

# Remote Monitoring Of Tower Cranes and Elevators

Start Time: 6/1/2008 00:00		End Time: 7/1/2008 00:00	
Prev	Next	Last	1 Month(s)
Operating Time			
Start Time	End Time	Total	
42036			
6/1			
Day total		07:30 - 17:30	17:30 - 07:30 Weekend hours
	0s	0s	0s
6/2			
6/2/2008 08:14	6/2/2008 08:59	45min	
6/2/2008 08:57	6/2/2008 10:03	1h 6min	
6/2/2008 10:11	6/2/2008 10:31	20min	
6/2/2008 10:37	6/2/2008 10:37	31s	
6/2/2008 10:37	6/2/2008 11:02	25min	
6/2/2008 15:17	6/2/2008 15:32	15min	
6/2/2008 15:57	6/2/2008 16:06	9min	
6/2/2008 16:08	6/2/2008 16:09	26s	
6/2/2008 16:41	6/2/2008 16:59	18min	
Day total		07:30 - 17:30	17:30 - 07:30 Weekend hours
	3h 18min	3h 18min	0s
6/3			
Day total		07:30 - 17:30	17:30 - 07:30 Weekend hours
	0s	0s	0s
6/4			

## Giraffe™ gives you

- Fleet Information on Your Display
- Control of Operating Hours
- Maintenance Planning
- Advanced Remote Monitoring of Your Fleet

## Giraffe™ - Handy Tool for Fleet Owners

- New efficient system to manage fleet of tower cranes, elevators, etc..
- Continuous monitoring of use and operation of tower cranes/elevators
  - Improved performance and level of operations and services
- Information for rapid activation of maintenance or troubleshooting actions,
- Savings and cost advantages when minimizing maintenance or troubleshooting breaks

## Information on Each Tower Crane/Elevator from Site

Giraffe™ brings information of how tower cranes/elevators are operated on site. This way the Giraffe™ system helps to manage the business and the fleet regarding e.g. invoicing machine rental, optimizing utilization of capacity, and planning maintenance and troubleshooting actions. Giraffe™ shows operating times and conditions of tower cranes/elevators on your screen. With Giraffe™, information such as times of mains power on/off, operating hours, signals from selected sensors or controls, or positions of switches can be automatically received from tower cranes/elevators. Information is shown on your display via Internet, and access to information can be given to your defined persons.

The information is specific to each equipment. Next action - whether maintenance/troubleshooting action or directions by phone to fix the case, or financial action such as invoicing rental customer based

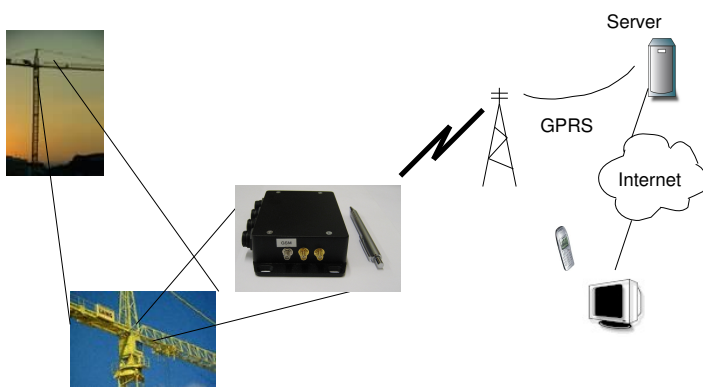
on e.g. monthly hours of operation - can be done immediately. The information is wirelessly transmitted automatically to Giraffe™ server where it is stored, and where history of information is available also.

## Remote Surveillance with Platypus™ Terminal Devices

Each tower crane/elevator is equipped with Platypus™, a state-of-the-art remote terminal designed for industrial use in demanding environments. Small and handy Platypus™ is easy to mount on equipment from various manufacturers, both on new equipment and as retrofitting. Platypus™ is connected to sensors or detectors from which the terminal reads the signals indicating e.g. power on, crane/elevator in use, position of desired switches, indicators, etc..

### Functional Features

- Typical remote monitoring includes
  - Machine time, and operating hours, of each machine and a group of machines
  - Running periods of subsystems such as motors, gears, etc.
  - Warnings and alarms by email and/or SMS when over/below a threshold
- High level of automation including data collection from tower cranes/elevators, automatic data transfer, storing of the information on server, and showing information on display
- Information is accessed via Internet and shown on www pages with customizable look and feel
- Optionally, additional information from Liebherr<sup>®</sup> tower cranes with Litronic<sup>®</sup> crane control system (Note 1) such as
  - load, hook level, trolley position, working radius, slewing angle, wind speed,..
  - Messages, Warnings, Errors,..



Start Time: 8/1/2008 00:00 End Time: 9/1/2008 00:00

Prev Next Last 1 Month(s)

42131 Liebherr 200 E-CH		
M121	8/5/2008 14:16	8/5/2008 14:17
M121	8/5/2008 07:06	8/5/2008 07:07
M111	8/5/2008 06:53	8/5/2008 06:53
M111	8/5/2008 06:53	8/5/2008 06:53
W553	8/5/2008 03:40	8/5/2008 06:10
W568	8/5/2008 03:40	8/5/2008 06:10
W553	8/5/2008 03:20	8/5/2008 06:10
W568	8/5/2008 03:19	8/5/2008 06:10
W553	8/5/2008 02:46	8/5/2008 06:10
W568	8/5/2008 02:46	8/5/2008 06:10
W553	8/5/2008 01:35	8/5/2008 06:10
W568	8/5/2008 01:34	8/5/2008 06:10
Working radius	6.4 m	
Lowering depth	3.6 m	
Slewing angle	93.8 °	
Wind speed	9.0 m/s	
Load	0.1 t	

Note 1. Refer to Liebherr Group, [www.liebherr.com](http://www.liebherr.com). Liebherr<sup>®</sup>, and Litronic<sup>®</sup>, are registered trademarks of Liebherr or its affiliated companies.

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