

# HYDRAULIC SLIDING & JACKING

The Hydra-Slide hydraulic jacking equipment in use during the recent demonstration day staged by RRS.



## CRACKER JACK

Nick Johnson reports from Portsmouth where Rapid Response Solutions demonstrated different combinations of its Hydra-Slide load movement equipment.

**A** crane is not always the best solution for moving and placing a load – particularly where space and headroom are restricted. So dealing with site constraints can result in the need for more specialist equipment and expertise – such as that available from companies like Rapid Response Solutions (RRS).

Based in Portsmouth, RRS specialises in moving and placing items such as industrial machinery, power generation equipment, trains, planes and modular buildings. To safely accomplish all this interesting activity, the company has built up teams of specialist riggers and appropriate equipment including not only trucks, trailers, pick and carry cranes and industrial forklifts but also hydraulic sliding and jacking equipment.

Having first bought Hydra-Slide equipment from Canada to do its own work, RRS became the UK and Europe distributor for it. So, now being able to both sell and hire this comprehensive array of hydraulic skidding systems, jacks and turntables, RRS recently staged a demonstration day at its Portsmouth HQ to show prospective users a number of different load moving scenarios.

The Hydra-Slide range has been developed in Canada by Don Mahnke – a man with many years' experience of moving heavy and awkward loads into challenging locations. He was recently at Portsmouth to help RRS Managing Director Paul Barber and his team to explain all the advantages of the



A Hydra-Pac synchronous power pack being used with the Hydra-Slide LP350 low profile skidding system.

modular Hydra-Slide equipment during the demonstration day.

Don Mahnke says that his equipment provides a proven, fully tested and CE Marked means of moving loads – especially horizontally – in locations where there is not enough space to use cranes. The system components have been designed to be lightweight in order to be easy to transport and install.

The first demonstration of the day at Portsmouth involved raising one of the RRS Mercedes Sprinter 314CD vans using four 50 tonne capacity Hydra-Slide CJ55 hydraulic climbing jacks. A bit of a 'sledge hammer to crack a nut' but the scenario showed how the jacks could be deployed, using a Hydra-Pac synchronous power unit and special Ekki jacking timbers sourced from South Africa.

The matched Hydra-Pac synchronous power pack has multiple independent hydraulic oil circuits to supply equal flows to each supply line regardless of the weight of the load or the pressure in the circuit. These



Hydra-Slide President Don Mahnke (left) and RRS Managing Director Paul Barber have a lot of load moving experience.

lightweight, easy to move power packs can have trolley wheels and they are equipped with both lifting eyes and forklift slots.

A Hydra-Pac can have a diesel engine, an electric motor or, as in the case of the demonstration unit, be powered by LPG using standard 18kg Calor Gas cylinders. The hydraulic flows are provided by specially designed Dynex piston pumps, valves and control devices. The climbing jacks each utilise a hydraulic cylinder inverted inside a specially designed casing. The arrangement ensures that more high strength Ekki timber blocks can be inserted whilst the rising load remains fully supported by the jacks.



This 136 tonne capacity low profile TT150-6 hydraulic turntable was used to rotate a 10-foot container.



The HT300 heavy track skidding system using HS3014 hydraulic cylinders (insert) to move a container on skid tracks levelled by support stands and Ekki timber blocks.



RRS runs DAF trucks, 2 to 18 tonne capacity Valla pick and carry cranes and 12 tonne capacity Hoist FR40/60 forklifts.

The next demonstration was of the Hydra-Slide LP350 low profile skidding system designed as an alternative to overhead lifting or rollers when moving a load horizontally. With a 20-foot shipping container to represent the more usual heavy load, two parallel tracks (each composed of easily manhandled 1.83m lengths) had been assembled together with slider plates and two push/pull cylinders.

The tracks need to be assembled so that their maximum slope is +/-2 per cent. The skidding operation is then aided by both the top of track sections and the bottom of the slider plates having special graphite surfaces to provide a low system coefficient of friction of between 15 and 20 per cent. To speed the sliding process, each cylinder automatically resets itself into the next ratchet on the track after each stroke.

To cater for the widest variety of load shifting operations, RRS can also supply the Hydra-Slide XLP150 extreme low profile skidding system and the HT300 heavy track skidding system. With lower height skid shoes, the former provides a maximum push/pull skidding capacity of 227/136 tonnes.



Raising a modular student accommodation unit in Winchester using a bespoke 17.0 tonne capacity lifting frame.

The HT300 heavy track skidding was seen in action at Portsmouth where RRS personnel moved another 20-foot container off a low bed trailer. Utilising 27 tonne push capacity HS3014 hydraulic cylinders; this system has a skidding push/pull capability of 270/135 tonnes. To raise up the skid tracks beside the trailer to provide a level surface, they were carried on the system's support stands and blocks of Ekki timber.

RRS also showed the operation of one of Hydra-Slide's hydraulic turntables. With a 10-foot container as the demonstration load, this 136 tonne capacity low profile TT150-6 turntable ably showed its rotating capability. It used hydraulic cylinders that automatically

reset themselves into the ratchets contained around the turntable's circumference.

Amongst the recent jobs carried out by RRS using its HT300 hydraulic skidding system was the installation of a 45.0 tonne transformer at East Cowes Power Station on the Isle of Wight. Using track support stands and timbers, the company was successfully able to move the transformer 15.0m to its required location across undulating and low load bearing ground.

To carry out a full spectrum of load handling work, the RRS machinery and transport fleet includes a range of 2 to 18 tonne capacity Valla pick and carry cranes from Italy together with 12 tonne capacity Hoist FR40/60 forklifts and a range of DAF trucks. The company's 8 wheel DAF rigid trucks have Fassi loader cranes and its DAF XF Euro 6 6x2 tractor units are paired with Faymonville low bed trailers.

Paul Barber says that truck and all terrain telescopic boom cranes are hired in as necessary to support the RRS contract lifting and haulage operations. He reports that there is an increase in the movement and installation of modular buildings with a notable recent job involving units to create a new block of student accommodation in Winchester. Here RRS moved the building modules to site using its own vehicles with escorts and then lifted them into place using Ainscough telescopic cranes and a bespoke lifting frame with an SWL of 17.0 tonnes.

**I** For more information about Hydra-slide equipment  
 GO TO [WWW.RDR.LINK/C1055](http://WWW.RDR.LINK/C1055)