

# Handling the pressure

## - DGC Tree

On more difficult timber harvesting contracts, ground conditions can be challenging, to say the least. When dealing with timber that has been planted on deep peat, for example, Scottish contractor Drew Graham (DGC Tree) knows that specially converted Komatsu forwarders and Hyundai excavator based machines can be relied upon to keep moving and keep working. Reducing surface damage to an absolute minimum and virtually eliminating the risk of machine bogging were the main drivers in shaping the machine fleet. Drew has found that, if manufacturers and dealers understand the problems he faces, they will work with him to overcome them.



*In the worst ground conditions the Hyundai R210 Super LGP with the Westtech tree shear attachment is the best option for tree clearance. It is also the most efficient for the removal of light woody growth.*

Young Plant Sales of Doune in Central Scotland was able to supply Drew with three Hyundai R210 LC-9 tracked excavators. The Cummins-engined 22 tonners 'ticked all the boxes' and were put to work during early spring 2013. Drew commented: "Young Plant Sales is an excellent dealer. Even if we have a breakdown on a Sunday I can text or email the workshop foreman and without further communication I know that a fitter will be dispatched first thing on Monday morning." This type of service is of huge benefit when Drew's machinery is working in remote locations and at long distances from his base north of Glasgow.

The standard track configuration on the R210s, however, would still have left the machines with a standard ground pressure – well outside the specifications that Drew had set to allow the machines to work with confidence on many of his more difficult contracts. JCC Engcon Group was contracted to convert the standard base excavators into Super LGP units. The ground pressure is reduced by

more than half with the widening and lengthening of the track frames and the fitting of 1600mm pads. 700mm and 1050mm widths were also supplied to enable operation over a full range of working conditions and stump heights. Young Plant Sales fitted LED lights and Margard screens in addition to the fitment of full demolition specification FOPS (falling object protective structure) frames.

The fleet of DGC Tree heavy-duty excavators can be fitted with attachments for timber harvesting including the Canadian Quadco feller buncher, the Austrian Westtech C350/C450 tree shear and the Komatsu 370E cut-to-length harvesting head. JCC Engcon was also brought in to fit up the Quadco feller buncher and the 370E head (with assistance from Komatsu) and fabricate a nose-cone with pad to enable the wide-footprint excavators

to manoeuvre efficiently on site. A few special tweaks to the Hyundai system have resulted in a very fast head whilst excavator function and speed have been retained.

When it comes to shifting timber to the roadside, DGC Tree has opted to stay with Komatsu Forest in the form of the 895 forwarder. The largest of the manufacturer's forwarder range, its payload and speed were exactly what was required to keep up with the huge areas and volumes being cleared. "Komatsu really were excellent to deal with," Drew commented. "Right from the start both Chris Quincey and Dave McIlwraith could see what I was trying to do and helped out at every turn to make things happen. They had a demo 895 machine due in and when it arrived they gave us full access to both it and an 865. Their workshop foremen and fitters worked all day to help take wheels off and on, take

measurements and advise on what was and was not possible. By this stage JCC was once again involved and it was decided there and then that the machine would be bought and that a low ground pressure conversion would be done on it."

After the widening and lengthening of the 895's bunk by Komatsu Forest the machine was delivered to the JCC workshops to have the LGP conversion carried out. On firm ground, standard band tracks would have been the chosen option, but three of the ongoing DGC Tree contracts are deep peat restoration sites which require total vegetation clearance, including all roundwood and brash. To avoid any surface damage, a new approach was required. The addition of an extra axle under the load bunk and fitting tracks 1800mm wide provided the necessary flotation characteristics.

The extraction of 357 hectares of

*Komatsu Forest's 895 forwarder was selected by DGC Tree for adaptation for low ground pressure working. The 1800mm tracks and additional axle have proven fit for purpose even on the softest ground.*



whole tree material to be chipped at the roadside for UPM Tilhill was the first challenge the Komatsu 895 had to handle. "We were really trialing the unknown and it could all have gone horribly wrong, were it not for the hard work that Komatsu and JCC put into the conversion," reported Drew. "The site was extremely wet and, apart from a couple of minor on-site modifications on day one, the 895 LGP went straight into work crossing open peatland with amazing ease."

"I have to be honest that with an all-up weight of over 50 tons I was nervous in the early stages," continued Drew. "A bogged forwarder would have made it an expensive day out! My own operators had felled the trees, though, and they knew how far the boundaries could be pushed. I can honestly say that we have never had the 895 bogged – or anywhere near being bogged. When conditions get really bad we mat out roads with brash or whole tree material to avoid ground damage or water course pollution."



*The Eschlböck Biber 84 is a recent addition to the DGC Tree fleet and its performance has turned out to be more than satisfactory. The ability to load full sized road trailers in about 35–40 minutes will suit both the contractor and the haulier.*

"The 895 LGP has been an expensive machine to put together, but for the particular site conditions and workload it was the only one-man option to shift the material. It has performed very well, but it has been a learning curve and several issues along the line have had to be addressed and ironed out. This is to be expected with such a conversion. JCC and Komatsu Forest have reacted very quickly and, given the remote work locations, all downtime has been kept to a minimum."

As far as the future is concerned, DGC Tree has no ambitions to enter the traditional forestry harvesting

market and prefers to target LGP work and construction site and road-widening tree clearance projects. Biomass is seen as a potential developing market, and a recent addition to the fleet is a new Eschlböck Biber 84 chipper powered by a Fendt 939 400hp reverse drive tractor. Although it is still early days, the chip quality and output of the combination have been very promising. "We trialed it on several sites before purchase," explained Drew. "In continuous operation with whole trees or brash it can load walking floor trailers in 35–40 minutes. That is not far behind the higher powered lorry-mounted machines. The aim is to use it on our own contracts and also use it to develop a chipping service covering Scotland and the North of England which will run alongside the mulching service already offered."

"I have been mulching now for over 15 years – this is one of the main parts of the business and one of the most enjoyable. Most of it is repeat work from a wide range of

clients from estates to large construction companies." A Fendt 724 with a Suokone Mericrusher regularly travels up and down the country, mainly working on Christmas tree plantations mulching out old rootstock in preparation for replanting. The mainstay of DGC Tree's mulching operations is, however, the Fendt 936 and Ahwi 700 combination.

The workload of the unit is impressive. Just halfway through its third season, the 936 has recently been traded back in to Ross Agri Services of St Cyrus with 6,000 hours on the clock. There is no question, however, of DGC Tree

changing its allegiance to the German manufacturer. "Fendt need to be singled out for praise, as, for mulching, there really is no other tractor that is so able and reliable," commented Drew. "The service levels we receive from Ross Agri Services are also excellent. Ahwi mulchers are the best on the market and provide the only real option for professional mulching contractors." The attachments are supplied by Paul Vidgen Forest Machines Ltd of Ascot in Berkshire.

DGC Tree is aware that one key factor influencing clients to award repeat orders is the professional and reliable service they are guaranteed; the other is the experience and commitment of Drew's operators. "I have a great team of guys working on the machines, and, without their attention to detail, my life would be a lot harder!" admits Drew Graham.

"Once a job is set up I rarely need to go back onto the site... If I do, it is often because a client wants DGC Tree to quote for more work. I have the professionalism of the operators to thank for that."

Hilary Burke



*For cut-to-length harvesting DGC Tree has opted for the Komatsu 370E harvesting head. Excavator bases fitted with wide pads for soft ground working need the support of the boom for efficient tracking – hence the special nose cone attachment designed by JCC and Drew Graham.*



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