Transport Torque

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Remote control: Our driverless future?

While laser-guided forklifts and other small vehicles have long been fixtures inside leading edge warehouses around the world, we are starting to see an uptake on mining sites of driverless trucks. These vehicles, each the size of a two-storey house and able to carry loads of 290 tonnes, are programmed and controlled by an operator at a computer potentially thousands of kilometres away.

Source: Komatsu

Rio Tinto recently finalised a deal to buy 150 driverless Komatsu trucks – expanding on a trial of five trucks which has been operating since 2008 at its West Angelas iron ore mine in the East Pilbara region. Fortescue Metals is also looking to have a dozen Caterpillar autonomous trucks in operation by the end of the year, with another 33 to follow.

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Innovation

At this stage operating only in the resources sector, driverless or "autonomous" trucks:

- Can operate 24 hours a day, free from driver fatigue, human error or other restrictions.
- Are programmed to operate at optimum levels (gear changes, fuel efficiency, etc), with trucks in the Rio Tinto trial experiencing less wear and tear than equivalent manned trucks.
- Can be operated remotely, from anywhere in the world.

Rio Tinto plans to have up to 40 percent of its fleet driverless by 2015, controlled from a state-of-the-art operations centre in Perth.

Driver shortage

Whilst this represents a massive investment (costing about 30% more than conventional vehicles), in the context of an industry-wide labour shortage, transport operators have to increasingly think outside the box.

Consider that:

- The average age of an Australian truck driver is nudging 50 years.
- Demand from the resources sector has seen truck drivers offered salaries of $150-$200k+, with packages including camp accommodation, meals and a FIFO (14/7) roster.
- The resources sector can recruit overseas drivers under the subclass 457 visa regime, but mainstream trucking operators are no longer able to do so, exacerbating the shortage by restricting sources of labour.

With wafer-thin margins in many trucking operations, escalation of labour costs without productivity improvements poses a very real threat.

Conclusion

This technology has enormous potential to boost productivity and reduce costs for operators in the resources sector. In the meantime it is giving the rest of the trucking industry a peek at what the future may hold.

Regards

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