

More power for Bell's Mark 7 generation

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Bell Equipment is releasing the Mark 7 generation of its B40D and B45D Articulated Dump Trucks at the end of October, which will deliver increased power and better driveline tuning to keep these popular workhorses out in front as class leaders.

"The B40D Mk7 truck will be fitted with a 335kW Euro3 spec engine, which will effectively improve the power-to-weight ratio by 6,5%," says Bell Equipment Product Manager: ADTs, Trevor Muslih. "The knock-on benefits are quicker acceleration and lower optimal rpm range, thereby reducing fuel burn during normal operation."

The new Mk7 generation ADTs will be remarkably improved. During demonstrations at various customer sites, where the truck competed against another manufacturer's trucks, the Bell B40D Mark 7 outperformed in terms of production by 6% and also used 13% less fuel. Similarly the B45D, which has a 9% power increase from 350kW to 380kW, has achieved significant fuel savings compared to competitor trucks working in a mining application in Africa where the Bell truck is currently on an extended demonstration".

Explains Muslih: "The new Mk7 is much faster and able to complete more cycles per hour due to its increased speed. In addition, operating engine rpm has been reduced by clever (optimal) tuning of the drive line. The Bell ADT still takes full advantage of its weight optimised design. The result is that the transmission moves into lock-up mode much faster. Apart from providing better fuel consumption, it has also improved the gradability of the machine in almost all gear ranges."

The B40D has a nett increase in power of 8,3%, which has been realised by the new engine plus reduced driveline drag. The reduced driveline drag has been achieved through the introduction of a Bell-designed Wet Disk Brake (WDB), which has already been successfully incorporated on the B30D, B45D and B50D. "The Bell WDB reduces driveline drag with a measured saving of 1,5kW per brake. The reduced driveline drag also assists to reduce fuel consumption," says Muslih.

Cooling for the axle oil now takes place in the axle and not in a separate cooler at the rear of the

cab. The WDB system still has forced circulation but now includes an inline filter on the B40D, which will improve service times and reduce oil change intervals. The present oil change interval is 2 000 hours but Bell is hoping to extend this value after further testing by the engineering division.

“Completing the upgrade on the B40D and B45D are software changes affecting the shift point of the transmission. The computer intuitively changes to the correct gear based on the dynamics of what the operator is currently doing to allow for a smoother gear changes and less ‘gear hunting’.

“All in all, we are confident that our customers will be extremely satisfied with our latest generation of large trucks and the performance and fuel benefits they will bring to their operations,” says Muslih.

Source: Bell