Case Study — Heavy-Duty Trucks

AT A GLANCE

CUSTOMER
Hansen & Adkins Auto Transport

LOCATION
Jacksonville, Florida

CHALLENGE
Preventing expensive repairs and associated downtime with fan belt and tensioner failures that cause damage to fan drives

SOLUTION
Horton RCV250 Fully-Variable Fan Drive with integral control harness channeled through the center of an integral, rigid center shaft

RESULTS
No lost uptime due to fan drive damage caused by a broken belt or tensioner

PRIMARY CHOICE FACTORS
Positive previous experience working collaboratively with Horton to solve challenges on vocational trucks

Hansen & Adkins Increases Uptime With Horton's RCV250 Variable-Speed Fan Drive

Background

Founded in 1994, Hansen & Adkins is an auto transport company headquartered in Los Alamitos, California. It serves 16 major auto manufacturers via 34 hubs. It covers all 50 states, as well as Canada. Its fleet consists of 1,100 haulers and it prides itself on having one of the newest, state-of-the-art fleets on the road. It is industry-recognized for excellence in safety, damage elimination, performance and more. Thus, when Hansen & Adkins' Jacksonville hub brought a fan drive problem to the attention of Volvo's Fleet Service Manager, Guenter Schlottmann, it started the process of finding a quick solution.

Schlottman learned that some of the trucks in Hansen & Adkins' Florida fleet had suffered progressive damage to their original equipment fan drives. The damage was caused by broken fan drive belts or failed tensioners during operation. The result was expensive downtime.

"The Horton RCV250 fan drives have worked flawlessly and have solved a major issue for our fleet."
— Doug Walker
Parts Manager,
Hansen & Adkins
Auto Transport

Broken belts and/or tensioners are problematic for fleets. When a fan belt

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frays or breaks, it can damage other components in its path.

In this case, the trucks were equipped with viscous variable-speed fan drives. The specific model is an add-on style fan drive. Accordingly, it is mounted to a drive hub that attaches to the engine. In order to route the control wires to this fan drive, the drive must have an external coil with another bearing to ensure it stays stationary while the fan drive rotates.

The wires are routed from the coil assembly, over the fan belt, and back towards the engine so they can be connected to the engine ECU. This component is commonly referred to as a wire tether, which has two functions. The first is to connect the control wires. The second is to hold the wires in place to prevent them from rotating. Brackets mounted to the fan drive and drive hub protect the wires. The design prevents the wires from rotating but cannot protect the wires from belt damage.

Belt and tensioner failures can be unpredictable. If either fail, then the truck will be out of service. It is easy and inexpensive to replace the belts and tensioners but when it damages the tether on an add-on style fan drive, it requires a full component replacement, which significantly adds expense and repair time.

Challenges

Most of H&A's fleet consists of the Volvo VAH Series Trucks which are designed and built specifically for auto haulers. They contain either the D11 or D13 Volvo engine. The challenge was to find a replacement fan drive that could be installed quickly and easily so the transports could get back on the road.

After analyzing the situation, Schlottmann contacted Horton's Director of Sales, Tom Kleich, whom also has responsibility for the Volvo account.

Solution

Kleich acquainted Volvo's Schlottmann with a potential solution — Horton's RCV250 Fully-Variable Fan Drive. The RCV250 is designed such that the fan drive and drive hub are one complete assembly. Accordingly, the fan drive has an internal stationary control coil which eliminates the need for an extra bearing and allows for the control wires to be routed through the center of the fan drive and out the back. They never cross the belt path.

Schlottmann acquainted Hansen & Adkin's Parts Manager, Doug Walker, with the potential for the RCV250 to solve the problem.

Schlottmann and a team from Horton, consisting of Kleich and Horton's Director of Field Sales, Michael Hooks, arranged to meet at Hansen & Adkins to help install and test the RCV250.

Horton removed the RCV250 fan drive from the box and showed Walker and the team from Hansen & Adkins how the fan drive was designed to avoid control-wire damage from broken belts. They installed the RCV250 and Horton fan blades on two different trucks; one with a D11 engine and the other, a D13. In both cases, the RCV250 served as a plug-and-play (same ECU controls) for the original fan drive.

Results

Since the installation in August of 2016, the RCV250 fan drives have been performing perfectly. Hansen & Adkins now uses the Horton RCV250 to repair any OEM fan drives that have suffered belt damage to avoid any future, related downtime.

Horton is now designing an updated version of the RCV250 that will have the same fan blade pilot as the original competitor's fan so that customers can reuse the existing fan blade and save money as they upgrade to the Horton RCV250. This option will be available in November 2017.

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