

ULTIMATE JOBSITE FLEXIBILITY



CITY CLASS FLAT TOP TOWER CRANES

TEREX offers a complete range of “City Class” Flat Top Tower Cranes from 5 to 10 t, with modular design that easily adapts to different job sites. The Terex Power Plus function boosts operating capacity by an extra 10% when needed. The T-Torque slewing technology gives the operator accurate control of load handling and positioning.

in f

www.terex.com/tower-cranes



THE RANGE

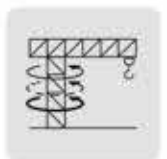
	Max jib length	Max capacity	Max tip load
CTT 91-5	50 m	5 t	1.4 t
CTT 132-6	60 m	6 t	1.5 t
NEW CTT 152-6	60 m	6 t	1.9 t
CTT 172-8	65 m	8 t	1.7 t
CTT 202-8	65 m	8 t	2.3 t
CTT 202-10	65 m	10 t	2.3 t
CTT 222-10	65 m	10 t	2.6 t



Power Plus



Power Match



T-Torque





WHEN THINGS GO WRONG

A tower crane collapse can have catastrophic consequences. A look back at tower crane incidents over the past year on the Vertikal.net website makes for depressing reading. Jibs dropping, cranes overturning, dropped loads and even operator falls happen all too often on a global basis - resulting in damage, injuries and a good number of fatalities. Some of this is down to their increasing popularity, the fact that they are very visible and work in densely populated settings, so the slightest occurrence is noticed. Having said this, exciting developments abound, we take a look at some of the more recent.

If comparing mobile cranes to tower cranes, they are less visible and typically used on closed sites, while it is also easier to keep people out of the fall zone. However this year there have already been a number of high profile tower crane incidents and fatalities including a foundation related overturn in Bangkok that took two lives, a dropped tower section in Fort Lauderdale, USA that killed a member of the crane crew, a fatal dropped load and a separate luffing jib collapse in Vancouver, Canada, a dropped jib in London and Edinburgh in the UK, a tower crane in Kula, Turkey collapsed killing the operator and injuring five others and an operator died when his crane overturned in Wieliczka, Poland. And these are just a few of the news stories covered many, possibly the majority, still go unreported particularly in parts of Asia where tower crane usage is growing.

Reliable statistics are hard to establish however one website - towercranesupport.com - suggests that between 2000 and 2010 there

were 1,125 tower crane accidents resulting in more than 780 deaths. In the years 2009 and 2010 alone it suggests there were 342 incidents and 191 deaths. The vast majority - 38 percent - occurred when the crane was in operation, 31 percent during assembly and disassembly with 23 percent attributed to wind conditions.

In the UK the Health and Safety Executive (HSE) does not keep track of the number of investigations and prosecutions into crane

This tower crane overturned on a housing project in Kula, Manisa province, east of Izmir in western Turkey, killing the operator



This jib came down in London, UK



This tower crane came down in the Swiss town of La Chaux-de-Fonds - due west of Neuchâtel on the border with France

related incidents because, it says, 'it's reporting under RIDDOR - the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 - does not include a specific category for the machines'. A tower crane register that was introduced in the UK in 2010 was abolished in 2012 after the HSE's budget was significantly slashed.

One difference with tower cranes is the fact that the majority of the erection and disassembly is carried out at height, although there has been a substantial move towards rigging and erecting jibs and counter jibs etc at ground level and using a larger crane to lift them in place. Operator error still plays a major part - perhaps because of a combination of long unsocial hours, a struggle to recruit new erectors and operators and in some cases a lack of training? However, overturning incidents are more the responsibility of foundation design, while jib drops might be related to maintenance or component failure.

TWO NEW BRANDS

Despite all the issues there have been many product developments and launches over the past year including two new European brands - Giraffe Cranes in the Netherlands and the more international company Stafford Tower Cranes, a rebrand of Portugal's Soima, following its acquisition 2021.

Dutch sales and rental company Bulten Bouwmaterieel based in Zelhem east of Arnhem launched the first Giraffe Crane, installing a self-erecting tower crane on wheeled and tracked chassis. The company has been working in the sector for more 40 years and typically offers Potain and Cataneo self-erectors.

The range includes the 1.8 tonne 700.26-C on tracks and 700.26-4WD4S on a two axle four wheel drive chassis, with hook heights from 18 metres with jib horizontal to 26 metres when fully luffed. There is also the 2.2 tonne 900.30-4WD4S/900.30-C with 18 to 30 metre hook heights, the four tonne 1100.30-4WD4S/1100.30-C with 22 to 30 metre hook heights, the four tonne 1000.35-C with hook heights of 23 to 35 metres, and the largest model so far, the four tonne 1000.40-C with hook heights of 30 to 40 metres. Director Anton Bulten said: "We plan to develop our products with a focus on manufacturing and reaching more international markets."

SOIMA BECOMES STAFFORD

The Portuguese tower crane business Soima was acquired in 2021 by the Arizona based Stafford Crane Group and has now been rebranded as Stafford Tower Cranes, while the crane model nomenclature is also changing as new models are introduced over the next two years.

Soima was established in 1977 as a manufacturer of construction and lifting equipment, however since 1980 it has been exclusively producing tower cranes including hammerheads, flat tops and self-erectors. In the years since then it has carved out a respectable market share in southern Europe, with sales throughout Portugal, Spain, France and several other Mediterranean countries.



The first Giraffe crane on a tracked chassis



The new Giraffe assembly hall

The current range extends from two to 42 tonnes, which will continue, although Stafford has been investing heavily in new products and says that it has extensive modernisation and innovation programmes now in place for the new models and designs, the first of which will appear later this year and another in the first half of 2025. One of the new developments is the SC-Link platform, a software/telematics system providing real time monitoring of the crane, with daily reports, alarm alerts and/or malfunctions alerts.



A new 8t Stafford SGT 5030, installed recently in Bray, Ireland with a 3t jib tip capacity on the 40m jib

The company has also established a new design office in Milan, Italy, dubbed the Milano Tower Crane Hub. The first fruits of the team's labours will hopefully be on display at Vertikal Days in September in the form of a 20 tonne hydraulic luffing jib crane with an all-new cab design. The new family of hydraulic luffing cranes will have the ability to operate in 'Flat mode' like a regular flat top crane, while also being able to luff.

BATTERY POWER

While other sectors of the equipment industry have almost been forced to find ways to incorporate battery energy, this source of power is proving ideal for tower cranes with huge savings in both carbon emissions and fuel consumption compared to the oversized diesel generators normally required to cope with initial power surges. The use of battery storage systems to power tower cranes, mastclimbers and hoists as well as whole site office complexes has seen incredible growth over the past two years.

In the UK tower crane rental company Radius has just teamed up with Hong Kong based AMPD Energy to promote its battery powered Advanced Energy Storage System for jobs in ultra-low emission zones, on sites without a high power connection to the grid, or simply where clients are looking for the site to be as close to carbon neutral as possible.

75
Years
of moving forward

Born to perform

Are you in need of unparalleled performance for heavy-duty lifting and high hook heights? Look no further than the Liebherr 195 HC-LH—the first hydraulic luffing jib crane by Liebherr.

Experience the efficiency of a minimal slewing radius and outstanding out-of-service radius, thanks to its hydraulic concept. Optimized for assembly, this crane impresses with short set-up times and requires only 4 transport units for the whole slewing part.

Don't compromise on productivity and contact your dealer at www.liebherr.com/HC-LH

LIEBHERR

195 HC-LH Hydraulic Luffing Jib Cranes





Radius delivers one of the AMPD Enerainer energy storage units



Using the TREE battery pack energy storage system, Award Construction reduced fuel consumption by 80% in Edmonton, Alberta



The Potain MR 225 luffing jib tower crane being installed with the Enerainer battery storage packs

The first project in the partnership is a Winvic Construction site in Lancaster Street, Birmingham, where the contractor is building a 33 storey, 814 bedroom student accommodation block with nine and 12 storey 'shoulder' blocks to the sides and associated external works, including an external terrace at first floor level.

Radius has supplied the site with AMPD's 'Enerainer' battery storage system, while also supplying and managing a Potain MR225 luffing jib tower crane which started out with a 77 metre hook height and will climb during the contract to 102 metres by 2025 when the job is due for completion.

The Enerainer, the size of half a shipping container, is designed to take input feed from any power source including a low power mains connection, diesel generator or solar panels, outputting a consistent and reliable power supply that can also handle the high power draws when a tower crane lifts a heavy load at speed or a large mastclimber or hoist starts out on a lift cycle.

**UNITED RENTALS
ADDS CRANE POWER**

A similar system is now available in North America from United Rentals which has introduced a new battery pack energy storage system for cranes and hoists to its rental fleet. United worked with engineering company Termaco to develop a rental version of its TREE (Termaco Reserve Electrical Energy) product that provides sustainable on site electrical power for equipment such as tower cranes and hoists, allowing contractors to use a significantly smaller generator and even run it intermittently, substantially reducing fuel consumption and emissions.

With models configurable up to 500kW, the power pack works in tandem with a generator to provide power to the crane, removing the peak power demands on the generator such as when lifting heavy loads at speed, while also reducing its runtime. Smaller packs can even be kept topped up from solar panels, eliminating emissions altogether. The power packs are mounted on trailers for easy collection or delivery and include fork pockets for loading and handling.



Potain's 40t MDLT 1109 is its largest flat top for the European market



STAFFORD TOWER CRANES



Innovative crane designs from 2t to 50t,
with unparalleled customer service.



Zona Ind.de Canas Senhorim – E.N. 234
3525-040 Canas Senhorim
Portugal
Tel. +351 232 673 530
Tel. +1 480 993 3302 USA office

<https://staffordtowercranes.com>

TOWER CRANES

One of the early adopters was Award Construction of Edmonton, Alberta in Canada, which used a unit to power an eight tonne, 70 metre high tower crane at Riverbank Landing, a new 20 acre complex in Edmonton. It allowed the contractor to use a 100kW generator in place of the usual 300kVA T4 unit, and also found that on average the smaller generator only need to run for two and a half hours a day, to keep the battery pack topped up. As a result, it has documented an 80 percent reduction in fuel consumption and emissions.

A RAFT OF NEW POTAIN TOWER CRANES

The world's first Potain MR 229



The Potain division of Manitowoc has been very busy over the past six months launching several new cranes, including the 40 tonne MDLT 1109 - its largest flat top for the European market so far - along with two new luffing jib tower cranes - the MR 309 and MR 329 with a choice of 16 or 25 tonne maximum capacities - the new 32 tonne MCR 625 heavy duty luffing jib tower crane and the first in a new range of self-erecting tower cranes, the four tonne capacity Evy 30-23 4 t.

The 40 tonne Potain MDLT 1109 - manufactured at the Potain plant in Moulins, France - is a 'low top crane', aimed at a growing demand in Europe for larger capacity cranes to handle the heavier prefabricated construction elements. It has a more compact design and can be mounted on Potain's standard 2.45 metre square K850 tower, rather than the four metre tower base of its predecessor the MD 1100. Maximum free standing height under the hook is 60.7 metres on the counterweighted base or 87.6 metres on an appropriate foundation.

It also has a short 6.3 metres long mast/cat head which rises just over four metres above the top of the jib. The maximum counterweight is 50.9 tonnes made up of 6,600kg and 4,700kg slabs, while a choice of three back masts are



Potain has launched two new luffing jib tower cranes the MR 309 and MR 329



The first Evy, the 30-23 4 t



The new 32t Potain MCR 625

available - 26, 30 and 33 metres. It can handle its 40 tonne maximum capacity at between 22 and 25 metres, depending on jib length, while the capacity at the 80 metre jib tip is 11.1 tonnes, making it ideally suited to large scale construction projects, such as nuclear plants, bridges and other infrastructure projects. It is

available with two different lifting hoists - the 150 HPL 100 or the 270 LVF GH Optima - and other features include Potain's Crane Control System (CCS), and the new Potain 'Connect' telematics system for remote access to all crane data. The Potain Cab-IN internal operator elevator/lift is available as an option.

NEW LUFFERS

Potain's two new luffing jib tower cranes - the MR 309 and MR 329 - are available with either 16 or 25 tonne capacities. The regular jib length is 60 metres with jib tip capacity of 3.4 tonnes. The new cranes follow on from the launch of the MR 229 at Bauma 2022, the first Potain luffer equipped with the Manitowoc Crane Control System (CCS) and Potain Connect telematics.

The jib on the MR 229, MR 309 and MR 329 can be mounted horizontally, section by section, which along with shorter windvane spans, makes installation on tight jobsites easier. The walkways, platforms and steps, along with counter jib and ballast can also be installed at normal working heights and no component or normal assembly weighs more than 10 tonnes.



A CONVINCING PERFORMANCE

THE NEW AC 5.250-2

The new AC 5.250-2 combines an enormous reach with large lifting capacities that are up to 30 percent higher than previous best values in this class. That makes it the perfect choice for erecting tower cranes and for construction projects of all types.

Its transportation configuration options and sophisticated counterweight design are also exceptional and ensure that the crane can be ready for work in no time. On top of this, many of the latest Tadano features are available – examples include the IC-1 Plus and Surround View systems, as well as the start-stop function, which turns off the crane engine during work breaks at the press of a button without deactivating the control software.



POTAIN®



The Reference.

Whatever the challenge on a site, Potain remains the reference for over 95 years in the design, manufacturing, distribution and servicing of tower cranes.

> Our range:

- Hammerhead cranes: MDT, MD, MCT, MDLT
- Luffing jib cranes: MR, MRH
- Self-erecting cranes: Igo, Igo M, Igo T, Hup, Hup M, Evy
- Special application cranes on demand
- Manufacturer guaranteed used cranes



POTAIN®
www.manitowoc.com



The new Liebherr L1-33 L

The positioning of the ballast is made easier thanks to slinging rings and a self-centring system. A redesigned luffing mechanism also makes assembly easier, while an integrated jib end basket aids installation, inspection and maintenance.

The new cranes also feature a jib pivot height of 2.0 or 2.4 metres above the slew ring connection to the tower, as well as improved load charts. The out of service radius is 9.5 to 12 metres without the need for anchoring. The first unit to be installed on a job - an MR 309 - has been erected in the UK on the Dorchester Hotel in London by Bennetts Cranes.

HEAVY DUTY LUFFER

Potain's 32 tonne MCR 625 heavy duty luffer is built at its factory in Zhangjiagang, China and aimed at markets in Asia, the Middle East, along with South and Central America although it will also be offered in Australia, New Zealand and Africa. The new crane includes many features from the MR 618, which is already popular in Europe and North America.

The MCR 625 has a maximum capacity of 32 tonnes in two fall operation at a radius of up to 22 metres with a 40 metre jib, or 17.5 tonnes on a single line at a maximum radius of 37 metres with a 50 metre jib. The maximum jib length is 65 metres with a jib tip capacity of 6.4 tonnes. Mounted on a 2.45 metre square tower, the MCR 625 can be configured with jib lengths from 30 or 40 metres up to the 65 metre maximum in five metre increments. The superstructure counterweight is adjustable for optimal load

distribution throughout the structure with a maximum weight of 60 tonnes (10 x six tonnes) and a maximum tailswing of 10 metres. Buyers can also choose between three hoists all of which can be equipped with up to 603 metres of wire rope and the fully rigged crane can be transported in 11 truckloads.

ALL NEW POTAIN SELF-ERECTOR

The four tonne Evy 30-23 4 t is the first in the company's new range of self-erecting tower cranes designed for residential buildings up to three storeys in height. It features a 30 metre jib which luffs to 10, 20 or 30 degrees above horizontal for a maximum 35 metres under hook height. The four tonne maximum capacity can be taken out to a 9.5 metre radius, while the jib tip capacity is one tonne. The jib can also be hydraulically folded to a length of 15 metres or simply shortened to 24 metres if required

The crane offers a simple setup procedure and, according to Potain, requires less manual effort than similar cranes. It has a four metre square footprint and a new ballast block design that allows a loader crane to pick and install two blocks at a time. It also includes a three-phase power system and permanent four fall reeving.

The Evy is equipped with the company's CCS Crane Control System, Smart Set-up, Power Control and Drive Control and comes with the Potain Connect telematic modem allowing users to monitor and analyse crane utilisation, while providing remote and local diagnostics thanks to the Access and Assist applications. When it comes to transportation, the new Evy is

compatible with existing Potain axles and can be towed as a trailer at 25kph or 80kph when set up as a semi-trailer.

NEW LIEBHERR L SERIES SELF-ERECTORS

Liebherr has launched upgraded versions of its L1-24 and L1-32 self-erecting tower cranes - the L1-25 L and L1-33 L - which include a substantial redesign of the structural elements, an improved hydraulic system and new modular drive system. Other changes include new crane control and operating systems, a modern telematics and remote assistance system, a move towards greater component commonality between models and nomenclature to reflect the maximum load moment of 25 and 33 metre/tonnes respectively.

The jib lengths remain unchanged at 25 or 27 metres for the 25 L with jib tip capacities of 950kg and 800kg respectively, and 30 metres for the 33 L with a jib capacity of 1,050kg. They also use the same ballast and transport axle options.

The new cranes also adopt a new standardised radio remote controller, to be used in all new Liebherr bottom slewing cranes, intended to make it easier to switch between the L and K series cranes, reducing the amount of training required.



The new models adopt a new standardised fifth generation radio remote controller

TOWER CRANES

The cranes are the first of their type to feature the fifth generation of Liebherr's in-house control hardware, 'Liebherr Control 5'. In terms of software, the cranes are fitted with the second generation of the Tower Crane OS (Tower Crane Operating System 2), which features a new user interface first used on the EC-B series in 2021. All L series models are also equipped with the Sway Control assistance system to reduce sudden load movements and also include 'Micromove', which enables an ultra precise control function when placing a load into its final position.

Liebherr's first hydraulic luffing jib tower crane - the 195 HC-LH 6/12 which was shown as a prototype at Bauma - is due to start the first deliveries over the next few months. The crane can manage up to 2,550kg at the jib tip and its maximum radius when installed on the 1.6 metre square 16 EC tower system which can also be climbed.

NEW TEREX FLAT TOP

Terex Tower Cranes has launched a new six tonne flat top tower crane - the City Class 150 tonne/metre CTT 152-6 - with jib lengths from 25 to 60 metres and a choice of tower and chassis configurations, offering free standing tower heights of up to 61.2 metres. The maximum capacity of six tonnes can be handled at up to 20 metres radius on a 60 metre jib, while the jib tip capacity is 1.91 tonnes. The new crane also introduces two new winch options - 18 or 22kW - providing speeds of up to 104 metres a minute.

Features include Power Plus, T-Torque slewing with customisable settings for precision and smooth movements, while the Terex Power Match (TPM) system is said to reduce power consumption, making it more environmentally friendly. Optional features include the company's T-Link Telematics Platform and the two person T-Lift Crane elevator with speeds of up to 40 metres a minute.

The CTT 152-6 incorporates several design improvements such as a pinned connection between the jib and slewing unit, along with the elimination of the counter jib ballast basket, allowing the entire jib assembly to be rigged at ground level along with the hoist and trolley ropes. Each jib section includes a pre-assembled and independent safety line. The entire upper part of the crane can also be transported in three truckloads of four HC 40ft containers. The S-Pace cab offers a large, wide glazed area as well as adjustable seating, stereo audio speakers, built-in heating and cooling systems and ergonomic controls.



Terex Tower Cranes' six tonne City Class CTT 152-6



The CTT 152-6 crane has plenty of walkways and safe access routes

WOLFF 6523.12 CLEAR

Following its launch late last year, the Moortown Group has taken delivery of the first Wolff 6523.12 Clear flat top tower crane to arrive in the UK. The new crane went straight to work on the construction of the Sunderland Eye Infirmary in Sunderland, North East England. The crane has been erected on a 54 metre tower with 50 metres of jib and will play a key role in the construction of the new hospital, working

alongside a Wolff 6017 rigged with a 36 metre tower and 35 metre jib.

The 224 tonne/metre flat top crane has a maximum capacity of 12.5 tonnes in four fall set up, at a radius of 21.5 metres or 8.5 tonnes on two falls at up to 30 metre radius. The jib can be installed with lengths of 30 to 65 metres in 2.5 metre increments. Jib tip capacity at 65 metres is 2.3 tonnes or 2.5 tonnes with the 'Wolff Boost' function activated. The crane comes with a combined UV 20/TV 20 tower connection allowing it to be mounted on a two metre square tower to a freestanding height of 69 metres, or 106 metres on a 2.9 metre square tower. The crane can also be equipped with a Wolff's new High-Speed Positioning Assistance System, which uses a series of sensors to prevent load swing even when operated at speed or by a less experienced operator. ■



Wolff 6523.12 Clear

DEVELOPED TO OPTIMISE
TRANSPORT AND
ASSEMBLY



1390

LOW TOP

JASO TOWER CRANES
Ctra. Madrid-Irún, Km 415 • 20213 Idiazabal (Gipuzkoa) • Spain
T. (+34) 943 187 000 • E. jaso@jaso.com • www.jaso.com



We **build** the cranes that **build** the world.

Follow us at:
www.jaso.com



JASO GROUP



RADIUS GROUP

The UK's Specialist Lifting & Handling Solutions Provider

Partnering with AMPD Energy for cleaner greener construction sites





Rental Options: We provide flexible solutions tailored to your project's scale and duration.

Full Support: Our dedicated team ensures a seamless integration from initial consultation to post-deployment support, offering training and onsite assistance.

Sustainability Consultation: We help you align your energy use with sustainability goals, providing insights and adaptations to maximize environmental and economic benefits.

To start saving money call now 01604 622865



-  Up to 30% lower cost of operation
-  Zero downtime for on-site maintenance and re-fueling
-  Up to 90% lower carbon footprint
-  No tailpipe emissions