



TOWER CRANES

One of the most popular luffing cranes in London is the Comedil CTL 400 from Select

Visitors to London should always take a look over The City from the Gallery of St. Paul's Cathedral. At the moment, this gives a particularly impressive view of the UK construction industry – the skyline is crowded with jibs. As well as Canary Wharf, symbol of the massive 1980's development of Docklands, there are cranes to be seen throughout London and it is clear that the '90s slowdown is now a thing of the past. However, it is not just the number of cranes that has changed, but also the technical features and the principal suppliers.

Classic top slewing saddle jib cranes are becoming something of a rarity. As Tom Newell from Vertical Transportation points out, nearly every city job turns out to be a job for luffers, even if the original enquiry is for saddle jibs (often in the expectation that the price will be lower). Luffers usually end up being used ▶

Boom time London

Heinz Gert Kessel works for a leading German crane hire company. He regularly visits the UK and wrote this article for *Cranes & Access* after a recent visit to London



London premier

One of the most prestigious projects in London is the Swiss Re project. This is home to the first Comedil CTL630 which is supplied by Select, part of the O'Rourke Group. Mounted on its standard 2.32 metres x 2.32 metre tower, the CTL630 manages 60 metre of free standing height with 60 metres of jib at the end of which an impressive 9.4 tonnes can be lifted. The crane is joined by two, free standing, 72.4 metre high CTL400. These will eventually have just one tie in but reach an extraordinary 162 metres. Mike Studd of Select says that these extreme free standing heights are made possible by Comedil's moving ballast system and are a major benefit. The CTL630 features the proven mechanical link between the counterweight basket and jib to facilitate assembly. Tip load is 9.5 tonnes for the 35 tonne maximum capacity version or 9 tonnes for the 24 tonne capacity version. Free standing height of 60 metres is possible on 2.32 metre x 2.32 metre tower sections.

A second CTL630 and seven CTL400 have been ordered by Select for use on another, as yet undisclosed, project to construct a 300 metre high building in London. Another major project for Select is the Paternoster Square Development where two of eleven luffing CTL400s have been assembled. The company also has the CTT161, CTT331 and CTT561 flat top saddle jib cranes.

Select recently merged a large part of the former EPL tower crane fleet with its own following the purchase of Laing, owner of EPL, by parent company O'Rourke. Studd says that about 70 per cent of Select's work load is outside the O'Rourke group.

The new Comedil CTL630

TOWER CRANES

Powerful Potain

The world's largest producer of tower cranes is currently Potain. *Tim Whiteman* spoke to Pierre-Yves Le Daëron at the company's French headquarters about the coming year.

Synergy is an important word at Potain these days. Manitowoc's purchase of the company has opened up a whole range of possible synergies and the two companies are intensively investigating them. Some of these investigations have produced concrete results. In the Far East, Potain and Manitowoc now have a unified sales and service structure. The same is happening in the US and, nearer to home, Potain GmbH is now responsible for marketing Manitowoc's cranes in Germany.

UK Success

In the UK the sales and service operation is concentrating around the existing Potain operation, under managing director Steve Barnett. Potain UK has successfully introduced Potain's new luffing jib range of cranes to the UK in recent years (see main feature) and that range is the result of synergies that occurred after an earlier round of corporate takeovers when Potain bought Germany's BKT (after a long but ultimately unfruitful flirtation with MAN's Wolkffkran).

The German-built luffers are proving particularly successful and Le Daëron makes no secret of the fact that "luffing cranes are a very good business to be in". He says that Potain also particularly values its latest generation of self-erecting cranes, such as the Igo: "a truly innovative crane with many new features and an exciting look".

So what does the future hold for the combined team of Manitowoc and Potain? Le Daëron says that the two companies are currently assessing the possibility of building crawler cranes in Europe and tower cranes in the US. He believes that if crawlers are built in Europe then the company will take the opportunity to add European features to them. There is, however, no timescale on this project. By contrast the project to streamline Manitowoc and Potain's sales and support teams is proceeding at speed. Contrary to people who have suggested that service engineers will find it difficult to work on both crawler cranes and tower cranes, Le Daëron is adamant that this is not proving to be a problem.

No plans for rental fleet

The two companies have very different corporate back grounds and philosophies. While Potain retains its own management structures, some significant changes have been made, including, for example, quarterly financial reporting.

The future is, it seems, rosy for Potain and its powered access subsidiary Liftflux. Although the German market is currently depressed, France remains buoyant and there are other bright spots, one of which is the UK.

Asked whether Potain has any plans to follow some other tower crane manufacturers by setting up its own large rental fleet, Le Daëron's answer is a definitive "No". He adds that Potain closed its own rental fleet about seven years ago because "We are a manufacturer and don't see rental as a good strategic or financial move for us".

TOWER CRANES

first two cranes are only separated by the width of Gower Street and so the lower one had to be specially rigged with a short jib. Thanks to the flat top design of these cranes this is relatively straightforward. The cranes sit on 92.6 metre towers made up of 2.32 metre x 2.32 metre wide tower sections.

Popular luffers

The luffing jib concept is growing in popularity with contractors who until comparatively recently ran large fleets

Extreme free standing heights are typical in London at the moment.

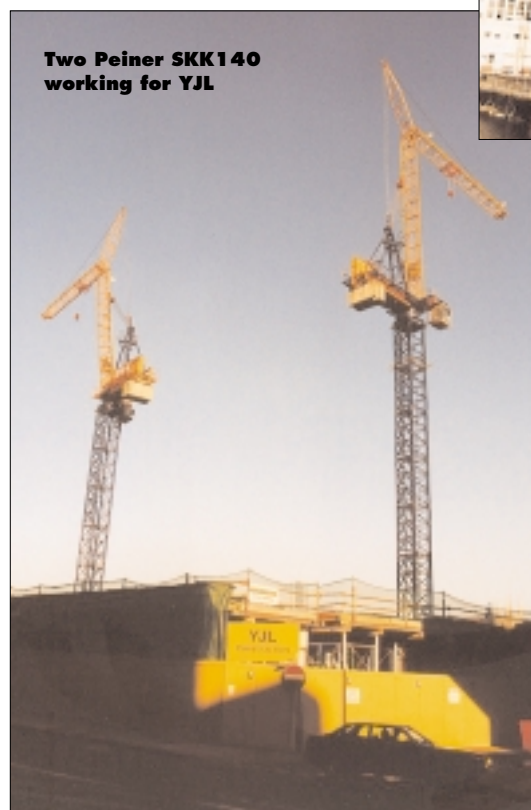


Closeup of the massive looking Liebherr 500HC-L which is back at Canary Wharf

◀ because of the well defined licensing system that operates in London. This is in stark contrast to other European cities where license fees are not automatically due.

Further complicating tower crane installation in London are sensitive traffic routes – main roads, underground railways and canals are just a few of the hazards that have to be contended with. This often means that several cranes have to work close together to cover one site and one of two options must be used: either luffing jib cranes because of their short counterjibs and luffable main jibs, or special saddle jib cranes with short jibs. In the case of a 350 tonne/metre crane it might be necessary to reduce the jib to less than 30 metres in order to pass under a nearby “umbrella” crane. A good example of this type of installation is the extension of UCH on both sides of Gower Street. Two Comedil CTT331 are working on the site and will soon be joined by five more and a CTT561. The

Two Peiner SKK140 working for YJL



of saddle jib cranes. McAlpine, for example, recently ordered ten all new Potain MR220 models with simplified hoist rope reeving and jib return devices to speed up the erection process. The cranes feature Potain's typical fixed ballast, but come from its plant in Germany, the former BKT factory, which is better known for luffers with ballast swinging devices. At the time of writing, (end October), three of the new models were working in central London on separate sites. Maximum capacity of the cranes is 12 tonnes, while 3.25 tonnes can be lifted at 50 metres of radius. A free standing height of 59.2 metres is possible on the 2 metre x 2 metre K-mast system.

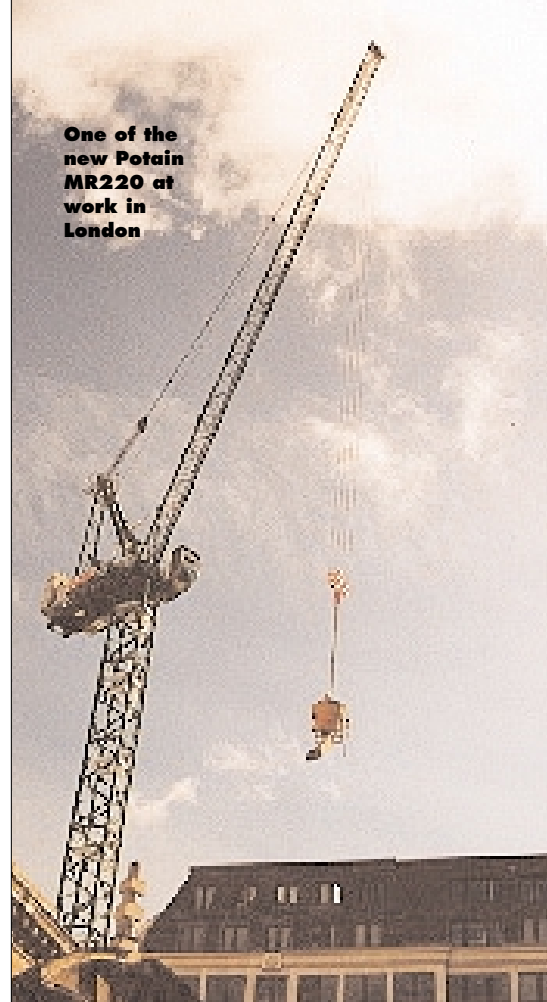
TOWER CRANES



A Raimondi LR60 from Vanson Cranes working for Sindall at Long Acre. Slim 1.2 metre x 1.2 metre tower sections are a feature of this crane

or on the roofs of buildings while refurbishment is being performed or additional floors are being added. Maximum radius of the S-46 is 30 metres while the maximum capacity of the small crane is limited to 2.2 tonnes.

Still in use in London are three extraordinary Kroll K-103V level luffing jib cranes that look more like harbour cranes than a typical tower crane. These also belong to Vertical Transportation and one is currently working on a redevelopment project near Covent Garden. Maximum lifting capacity at 16.8 metres radius is 8 tonnes while 2 tonnes can be lifted at the maximum radius of 35



One of the new Potain MR220 at work in London

◀ Out with the old

In the '90s, many of the tower cranes working in London were 20 – 30 years old. These included Liebherr 50HB luffers, BPR-Richier and Linden 5000 series saddle jib cranes, most of which have now left the market. The exception is a handful of re-furbished Liebherr HB luffers which are rented out by Falcon Crane Hire. The 1.5 metre x 1.5 metre towers and extraordinarily short 4.5 metre counter radius make these cranes very useful for small tower blocks.

Although its design can be traced back to 1980, the Peiner SKK140 articulated jib crane still finds a ready market by combining the benefits of a luffing jib and saddle jib design. To gain extra height, the main jib of the 150 tonne metre crane can be luffed. A counterjib radius of only 8 metres facilitates multiple crane application on cramped construction sites. A pair of Peiner SKK 140 belonging to Falcon Crane Hire is currently working on the Southbridge Road. Delta Cranes, the official Peiner dealer, has a full fleet of Peiners and says it is especially successful in the medium capacity range of Terex Peiner city cranes up to 300 tonne metres.

Two veterans with outstanding design features are the Tornborgs Magni S-40 and S-46. These unusual cranes are in use throughout central London where the articulating joint half way along the boom makes them ideal for working close in under other cranes. These lightweight cranes are sometimes installed in lift shafts



Falcon Crane Hire has installed a new Jaso J 138 PA luffing jib along with a Potain MR150 luffer and a BPR saddle jib at Imbert Street

metres. A feature of these cranes is the integrated moving counterweight. The same effect is achieved on Kroll's new lightweight single jib luffers by the use of sophisticated software for the winch control. Vertical Transportation recently added some of these cranes to its fleet. One of these, a K-125-L with a maximum lifting capacity of 8 tonnes and a 50 metre jib, is working on a renovation project at Endell Street.

Investment

As mentioned above, tower cranes in London seem to be getting younger, and this follows heavy investment by some of

the major hire companies. Falcon Crane Hire recently invested in a number of new Jaso cranes. The Spanish manufacturer has supplied large saddle jib cranes like the J 240 but also some luffers like the J 138 PA and J 180 PA. The J 180 PA is in a similar range to the Wolff 180B, providing a tip load of 3 tonnes at 50 metres, while the smaller J 138 PA can lift 2.1 tonnes at 45 metres and matches the Wolff 100B. Falcon currently has 20 Jaso luffers and another seven on order.

One of the largest Wolff fleets in the UK is, of course, that belonging to Hewden, the official Wolff dealer. Hewden is now Wolff's largest customer outside Germany and has a very close relationship with the German manufacturer. In London, Canary Wharf is home to a cluster of Wolff luffers including a Wolff 320BF, a 160B and four giant 500B luffers. This provides a huge maximum lifting capacity of 45 tonnes, but at 60 metres radius the capacity drops to 6.5 tonnes. The crane stands on 2.5 metre x 2.5 metre tower sections and has a maximum free standing height of 49.5 metres. This crane really comes into its own on heavy lifts at short to medium distances. Its strong line pull enables lifts of up to 30 tonnes to be handled in a two fall operation mode.

The London tower crane market is booming and has changed hugely since the mid '90s when it was dominated by elderly cranes. Nonetheless, it remains unusual because of the heavy use of luffing jib cranes. ■