A KHL SPECIAL REPORT

DEMOLITION EXCAVATORS

A COMPENDIUM OF REPORTS FROM *DEMOLITION & RECYCLING INTERNATIONAL*

demolition & recycling international
d&ri
khl GROUP

A KHL SPECIAL REPORT

DEMOLITION EXCAVATORS


CONTENTS

A JCB JS330 high reach working on an industrial demolition job in the UK

While demand for some classes of standard construction equipment has slumped alarmingly, the market for high reach and demolition spec'd tracked excavators is currently showing little sign of slowing in most countries around the world. *D&Ri* reports on this equipment sector

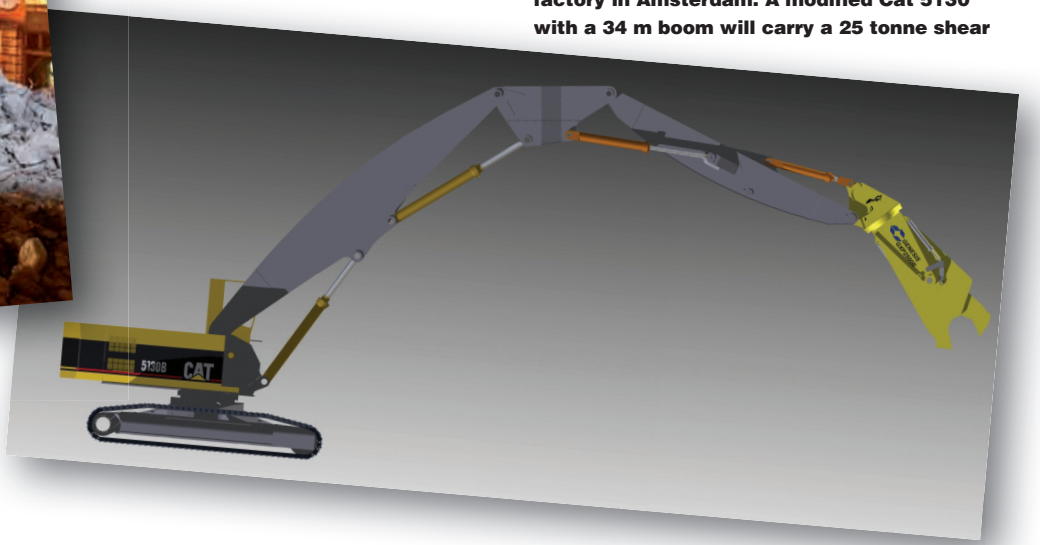
Pushing the boundaries

The star of the high reach world over recent months has undoubtedly been the 90 m (295 ft) giant that was recently handed over by Rusch Krantekniek to Dutch contractor Euro Demolition. *D&Ri* has carried considerable editorial covering this machine over recent issues, but in an update on the progress of the machine, Rusch managing director Ruud Schriejer said that the machine is now back with him to have the control system upgraded. Initially it was thought that full electronic control of the machine's functions could be achieved using a single control system, but practice has apparently demonstrated that optimised control could only be realistically achieved through the fitting of a secondary electronic control system to share the workload.

But Rusch is not resting on its laurels. Work is well advanced on yet another special – this time a modified Caterpillar 5130 shovel that will sport a 34 m boom designed to carry a 25 tonne shear attachment. Boom fabrication is well advanced and modifications to the carrier are due to start shortly. Mr Schriejer said that he expects this machine to be completed by the end of June, 2009.

While many OEMs are currently experiencing a serious drop in demand for their standard construction equipment, it appears that at the moment there is still a healthy demand for specialist niche equipment typified by demolition >12

DSD Démolition is currently demolishing the A55 motorway bridge in Marseille. It has three large Hitachi excavators, a ZX450LCH-3, ZX350LC, and ZX350LCN-3, working round the clock to complete the task within three months



Computer rendering of the latest demolition special under construction at the Rusch factory in Amsterdam. A modified Cat 5130 with a 34 m boom will carry a 25 tonne shear

The scale of the machine is made clear - Kocurek's Ron Callan beside the final dipper section of the main boom. An additional fly dipper will extend reach by 5 m

Four hydraulic 'pads' will be used to support the carrier for transport, one at each corner of the carbody

The counterweight will be hydraulically attached and removed as required. It had yet to be fitted at the time of *D&Ri*'s visit

Despite being a massive piece of engineering, the machine has been designed with transport needs firmly in mind. A special feature of this design are four hydraulically operated pads that descend to support the carbody and upper structure off the ground. The track units can then be removed and lifted away from the machine using the boom foot – to make one transport load. The carrier and boom foot make up a second load, with the various upper boom sections making a third, with all three being suitable for container shipment anywhere in the world.

Another one-off – Kocurek modified this Zaxis 670LC to include an Oil-Quick boom connect system for German Hitachi dealer Kiesel

The machine sports an unusual cab design as part of this. As one would expect on a machine this size, the cab hydraulically tilts to allow a clear view of the tool at all time, but it also has two horizontal positions. The lower position keeps the cab in line with the upper structure, which assists when the machine is transported, but it also has a higher mounting point slightly to the rear. This allows the operator a clear view over the side of the machine, specifically with marine applications in mind.

Development of the machine has been very much of a joint venture. According to Hardy Worsey, joint founder of HDI with Chris Hinett: "After many years experience using large high reaches around Europe, we had a pretty clear idea of what we needed. We favoured using the Hitachi carrier as a basis for the machine – we have used other high reaches using that carrier, it is reliable, strong and above all, its hydraulics are not computer-controlled. We believe in keeping it simple."

HDI presented Kocurek with its requirements – 15 tonne capacity at 30 m on a Hitachi EX1200 carrier base – and then the two companies together proceeded to meet these requirements. Having seen the machine at Kocurek's Ipswich, UK, factory and been suitably impressed, *D&Ri* hopes to follow the story into the future by reporting on its first deployment, which should be in the spring of this year. d&ri

High reach, zero swing

Kocurek, this time working with the UK division of Volvo Construction Equipment, has developed a conversion special at the other end of the scales in the shape of a high reach, zero tail swing design. Based on Volvo's ECR305CL tracked excavator, it offers a 21 m (69 ft) pin height and can carry a 2.5 tonne tool. Volvo GB believes it is an ideal design for demolition of 3 to 5 storey buildings in confined sites and urban environments.

With an initial weight of 37 tonnes, Kocurek has added an additional 10 tonnes of counterweight (built into the sides of the undercarriage, under the front of the upper structure and on top of the standard counterweight) to result in an all up weight of just under 50 tonnes, and an elevating cab (to 30 degrees).

Volvo supplied the machine to Kocurek fitted with a dozer blade, which will come as standard on the conversion to add further additional weight, as well as to provide even more on-site flexibility.

The modified machine features Kocurek's modular joint, which allows the boom to be changed over into standard digging configuration – with a straight dig boom, the EC305CLD offers a working height of 14.5 m (47.5 ft), again with a 2.5 tonne tool. All additional counterweighting is 'bolt on' and can be removed in a matter of a few hours.

D&Ri understands that the first model has recently been sold to Swedish demolition outfit Destroy.