

A Powerfab climbing micro-excavator has been working half-in and half-out of a river in Derbyshire carrying out bridge pier repairs.

Problem-solving Powerfab

With the current proliferation of mini and micro-excavators there are not many instances these days when a difficult digging problem cannot be readily solved. Occasionally, however, an application turns up that does require both some thought and a little imagination from all those involved.

One such application recently came to light at a contract at Eggington in Derbyshire where repairs were to be carried out to the piers of Monks Bridge for Derbyshire County Council, acting as agents for the Historic Buildings and Monuments Commission.

The contractor, Currall Lewis and Martin Ltd of Birmingham, was faced with the tricky problem of clearing debris away from around the bridge piers prior to driving new timber piles into the riverbed. This task required a machine capable of working 'blind' to a depth of 3m whilst standing on some kind of small working platform.

Ideal for the job

However, following discussions with micro-excavator manufacturer Powerfab Sales and Spares Ltd and its Midlands distributor, Willets & Hawkins (Plant Services) Ltd it was agreed that Powerfab's 360C climbing excavator, with suitable modifications, would be ideal for the job. The modifications carried out by Powerfab involved the fitting of a special boom to increase the standard digging depth of 2m by an additional 1m. Also, the front legs of the machine were extended to enable them to be located on the riverbed without the base of the machine coming into contact with the water.

With the rear wheels resting on the existing pier bases it was therefore possible to do away with the proposed working platform, hence saving considerable ex-



Half-in and half-out of the water, the Powerfab climbing excavator digs out debris from the bridge piers.

pense. The machine started work on the contract in December last year and is said to have proved highly successful.

Powerfab of Tredegar in Gwent, the leading micro-excavator manufacturer, introduced the 360C in April '84 and it has proved to be very popular. The company reports particular success in Switzerland and Germany where users are already accustomed to the walking excavator principle and are said to be enthusiastic about the newly-arrived miniature version.

The machine can rotate through 360° and can achieve up to nine cycles per minute. Its configuration enables it to manoeuvre and dig on steep slopes, straddle ditches, work in riverbeds and climb over low walls and up steps. It is powered by a 7.5kW (10hp) air cooled petrol engine as standard with a choice of Petters or

Lombardini diesel engines available as an option. The power pack also allows a hydraulic breaker or other tools to be operated if required.

For transportation between sites, the 360C can either climb onto a flat bed truck or, using a purpose-built trailer, be towed at speeds of up to 40mph. On site, if the unit is towed around by a dumper, it is possible for the machine to dig and load directly into the dumper skip without the need to unhitch. Recently, Powerfab has introduced the option of a steerable third wheel located at the rear of the machine driven by a hydraulic motor. This enables the 360C to power itself around sites without the need for a haul vehicle, and therefore greatly increases its versatility.

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For more details of Powerfab's walking micro-excavator circle 414.