

HellermannTyton

Specialised Fasteners Are Helping Electrical Engineers Save Processing Time

As demand for new trains continues to rise around the globe, manufacturers are under pressure to raise production volume.

Expectations have risen from one train car per week to one per day. Add increasing amounts of cables per train to the equation and the task of meeting targets is challenging. Enter HellermannTyton: the company has developed a host of innovative parts that improve the efficiency of wiring harness installation.

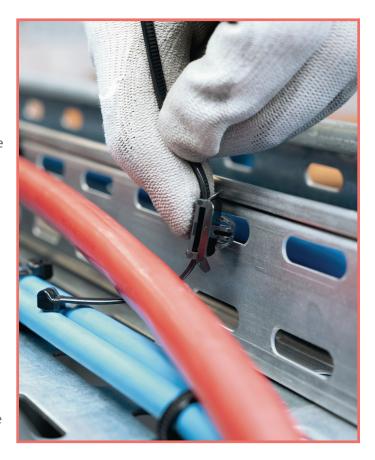
Designing Components for Efficient Assembly

A typical high-speed train contains over 200km of wiring. The process of fabricating and installing cable sets is manual and time-consuming, but applying cable management expertise can help manufacturers achieve greater process efficiency. For example, threading ties through cable trays by hand every 20 to 30cm is necessary, but laborious. This process is repeated thousands of times for each harness, and for a train with 20 cars, it takes a huge amount of effort. To save time and money, it's important to take fastening components back to the drawing board and design them for more efficient assembly.

Utilising Existing Holes More Effectively

HellermannTyton's product developers have extensive experience in designing fastening parts that streamline processing. The One-Click Mount is a prime example

of this know-how, drawing on cable management best practices from the automotive industry to benefit rail OEMs. With an arrowhead foot part and disc, the One-Click Mount is easy to insert and lock in place with an audible click. A version for oval holes also prevents the mount from twisting under load. It also comes with a cable tie pre-inserted, saving production workers time. Instead of bending ties all shift long, all they have to do is take the two-piece part out of the bag and push it into place. It can be pre-installed on the tray, or beforehand on the harness and simply clicked into place in one assembly step.





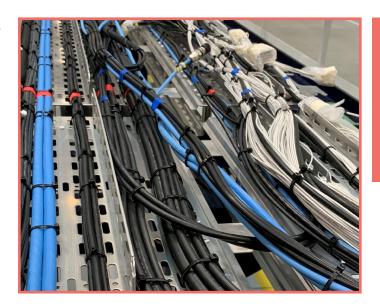
Pushing on to Edges Instead of Fitting Butts

Alongside power, today data and signals are constantly transmitted between cars and the locomotive – for passenger comfort but also for more intelligent and more efficient operation of the train. Electrical designers increasingly face challenges in routing such cables once they leave the ducts and trays in the floor or ceiling, for example, around the doors.

The traditional method of fastening wiring harnesses in trains with welded or riveted metal butts is also labour-intensive and adds weight to the train without any additional structural benefit.

EdgeClips are a cost-effective alternative to butts. These tried-and-tested mounts are easy to apply, even in narrow spaces and are ideal wherever drilling or adhesives are impractical. Even the largest variant for 8mm wide edges is easy to push on by hand without the need for tools. Thanks to the spring steel clamp at the heart of the EdgeClip, this tiny mount easily holds the weight of cables under vibration.





A recent development even allows cables to be routed in parallel – on each side of an edge – which saves time during construction and provides a natural barrier for electromagnetic interference. EdgeClips can even be pre-assembled on the harness automatically, which saves a lot of installation time.

EdgeClips and One-Click Mounts are already helping train manufacturers recoup valuable processing time and keep train production output high. When factoring in that time saved during installation, these small components can have a big impact.

Would you like to explore the potential for time-saving part solutions in your rail projects? Click **here** to discover more and contact HellermannTyton's local rail experts.

For more information visit our website www.hellermanntyton.com

About Us:

HellermannTyton manufactures cable management products for fastening, fixing, routing, connecting, insulating, protecting and identifying cables.

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