

Overview of icons and operating elements

LRT 1090-2.1/LRT 1100-2.1

Status: April 2020

The purpose of this icon overview is to provide you with a quick overview of selected operating functions for your crane. It does not contain all operating, assembly, warning and safety information necessary to properly assemble and operate the crane. It is absolutely necessary to study the operating instructions before operating the crane in order to have a complete understanding about the operation, assembly, warning and safety information.



LIEBHERR

Overview

Operating and monitoring instruments



LICCON monitor

Steering column switch

Instrument panel

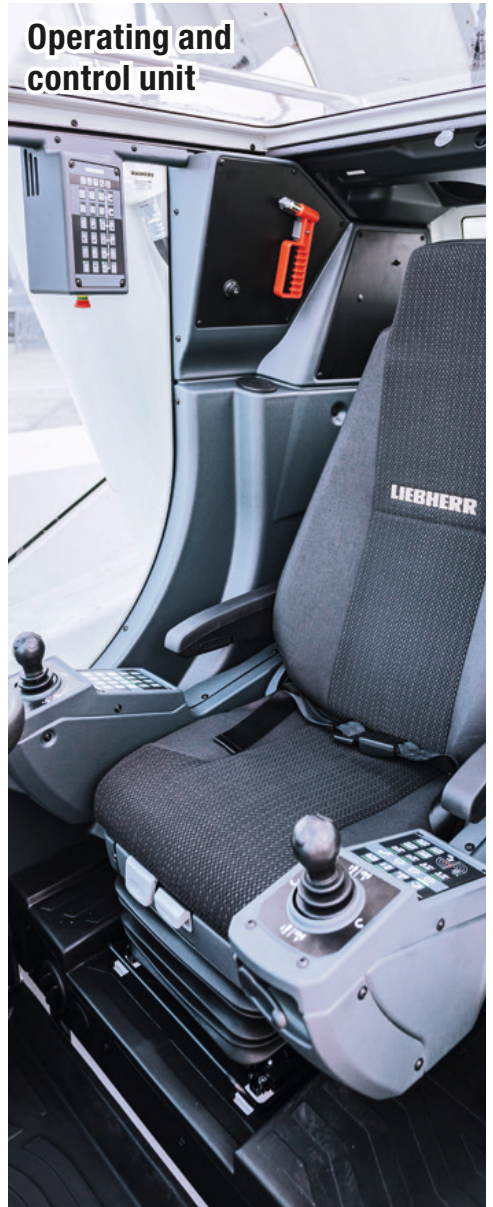
Climate control

Master switch left

**Slewing
gear brake**

**Service
brake**

Keyboard left



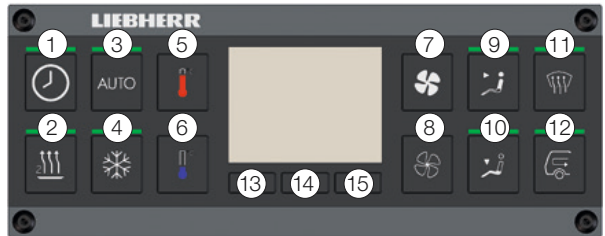
Instrument panel

- ① Warning light
 - ② Switch level 1: Parking light
Switch level 2: Low beam headlights
 - ③ Rotating beacon
 - ④ SCR system cleaning engaged*
Switch pressed on the top:
SCR system cleaning switched on
Switch in the middle position:
Automatic SCR system cleaning
Switch pressed on the bottom:
SCR system cleaning disabled
 - ⑤ Indicator light: High beam / turn signal light
- * depends on engine emission stage



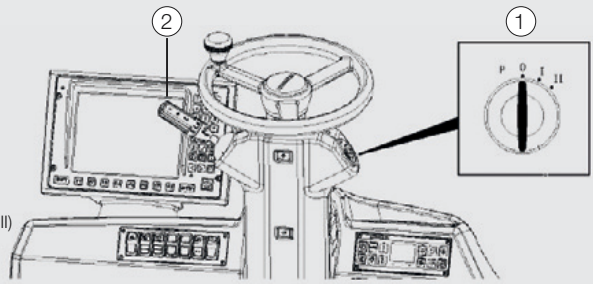
Climate control

- ① Timer
 - ② Auxiliary heater crane cab / engine preheating*
 - ③ Automatic operation
 - ④ Climate control system
 - ⑤ Increase temperature
 - ⑥ Decrease temperature
 - ⑦ Increase fan speed
 - ⑧ Decrease fan speed
 - ⑨ Air distribution for head area
 - ⑩ Air distribution for floorboard area
 - ⑪ Front window defrosting
 - ⑫ Recirculating air
 - ⑬ – ⑮ Programming buttons timer
- * optional



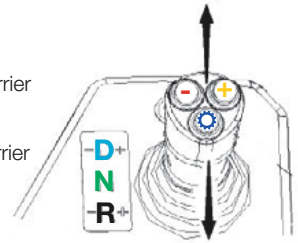
Ignition switch

- ① Engine start / engine stop
- ② Steering column switch
 - Low beam/high beam
 - Headlight flasher
 - Turn signal indicator (left/right)
 - Windshield wiper operation (0, interval, I, II)
 - Window washer system
 - Operation horn



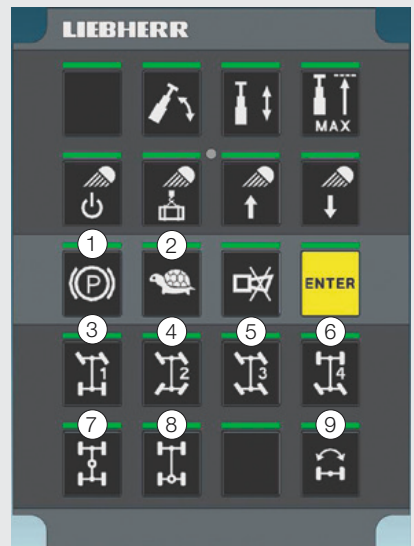
Driving switch

1. Preselection of travel direction **D**: "Forward", in relation to the crane carrier
2. Preselection of travel direction **N**: Neutral position
3. Preselection of travel direction **R**: "Reverse", in relation to the crane carrier
4. Manual / Automatic gearbox
5. Engine brake on **+**
6. Engine brake off **-**



Keyboard right

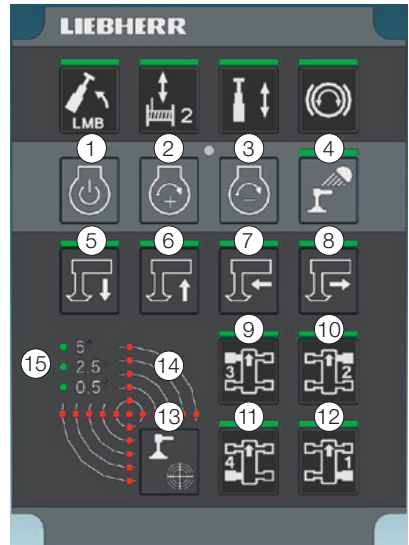
- ① Parking brake
- ② Travel gear: Creeper gear
- ③ Steering program: Front axle steering
- ④ Steering program: All-wheel steering
- ⑤ Steering program: Crab steering
- ⑥ Steering program: Rear axle steering
- ⑦ Longitudinal differential lock
- ⑧ Transverse differential lock
- ⑨ Axle oscillation



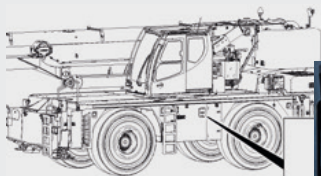
Support

- ① Engine start / engine stop
- ② Increase engine rpm
- ③ Reduce engine rpm
- ④ Sliding beam illumination
- ⑤ Extend support cylinders
- ⑥ Retract support cylinders
- ⑦ Extend sliding beam
- ⑧ Retract sliding beam
- ⑨ Select support 3 front left
- ⑩ Select support 2 front right
- ⑪ Select support 4 rear left
- ⑫ Select support 1 rear right
- ⑬ Automatic leveling mode
- ⑭ Digital level gauge
- ⑮ Scale of digital level gauge

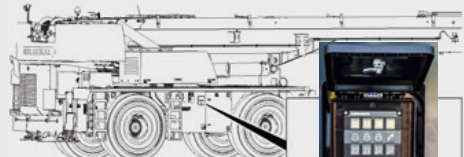
Keyboard left



Support control unit

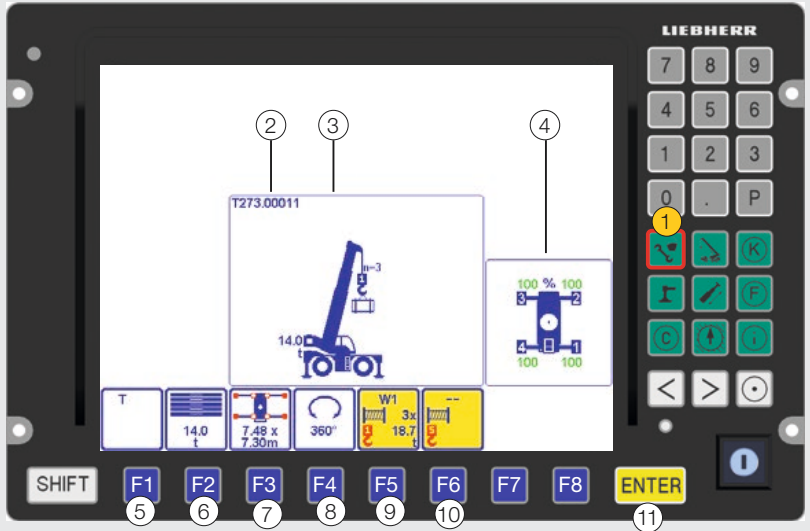


left



right

Set up program



1 Set up program

- 2 Chart name (chart number)
- 3 Graphic display
- 4 Support display
- 5 Operating mode
- 6 Counterweight
- 7 Support base
- 8 Slewing range
- 9 Reeving main boom pulley head
- 10 Reeving equipment
- 11 ENTER key
(confirmation of set up configuration)

Master switch left

Y+ Spool winch 2 out /
Telescope the telescopic boom out*



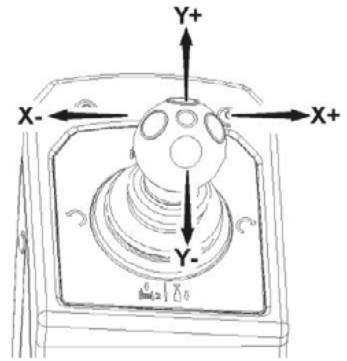
Y- Spool winch 2 up /
Telescope the telescopic boom in*



X- Turn the crane superstructure to the left



X+ Turn crane superstructure to the right



* See master switch right + left preselection

Keyboard units – preselection

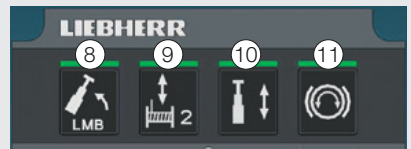
- ① Preselect luffing crane movement
- ② Preselect telescoping crane movement
- ③ Telescoping mode LRT 1090-2.1:
LED on: Telescoping mode 1 (telescopes 2, 3, 4 are telescoped out first)
LED off: Telescoping mode 2 (telescope 1 is telescoped out first)
- ③ Telescoping mode LRT 1100-2.1:
LED on: Longer boom (larger radius) with reduced load.
LED off: Reduced boom length (medium radius) with higher load
- ④ Turn floodlight on/off*
- ⑤ Load following floodlight*
- ⑥ Swing the floodlight up*
- ⑦ Swing the floodlight down*
- ⑧ Luffing in with suspended load
- ⑨ Preselect spooling winch 2 crane movement
- ⑩ Preselect telescoping crane movement
- ⑪ Slewing gear brake

*optional

Keyboard unit right

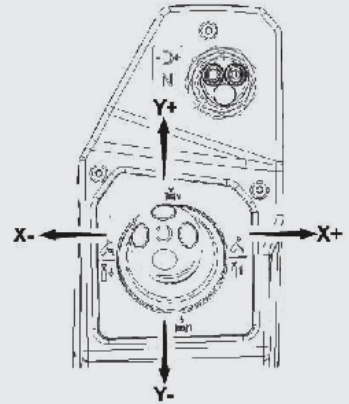


Keyboard unit left



Master switch right

- Y+ Spool winch 1 out
- Y- Spool winch 1 up
- X- Luff telescopic boom up / Telescope telescopic boom in*
- X+ Luff telescopic boom down / Telescope telescopic boom out*



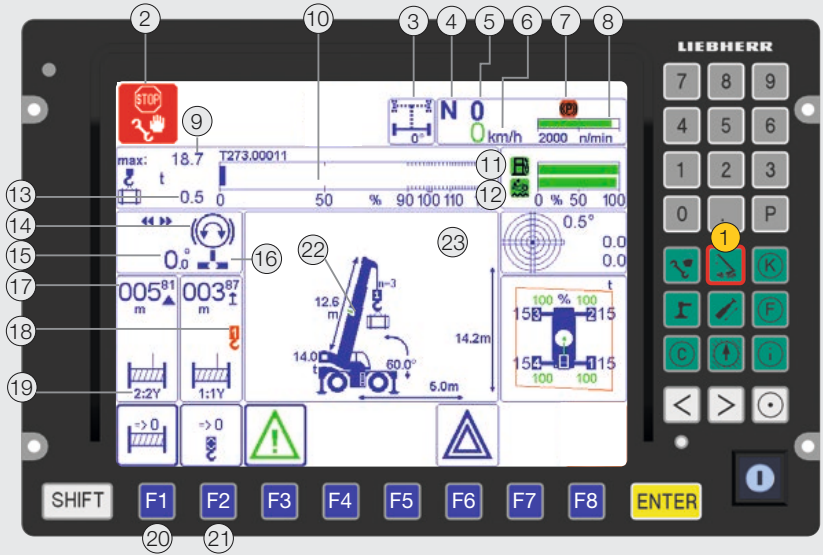
* See master switch right + left preselection

Operating and control unit

- ① "Front" window washer system
- ② "Roof" window washer system
- ③ Release button
- ④ Extend platform
- ⑤ "Front" window wiper
- ⑥ "Roof" window wiper
- ⑦ Interior light cab
- ⑧ Retract platform
- ⑨ Floodlight 1 front of turntable
- ⑩ Unpin turntable lock
- ⑪ Cabine tilt up
- ⑫ Airplane warning
- ⑬ Floodlight 2 front of turntable
- ⑭ Automatic turntable lock centering and locking
- ⑮ Cabin tilt down
- ⑯ Hydraulic oil preheating*
- ⑰ Floodlight winch
- ⑱ Block winch 1
- ⑲ Slewing gear freely rotating
- ⑳ ECO mode operating mode
- ㉑ Floodlight rear view camera
Floodlight camera right side of turntable*
- ㉒ Block winch 2
- ㉓ Block slewing gear * optional



Crane operation program



- | | |
|---|---|
| <ul style="list-style-type: none"> ① Crane operation program ② LMB STOP during travel operation
(driving without confirmed set up configuration) ③ Rear axle steering monitoring indicator ④ Driving direction preselection ⑤ Gear indicator ⑥ Current travel speed ⑦ Parking brake monitoring indicator ⑧ Engine rpm ⑨ Maximum load ⑩ Utilization bar diagram ⑪ Fuel reserve display ⑫ Urea reserve display | <ul style="list-style-type: none"> ⑬ Current load ⑭ Slewing gear brake ⑮ Turntable rotation angle ⑯ Turntable lock ⑰ Display hook path/hook height ⑱ Winch assignment ⑲ Master switch winch assignment ⑳ Display reset hook path ㉑ Display reset hook height ㉒ Telescopic boom pinning status* ㉓ Graphic display |
|---|---|

*** no display for LRT 1090-2.1**

Chart view program*

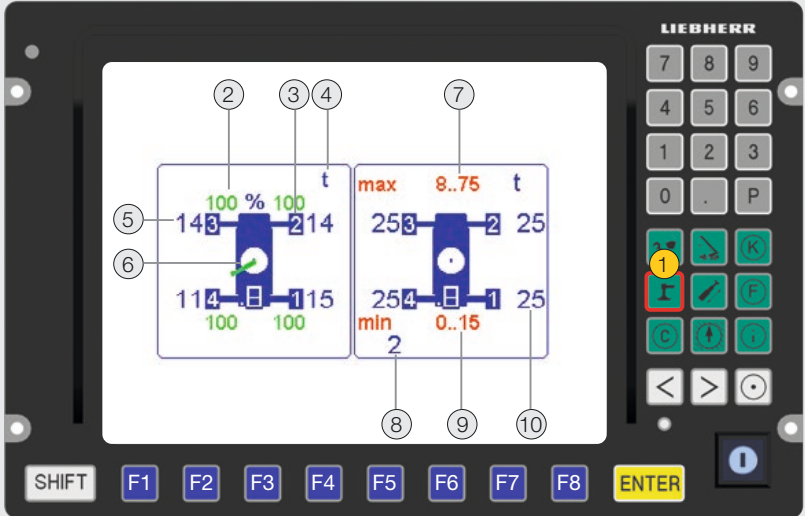


	[m]	[t]					
T273.00011	22.0	26.6	31.3	36.0	40.7	45.3	50.0
2.5							
3.0	34.4						
3.5	32.3						
4.0	30.2						
4.5	28.6	28.0					
5.0	27.1	26.5	21.7				
6.0	24.1	24.1	19.7	19.4			
7.0	22.0	21.9	18.0	18.1	16.3		
8.0	20.0	19.9	16.6	16.8	15.7		
9.0	18.4	18.5	15.1	15.8	14.9	13.8	
10.0	17.1	17.0	14.0	14.8	14.1	13.3	10.8
12.0	14.7	14.8	12.1	13.0	12.5	12.2	10.5
14.0	13.0	12.9	10.5	11.6	11.1	11.1	9.9
16.0	11.2	11.4	9.3	10.3	10.0	10.0	9.0
* n *	* 6 *	* 5 *	* 4 *	* 4 *	* 3 *	* 3 *	* 2 *
13 (13)	<<						
1	0+	0+	0+	0+	50	100+	
2	0+	0+	0+	50	100+	100+	100+
% 3	0+	50	100+	100+	100+	100+	100+
4	100+	100+	100+	100+	100+	100+	100+

- ① Chart view program*
- ② Units of measure
- ③ Chart name
- ④ Telescopic boom lengths
- ⑤ Horizontal orientation display
- ⑥ Page counter
- ⑦ Boom radius
- ⑧ Vertical orientation display
- ⑨ Load value field
- ⑩ Reeving number of hoist rope
- ⑪ Extension condition of telescopic sections

*example of LRT 1100-2.1

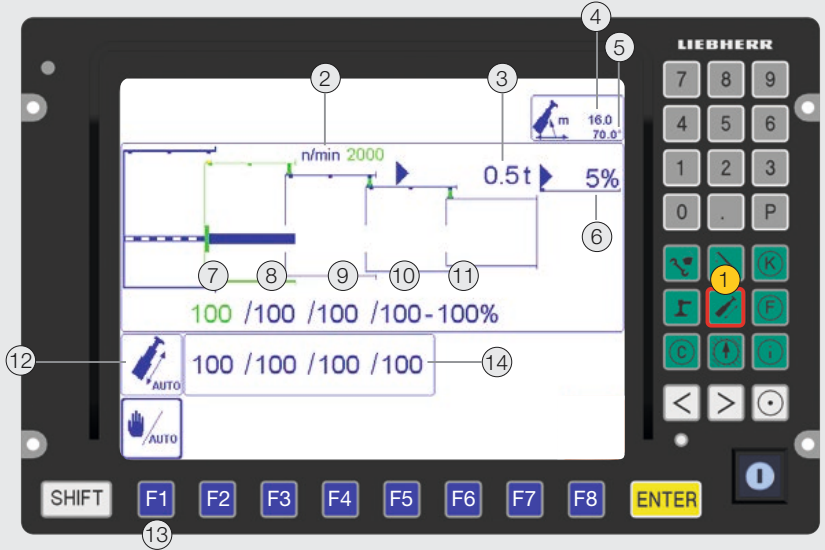
Support force monitoring program



1 Support force monitoring program

- 2 Sliding beam extension condition
- 3 Support cylinder numbering
- 4 Weight unit
- 5 Current support force display
- 6 Telescopic boom alignment
- 7 Maximum support force range
- 8 Set minimum support force
- 9 Minimum support force range
- 10 Set maximum support force

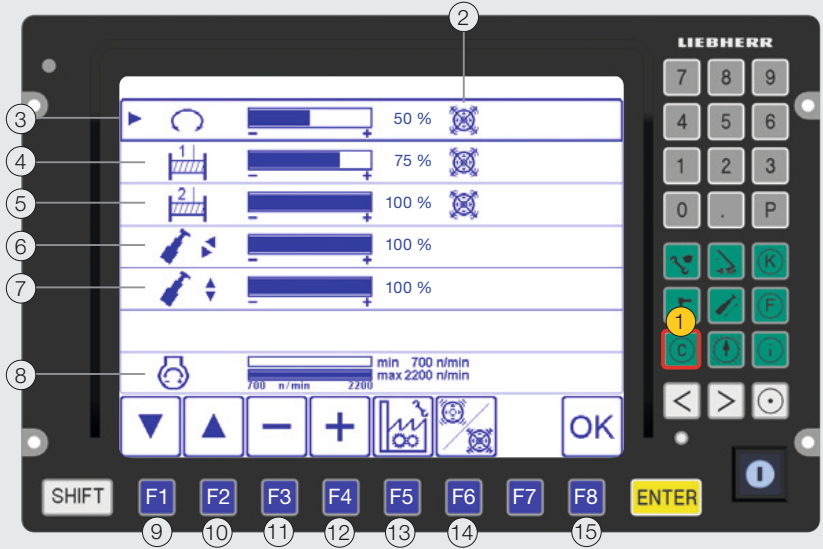
Telescoping program*



- ① **Telescoping program***
- ② Engine rpm
- ③ Current load
- ④ Boom radius
- ⑤ Main boom angle
- ⑥ Current crane utilization
- ⑦ Current extension condition of telescope 1
- ⑧ Current extension condition of telescope 2
- ⑨ Current extension condition of telescope 3
- ⑩ Current extension condition of telescope 4
- ⑪ Extension condition of telescoping cylinder
- ⑫ Telescoping status display (automatic / manual)
- ⑬ Switch between automatic and manual telescoping operation
- ⑭ Telescoping targets

* no display for LRT 1090-2.1

Control parameter program



1 Control parameter program

2 Activate / deactivate display vibration sensor on master switch

3 Slewing gear speed reduction as a %

4 Winch 1 speed reduction as a %

5 Winch 2 speed reduction as a %

6 Telescoping speed reduction as a %

7 Luffing speed reduction as a %

8 Engine rpm / ECO mode setting

9 Move the function selector down

10 Move the function selector up

11 Reduction of the selected value

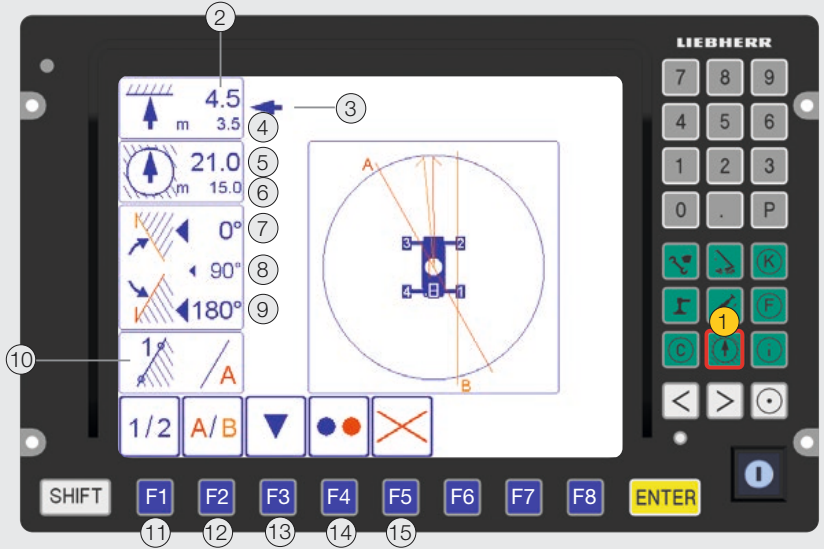
12 Increase of the selected value

13 Reset to default settings

14 Activate / deactivate vibration sensor

15 Take over the set values

Working range limitation program



1 Working range limitation program

2 Pulley head height limit value

3 Function selector

4 Current pulley head height

5 Maximum working radius limit value

6 Current working radius

7 Right limit angle

8 Current turntable slewing angle

9 Left limit angle

10 Edge limitation

11 Selection of point 1 + 2 of the selected edges

12 Selection of edges to be programmed

13 Move the function selector

14 Individual limitation function ON / OFF

15 All limitation functions OFF

BSE test system program



1

BSE test system program

(test system for LICCON control)

– see the Diagnostics manual

2

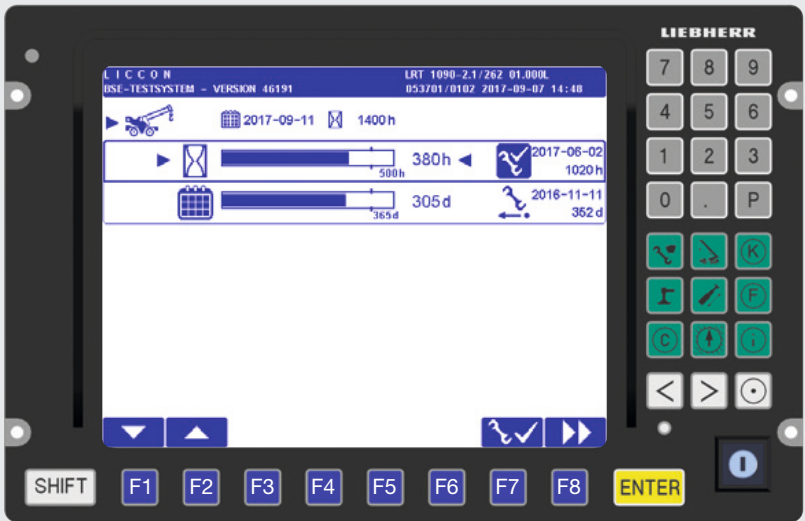
Service System menu



2

Service System menu (crane maintenance indicators)

– see the service book



Subject to modifications

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