



## Paragon Machine Works

### Hangers and Inserts

### 10 mm and 12 mm Rear Dropouts

#### General Information

- We only guarantee hanger/insert compatibility with our dropouts.
- All hangers are supplied with two screws.
- A replaceable hanger may not save the derailleur when the hanger fails; the goal is to minimize damage to the frame and allow for fast replacement.
- Hangers may be bent from any impact.
- Always carry a spare, and if you hear ANY abnormal noises or shifting from the derailleur, stop and inspect!

#### Styles

We manufacture replaceable hangers for 10 mm and 12 mm hubs for a variety of applications:

##### *Shimano Direct Mount Mountain and Road Derailleurs*

Bicycle Retailer and Industry News, May 2012

The Shimano Direct Mount rear derailleur option (DRD) positions the rear derailleur mounting bolt two centimeters behind the axle, instead of almost directly below the axle. Essentially, it eliminates the B Link pivot from Shimano's Shadow derailleurs; the B Link created a secondary pivot point at the same location as the DRD attachment. Eliminating the B Link should reduce weight and potential slop in the system. But a key advantage of the DRD is apparent when installing or removing wheels with 142x12 rear thru axles. The DRD also allows the use of shorter chain stays and is potentially stronger and stiffer than current designs, depending on exactly how frame manufacturers execute the design. It also could allow manufacturers to put more material around the rear dropout area to stiffen that part of the frame.

Mark Norstad, Owner, Paragon Machine Works

For the Shimano Direct Mount rear derailleur option, the main derailleur pivot has been moved about 25 millimeters to the rear of its conventional location, and the hanger itself is stronger than a conventional hanger. The rearward position is important for Shimano's Shadow geometry to work and moves the derailleur out

of the way during wheel changes. If you have ever wrestled with your QR skewer stuck in the derailleur cage or chain, you'll appreciate this feature. The stronger hanger is an asset if you are a rider that expects the most from your equipment. Increased strength means a rigid mount for the derailleur, allowing for snappier shifting. Shimano's DM derailleurs will work with either 10 mm or 12 mm axle systems, depending on the insert or hanger used.

### *SRAM Derailleur*

- Compatible with SRAM Eagle components

### *No Hanger*

- Single speed applications.

### *Short Hanger*

- Axle center to hanger center measurement = 1.040" (26.4 mm).
- Generally used for road bikes.
- For rear cogs with up to 24 teeth.

### *Long Hanger*

- Axle center to hanger center measurement = 1.180" (30 mm).
- Generally used for mountain bikes.
- For rear cogs with greater than 24 teeth.

## Materials

- All our hangers and inserts are available in bare polished or black anodized 2024 aluminum; it is flexible yet strong and offers some corrosion resistance.
- Long and short hangers made from steel are available for 10 mm dropouts and are more likely to be able to handle the forces of high performance shifting.

## Numbering on Hangers

- Numbering can be found at the top of the hanger near the screw holes.
- 2024, 6061 or 7075 indicates the type of aluminum alloy used.
- Any other number indicates the measurement from the axle center to hanger center in millimetres.
- As we make new stock, we will discontinue putting the alloy number on the hanger and will instead show the center-to-center measurement.