

Do you receive a hard copy?

Would you prefer to receive your own personal copy of the printed version of **Cranes & Access**? Then register on-line now for your personal subscription. Cranes & Access: The Lifting Professional's magazine. www.Vertikal.net/en/journal_subscription.php

Download complete issues

Laptop users: Download complete issues of Cranes & Access or **Kran & Bühne** to read when you have the time. Using the latest version of Adobe Acrobat you can search for specific words or names in the issue or even have your PC read the articles out loud to you while winging your way across the Atlantic (or wiling away the hours on the Motorway!). Cranes & Access: www.Vertikal.net/en/journal.php
Kran & Bühne: www.Vertikal.net/en/journal.php



Do you read German?

Do you need to keep up to date with what's happening in the German, Austrian and Swiss lifting industries? Then our sister magazine, Kran & Bühne, is the magazine for you. Subscribe now to Germany's leading publication for the crane and access industries and keep up to date with the latest news (published in German). www.Vertikal.net/de/journal_subscription.php



Have you registered for email alerts?

When major news breaks in the lifting world, be the first to hear about it ..Free! News bulletins by e-mail straight to your mailbox. Register for **News Alerts** to get major head line news as it happens. www.Vertikal.net/en/newsletter.php

Use our on line access and lifting directory

Have you tried our on line Access and lifting directory? Direct links take you to supplier's web sites with one click of the mouse, with 29 product categories and hundreds of the best suppliers, this is a very convenient source guide as well as an easy way to find a lifting company's web site.

English guide: <http://www.vertikal.net/en/links.php>

German guide: <http://www.vertikal.net/de/links.php>



Central European rental companies

The world's largest on-line listing of mainland European crane and access rental companies is available to you now. Just click the link below to go to Vertikal.net/Vermieter where the bi-lingual site will guide you to hire companies throughout Europe. www.Vertikal.net/Vermieter

World travelers always know what to pack.



When you've been bringing innovation to the global crane market as long as Manitowoc Crane Group, you tend to have a few breakthroughs. Come see our latest at bauma 2007. You'll find all our newest ideas in lifting, innovations created not for their own sake, but to help our customers achieve their goals: higher returns on investment; greater productivity; more profits.

No matter what we come up with in products and services, it's all really designed for one thing. Making sure your business gets where you want it to go.

Manitowoc
Crane Group

www.manitowoccrane.com

Dancing in the City?

City cranes - a fad or useful tool? We look at their raison d'etre and history and cast an eye on the current crop of City cranes. We also interview a man with an interesting alternative.

Japan's obsession for compact construction equipment is the result of necessity. Lack of space lead to the first compact or City crane in the late 80's. Kobelco started it all with its two axle, 7 tonne capacity RK70 in 1989 initially labelled as a high speed Rough Terrain crane. Within the year Tadano and Kato had followed with their own 7 to 10 tonners.

Indeed it was the RK70 that introduced many of the features that still distinguish the breed today. The single cab and steeply angled, multi-section 'drop-nose' boom that allowed the driver improved visibility while lowering the centre of gravity for improved roadability. Some of these features date back to the PPM14:07ATT, in 1974 (see story right).

The new design was seen by some as an evolution of the All-Terrain (AT) crane, or a mix of the Rough Terrain (RT) and AT crane, blending the speed and boom length of the AT with the compact dimensions of the RT. However in order to travel at speed without excessive bounce, required the City to have a minimal boom overhang, forcing the use of a greater number of shorter boom sections to reach the same height. This though helped create an even more compact crane for manoeuvring in tight areas while the short retracted

boom was ideal for lifting in limited headroom environments.

Niche market products are never cheap and it took a while before the 'expensive, for their capacity'

The 14 tonne PPM 14:07ATT was an unusual beast, being short, with coil spring suspension minimal boom overhang and a high road speed. Apart from the fact that it retained the high boom of the Rough Terrain it could be argued that it was the first city type crane.



7 - 10 tonne cranes were exported overseas. In 1992 the concept was taken up in Europe and developed by Concept Truck. This new, Swiss-based company, established by Franz Lutz, raised the capacity to 35 tonnes and gave the machine a boom length and road speed to challenge the conventional AT crane. By doing so, it propelled the City concept into the mainstream market. High prices and concern over the company's long term



A new Terex AC35 at work in Trafalgar Square

viability held back volume for these cranes although they were widely respected at the time.

It was not until the arrival of a major European manufacturer - Mannesmann Demag - with its 25 tonne capacity AC75 in 1996 that the concept became more universally accepted, particularly in the UK. Accepted to a point that is. Demag - now Terex-Demag - is still the only major crane manufacturer with a range of European City cranes. Demag's success led Liebherr to introduce its LTC1055 -3.1. Although a compact crane, the unit has not been popular in the UK or Ireland. This is perhaps due to its hydrostatic drive system, high weight and multi piece boom

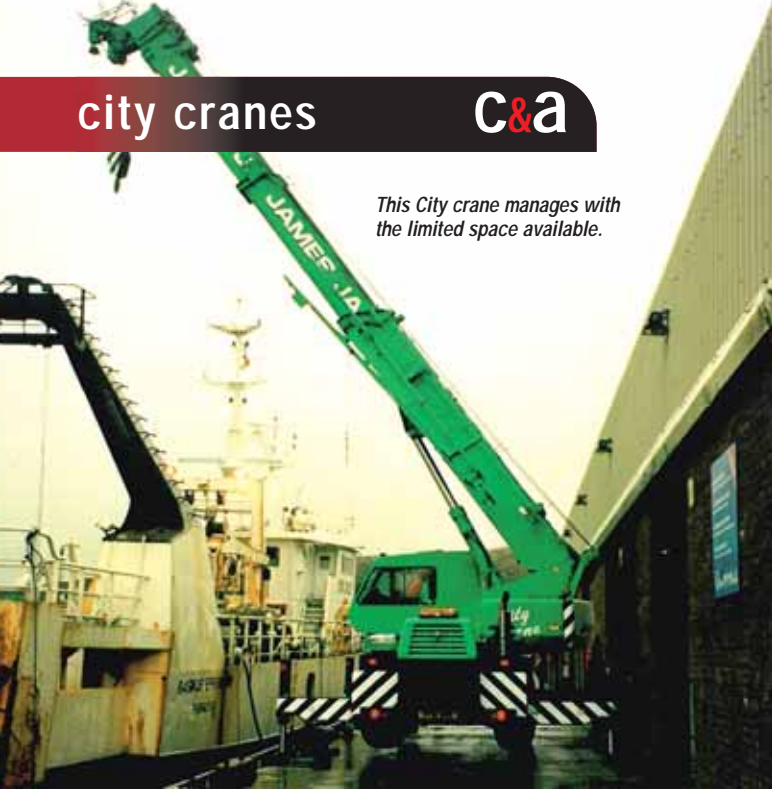
extension? Liebherr maintains that there is a small market in the UK for City type cranes and that it is a passing fad. Grove take a similar view and have instead concentrated on making its ATs.

In the 1990's, the Japanese market for larger capacity cranes began to change from truck cranes to All Terrains. By 1992 Tadano, in co-operation with its newly-acquired German business Tadano-Faun, produced its first AT crane, the 100 tonne capacity AR-1000M. The company also continued development of Rough Terrain units and three years later introduced the Crevo (the name deriving from a combination of 'crane' and 'evolution') City type crane.



small and manoeuvrable - AT gives a City crane a lift.

This City crane manages with the limited space available.



The first two models were the 20 tonne capacity Crevo 200 and 10 tonne Crevo 100, followed later by the 50 tonne Crevo 500. All used lightweight, hexagonal booms with low slung boom pivot points and featured a slow stop function for boom extension and slew, while the carrier used hydro-pneumatic suspension. In 1996 a 35 tonne

version - the Crevo 350 - was launched which had even better roadability. However it took another three years before a unit made it to the UK - a few years after Kato's popular CR250. Tadano's 20 tonne capacity 200EXC was slightly smaller than other City cranes but had many advanced features. Weighing less than 20 tonnes

road-ready, it carried a six-section 27.5metre fully-powered boom plus a 3.5metre offsetable extension giving a maximum under-hook height of more than 31 metres and a maximum radius of 24.9 metres. Overall width was just 2.2 metres and even its huge mirrors were powered to fold within these dimensions. Its safe load indicator was an advanced LCD unit and had the capability of programmable work spaces. Unusually the 200EXC had five position outriggers compared to the normal three, along with the ability to operate with each of its outriggers in different positions - a very useful feature for a crane whose life is spent in tight situations.

The power unit was a 158kW Mitsubishi six-cylinder turbo - charged diesel coupled to a four-speed automatic transmission with high-low ranges allowing the Crevo a maximum of just 55km per hour - one of its few faults.

It is perhaps testament to the advanced features and build of this unit that not only are Crevo cranes still working in the UK, but operators are eager to get more, and the demand for second hand units is strong.



Marsh Plant's 20 tonne Crevo

Marsh Plant bought two, 20 tonne capacity Crevo cranes about six years ago to replace Jones Iron Fairy units. The company has since added four Demag AC30 city cranes and is currently looking to add a further two new City cranes. Marsh, along with several other crane users and hirers, is very disappointed that Tadano is not supplying a small crane in the UK at the moment. Companies wanting these cranes have toyed with the idea of direct imports and CE marking them for use in the UK but have now resorted to lobbying the manufacturer to bring in EU compliant machines. Crevo's low boom pivot



No City cranes - Liebherr has its LTM range

HEWDEN

for instant
availability
and assured
reliability



call now...

0845 60 70 111

www.hewden.co.uk



The AV55 City is one of four specific Demag City cranes

point avoids the typical droop snout of the City crane and provides the crane lifting potential as soon as the boom is raised from the travel position making it ideal for machinery installation.

Another firm believer in the City concept is Terranova which has eight City cranes ranging from its 10 tonne Kato to the new 70 tonne Demag AC70 City.

"The smaller crane sector has changed enormously over the last 10 years," said Terranova's Alec Glover Snr. "We do a lot of work in London and a crane that is two to

manufactured for the home market? Chinese producers such as Zoomlion and XMGC are able to approve their road going cranes for EU use in a short space of time, while Japanese manufacturers appear to be stumped by the challenge?

So what we have in the UK is an ageing and diminishing fleet of small city cranes from Kato and Tadano, with no sign at all that the manufacturers will respond to the demand. Or is there? As C&A went to press, we heard that Tadano is planning on introducing upgraded versions of its ATF30 and ATF45



A City crane uses its searcher hook set to place a transformer

three feet smaller makes a colossal difference. City cranes certainly have a place in a mixed fleet."

Terranova's 10 tonne Kato is still working hard all over the country. "The Kato is a great machine that is reliable and has really good performance. Its only fault is that it has a slow maximum speed on the road. However, if it is working any sort of distance away from the depot, we put it on a trailer and transport it directly to site."

Given the genuine demand for these small Japanese cranes in the UK, why are they not available - particularly as many are still

at Bauma. However their replacements are 40 and 50 tonners leaving a 'convenient' gap for a 30/35 tonne City crane. This is the size that potentially has most demand in the UK.

Tadano has a range of eight city-type 'Crevo' cranes for the Japanese and 'non European markets. These range from the 4.9 tonne GR120F to the 60 tonne GR600N. There are however rumours that an updated European city crane might be available in 2008. Watch this space.

The same applies to Kato.

Distributor Kranylift says that it receives enquiries all the time for City cranes. Between 1997 and 2000, Kato was probably the most popular City crane selling more than 80 of its 25 tonne CR250's.

Kato currently manufactures mobiles from 8 - 500 tonnes capacity including AT and City cranes. Unfortunately the range is not available in the EU. The word on the street is that Kato is reviewing its line-up of models and it says it will soon be presenting models for Europe.

And what of Kobelco? It sells a 25 tonne RK250 and 51 tonne RK500 domestically. Its growing partnership with Manitowoc provides a glimmer of hope that it might be extended to these small cranes. We understand that this has 'unofficially' been discussed between the two companies, but as yet, nothing more - a firm 'no comment' was all we got when we asked!

Liebherr as outlined earlier and Grove both have 'compact' two cab All-Terrains but both have refrained from entering the City market, pooh-poohing the City crane idea in favour of their small AT's and working to make those models ever more compact.

Grove's smallest ATs are the two axle 35 tonne GMK2035E which it builds in Italy, the three axle 50 tonne GMK3050-1 and 55 tonne GMK3055. The company claims customers prefer the capability of the compact AT rather than a City crane. On paper at least the gap between a 55 City and AT is not enormous (see table on page 29). The Terex Demag AC55 City and the Grove GMK3055 offer the same 60 metres maximum boom length,

same maximum lift capacity, similar engine output and maximum speed (80-85km/hr) and standard drive configuration (6x4x6). The main difference is that the Groves is 2.5 metres longer overall with a 1.4 metre longer carrier length.

Unlike Terex-Demag, Grove also produces Rough Terrain cranes, the eight model RT series includes the 25 tonne RT525E, 30 tonne RT530E and 35 tonne RT535E should a compact site crane be required. They are not of course road going cranes so are only useful for longer term contracts.

Liebherr maintains that it does not see the advantages of a City crane and says that its best selling crane - the 55 tonne LTM1055-3.1 of which over 1,000 units have been delivered since its launch in 2001 - is extremely manoeuvrable and has the flexibility to satisfy the vast array of requirements in the UK market.

The reason the larger manufacturers adopt this attitude might stem from the fact that building a good City crane is actually harder and more costly than it looks. It requires the perfect combination of materials, to make the multi section booms perform as well as those with longer base sections while also keeping the weight down and maintaining good capacities, long reach and smooth roadability all in a compact design. Assuming you can rise to the challenge, the price premium available is not much greater than 10 percent and you run the risk of spreading your existing sales volume over a wider product range effectively 'canibalising' production volumes.



Unpopular in the UK, Liebherr's LTC1055 seen here in a tight situation.

THE PERFECT CRANE FOR CURTAIN WALL AND GLASS PANEL INSTALLATION



Chicago, Illinois, USA



London, UK



Manchester, UK



Valla
Quality Cranes for a Clean and Safe Environment

VALLA CRANES WORLDWIDE

for further information visit our website www.valla.com
alternatively you can email us sales@valla-cranes.co.uk



A Grove GMK3055

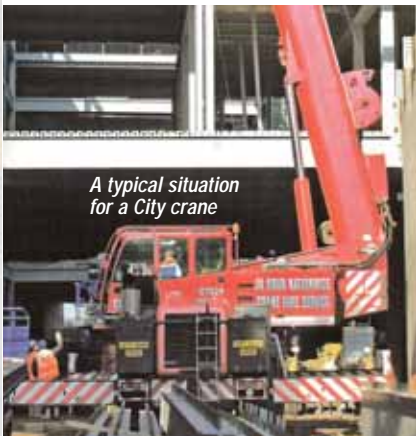
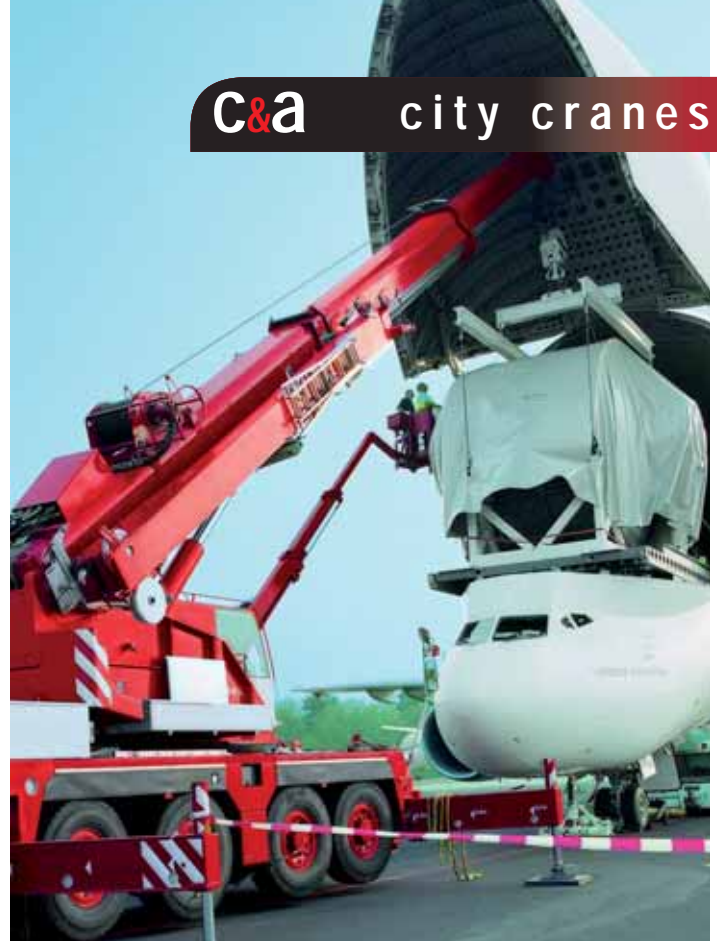
It is easy to understand therefore the strategy to 'stay focused' and play down the 'niche' market to concentrate on the larger volume sectors.

Demag now has 20 years experience in the sector and builds four specific City cranes, the AC30, AC40, AC55 and AC70. Some argue that the 70 tonner is too large for a city crane moniker but a fair few have already been delivered and it is suited to specific applications. Demag says that its City cranes are 'big' in the UK and the machines suit the way the

maximum boom length, carrier length, total machine length reveals that the latest ATs from some manufacturers are not so much larger than City cranes. However it is the outrigger spread, counterweight radius and overall machine weight that make a difference in tight spaces. Half a metre here and there can be all that's needed in certain applications.

Italy is the other main area manufacturing such small cranes. Companies such as Locatelli and Marchetti have produced a range of City cranes from 12-20 tonnes since the late 90's. However the most recent entrant into the City arena is Mister Gru. The Tadano-Faun distributor for Italy which launched its good-looking 20 tonne capacity City crane at the SAIE show in Bologna in 2005, following it up with a 25 tonne high speed version of the battery electric/diesel powered crane in October. The first non Italian buyer for this new model is Peinemann the Rotterdam based crane forklift and access rental company.

The smaller version has a 25.6 metre, six section boom which can be extended with a three section telescopic luffing jib giving a maximum tip height of around 32 metres. A six cylinder diesel provides the main power but this is supplemented by a 30kW electric motor when working in sensitive areas. Four wheel drive and steer is standard, with an



A typical situation for a City crane

industry operates, this in spite of the fact that UK crane hirers run far more mileage in a year than continental companies. They are also not a cheap option, Demag's smaller city cranes are slightly more expensive than their AT equivalents. Comparing specifications such as lift capacity,

overall length of 6.46 metres, width of 2.19 metres and height of 2.9 metres it is very compact. Maximum travel speed is 40 km per hour and GVW is 18 tonnes. Given the interest in city cranes of 25 tones and under it is odd that neither Locatelli nor Marchetti have managed to get a foothold in the UK or Ireland. Some say that this is down to confidence in the manufacturer and its commitment to the market. After all, the specification and performance is only part of the equation, far more important is the after sales service, parts availability and resale values. Peter Hird spent a year with Locatelli but in spite of a strong belief in the concept found that with limited support from the manufacturer, it was simply too hard.

The city crane sceptics do not believe that the concept sits well

with the mentality and working practices of the UK crane hire industry. Most UK mobile cranes, subsidised by cheaper 'red diesel' prices, spend a lot of time on the road often travelling large distances to and from contracts - not a City crane's forte. The City crane is an ideal concept where cranes operate within large cities or old towns where the benefits of their inbuilt advantages are clear and significant. Alternatively there are markets such as New York where one cab means one driver, two cabs two drivers. Their popularity is then helped by a simple case of economics! Whatever view you take, it is clear that there is potential in the UK and Ireland for the return of the smaller city crane with a big name behind, perhaps the deal between Kato and Rigso which is close to finalising some form of merger will deliver?

Specs	Demag AC55 City	AC55-1	Liebherr LTM1055-3.1	Liebherr LTC1055-3.1	Grove GMK 3055	Grove RT700E
Max lift cap/radius	55 tonnes	55t@2.6	55t@2.5m	55 tonnes@2.5m	55tonnes	50-55tonnes
Main boom	7.7-40.0m	10.3-40.0m	10.2-40.0m	7.9-36.0m	9.7-43.0m	11.0-33.5m
Max o/a length	60m	55m	56m	54m	60m	65m
o/a length	8.96m	11.63m	11.38	8.47m	11.41m	13.47m
Carrier length	7.71m	9.32m	9.36m	7.41m	9.10m	8.05m
Engine/power	Daimler240kW	Daimler 260kW	Liebherr 270kW	Liebherr 350kW	Daimler 260kW	Cummins 179kW
Max speed	85 km/hr	80km/hr	80km/hr	75km/hr	80-85km/hr	37km/hr
Drive/steer	6x4x6 (6x6x6)	6x6x6	6x6x6	6x6x6	6x4x6(6x6x6)	4x4
Tyres	14.00(16.00/17.5/20.5)	16.00(14.00)	16.00 R25 14.00R25 20.5R25	14.00 R25	20.5 R25	29.5x25-28PR earthmover
Max gradability	60%	55%	58-70%	46%	72-82%	75%
Max counterweight	8.9tonnes	11.6tonnes	12.0 tonnes	10.4tonnes	11.6tonnes	5.53tonnes



Two Liebherr LTV1055 in a tight spot

And now for something completely different....

Whatever the industry, whatever the sector, there is always one company that does it differently. Cranes & Access talks with Darren Gorrett about his rapidly growing company D&F Hiab Haulage, and finds out why it is so different.

Crediton-based D&F offers lifting services primarily for house-builders in the South West of the country. Nothing unusual there. The company concentrates on lifting roof trusses, concrete beams and erecting steel buildings. Its largest crane can lift 1.25 tonnes to 28 metres.

However, unlike most other companies offering this service, D&F uses a fleet of loader cranes mounted on large Scania tractor units rather than the more usual small All terrain or city cranes. Same service – at about half the price!

Gorrett's background is in haulage, branching out into tipper work and then into transporting and installing site cabins using a small lorry loader.

The idea of using a large loader crane on house building sites started formulating about five years ago. To check if it was viable, Gorrett visited all the major housebuilders in his area – Persimmon, Barretts, Charles Church and Redrow to name a few – for their initial thoughts.

They were obviously positive as Gorrett went the Fassi factory in Italy and promptly ordered a 70 tonne/metre Fassi F700XP loader crane.

Large lorry loader cranes are not new but mounted on a large tractor unit and used primarily as a crane has raised a few eyebrows – particularly from local crane hirers.

An eye-catching 580hp Scania T580, 6x2 Topline tractor unit - painted bright yellow - was chosen for the chassis. The whole crane/chassis design and build package was co-ordinated by Kevin Stanley of Fassi UK and carried out by GP Services of Templecombe in Somerset.

The proof is in the eating

Once built, the unit had to prove itself to the various builders, a number of them organised demonstrations with their construction staff and safety officers to ensure that it complied with their safe working methods and policies.

"Persimmon was one builder that organised a full demonstration to see the unit working," said Gorrett. "They watched the lift and checked all the paperwork so that they were happy with the equipment and the method. What they all liked was the fact that using a crane with remote control, the operator could be alongside the lift giving better control and precision."

With his method approved and workload increasing, Gorrett purchased another four loader cranes, this time the slightly smaller Fassi F450AXP.25 units with the compact, high speed L324 fly jib. Again, all were mounted on bright yellow 6x2 Scania tractor units. The 450's have a lifting capacity of 3.2



The Daddy - the Fassi F700XP mounted on the Scania T520 tractor.

tonnes at 12.2 metres and 1.3 tonnes at 20.1 metres and a gross weight of 5.35 tonnes with the fly jib.

"All the tractors are regularly used solo as a crane on construction sites lifting steel beams, roof trusses, chimneys and concrete panels up to the third and fourth floor levels as well as for transporting cabins and security containers to and from sites," says Gorrett.

The need for a bigger loader crane

Unfortunately the largest crane Fassi produces at the moment is the F1500AXP - not quite big enough. However if Fassi does not produce a larger unit in time, Gorrett will purchase another two smaller units similar to the F700.



The four extension fly jib gives excellent reach to position loads.

Transport and contract-Lifting versatility

Often a rig can drop off its trailer and load before going on to do several lifts, picking up another load before coming back to base in Crediton. This means that a very competitive lift price can be offered – half the price of a traditional contract lift using an AT or City crane.

"All my lifts are contract lifts," adds Gorrett, "for a crane we are usually half the price for the same job using the lorry loader, and that includes an appointed person, banksman and the lorry loader!"

Basic economics means that the business has gained acceptance very rapidly with the house-builders so that Gorrett is looking to purchase more equipment this year.

"I am looking for a Fassi F1800AXP or similar with a double ram fly jib that can lift more at about 30 metres," he says. "The tractor will be a Scania 8x2 620 Topline, a unit that is popular in Europe, but this will be a first in the UK."

"If the bigger crane is available I want to go for four more extensions – probably an eight extension boom with six extension fly jib with a double winch rope on remote control," says Gorrett. "This should be able to cope with the bigger lifts I am being asked to do. The total fleet should be about eight cranes and my £1.8 million turnover this year should double again."

The company has invested a large amount in equipment and built up strong contacts with all the housebuilders in the South West. As they say, the first into the market has a huge advantage, and one that Darren Gorrett is not going to give up easily.

The tractor unit and loader crane is becoming a popular sight around the South West.



The smaller F450XP seen here lifting roof trusses.

Haulotte

GROUP

A FULL LINE SUPPLIER OF AERIAL WORK PLATFORMS

THE POWER OF CHOICE!

Scissor lifts
Articulating booms
Telescopic booms
Vertical masts
Push Around
Trailers
Truck-mounted booms

More than 50 models!

RELIABLE | RUGGED | COST-EFFECTIVE

From February 7-10, 2007 at the Georgia World Congress Center of Atlanta, Georgia USA, please come and discover the Haulotte advantage:

NEW 2007 in the North-American Market

- **HB 135 JRT** - diesel rough terrain Telescopic boom
135 ft platform height with 65 ft 7 in outreach
- **HA 130 JRT** - diesel rough terrain Articulating boom
130 ft platform height with 65 ft outreach
- **Haulotte DI 46 A** - Articulating trailer-mounted boom
46 ft platform height with 29ft 10 in outreach.



Haulotte Booth # 731

February 7-10, 2007

www.haulotte.com

Haulotte

GROUP