

DIRTY BIKE

Primary Chain Drive Buyer's Guide

First off; **Why would you want to upgrade to a chain drive?** In off road condition a drive belt can fail much sooner than a chain, especially if you ride in sandy, muddy, and rocky conditions. and no one wants to be that guy, stuck in the woods with a broken belt.

At **DIRTY BIKE** we have three kits available. The 420-standard chain kit, 420 x-ring chain kit and 219H chain kit. It can get a little confusing, so we are here to help you choose which primary chain drive system is right for you and your ride.

There are two available chain sizes, 420 and 219. The main difference between the two is the amount of roller links. The 420 chain has fewer, larger links so they are super strong, and with an included master link they are easy to replace. The 219H chain has many more, smaller links making it run cooler and much quieter. The 420 chain is also available as a sealed x-ring style. This chain uses sealing rings to keep out dirt and makes the chain last significantly longer.

A Connecting link (master link) can make it more convenient to replace the chain since you will not have to remove the swing arm to do the job, but the tradeoff is that a connecting link can fail. Especially if it is reused or installed in the wrong direction.

KITS

420 standard = Least expensive kit. It does a great job, but it is the loudest of the three and requires frequent lube and adjustment. Includes a connecting link.

420 sealed x-ring = Great choice for sandy/muddy conditions, it is quieter than the standard chain, requires less lubing and lasts longer but robs a little power due to the friction of the x-rings. Includes a connecting link.

219 standard = Much quieter and lighter than the 420 kits but does require lubing more often. Our Beefy 219H endless chain (no master link) runs cooler, giving great durability reliability and resistance to stretching.

	Sealed chain	Master Link	Noise	Durability
420 Standard	No	Yes	Most	Great
420 X-ring	Yes	Yes	Less	Best
291 Standard	No	No	Lowest	Great

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Primary Chain Drive Installation

All db primary sprockets should be mounted with the writing facing away from the motor. Follow the included instructions. If they are mounted incorrectly, they will be severely misaligned. This will cause a lot of noise, premature wear and even failure.

Alignment.

To check the alignment, install the new sprockets on the motor and the intermediate shaft. Install the intermediate shaft without the chain and tighten the swing arm bolt and motor mount bolts. Lay a straight edge on the rear sprocket and see where it contacts the front sprocket. If the alignment is off by more than 1mm, add a shim to bring it back into alignment.

Some bikes using the 420 kit will require the alignment shim and some will not. The 219 kit seem to not need it for two reasons. We designed it in house to fit without the use of a shim and due to many more links the 219 will accept more misalignment without the excessive noise and wear. Always check the alignment when installing your kit.

Master Link.

When installing the connecting link make sure the round end of the clip is facing the direction of rotation. If it is mounted with the opening towards the direction of rotation the clip can contact something while in use and pop the clip off.

Adjustment

Spin the rear wheel to find the tightest point and use this as the adjustment spot. 420 chains should be adjusted with a very small amount of free play, about 5mm. 219's seem to tighten up when they get warm and need a little more slack, maybe 7mm.

Maintenance.

LUBE! And adjustment. If your chain drive system starts making more noise than usual, it is trying to tell you something. Lube the chain and check the adjustment before every ride.

Lube the chain from the inside while spinning the rear wheel. Even x-ring chains needs lube.