CASE STUDY

BLAST

Cummins QST30 has replaced Cat engines in all Sharps' repowers.

The reputation of the Cummins QST30 for long life-to-overhaul in rotary blasthole drilling has been further emphasised with one engine recently achieving an incredible 38,000 hours before change-out.

Queensland engineering company, Mackay-based Sharps Heavy Equipment Repairs, repowered a Reedrill SKS with the Cummins QST30 which went on to far exceed expectations operating at Hail Creek coal mine in the Bowen Basin.

"The engine was still running when the decision was made to change it out at 38,000 hours," says Tony Walker, Cummins Mackay workshop manager. Three more QST30 engines in SKS drills at Hail Creek have exceeded 30,000 hours.

Several years ago Sharps developed modules for both the Driltech D90K and Reedrill SKS drills featuring the QST30, a 30-litre V12.

Cummins in, Cat out.

More than 20 drills have since been repowered by Sharps and in all cases Caterpillar engines have been replaced with the QST30 rated at 1050 hp in the D90K and 850 hp in the SKS.

Rotary blasthole drilling is a tough application with engine load factors as high as 75%. Life expectancy of the QST30 was originally 16,000 to 20,000 hours – a level that other engine manufacturers struggle to achieve.

However, that expectation is now significantly higher due to the proven reliability and life-to-overhaul capability of the QST30 in drilling.



Cummins Mackay product support reps Ashley Berrigan and Brett Bath check out the 38,000-hour block.

CASE STUDY



One of the more than 20 drills have been repowered by Sharps with the QST30.

The QST30 module was originally developed by Sharps for the D90K in response to a customer request to replace the Cat and also direct couple the compressor to the engine to eliminate the driveline and prevent premature compressor failures.

Customer-driven decision.

The decision to replace the Cat was primarily due to the customer having drills in similar applications powered by the Cummins QST30. Reliability and durability of the QST30 made it an easy decision for the client to repower the drill with this engine.

The combination of the QST30 in a fully floating cradle and direct-coupling of the engine to the compressor produces significantly less vibration than the original set up, thus greatly improving compressor life. Noise in the cab is also dramatically reduced with the QST30, which is beneficial for the machine operator. Sharps points out that reduced fuel burn of 14-15 litres per hour is another feature of the QST30 rated at 1050 hp. Based on 6000 hours per year, fuel savings over 12 months would be around 80,000 litres.



38,000-hour QST30

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Cummins Head Office 2 Caribbean Drive Scoresby Vic 3179 Australia Phone 613 9765 3222 Fax 613 9763 0079 www.cummins.com.au