

Press release

Transportation Components offers a smooth transition to Eaton severe-duty clutches – double the kilometres at a fractional cost for customers

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In the heavy transportation sector, clutches are a key sub-assembly and a vital part of the vehicle transmission. Over the years, the design of clutches has evolved to a high level of sophistication and reliability, allowing for the smooth transmission of power from the engine, through the gearbox and on to the wheels.

Heavy vehicle transmission power management company, Eaton, has introduced a range of severe-duty clutches some four years ago; and, where heavy commercial vehicles operate in harsh conditions, these clutch assemblies offer greatly increased durability at minimal extra cost.

"When we, as aftermarket component specialists Transportation Components, introduced Eaton severe-duty clutches to South Africa, we deliberately fitted these to heavy vehicles working in the timber and sugar-cane industry," explains Transportation Components' Sales Manager Patrick Bruinette.

In South Africa, sugar cane and timber are major industries, but the vehicles serving these sectors frequently carry maximum loads on rough, unsurfaced and frequently wet roads with unusually steep gradients. These conditions tend to test the durability of clutches to the maximum.

"When the tests were completed, fleet owners were delighted with the increase in durability, as the premium on the initial purchase price was insignificant compared to the improved overall life-cycle of the clutch," Bruinette recounts.

"Feedback from other fleet owners who have fitted Eaton severe-duty clutches is that, on average, they doubled the time between clutch replacements and reports from Europe substantiate that increases in durability are similar," he adds.

Eaton is the exclusive clutch supplier to all North American heavy commercial vehicles (HCVs). It was from this technology that Eaton further developed the severe-duty clutches for a selective range of European HCVs.

"There are a number of transportation sectors where Eaton severe-duty clutches repeatedly prove their worth," he continues. Apart from the timber and sugar cane industries, Eaton severe-duty clutches find application on construction sites or in quarries and open-pit mines, where clutches have to contend with driving up and down long steep ramps constantly under heavy loads.

"Particularly in off-road conditions which are sometimes wet and where the clutch has to get a stationary heavy load moving, our severe-duty clutches really excel," he asserts.

"Another application is in commercial passenger transportation. If you drive a 56-ton vehicle from Johannesburg to Durban, it needs far fewer gear changes than a bus operating in an urban environment, where, with the bus stops and traffic lights to contend with, the gear change cycling is much higher," he explains.

Regarding safety, clutches and their reliability play a key role here. "If a heavy vehicle clutch fails when it is driving down a steep gradient, the load tends to increase the impetus of the truck. If you cannot take advantage of engine-braking due to a burnt-out clutch, the risk of a truck runaway is greatly increased," he says.

Heat build-up in the clutch is another important consideration, as this is a major cause of failures. Excessive heat generated between the flywheel, driven discs, intermediate plate and pressure plate can cause the resin to flow in organic clutch facings and the material to be destroyed. Eaton severe-duty clutch driven plates have sintered metal facings, which dissipate heat more effectively than their conventional counterparts which have organic plate facings.

Eaton severe-duty clutches are fitted with cushioned ceramic segments, which offer a 30-49% increase in the coefficient of friction over organic facings. These ceramic segments offer excellent resistance to thermal stresses, while still offering clutch engagement equal to organic facings. Organic facings operate up to temperatures of up to 400°C; whereas ceramic segments can operate up to 780°C.

This gives a 'softer' take-up on the clutch, which reduces wear on gearboxes, prop shafts and rear axles.

Another benefit of Eaton severe-duty clutches is their quieter operation which, with modern truck cabs becoming more sophisticated, adds to driver comfort.

"However, in fitting any heavy vehicle clutch, it is very important to use the services of an accredited workshop with trained mechanics. It is quite possible to fit any clutch slightly incorrectly and even buckle the pressure plate, after which it is highly likely that the clutch will fail prematurely," he cautions.

Transportation Components is concerned with promoting safety and efficiency in the heavy transportation sector. Eaton severe-duty clutches offer a revolution in terms of reliability and durability. "Ultimately, through the range of superior quality aftermarket components which we offer to the heavy vehicle industry, Transportation Components maps out a clear route that – if followed –

ensures many trouble-free kilometres at the lowest possible cost for our customers," Bruinette concludes.

Ends

(774 words)

Note to Editors

About Transportation Components

For the past 20 years, Transportation Components' commitment to South Africa's heavy transportation sector has been evidenced by the consistent supply of quality products imported from the USA and Europe. Transportation Components' emphasis is on selling OEM parts specifically to service the aftermarket sector which caters for vehicles out of warranty. This offers its valued customers significantly lower cost-per-km savings and peace of mind.

Transportation Components strives to supply competitively-priced aftermarket components of superior quality to its customers, and to empower its staff complement to achieve their career goals.

Transportation Components – a Level 2 contributor to BBBEE – is proud of the fact that through the quality, safety and environmental-friendliness of the components it supplies to the aftermarket, a valuable contribution is made to the ongoing success of South Africa's heavy transportation sector.

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