



# LCL series

4 models of luffing-jib cranes  
Maximum loads from **8 to 24 tons**  
**Effi-Plus** hoist mechanisms with **high speeds**

\* LCL 500 crane: See own brochure

# LCL

## LCL SERIES OF LUFFING JIB CRANES

**Linden Comansa** offers its customers a series of luffing-jib cranes, designed under the **European standard EN 14439**, and prepared to give an optimal performance on jobsites with high density of cranes and buildings.

The series is formed by four models; available in different versions depending on their maximum load capacity:

Model	Version (Max. load)	Jib en load	Max. jib length	Max. freestanding height
<b>LCL 165</b>	8 t 17,640 lbs.	2,550 kg 5,620 lbs.	50 m 164 ft.	56,6 m 185,7 ft.
	12 t 26,450 lbs.	2,300 kg 5,070 lbs.	50 m 164 ft.	56,6 m 185,7 ft.
<b>LCL 190</b>	12 t 26,450 lbs.	1,550 kg 3,420 lbs.	60 m 196.8 ft.	63,1 m 207 ft.
	18 t 39,680 lbs.	1,550 kg 3,420 lbs.	60 m 196.8 ft.	63,1 m 207 ft.
<b>LCL 280</b>	12 t 26,450 lbs.	2,900 kg 6,390 lbs.	60 m 196.8 ft.	53,2 m 174,5 ft
	18 t 39,680 lbs.	2,900 kg 6,390 lbs.	60 m 196.8 ft.	53,2 m 174,5 ft
	24 t 52,910 lbs.	2,600 kg 5,730 lbs.	60 m 196.8 ft.	53,2 m 174,5 ft
<b>LCL 310</b>	12 t 26,450 lbs.	3,500 kg 7,720 lbs.	60 m 196.8 ft.	59,0 m 193,5 ft.
	18 t 39,680 lbs.	3,500 kg 7,720 lbs.	60 m 196.8 ft.	59,0 m 193,5 ft.
	24 t 52,910 lbs.	3,200 kg 7,050 lbs.	60 m 196.8 ft.	59,0 m 193,5 ft.

\* For the data of model LCL 500, see own brochure



## TOTAL MODULARITY

The design and development of the entire series has been based once again on **Linden Comansa's** modular system. Most of the jib sections are interchangeable between the cranes of the series, and most sections are interchangeable between the cranes of the series and also between the models from other families of **Flat-Top®** cranes.

All the cranes from this series have jib lengths of 5 meters (16.4 ft.), which allows a great variety of jib lengths to dial down depending on the jobsite.

These luffing-jib cranes can be erected with our 6 or 10-meter-wide folding cross base, or with a new 8-meter-wide base, which can be easily folded to be transported in one truck or container. This 8 meter base can also be used in other models of Linden Comansa tower cranes to achieve an increase of heights up to 30%. Also, this base can be used for the **21 LC 750 and LCL 500** cranes, which up to now could only be erected using the 10-meter-wide base. This helps out customers who want even more variety and options with their machines.

## FAST ERECTION AND EASY TRANSPORT

The **LCL Series** series has been designed to achieve fast, easy and most importantly safe assembly. All of the models in the series have the hoist mechanism placed in direct view of the cabin to increase the production by the operator. In the rear, or counterjib, we have the luffing mechanism, emergency brake and electrical panel. All of these locations are due to our customer feedback and importance we value on our customer base. This series keeps in mind all of the benefits of our previous cranes, but with new innovations from our R&D department.

The modern design from **Linden Comansa** allows us to reduce the erection weights and therefore make the erection much more cost effective. We have also reduced the slewing radius on the counterjib to fit into tighter jobsites and also allow us to simplify the hoist cable route for the crane itself. This helps to increase production while reducing potential downtime for maintenance.

Hoist and luffing cables are delivered from the factory with pre-installed reevings, which enormously improves the assembly time. In addition, it is not necessary to undo the reevings between erections of the crane. Both of those features will greatly benefit each customer from project to project.

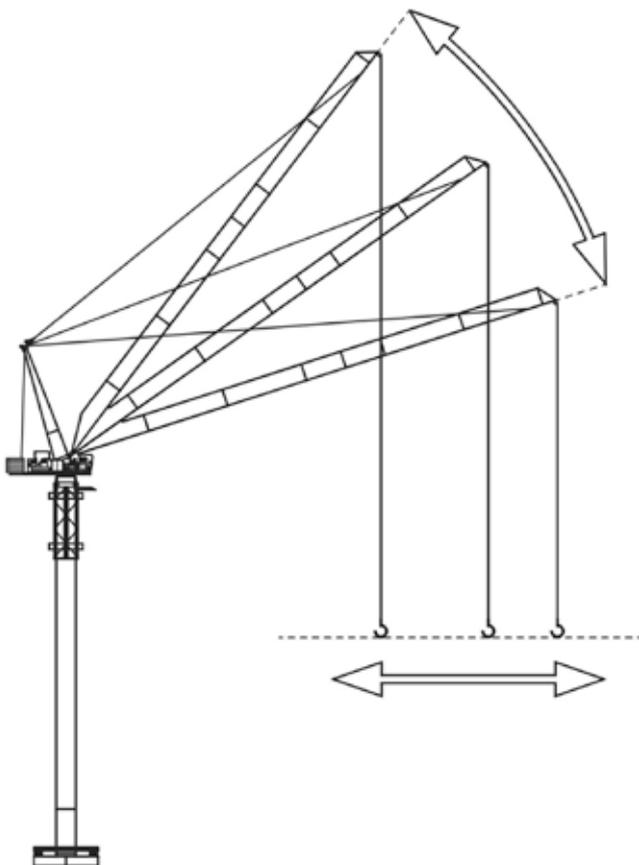
The four models are provided maintain Linden Comansa's efforts to allow safe and full access to the entire crane. We have full platforms, ladders and ladder cages to decrease assembly time, insure safe maintenance and most importantly provide added safety for everyone.

All the components are light and compact, and can be transported on trucks or in standard containers. For example, the LCL 190, with fixing angles version ES43: with jib length of 60 meters (196.8 ft.) and height of 27.6 meters (90.5 ft.), can be transported in only 7 trucks.



## HIGH SPEED MECHANISMS

The **LCL Series** includes the **Effi-Plus** system in its hoist mechanisms. This is a motorization system that improves up to 70% the hoist speed with light loads. In comparison with an engine of the same power but without this system the **Effi-Plus** increases up to 27% the productivity in the hoist operations. All of this production increase still doesn't impact the energy consumption of the crane. The **Effi-Plus** system is the best solution to increase our customers' production.



## HOIST AND LUFFING COORDINATION

Linden Comansa's luffing-jib cranes include the electronic coordination between the hoist and luffing movements. This control system, popularly named "**Level Luffing**", allows the crane operator to displace the load horizontally only by pressing a button while applying the luffing movement.

## HIGH TECHNOLOGY = HIGH SAFETY

The **LCL Series** has been designed with numerous technological features that assure the correct and safe functioning of the crane:

- A hydraulic push and retention system, which prevents the luffed jib to suffer uncontrolled movements due to wind squalls when it is in vertical position.
- An anti-loosening system for the luffing cable tension, which acts in parallel with the previous feature.
- An additional safety mechanism that consists of a control system of the pressure of the cylinder in the hydraulic system.
- A double mechanical and electronic system of limitation of load / moment, with indication of the angle of jib luffing for the operator.
- A double brake system in the luffing mechanism for added safety.

In addition, the different mechanisms of the crane guarantee soft and safe movements:

- The torque applied by the slewing motors adapts depending on the jib angle: when the jib is luffed up, the torque is reduced for a softened movement.
- The speed of the luffing movement changes depending on the jib angle: when the jib approaches the limit positions (both vertical and horizontal) the luffing speed progressively decelerates to assure an appropriate and safe approximation of the load.
- Both hoist and luffing movements allow microspeed mode for an optimal positioning control.



## OTHER FEATURES:

- Intuitive and easy to use Electronic Control System with onscreen indicators. Anticollision and forbidden zones systems are also available as an option.
- The electric control is all installed inside a single and conveniently lighted cabinet for easier maintenance.
- Panoramic cabin includes an armchair with integrated controls and other ergonomic features that increase the worker's comfort, such as air conditioning, acoustic and thermal insulation, fire extinguisher, tinted glass, CD and MP3 player, etc.
- The new Panoramic XL cabin is also available as an option. Wider and more spacious, improves the conditions of the worker ergonomics, features new accessories such as a mini refrigerator, and includes space for a microwave or some other small domestic appliance.





## HIGHLIGHTS:

4 models of luffing-jib cranes with maximum loads between **8 and 24 tons (17,640 to 52,910 lbs.)**

**A compact design** that allows for optimized transportation and improves the erection efficiency and safety.

High speed **Effi-Plus** mechanisms, which improve productivity up to 70%.

Includes **“Level luffing”**: electronic coordination between hoist and luffing movements.

**Fast assembly**: hoist and luffing reevings come pre-installed from factory, and it is no longer necessary to undo reeving between erections of the crane.

**Numerous safety systems** assure optimal functioning of the crane.

**Panoramic XL cabin** as an optional element.



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