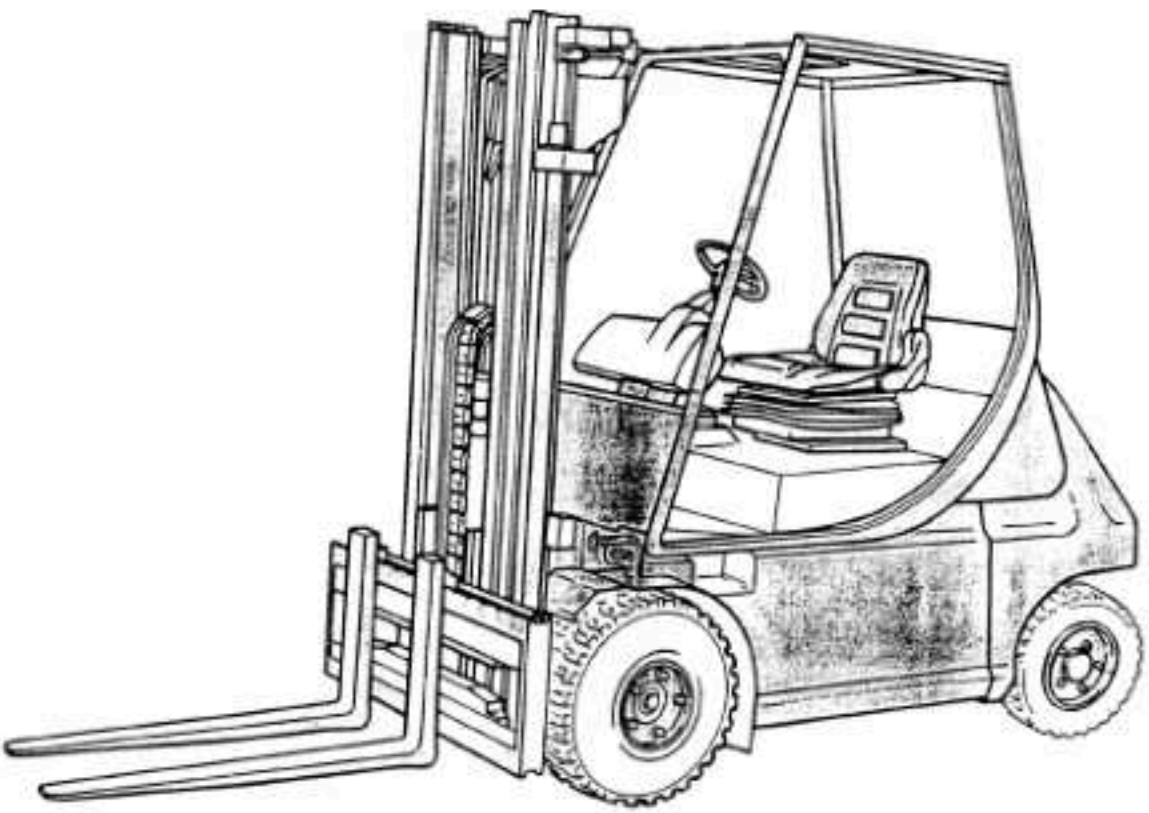
Service Training

Linde Electric Fork Truck
E 14 / 16 / 16C / 18
Series 335



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4.4.2.4 RENEWING THE WHEEL HUB TAPERED ROLLER BEARINGS AND SHAFT SEALING RING

- Jack up the truck and secure it.
- Remove the wheel.
- Remove the wheel hub (3).
- Loosen and remove the retaining nut (5).
- Remove the washer (7) and the roll pin (6).
- Drive out the wheel hub (8) from the inside out using a soft hammer. Do not let the inner race of the tapered roller bearing (4) fall out.
- Take the shaft sealing ring (1) out of the hub (8).
- Take the inner race of the tapered roller bearing (2) out of the wheel hub.
- Take the outer races of the tapered roller bearings (2) and (4) out of the wheel hub (8).
- Install the outer races of the new tapered roller bearings (2) and (4) in the wheel hub (8).

NOTE: Be sure that the bearings are properly positioned.

- Fill the space around the tapered roller bearing (2) with Linde heavy duty grease.
- Grease the inner races of the tapered roller bearing (2) well and install carefully on the outer race.
- Fill the inside of the new shaft sealing ring (1) with Linde heavy duty grease and install it in the wheel hub in the correct position (sealing lip showing inside).
- Slide the wheel hub onto the wheel shaft, taking care not to damage the shaft sealing ring (1) and that the inner race of the tapered roller bearing (2) does not stick.
- Fill the space around the tapered roller bearing (4) with Linde heavy duty grease.
- Grease the inner races of the tapered roller bearing (4) well and install carefully on the wheel shaft.
- Slide the washer (7) onto the wheel shaft and drive in the cotter pin (6).
- Install a new retaining nut (5) and tighten it with a torque of 210 Nm.
- Fill the wheel cap (3) fully with Linde heavy duty grease, position the cap and drive it in place with a soft hammer.

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4.6.12 WIRING DIAGRAM

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1A2	Traction control	106-176
1A4	Accelerator sensor	118-124
1A5	Amplifier for speed sensor	171-174
2A1	Lift control power module	20-26
2A2	Lift control	26-49
(1B1)	(Accelerator sensor potentiometer)	123-126
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1B8	Speed sensor 1M2	18,171-174
2B8	Speed sensor 2M1	24,28-30
2B11	Lift sensor	32-34
2B12	Lift tilt	36-38
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2B14	Aux. hydraulics sensor 1	44-46
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6B4	Brush wear switch,1M1	59
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6B6	Brush wear switch, 2M1	68
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1C3	Suppressor capacitor for motor 1M2	66
1C4	Suppressor capacitor for motor 2M1	71
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1F1	Traction fuse 355 A	7
1F2	Control fuse 15 A	55
1F3	Fuse 100 A	3
1F4	Traction control fuse 5 A	86
1F6	Fan fuse 5 A	84
2F1	Lifting fuse 250 A	24
2F5	Lifting fuse 5 A	48
4F3	Horn fuse 5 A	180
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G1	Battery	1
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1K6	Circuit breaker contactor	14, 169
1K11	Reverse directional contactor, right	11,107
1K12	Forward directional contactor, right	7, 111
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1M1	RH traction motor	9,11,59-62
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6P2	Combined instrument	50-90
1R2	Resistor for field excitation	7
S1	Key switch	55
S2	Emergency stop switch	1
1S1	Curve switch, right (E14, 16C, 16)	141-143
1S2	Curve switch, left (E14, 16C, 16)	146-148
1B9	Curve sensor, left (E 18P)	141-143
1B10	Curve sensor, right (E 18 P)	146-148
1S4	Parking brake switch	152
1S5	Brake pedal switch	156
1S10	Regenerative current switch	163
1S12	Accelerator sensor switch	118
1S13	Directional switch single-pedal model	110-113, 134-137
1S50	Seat switch	102
3S1	Steering switch	34
4S1	Horn button	180
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U1	Voltage converter	78
1V1	Diode regenerative braking	3
1V6	Traction freewheel diode	12
1V51	Armature diode (1M1)	13
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X1	10-pin connector	
X2	10-pin connector	
X3	10-pin connector	
X4	10-pin connector	
X5	Reed contact 3S1 terminal	34, 35
X6	Left curve sensor, 4-pin connector	146-148
X7	Right curve sensor, 4-pin connector	141-143
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X9	Overhead guard, 3-pin connector	101
X10	Battery plug	1
X12	10-pin connector	
X13	10-pin coonector	
1X1.1,2	4-pin connector	171-174
1X3	10-pin connector	60-69
1X4	3-pin connector	151-153
1X6	3-pin connector	127-129
1X7	4-pin connector	60-62
1X8	4-pin connector	63-65
1X9	4-pin connector	134-138
1X10	6-pin connector	118-125
1X11	2-pin connector	112, 113
1X12	Connection, power module - traction control unit	8-10
1X13	42-pin connector	106-176
1X14	3-pin connector	156, 157
2X1	25-pin connector	28-48
2X2	4-pin connector	28-30
2X4	3-pin lift signal connector	32-34
2X5	3-pin tilt connector	36-38
2X6	3-pin aux. hydraulics 1 connector	40-42
2X7	4-pin 2M1 connector.	66-68
2X8	3-pin aux. hydraulics 2 connector	44-46
2X10	Connection, power module - lift control unit	24-27
4X1	2-pin connector	180
5X13	3-pin connector turn signal indicator	68-70
6X6	Diagnostic connector 4-pin	88-91
6X9	36-pin connector	51-90
9X8	3-pin connector	135-138
9X10	2-pin connector	78
9X11	2-pin connector	81
9X12	2-pin connector	84
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1Z5	Quench circuit	166
1Z6	Quench circuit	171
1Z11	Quench circuit	109
1Z12	Quench circuit	112
1Z21	Quench circuit	116
1Z22	Quench circuit	120

Colour code:

BK	black	GN	green
WH	white	VT	violet
BU	blue	RD	red
OG	orange	YE	yellow
BN	brown	GY	grey

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4.7.5 WORKING AND STEERING HYDRAULICS CIRCUIT DIAGRAM

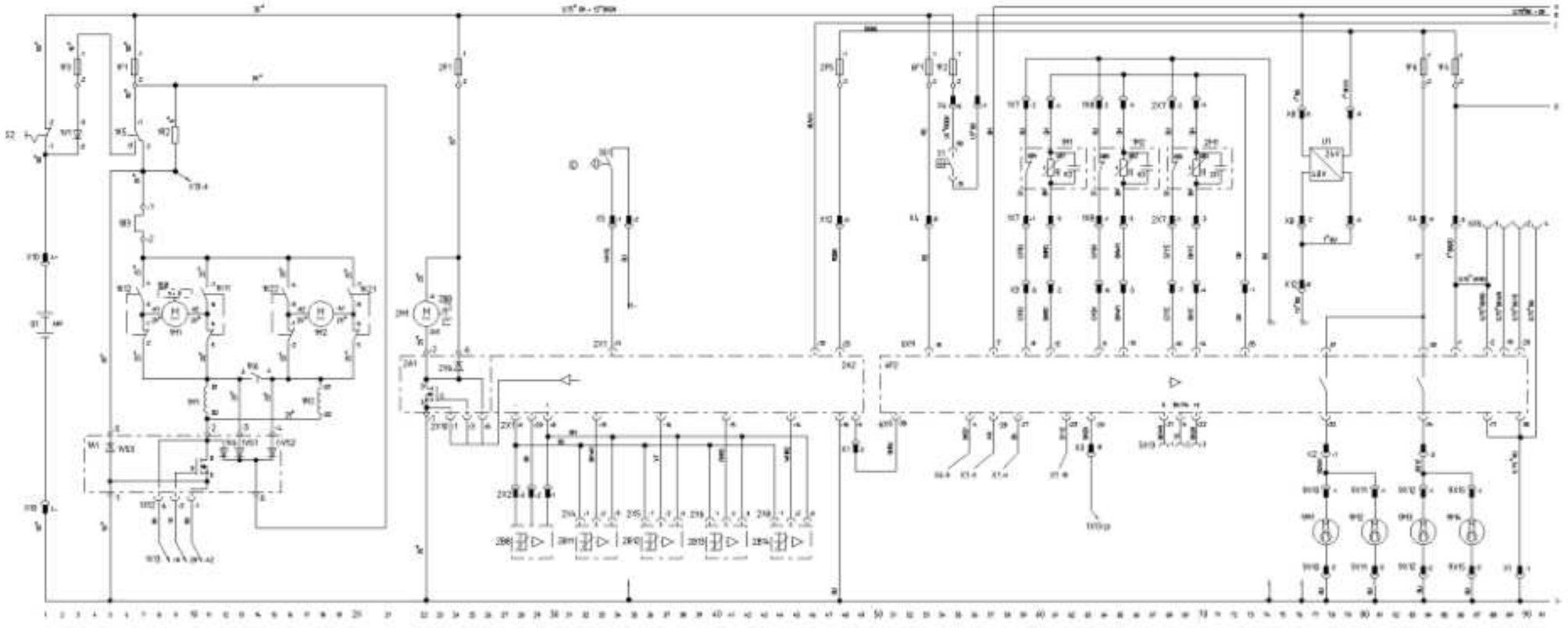
A WORKING HYDRAULICS

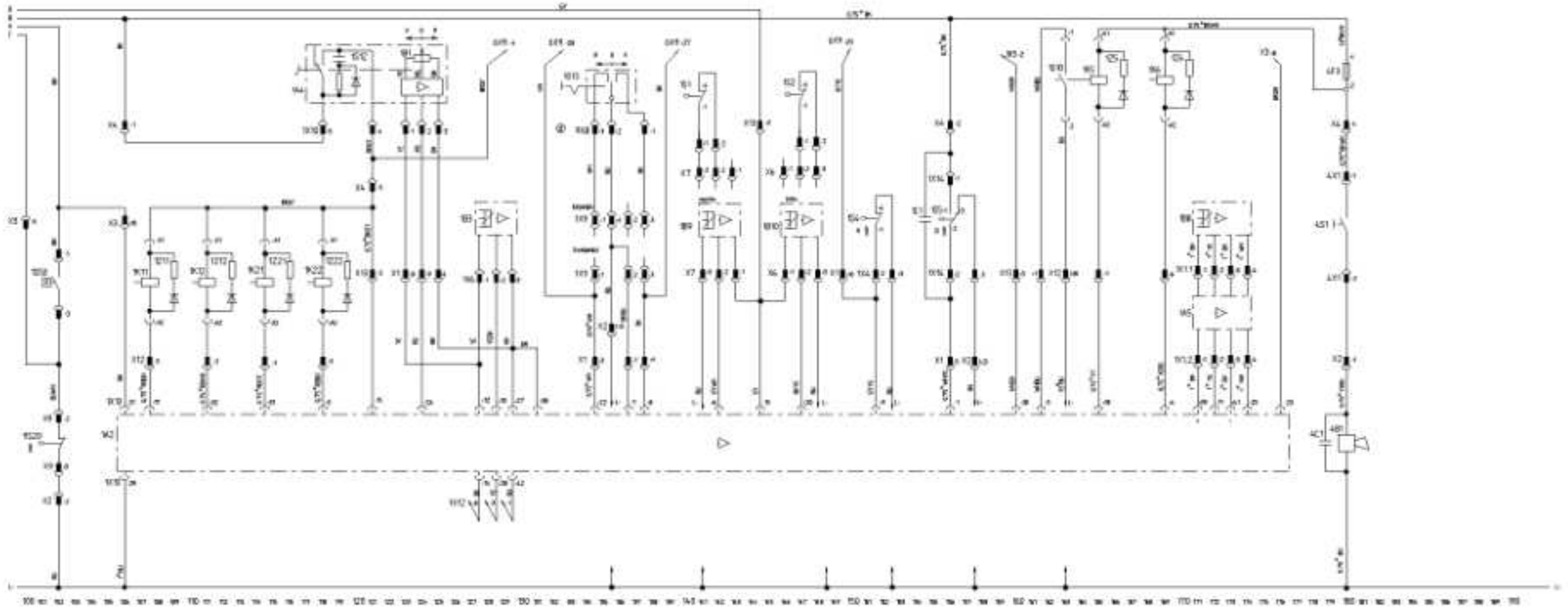
1 Hydraulic oil reservoir.
2 Suction filter (15 µm) 0.25 bar
3 Breather filter
4 Hydraulic pump, 11 cc/rev
5 Electric motor
6 Control valve
7 5/3 way valve for double auxiliary hydraulics
8 6/3 way valve for single auxiliary hydraulics
9 6/3 way valve for tilting
10 6/3 way valve for lifting
11 Restrictor
12 Make-up valve
13 Maximum pressure valve
14 Pressure holding valve
15 Tilt jack
16 Brake lower valve
17 Pipe safety valve
18-1 Standard lift cylinder, type 180
18-2 Duplex lift cylinder, type 180
18-1 Triplex lift cylinder, type 180

B Steering hydraulics

19 Steering control valve
20 7/3 way valve
21 Non-return valve
22 Hose safety valve 210±10 bar
23 Make-up valve
24 Steering metering valve
25 Priority valve
27 3/3-way valve
28 Maximum pressure valve 150±10 bar
29 Steer cylinder for combined steering axle E 18P
30 Steer cylinder for close-coupled steering axle E 14, E 16, E 16C

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