

# Lollypop Hitch

**carry  
freedom™**

## Bike Bracket fitting (L-Bracket)

Remove the left axle nut or quick release from the rear wheel. Place the new bicycle bracket on the bicycle axle, over any anti rotation washers and re-tighten the axle nut or quick release skewer.

The bracket needs 4mm of spare axle thread. Make sure that the whole of the metal thread on the quick release nut is engaged, and on threaded axles ensure at least 10mm of axle is in contact with the nut.

For quick release axles it is ok if the skewer shaft is not centered on the bike brackets axle hole. Spacers are available to center the bike bracket on the skewer shaft if you prefer.

If the bike bracket will not fit your bicycle contact Carry Freedom for advice.

**DO NOT** fit the hitch to bicycles with carbon fibre dropouts. They are not suitable for this type of application and might fail without warning.

This bicycle trailer hitch is strong, quiet and reliable.

5 year guarantee.  
100kg maximum trailer weight,  
(50kg on bikes with QR axles)  
-15°c to 50°c operating temperature.

It will fit all **Carry Freedom** trailers, and most bicycles with quick release or threaded axles.

The red elastomer flexes if the bicycle falls over. The pin can be replaced by a padlock for security.

The bicycle needs 4mm of spare axle thread for the towing bracket. The trailers towing arm tube needs a 19mm internal diameter.

Made in Scotland.

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## Trailer bracket fitting (Lollypop)

The hitch expects the towing arm to have an internal diameter of 19mm (3/4"), or 19mm square. It needs a 6mm vertical hole whose center is 25mm from the end face of the towing arm.

Remove any existing hitch from the trailer towing arm. Insert the red elastomer into the handle, and secure it with the M6 bolt. The bolt head should be at the top of the handle, and there should be a washer between the trailer towing arm and the bolt/nut.

For **City** trailers the red elastomer is a tight fit. Wet the surface of the elastomer with water or oil, and use a twisting motion when inserting the elastomer. If you are finding twisting the elastomer difficult you can insert a rod or bar through the big hole to give you more purchase for twisting.

## To use

Hold the bike upright with one hand, while you lower the red elastomer onto the stud with the other hand. Secure the elastomer to the stud with the lynch (linch) pin.

Before every ride check the elastomer for tears or damage, make sure the bike bracket is tight, and ensure the lynch pins spring gate is properly closed.

## Things to notice

When the trailer is not attached to the bike secure the lynch pin to the red elastomer, if you secure it to the bike bracket it will rattle as you ride.

The hitch is not fitted with a safety strap because this would probably makes accidents worse. If a hitch fails the safety strap normally causes the towing arm to go through the back wheel probably causing you to crash. If someone is following you then they might run over you as well as your trailer. If the trailer accidentally detaches it will skid to a halt, since the towing arm acts as a drag brake.

The 50kg load limit for quick release axles relates to the axle fatigue life, while the 100kg limit for threaded axles relates to the bicycles emergency stopping distance. The hitch itself is tested to 150kg.

The elastomer was tested for brittleness at  $-18^{\circ}\text{c}$ , and for creep up to  $100^{\circ}\text{c}$ . The hitch has been bench tested to 10,000 falling over cycles without damage.

## Maintenance/repair

Never lubricate the hitch with oil or grease, this will shorten its life. Occasionally clean your hitch to increase its life. Oil the lynch pin if it becomes stiff.

Over time the elastomer will take on the colour of the metals it touches, and the metal in contact with the elastomer will become polished. Grit or dirt gets embedded on the surface of the softer material and grinds away at the hard material. This effect was used to drill holes in rocks with wooden sticks.

If the elastomer tears, ask us for a replacement.

In emergencies you can join the two faces together by melting the cut face (hold both faces to a flame at the same time until they go glossy across the whole surface) and push/hold them together until they are cold. This repair is done at your own risk, and should be checked regularly. If done well its as strong as the original material.

## Making

The elastomer was made in Aberdeen by waterjet, the stud in Leeds on a swiss turret lathe, and the bike bracket by laser in Cumbria. You can learn more at [www.carryfreedom.com](http://www.carryfreedom.com)

