

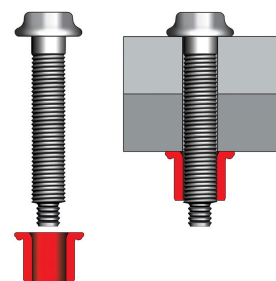
Huck® vibration resistant fasteners for agricultural equipment manufacturing



High strength, fast and easy installation, along with unmatched vibration resistance, are what make Huck® fasteners the smart choice for tough agricultural fastening applications.

For years, welding was seen as the only way to ensure the integrity of joints in demanding load-bearing or high vibration structures; companies manufacturing heavy-duty equipment or fabricating large, metal structures continued to employ the universally accepted process of welding joints together. However, today there are alternatives to welding, Huck engineered Lockbolts are installed using a unique direct-tension/swaged-on method, providing for a smooth, jolt-free installation. Even taking into consideration the time needed to prepare a hole for the fastener, installing a Lockbolt is significantly faster than welding a joint. Using the Huck BobTail® in key joining applications eliminates all of the housekeeping and safety issues that are integral to the welding process. There are no sparks to start fires or cause explosions, nor any debris on the floor that can lead to health and safety issues.

Huck Lockbolts are precision engineered two piece fasteners that, once installed, no matter how vibration-intensive the environment do not come loose. When installed Lockbolts provide direct metal-to-metal contact which eliminates the transverse vibration often found in conventional nuts and bolts, they deliver consistent clamp for a strong, stable, and vibration resistant joint. Because Huck fasteners offer higher clamp than conventional fasteners, fewer or smaller diameter fasteners can be used, thereby reducing overall weight and increased manoeuvrability.



Cross sectional image of uninstalled / installed BobTail Fastener

The Huck® fastener range – available from UK-based Star Fasteners - is commonly installed into off road vehicles, tractors, harvesters, tillers, seeders, ploughs, rotary cutters, balers, choppers, salt spreaders, grain silos and a diverse range of other agricultural equipment and accessories. Huck fasteners are a proven method of assembly; their accuracy of installation, safety, environmental friendliness, speed and overall productivity are what makes them a valuable component in the modern, lean production process.

“The moving nature of the agricultural machinery makes it troublesome, one of the main fastening failures is self-loosening of threaded assemblies. Some of the causes that lead to self-loosening of threaded assemblies are vibration, thermal expansion and gasket relaxation. These unpredictable failures lead to unplanned downtime, affecting overall equipment efficiency, leading to loss of production and the potential of high maintenance costs,” explains Daniel Starbuck, director of Star Fasteners. “By using by using the Huck structural blind fastener and Huckbolt product range customers are able to build stronger and more reliable equipment.”

“Whether you’re dealing with animals or heavy machinery, the agriculture and horticulture industry can be risky. A ‘can do’ attitude is vital when it comes to making a difference to safety and it influences how equipment is designed and manufactured, operated, maintained and the skill of the person using it. For more than 60 years, the business Lou Huck founded and the fasteners he designed are still solving the problem of coping with extreme stress and vibration, providing strength and facilitating lighter, safer and more durable structures.”

The maintenance free Huck BobTail® Lockbolt

The Huck BobTail® Lockbolts are engineered fasteners which have been proven in demanding applications such as truck suspensions, chassis, as well as in the assembly of wind turbines and solar arrays. BobTail is a precision engineered two piece fastener, it is installed using a direct tension technique in which the pin is pulled and the collar is simultaneously swaged into the locking grooves of the pin, deforming the collar into the grooves.

The BobTail features an innovative and unique Lockbolt design with no pin break; installation indicator for visual inspection; maintenance free joints with consistent clamp; as well as low noise and low maintenance tooling.

A quick visual inspection is all that is required to confirm the accuracy and quality of the installation. An operator requires a minimal amount of training in order to be proficient in their installation. Huckbolts can be effectively used with virtually any metal, and dissimilar metals with dissimilar coefficients of thermal expansion present no problems. Varying material thicknesses in a joint are readily accommodated, and surface finishes are not damaged. And most importantly, Huckbolts are proven to hold up over years of service in demanding high stress, high vibration environments.



BobTail Pin and Collar Huck Lockbolt

Through its advanced fastener design the BobTail system offers a strong connection. One key advantage of this fastener over conventional Lockbolting systems is that it doesn't have a pintail to break off. As a result, there is no waste material to collect and dispose of post installation. The added benefit of this is that the tools are lighter and smaller as they do not need the force to break the pintail of a traditional Lockbolt.

The BobTail is installed using a quiet, jolt-free swaging action, eliminating the potential for repetitive stress syndrome issues. It has significantly reduced noise levels, typically less than 70dB as there isn't a pintail to break off. The elimination of the shock load and reduced noise can offer real and significant health and safety benefits.

Following a rigorous testing programme, the Huck BobTail Lockbolt fastener has earned the prestigious German national technical approval, otherwise known as allgemeine bauaufsichtliche Zulassungen (abZ). The accreditation was awarded by internationally recognised approval body Deutsches Institut für Bautechnik (DIBt).

The DIBt test confirmed that a BobTail is maintenance-free during the lifetime of the joint it is fastening, which is not the case when using traditional nut and bolt products. As a result, it can be integrated into a range of applications with complete confidence by engineers and product designers.

Daniel concludes: "We are always happy to demonstrate the product on sample applications, but we have the confidence in the fastener to accommodate trial builds if required. Star Fasteners have years of product knowledge and understanding of customers' applications, we work closely with our customers to suggest products, such as the BobTail, that they may not have initially considered for a project. We can do this thanks to the experience we have within the market, as well as partnership with Huck as its largest UK distributor."

www.starfasteners.co.uk

