

Pick 'n' mix this summer

At this time of year, production facilities throughout Europe are closing down for the summer vacations. At the same time maintenance and production engineers are preparing to swing into action to use the shut down periods to carry out annual maintenance and to restructure production lines.

In spite of the slower economic situation, this year is no different. In fact some say that 2009 will be busier than ever, given the need by many companies to make deep rooted changes, often consolidating production space into smaller areas or combining machining centres. We take a look at some of the latest and more traditional equipment for industrial lifting duties.

Pick & Carry

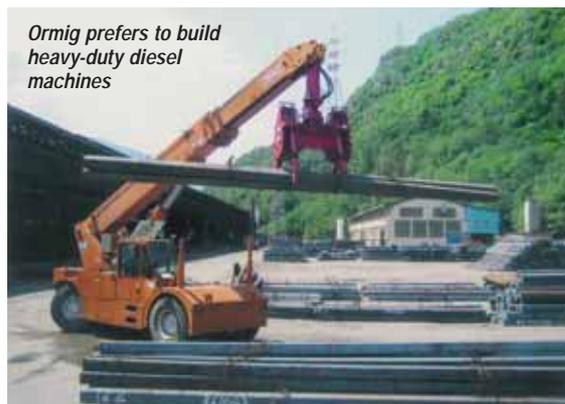
The pick & carry capability of industrial type cranes is ideal for many industrial tasks, from regular material handling within the production process to unloading and moving heavy machinery. These cranes save time and simplify the movement of bulky heavy loads by avoiding the need to unload equipment onto skates, skids or other moving devices, which then need to be pulled or pushed into tricky areas. They are also designed to lift loads in low headroom situations thanks to compact boom nose designs and additional equipment such as searcher hooks.

There was a time when every factory had at least one pick & carry crane for general material handling. Many or most, switched to fork trucks and overhead cranes as they focused on trying to eliminate as much material movement and therefore material handling, as possible. The arrival of the pallet also helped shift the balance from suspended lifting to forked lifts,

while increased loader crane usage has helped reduce unloading issues, not to mention the trend to install loading bays and docks which take the fork truck into or onto the back of the truck.

What do the Americans and Italians know?

It now looks as though the long term trend towards forks and overheads might have been overdone and many industrial plants are now rediscovering the fact that for some jobs and duties a mobile crane is the safest and most efficient tool for the job. It is interesting to note that while British companies abandoned their pick & carry cranes in favour of those other methods, their Italian counterparts did not. The result is that Italy retains a large population of such cranes and today the vast majority of them are built there. The other place where they continue to be used and built in volume is the USA, where the carrydeck concept is alive and well.



Ormig prefers to build heavy-duty diesel machines

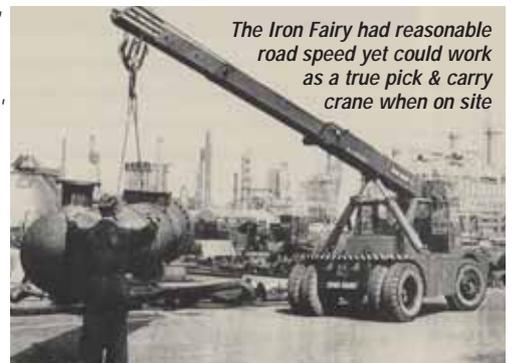


Ignoring the USA for the moment and concentrating on Italy, there will be some who will attribute the retention of pick & carry cranes in manufacturing as a sign that Italian manufacturing is dated and inefficient? Nothing could be further from the truth. Northern Italy (as a separate entity) is one of the wealthiest and most efficient economies in Europe. Despite social costs in excess of 50 percent, 13 months pay and long vacations, Italian companies are still able to compete in markets long considered too competitive by

British manufacturers, such as white goods (fridges, washing machines and cookers), cars and motorbikes/scooters. So maybe the Italians know a thing or two about efficient manufacturing? And when it comes to productivity the Americans typically top the international productivity league tables.

Not that we are saying that buying a pick & carry crane will automatically make you more

competitive and productive (although you could give it a try), but it does suggest that there might be something to the industrial pick & carry crane if companies in these two successful manufacturing nations still use such equipment. One factor that we have not mentioned is the different crane ownership patterns between the nations. In Italy companies still tend to own their own equipment, while in the UK - for a multitude of reasons - companies prefer to rent, often on a short term basis with operator.



The Iron Fairy had reasonable road speed yet could work as a true pick & carry crane when on site



The Valla 120E electric pick & carry crane lifting a five tonne fish smoking oven for shipment to Tanzania. No fumes were permitted in the plant

Crane rental companies though prefer to buy cranes that are versatile and that can travel quickly on the open road. This tends to rule out the typical pick & carry crane. In fact when pick & carry/industrial cranes were at the height of their popularity - probably in the 1960's? - the bulk of the national fleet, in this sector, was made up of cranes like the Iron Fairy, that could travel on the road at a reasonable speed as well as work as a true pick & carry/ industrial crane on arrival.

The demise of the pick & carry crane in the UK is quite closely linked to the demise of Jones, Coles and this type of high speed industrial crane. Initially there were a good number of small All Terrain or Rough Terrain cranes available, that while not as adept as the Iron Fairy at machinery moving and industrial lifting, did at least cover a good portion of the applications. At the same time it took over 30 years to purge crane hire fleets of the Fairy, and a number are still in operation today, given that a perfect substitute has yet to be found.

Over the years though crane manufacturers and rental fleets have gradually moved away from these small AT and RT cranes, to the point where 35 or even 45 tonners are often the smallest units in a modern rental fleet, too big and expensive to replace the five or 10

tonne pick and carry crane - although if anecdotal evidence on rental rates is true, maybe they are just too big?

Create a vacuum and you will of course suck in alternative solutions and some of the work previously carried out by small mobile industrial cranes has been taken by alternatives, such as large loader cranes fitted to compact trucks or tractor units and compact crawler cranes with their ability to get in close the load. In addition there has been a strong pick up in the usage of the Italian and maybe going forward - the carrydeck, mobile industrial crane. This trend has unquestionably been

Power sources for mobile industrial cranes are split into two camps. Valla has tended to focus on battery electric models, right up to its monster 90 tonne crane, while fellow Italian Ormig prefers to build heavy-duty diesel machines. Both products



The new two tonne Galizia pedestrian crane



Valla's two tonne pick & carry crane

picking up some of the UK company's enthusiastic 'in your face' marketing and support attitude, which is likely to help it expand in other areas.

The Yanks are coming

American manufacturers have always built slightly different models to their European counterparts, by including a carrydeck on which loads can be rested or even transported. This tradition probably dates back to the Drott Carrydeck which virtually invented the sector. Ed Drott built his first crane in 1943 and went into full commercial production in the 1950's. After passing through Case the designs ended up with Shuttlelift which is now part of Grove/Manitowoc. The very first Grove cranes, built in the late 1940's, were also industrial pick & carry models, although more along the Italian lines than the American. Today the company markets the Shuttlelift products under both the Grove brand and that of Shuttlelift. With such a wide range of products in its range Grove has never really pushed its industrial line up in Europe, although a good number have quietly been sold over the years. The company did test the market with the latest Shuttlelift-built models in Germany a couple of years back but it has hardly been a rip roaring success.



The new two tonne Jekko MPK20W pedestrian crane

spearheaded by Valla UK, which now represents the Italian producer of battery electric pick & carry cranes in the USA and Middle East as well as the UK and Ireland. In addition to selling and renting the traditional three to 90 tonne range of industrial cranes, Valla has also created a significant market for the two tonne pedestrian controlled pick & carry crane, to the point where two other manufacturers, Galizia and Jekko have introduced products into this sector, taking the design concept from the Valla original and adding further refinements. Valla has also updated and refined its offering, to the point where there are now three first class products in this growing sector.

have their place, depending on the distances to be travelled and whether most of the work is indoors or out. One would have thought that there was an opportunity here for someone to introduce a Bi-Energy product? While a good deal of the market has been carved up between Valla and Ormig, a third player, Galizia has made substantial progress in the past year or so, introducing new products, upgrading existing ones and expanding its distribution network. Last year the company appointed GGR Unic as its distributor in the UK, and is showing signs of



Ed Drott is widely credited with having pioneered the carrydeck industrial crane concept



The JCB Liftall tractor crane

The other big American producer is Broderson of Lenaxa, Kansas, founded in 1973 by the late Dean Broderson after he acquired some crane designs from RO products. It has specialised in industrial carrydeck type pick & carry cranes ever since. Its first unit, the five ton (4.5 tonne) Roadrunner was extremely popular and it did not take too long for the company to become market leader, a position it retains to this day.

Until recently virtually all of Broderson's products had been sold in North America but it has started to look further afield and in late May appointed Cranes UK as its distributor for the UK and Ireland. The first unit, an eight tonne IC80 has already been delivered and is now being demonstrated to potential customers. The company's industrial range extends to the IC250, a 16 tonner that can pick and carry up to eight tonnes. It is also produces a range of cab-down Rough Terrain cranes, which are largely used for pick & carry work and were at one time very popular in the oil and gas industry.

The Australian connection

Finally the other type of pick & carry crane, the articulated crane, comes from Australia and has more in common with the old Iron Fairy's than the other industrial cranes that

we have covered, offering decent road speeds, a forward mounted cab and excellent on-wheel duties. The concept evolved out of the tractor cranes that were very popular in Australia and which are still sold in large numbers in India. Franna is without question the largest and best known producer of the articulated crane and has been a part of Terex since the late 1990's. The cranes have been refined over the years and now offer road speeds of up to 85kmh and maximum capacities of up to 25 tonnes. Some Franna cranes have been sold in the UK, but very few. They do not offer the compact dimensions of the Valla, Broderson, Ormig, Shuttlelift or Galizia cranes, but are good for moving machinery and working in low headroom situations while handling rough terrain exceptionally well. Their gawky looks have probably turned off many European crane companies?

A new clobber on the block

At the recent Vertical Days event in the UK, Australian Crane & Machinery, managed by crane veteran David Potter, took a stand to promote its 20 tonne articulated crane, which it builds in partnership with XCMG. Dubbed the ARC 20 the crane goes head to head with the Franna product. The company is currently looking to expand overseas and is looking for distributors.



Franna is easily the biggest seller in Australia



A Grove Yardboss 7722 with 4x4

The articulated crane and the simpler tractor crane are also exceptionally popular in India and to a lesser extent in parts of the Middle East, to the point that JCB recently decided to enter the crane market with a tractor crane, adding a touch of sophistication to this market.

Renting an industrial crane

While the increasingly wide range of industrial pick & carry cranes is great news for companies that use such cranes on a regular basis, what do you do if you need one at short notice or for a short period? Well in the UK and Ireland, there are a few companies that offer such cranes for short-term rent, Hull-based Peter Hird & Sons almost certainly operates the largest fleet, which is largely made up of Valla cranes. Compact Lifting Equipment, also based in Hull, runs a Valla and Jekko fleet and also stocks a number of used models for those seeking a bargain. More recently GGR Unic has added a number of

Galizia cranes to its rental fleet which is based out of Manchester and Long Crendon in Oxfordshire. In Ireland, Height for Hire operates a few units as do one or two of the national crane hirers. Most regular mobile crane hire companies no longer keep such cranes in their fleet, although you will find the odd Iron Fairy lurking in some small local fleets, retained for machinery moving contracts.

Other cranes for industrial lifts

However if you require a single lift or two, bringing in an industrial crane from a distance may be cost prohibitive. The alternative - if pick & carry is essential - is to hire a small city crane. These tend to be very compact, offer pick & carry duties, can usually work in low headroom conditions and often offer irregular outrigger set up. Two larger models that are particularly well suited to such work are Liebherr's 55 tonne LTC 1055-3.1 and Grove's new 45 tonne GCK3045.



A Broderson IC80 crane working in a refinery



The Australian Crane XCMG-built ARC 20

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The Liebherr LTC1055-3.1 is good for low headroom work.

Both are compact for their capacity, have short base boom sections for low headroom work and feature hydrostatic drive, making them smooth pick and carry performers. Liebherr is currently developing a 45 tonne LTC 1045-3.1 but this will have a more conventional drive and transmission, better for long distances but perhaps not quite as handy in a tight industrial environment?

Big telehandlers

Another lifting machine that can prove useful in such situations is the heavy duty telescopic handler from manufacturers such as Dieci and Manitou. Dieci now has a three model Hercules range with the largest, the 210.10, capable of lifting a maximum of 21 tonnes, lift nine tonnes on tyres to a maximum height of 9.9 metres. Manitou offers a similar capacity machine but can lift even more - 13 tonnes - to 9.7 metres. Designed for working with forks and palletised loads, telehandlers can prove a handy alternative when fitted with jibs and hooks for shifting machinery, particularly as both have a forward reach of more than five metres.

A Manitou MHT10160D, big telehandlers with fork, jib and hook attachments can prove invaluable for industrial lifters



And something different

For those really awkward loads and when most other equipment is struggling the Versa-Lift machines made by Custom Mobile Equipment in the USA come into their own. There are a number of these big machines in the UK, most with specialist transport and lifting companies. Designed specifically for moving heavy machinery, the Versa-Lift looks like an industrial forklift on a massive steroid overdose and features an extendible frame and removable counterweights to increase lifting capacity. It is also equipped with a removable hydraulic boom. Four models are available, the largest the 85/115 can lift more than 63 tonnes on its forks with its nine slab counterweight extended by 1.22 metres. While not these machines will win no prizes in a beauty contest they really come into their own when it comes to shifting heavy machinery.

Versa-Lift produces a range of heavy industrial lift machines



Something smaller

At the opposite end of the scale is the small crawler cranes which are becoming more and more popular. Mini crane specialist Maeda now has two compact crawlers in its range - the LC785 and the recently introduced LC1385 - both of which offer a two tonne pick and carry



The new Grove GCK3045 has been designed with industrial lifting very much in mind



Reedijk has designed this tracked 3.8 tonne crane for industrial lift and shift work



capability. With rubber track shoes and the ability to get in close they can offer a good solution for smaller moves.

In Holland Reedijk builds a very handy looking track mounted crane fitted with an articulated loader crane, the C3410 with 3.8 tonnes lifting capacity at 2.8 metres radius, the unit which is a Bi Energy - Diesel/AC electric has been specifically designed with industrial lifting duties in mind. The company, which was originally a hydraulics specialist, is currently looking for dealers and plans to expand the range.

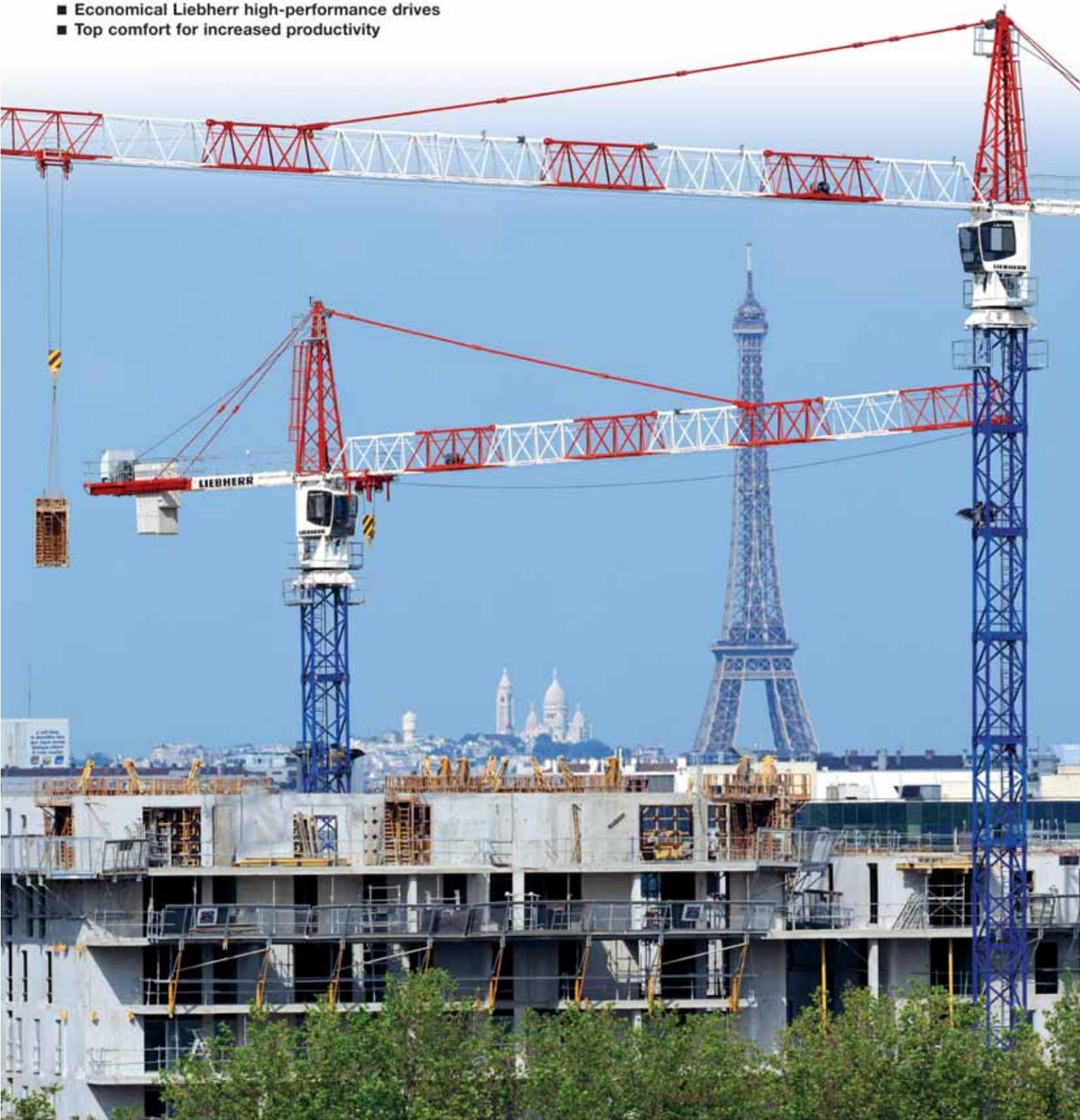
Go anywhere spiders

Some spider cranes also offer pick & carry although at best it is no more than 500kg. Maeda's MC405 which has a straight lift capacity of 3.83 tonnes can also pick and carry 500kg, while Jekko's latest offering can manage up to two tonnes if ordered in the wider configuration. However, even without the ability to pick and carry, the mini tracked spider crane is a saviour for many lightweight industrial lifting applications. Their compact transport size and go anywhere tracks means they can access areas no other crane could touch,

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