



## Autumn Newsletter

Oops...

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For the eagle-eyed amongst you, our latest Newsletter had some rather interesting text in it. In case you wondered, we're not attempting to reintroduce Latin to our readers as a preferred method of communication. As you've probably guessed, it was a mistake. We were so excited to tell you about the upcoming events at Quaife, we clicked our email button, and off it went - just not the right button!

Having now reined in our enthusiastic member of staff \*ahem\*, we're pleased to inform you of the real events happening at Quaife. Have fun reading.

## In this issue

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- Professional Motorsport World Expo Show, Cologne 16-18 November 2010
- NEW Toyota 2ZZ-GE engined Lotus Elise / Exige sequential gearbox package
- New Gleason 3D scanning gear inspection machine
- New ATB helical gear limited slip rear differentials for Mitsubishi Lancer Evo 4/5/6
- REM / Superfinishing service now available on transmission parts
- Quaife launches Youtube channel
- Major investment in CNC production machinery
- Deliveries begin of new QBE69G heavy duty in line sequential transmission
- New ATB helical gear limited slip differentials for Fiat 500 / Mk2 Ford Ka

### Professional Motorsport World Expo Show, Cologne 16-18 November 2010

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Professional Motorsport World Expo Show, Cologne 16-18 November 2010 Having enjoyed a highly successful show last year, Quaife is returning to the Professional Motorsport World Expo Show in Cologne, Germany between the 16-18th November.

Quaife's stand will feature a number of exciting products including the important QBE69G heavy

duty in-line sequential gearbox, plus the forthcoming Lotus Elise sequential unit and new ATB differential applications for several popular models. Key Quaife personnel will be available to discuss your individual transmission requirements, so please look out for the Quaife stand number 7120

## **NEW Toyota 2ZZ-GE engined Lotus Elise / Exige sequential gearbox package**

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Quaife is delighted to announce that it has developed a six speed sequential gearbox for the 2ZZ-GE Toyota engined Lotus Elise 111R, Elise SC, Exige S2 and 211 models, which transforms these sportscars' performance.

Extensively tested on a variety of circuits by Lir Racing of France in a GT4 Lotus 211, Quaife's six speed sequential package – part number QKE9E- has performed faultlessly throughout 1250 miles of track testing and racing mileage. To see the gearbox in race action at Brands Hatch, please click on: -

[http://www.youtube.com/quaifeengineering#p/a/39FB04AC8FFBED81/0/xHp3HOHpY\\_Q](http://www.youtube.com/quaifeengineering#p/a/39FB04AC8FFBED81/0/xHp3HOHpY_Q)

Designed as a direct replacement for the standard six speed H-pattern Toyota transmission, the Quaife six speed sequential gearbox package includes a specially strengthened outer gearbox casing and sequential gearchange mechanism, which features a compact, drum style design for an ultra rapid gear shift. Careful design by Quaife also allows the retention of the original Toyota clutch.

The standard Toyota gearbox uses road orientated gearing so Quaife has heavily revised the gear ratios on the Toyota engined Lotus Elise / Exige sequential gearbox, making them ideal for circuit

use. The new optimised gearing features a choice of five shorter overall final drive and two sets of close ratio intermediate gears with a straight cut tooth form. These design elements enable Quaife to minimise transmission power losses and allow drivers to easily keep the 2ZZ-GE engine working in its power band, while delivering a top speed more suited to the needs of competition.

Quaife's Toyota engined Elise / Exige sequential gearbox package includes the new transmission housing, gear lever and cable. Carrying part number QKE9E, it's priced at € 4.770,00. A Quaife ATB helical gear limited slip differential, part number QDF21K is also available for Toyota engined Lotus applications, costing € 702,00 . A six speed H-pattern dog engagement version of this transmission - featuring the same ratios - will also be launched shortly.

### New Gleason 3D scanning gear inspection machine

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Quaife's in-house inspection facilities have received a major boost thanks to the acquisition of a Gleason 350 GMM 3D scanning gear inspection machine. Boasting the ability to check a wide variety of dimensions including teeth angles, teeth surface finishes and the pitch on helical gears before and after heat treatment, this £250,000 capital investment will ultimately enable Quaife to produce quieter running and stronger and even more reliable high performance transmission systems, thanks to even stricter quality checks.

### New ATB helical gear limited slip rear differentials for Mitsubishi Lancer Evo 4/5/6

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A new addition to the ever-expanding range of Quaife ATB helical gear limited slip differentials covers the popular Mitsubishi Lancer Evolution Turbo 4/5/6 models. Designed as a direct replacement for the often troublesome Lancer AYC rear differential on the 4/5/6 models, the Quaife ATB unit is considerably more robust than the original Mitsubishi unit and delivers real improvements in traction and handling balance for the popular four wheel drive Lancer Evolution. Carrying part number QDH18B the Quaife Mitsubishi Lancer Evolution 4/5/6 rear ATB helical gear limited slip differential is available now, complete with a lifetime warranty, priced at € 702,00.

## REM / Superfinishing service now available on transmission parts

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Quaife is pleased to now offer a REM / Superfinishing service as a cost option for its transmission systems. The process, which takes 8 hours and has entailed purchasing a new 'rumbling' machine, produces a highly polished finish and removes the stress marks from individual components, reducing friction and gear noise. It also allows transmissions – and transmission oil – to run cooler and when the REM / Superfinishing process is applied to a gearchange mechanism, produces a faster, slicker gearshift.

Applying the REM / Superfinishing process to a typical Quaife gearbox such as the QBE60G will cost approximately € 360,00 and the service is available to outside contractors for use on engine components, axle parts etc.

## Quaife launches Youtube channel

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In addition to our news feeds to Twitter and Facebook, Quaife has now set up a Youtube video channel. Found at [www.youtube.com/quaifeengineering](http://www.youtube.com/quaifeengineering) the channel features videos of a variety of Quaife products in action, as well as short information films about Quaife and Quaife's product ranges. Why not subscribe, to ensure you stay up to date with Quaife?

## Major investment in CNC production machinery

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The Directors of Quaife Engineering have an ongoing commitment to investing in capital machinery and the latest development in this program was the acquisition of 11 new Doosan CNC machines, from Mills CNC. Speaking about the investment, Michael Quaife said 'We liked the appearance, specification and performance of the Doosan vertical machining centres; they feature more tool holders and are a lot more accurate. We were also impressed by the approach, technical back up and service that Mills CNC was able to offer, so this led us to discuss our turning capabilities at our Gillingham facilities and these discussions – plus successful test cuts on the recommended Lynx and Puma lathes, resulted in us purchasing six new Doosan lathes, as well as the five Doosan DNM vertical machining centres.'

The results of this investment – carried out between March and May 2010 – have been immediate, because Quaife is now able to achieve higher levels of accuracy and repeatability than ever before and expand capacity to meet tighter deadlines, enabling us to stay even further ahead of the competition.

## Deliveries begin of new QBE69G heavy duty in line sequential transmission

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Quaife has delivered the first batch of ten customer examples of its new heavy duty in-line six speed sequential gearbox, which is rated to over 750 bhp.

Designed to suit the high torque and power handling requirements of the endurance racing market, the new QBE69G incorporates the following key technical features: -

- 90mm shaft centres and large gears to maximise strength
- Modular six speed gear cluster layout
- An integral oil pump for optimised lubrication
- A sleek, modern casing design
- Semi-automatic paddleshift compatibility
- Nine choices of gear ratios
- Overall weight approximately 45 kilograms
- Choice of input shafts available

Use of the very latest dog engagement tooth profiles in the 69G has resulted in a six speed sequential unit which allows ultra rapid gear changes and not only offers users a choice of gear lever locations, but also the option to upgrade to a state of the art closed loop, pneumatically operated semi automatic paddle shift system.

The QBE69G gearbox is supplied with a choice of straight cut (spur) or helical gear ratio sets and available bellhousing options include Dodge Viper and Sierra Cosworth YBT pattern. Quaife also offers the option of using a specially designed adaptor plate to enable the QBE69G to be fitted to applications already offered for Quaife's smaller QBE60G unit, including the Ford Duratec and Nissan 350Z.

### New ATB helical gear limited slip differentials for Fiat 500 / Mk2 Ford Ka

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Quaife has developed an ATB helical gear limited slip differential for models of the Fiat 500 and Ford Ka equipped with the five speed manual transmission. A direct replacement for the original Fiat / Ford factory 'open' differential, the Quaife ATB differential for the Fiat 500 / Mk2 Ford Ka is available now, carrying part number QDH3K and priced at € 702,00. Abarth Punto Evo and Abarth 500 Esseesse owners can also benefit from a Quaife ATB differential - part number QDH2K –

which is available for the six speed manual transmission equipped models of these cars, priced at € 702,00 – click on <http://www.quaife.co.uk/catalogue/search/results/qdh2k?page=4> for more information.

For more information, please contact  
Tecno 2 srl : [vendite@tecno2.it](mailto:vendite@tecno2.it)  
or visit [www.tecno2.com](http://www.tecno2.com)

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**Note to editors:-**

RT Quaife Engineering Ltd was established in 1965 to provide high performance transmission solutions for the motorcycle and car sectors. Today, Quaife employs over 65 staff, designing, machining and assembling a vast array of products in house, including complete motorsport gearboxes and gearkits, steering racks, propshafts, uprights and its famous high performance helical gear limited slip automatic torque biasing differential. With full ISO9001 and ISO 9000 TS16949-2000 approval, Quaife operates from two advanced manufacturing facilities at Sevenoaks and Gillingham in Kent, which feature the very latest CNC production machinery. Over 50% of Quaife's product is destined for export, with customers ranging from individual motorsport competitors to the world's largest car manufacturers. For 2009, Quaife ATB helical gear limited slip differentials have been selected as an original equipment fitment on the critically acclaimed MK2 Ford Focus RS. Quaife supplies Radical Sportcars, Caterham, Ginetta and Westfield in an OEM capacity.

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