CONTROL VALVE

7.2.1 REMOVING THE CONTROL VALVE

- Lower the fork carriage and tilt the mast forward.
- Release any pressure in the hydraulic system.
- Remove the cover from the control valve.
- Disconnect the hydraulic lines on the control valve.
- Remove the 2X4, 2X5, 2X6 and 2X8 plugs on the bottom of the control valve.
- Loosen the retaining pins in the yokes at the control levers.
- Remove the yokes at the spools.
- Remove the three hex head screws on the back of the control valve and take off the control valve.

7.2.2 ADJUSTING THE PRESSURE RELIEF VALVE

The pressure-relief valve is installed in the control valve block end plate.

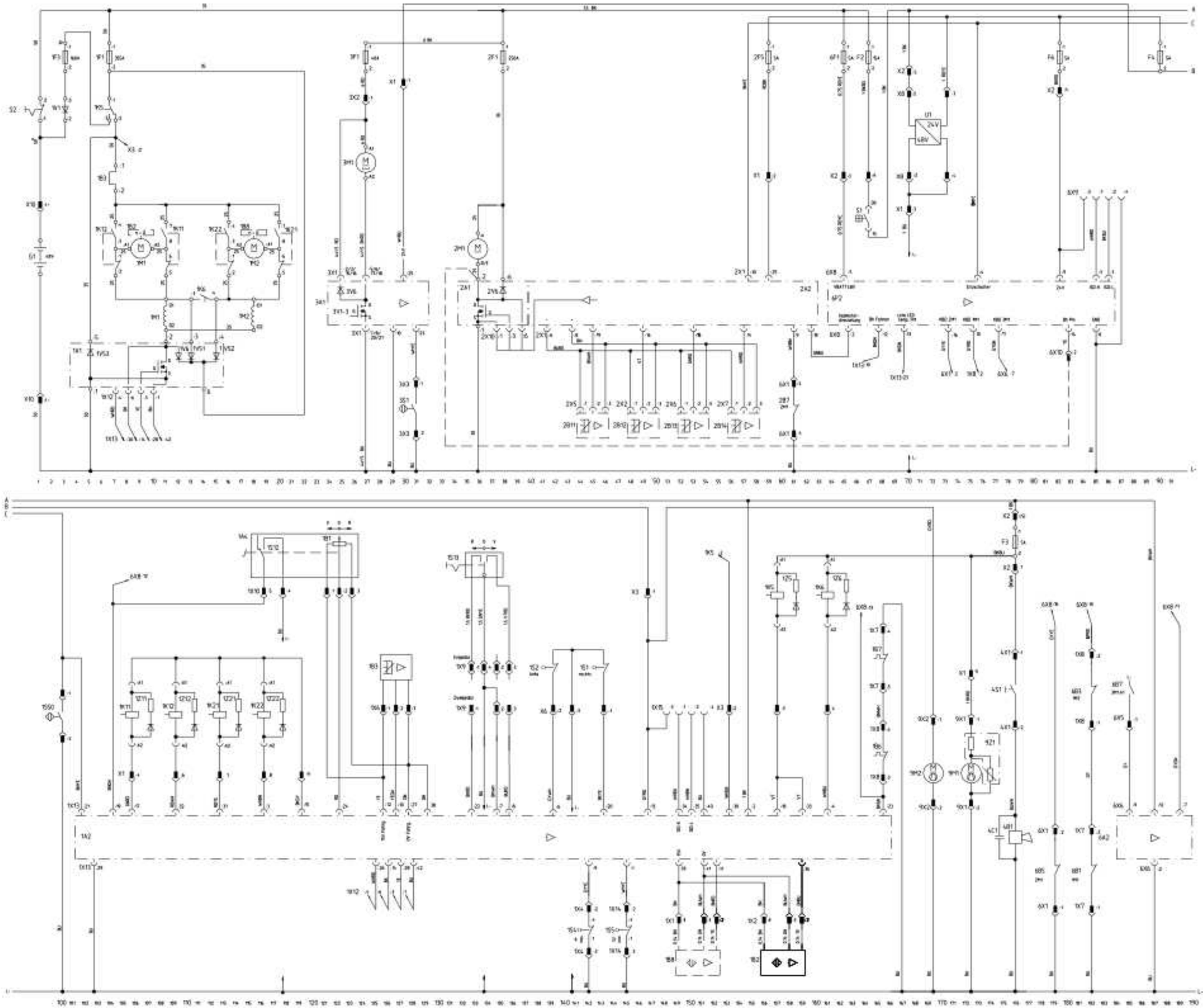
- Install a pressure gauge on the working hydraulics (if equipped with auxiliary hydraulics, preferably at the quick-disconnect coupling)
- Remove the cap (1) on the adjusting screw (2).
- Loosen the locknut (3) on the adjusting screw (2).
- Operate the control lever for the working hydraulics.
- Set the pressure at the adjusting screw (2) according to the table.

E01 / Chapter 2
324 804 4901 0200

Pressure settings:

	E 12	E 15	E 16
Standard mast	170 $^{+5}$ bar	200 $^{+5}$ bar	210 $^{+5}$ bar
Duplex mast	170 $^{+5}$ bar	200 $^{+5}$ bar	210 $^{+5}$ bar
Triplex mast	190 $^{+5}$ bar	210 $^{+5}$ bar	225 $^{+5}$ bar

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