What Are Pin-and-Collar Lockbolt Assemblies Used For?

Pin-and-Collar Lockbolt Assemblies are used for grip-range lockbolt fastening in vibration-exposed frames and bodywork. They are manufactured to Trade series (pin-and-collar lockbolt), and selection is driven by the screw size, the fit and tolerance the assembly requires, and the service environment.

Primary duty

Grip-range lockbolt fastening in vibration-exposed frames and bodywork

Governing standard

Trade series (pin-and-collar lockbolt)

Screw size range

1/4 to 5/16

Category

Rivets

Application notes are general engineering guidance. Verify the property class and any approval requirement against your own design calculation.



Application guide for Pin-and-Collar Lockbolt Assemblies to Trade series (pin-and-collar lockbolt). The core duty of the type is grip-range lockbolt fastening in vibration-exposed frames and bodywork. The typical industries, the how-to-specify checklist, assembly practice and the exclusion cases are set out below. Stocked across roughly 1 to 5, they cover light-duty and instrument-scale work.

Typical Applications for Pin-and-Collar Lockbolt Assemblies

The most common settings where these are specified:

Truck and trailer assembly: grip-range lockbolts in chassis and body structures.

Agricultural equipment: permanent frame joints exposed to field vibration.

Rail and transit: one-side fastening of structural skins and support members.

Off-highway equipment: button-head joints exposed to shock and cyclic service.

Product catalog

Related Lockbolt Assemblies products



(https://engineeringhardware.com/product/hanger-bolt-kit-with-clips-for-rooftop-solar-mounting-systems/)

Assortment Kits & Mixed Fastener Sets

Hanger Bolt Kit with Clips for Rooftop Solar Mounting Systems
(https://engineeringhardware.com/product/hanger-bolt-kit-with-clips-for-rooftop-solar-mounting-systems/)(https://engineeringhardware.com/product/hanger-bolt-kit-with-clips-for-rooftop-solar-mounting-systems/)

Hanger Bolt · Stainless Steel

US$1.57 – 1.64MOQ 1 piece



(https://engineeringhardware.com/product/cor-ten-bolt-nut-kit-with-mj-gasket-for-4-water-pipe/)

Assortment Kits & Mixed Fastener Sets

Cor-Ten Bolt Nut Kit with Mj Gasket for 4″ Water Pipe
(https://engineeringhardware.com/product/cor-ten-bolt-nut-kit-with-mj-gasket-for-4-water-pipe/)(https://engineeringhardware.com/product/cor-ten-bolt-nut-kit-with-mj-gasket-for-4-water-pipe/)

Custom · DIN, ANSI

US$0.012 – 0.12 MOQ 1,000 pieces



(https://engineeringhardware.com/product/premium-stainless-steel-hex-flange-allen-carriage-bolt-and-nut-set-din6921/)

Assortment Kits & Mixed Fastener Sets

Premium Stainless Steel Hex Flange Allen Carriage Bolt and Nut Set DIN6921 (https://engineeringhardware.com/product/premium-stainless-steel-hex-flange-allen-carriage-bolt-and-nut-set-din6921/)

Hexagon Head · DIN, ANSI, GB, BSW, ASME

US$0.12 – 0.60 MOQ 1 piece



(https://engineeringhardware.com/product/sems-screw-for-office-equipment-hardware-fitting/)

Assortment Kits & Mixed Fastener Sets

Sems Screw for Office Equipment Hardware Fitting
(https://engineeringhardware.com/product/sems-screw-for-office-equipment-hardware-fitting/)(https://engineeringhardware.com/product/sems-screw-for-office-equipment-hardware-fitting/)

Hexagon/Roun/Countersunk/Pan · DIN, GB, ANSI, JIS

US$0.012 – 1.33 MOQ 3,000 pieces



(https://engineeringhardware.com/product/screw-base-triangle-led-trailer-tail-light-kit-12-24v-ip65-7pin-eu-plug-7-5m-cable-4/)

Assortment Kits & Mixed Fastener Sets

Screw Base Triangle LED Trailer Tail Light Kit 12-24V IP65 7pin EU Plug 7.5m Cable 4-in-1 Brake Signal Lamp for Cargo Trailer
(https://engineeringhardware.com/product/screw-base-triangle-led-trailer-tail-light-kit-12-24v-ip65-7pin-eu-plug-7-5m-cable-4/)

LED Trailer Tail Light · Cargo Trailers,Warehouse Forklifts

US$24.00 – 43.44 MOQ 100 pieces



(https://engineeringhardware.com/product/2-pack-shipping-container-wheels-8-lug-wheels-kit-for-shipping-container-wheels-bolt/)

Assortment Kits & Mixed Fastener Sets

2 Pack Shipping Container Wheels 8-Lug Wheels Kit for Shipping Container Wheels Bolt-on Spindle Kit
(https://engineeringhardware.com/product/2-pack-shipping-container-wheels-8-lug-wheels-kit-for-shipping-container-wheels-bolt/)

Corner Fitting · Steel

US$180.00 – 213.60 MOQ 10 pieces

View all Assortment Kits & Mixed Fastener Sets →
(https://engineeringhardware.com/fastener-products/fastener-sets-assemblies/assortment-kits-mixed-fastener-sets/)

Full product catalog (https://engineeringhardware.com/products/)

How to Specify Pin-and-Collar Lockbolt Assemblies for Your Application

Size: Select on screw size, and confirm it against the mating feature in the assembly. This product spans 1–5; check the full table below for the exact dimensions of each size.

Material: Choose the material and finish for the service environment — plated steel for general use, stainless for corrosion resistance.

Environment: For damp, coastal or chemical exposure prefer A4/316 stainless or a suitable coating; indoors, plated steel or A2 is usually sufficient.

Standard: This product is supplied to Trade series (pin-and-collar lockbolt). Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Installation & Assembly Practice

Drill the hole 0.1 mm over the nominal rivet diameter and deburr both sides before setting.

Grip range must match the total joint thickness — a rivet set outside its grip range clamps poorly and works loose.

Common Selection Mistakes with Pin-and-Collar Lockbolt Assemblies

Setting a rivet outside its grip range, which leaves the joint loose from day one.

Using aluminum rivets on steel sheet outdoors — galvanic corrosion eats the rivet.

Where Pin-and-Collar Lockbolt Assemblies Are Not the Right Choice

Not where the joint must later be disassembled, and not for high-tension structural connections.

Custom manufacturing · Made to drawing

Need a pin-and-collar lockbolt assemblies outside the standard range?

Body diameter, grip range, head form and body/mandrel material combination can all be specified against the joint rather than chosen from a table. Made by

cold heading or drawing.

Minimum order from 2,000 pieces; samples within 7 days of drawing approval.

Custom rivet manufacturing (https://engineeringhardware.com/custom/rivets/)

Send a drawing (https://engineeringhardware.com/custom/rivets/#rfq)

Technical Drawing

Customize the parameters below — every spec field is editable, and the drawing redraws to match the values you choose. Changing the size will snap the other fields to that size's standard values; you can then override any individual value.

Dimensioned line drawing of 3/16 Pin-and-Collar Lockbolt Assemblies to Trade series (pin-and-collar lockbolt). Side view and top view, drawn to the dimensions in the table below and redrawn for any size selected.

Sends the selected values to the quote form below.

Request a Quote

The form below follows the current technical drawing configuration. Change the drawing values above and the request details update automatically.

Dimensions & Specifications (Trade series (pin-and-collar lockbolt))

Nominal diameter (in)	Grip ranges (in)	Pin material	Collar
3/16	0.062~0.625 / 0.312~1.250	carbon steel or 7075-T6 aluminum	carbon
1/4	0.062~0.625 / 0.312~1.250	carbon steel or 7075-T6 aluminum	carbon
5/16	0.125~0.750 / 0.625~1.375	carbon steel or 7075-T6 aluminum	carbon
3/8	0.125~0.875 / 0.812~1.625	carbon steel or 7075-T6 aluminum	carbon

Inside the plant

Manufactured in our own plant

This part is cold-formed, threaded, heat-treated and finished in-house. The stages below are where its class and finish are actually decided.



01

Cold heading

Wire rod is drawn to size and cold-formed into blanks. Forming rather than cutting keeps the grain flow continuous around the head, which is where a bolt is most likely to fail.

Head dimensions and under-head radius checked at set-up and per shift.



02

Thread rolling

Threads are rolled between hardened dies rather than cut. Rolled threads are stronger in fatigue than cut threads and hold pitch and flank angle far more consistently across a batch.

Go / no-go ring gauges to ISO 965 tolerance class 6g.



03

Heat treatment

Quench-and-temper brings carbon and alloy steel to the property class ordered — 8.8, 10.9 or 12.9 — with the furnace charge tracked so a finished lot can be traced back to it.

Core hardness and tensile tested per lot to ISO 898-1.



04

Surface treatment

Zinc, zinc-nickel, hot-dip galvanizing, black oxide, phosphate and Dacromet, selected against the service environment rather than against the price list.

Coating thickness and neutral salt spray hours to ISO 9227.

Frequently Asked Questions

What material should Pin-and-Collar Lockbolt Assemblies be for outdoor use?

For damp, coastal or chemical environments specify A4 (316) stainless or a suitably coated steel. For indoor or dry use, A2 (304) stainless or zinc-plated steel is normally adequate.

Are Pin-and-Collar Lockbolt Assemblies made to a recognized standard?

Yes — they are manufactured to Trade series (pin-and-collar lockbolt), so dimensions are interchangeable between suppliers when you quote the standard on your order.

What are Pin-and-Collar Lockbolt Assemblies used for?

Grip-range lockbolt fastening in vibration-exposed frames and bodywork. They are supplied to Trade series (pin-and-collar lockbolt).

Which industries use Pin-and-Collar Lockbolt Assemblies?

They are commonly specified in truck and trailer assembly, agricultural equipment and rail and transit, among other sectors.

Can I get a quote for Pin-and-Collar Lockbolt Assemblies in the size and material I need?

Yes. Use the technical drawing and quote form on this page to set the size and options, then send the exact configuration to our team for pricing and lead time.

Related Pages

Product page: Pin-and-Collar Lockbolt Assemblies — specifications & sizes (https://engineeringhardware.com/fastener/pin-and-collar-lockbolt-assemblies/)

Pin-and-Collar Lockbolt Assemblies Specification Guides

- **A4 stainless Pin-and-Collar Lockbolt Assemblies (https://engineeringhardware.com/guide/material/a4-stainless-steel-pin-and-collar-lockbolt-assemblies/)**

Related Fastener Applications

- **Automotive Push-Type Retainers applications (https://engineeringhardware.com/applications/automotive-push-type-retainers/)**
- **Blind (Pop) Rivets applications (https://engineeringhardware.com/applications/blind-pop-rivets/)**
- **Blind Pop Rivet — GB/T 12618 / ISO 15977 (Series 098) applications (https://engineeringhardware.com/applications/cad-svg-098-blindrivet/)**
- **Blind Rivet Nut Studs applications (https://engineeringhardware.com/applications/blind-rivet-nut-studs/)**
- **Cam-Lock Furniture Connectors applications (https://engineeringhardware.com/applications/cam-lock-furniture-connectors/)**
- **Clinch Clips applications (https://engineeringhardware.com/applications/clinch-clips/)**