



April 2016

Institute of Quarrying Lancashire Branch Newsletter

IOQ Lancashire Branch - Chairman's Foreword

On behalf of the Lancashire Branch, Gordon Dick is looking for new committee members. Anyone interested please contact either him or Mark Broadley for more information.

There are a few places still available for the Charity Dinner Dance, details are given below.

The committee would like to congratulate Gordon Dick on the birth of his second child.

Due to some committee members being unable to attend, the AGM did not take place, it will be rescheduled, date to follow.

Charity Summer Ball

10th June 2016 - Imperial Hotel Blackpool

Contact

Mark Broadley

T. 07740 934603

Mark.broadly@aggregate.com



Jim Shields (Strengthening Lock Arklet Dam)

Strengthening Loch Arklet Dam using Multi-Strand Anchors

Jim Shields Regional Manager for BAM Ritchies based in Kilsyth,

Lecture Outline;

Loch Arklet Reservoir is situated 16 km North West of Aberfoyle, Stirling District. The reservoir impounds 12.3Mm³ of water and is a strategic resource for public water supply to Glasgow and its surroundings. It is retained by a 15m high gravity dam built by contractor Charles Brand and Son, between 1909 and 1914.

This 'A listed' structure, approximately 300m long, is made up of a concrete core and sandstone blockwork facing to the downstream and a concrete block facing on the upstream. There is a spillway section off centre of the structure and there is a 2.5m wide walkway across the top.

As for all dams of this size there is an ongoing inspection regime to ensure the safety of the structure. During one of the inspections, the Scottish Water identified an apparent increase in leakage from the face of the dam and started to notice that deformation of the handrail was occurring due to delamination of the downstream sandstone facing. Further detailed investigations indicated that indeed there was both rotation of the structure characterised by apparent heave of the upstream parapet together with sliding of the structure. The water level within the impounded reservoir was reduced by 7m or so to prevent further deterioration whilst a more permanent solution was sought.

BAM Ritchies, in conjunction with Jacobs and Expanded devised the strengthening scheme to stabilise the dam and restore its capacity, taking into account its historic importance. 64 number permanent multi-strand anchors were designed, constructed and installed across the crest of the deep into the underlying bedrock. We will describe how bespoke reverse-circulation drilling equipment was used to overcome the difficult ground conditions and the innovative equipment and techniques used to install and test the anchors. We will also show how the use of Business Information Technology (BIM) was used to provide accurate records for Scottish Water.

On behalf of the members, branch chairman Gordon Dick led the vote of thanks to .
Jim Shields for his excellent presentation .



Dates for your Diary 2015-2016

15th September - Mike Tetley - H.S.E -

13th October - Technical Evening - Cab Care -Machine Fops –Rock Guards.

10th November - Technical Evening - Colin Scott Leibherr

9th December - Technical Evening - To be confirm

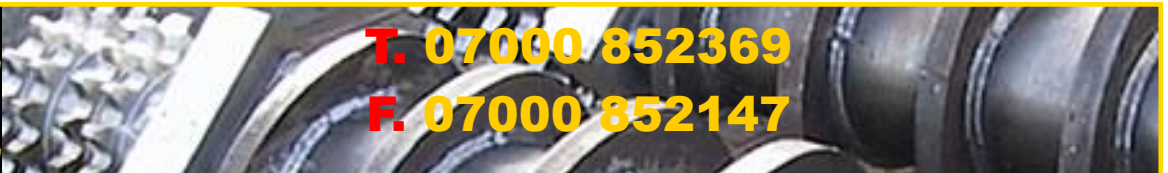
12th January -Technical Evening - Michael Bibby KAL TIRE– Tyre Safety Awareness

9th February - CPD Event -

8th March Technical Evening - Adrian Wilkinson Quarry Design (Drones) The Law

12th April- AGM and Jim Shields of BAM Ritchies –Strengthening Lock Arklet Dam

More details on these events will follow, to book a place please contact Gordon Dick .



T. 07000 852369

F. 07000 852147

Driveline Engineering is a premium mechanical engineering facility providing industry with a totally comprehensive power transmission service.

Driveline can supply the full range of mechanical components when taken together with our technical expertise, extensive machining capacity and around the clock delivery enable us to provide solutions to engineering problems in a way that is simply unmatched.

Click on this link to visit the driveline website www.quarrydrives.co.uk

Useful Contacts

Chairman

Gordon Dick

T. 0773944890

E. gordon.dick@babcockinternational.com

Vice Chairman

Tom Wright

T.07803968114

E.Tom.wright@aggregate.com

Secretary

Mark Broadley

T. 07740 934603

E. Mark.broadly@aggregate.com

Treasurer

Keith Hall

T. 01200 441524

E. keith@briarcottage.wanadoo.co.uk

Representative to Council

Glyn Barnes

T. 07778 931484

FOR ADVERTISING AND SPONSORSHIP OPPORTUNITIES PLEASE CONTACT
Mark Broadly 07740 934603 Mark.broadly@aggregate.com

Sponsor this
newsletter for only
£100 per issue

For more information please visit www.quarrying.org