

Be very aware of the fact that your winch can either save you or kill you. If the brake mechanism is not correctly reassembled it may not hold you on a hillside and you may roll to your peril. IF YOU ARE NOT 110% CERTAIN OF YOUR ABILITY TO PUT YOUR WINCH BACK TOGETHER AFTER YOU DISMANTLE IT I SUGGEST YOU GET SOMEONE WHO KNOWS WHAT THEY ARE DOING TO DO IT. Even the mechanics at two branches of a brand name (three letters) store gave me incorrect information on how to reassemble the brake mechanism on an XD9000.

The following information was supplied by SG Leslie & Sons P/L in Heidelberg West. You can phone them on 03 9459 2859. They are happy for you to freight your winch to them for their expert service. You can see the level of care they take in the issue of 4wd Monthly in early 2004 where they detail a rebuild on a Warn High Mount.

The details below are for a Warn XD9000 model winch. They can also be applied to the 8000, 9500, 10000, & 12000 models in the same style.

When doing a service on one of these or similar winches use Castrol EPL-0 extreme pressure multi purpose lithium based grease. This grease has a high melting point, good moisture resistance and is a liquid grease which makes for easy cable runout on free spool. Bearing or general use grease or grease which has been moisture affected is too thick and increases the friction in the gearbox resulting in very difficult free spool.

Leslie's recommend using Morey's boat trailer wheel bearing grease on the drum bushes for better water resistance.

When factory assembled no o-rings are fitted to the drum despite the flanges being machined for them. The o-rings for the drum ends are size AS144. Put the o-ring into the bush (with lube). Slide that onto the drum, then slide the drum & bush into the end plate locating the cast lug into the bush slot. If you try it the other way the o-ring will be damaged.

Also when reassembling put AS009 o-rings on to the motor long bolts to seal against the motor end cap in the recesses which are there to take them.

Warn Winch Low Mount Brake Assembly

To assemble cone brake assembly if circlip is removed:

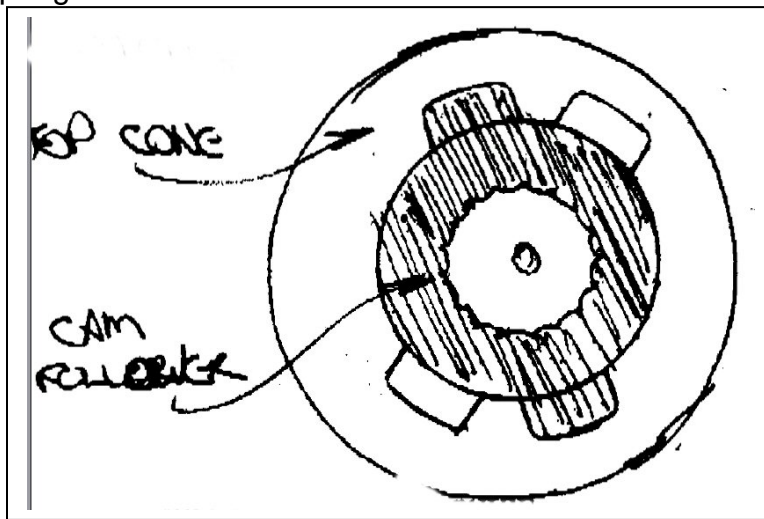
1. Clamp hex shaft or 5/16" allen key in vice vertically. Place brake shaft /fixed cone assembly on to hex shaft.
2. Clip coil spring in to top cone, slide cone on to brake shaft. Clip coil spring tail into master spline on brake shaft.
3. Release hand grip on top cone and top cone will rotate to the coil springs neutral position. Note the position of the top cones drive lugs.

4. Place the cam follower on to the brake shaft splines so that the cam follower drive lugs are 2 splines (8K & 9.5K) or 5 splines (for the 10K & 12K) anti-clockwise from the top cone lugs.
5. Push cam follower down on to the splines and install the two wave washers and circlip.
6. The brake is now assembled. See below to set preload for installation in drum.

Setting con brake preload for installation

1. Clamp hex shaft or 5/16" allen key in vice vertically. Place brake shaft/fixed cone end onto hex shaft.
2. Double check the cam follower lugs are 2 splines (8K - 9.5K models) or 5 splines (10K - 12K models) anti-clockwise from top cone drive lugs.
3. Rotate top cone anti-clockwise 180° to give required coil spring preload.
Note: Make sure the coil spring is winding **CLOSED NOT OPEN**.
4. Place the 3 brake segments in position between the upper & lower cones and slide the complete brake assembly into the cable drum. Make sure the top cone doesn't rotate clockwise or the coil spring preload will release and the brake will not function.

Make sure 8K 9K 9.5K – 2 Splines anti-clockwise
10K 12K 15K 5 splines anti-clockwise. Then rotate 180° anti-clockwise to preload spring.



Other suggested improvements.

Silicon small drain slots between motor casing and winch housing end. They don't face the right direction to drain in most Australian bull bars and end up letting in water which can't escape. There are two small recesses in the end housing casting. A small amount of silicon on reassembly will seal them.

The ring that earths the brush housing to the motor body maintains its electrical contact purely by pressure from the motor end cap. This has proven to be a poor means of maintaining a good electrical junction. At opposing sides of this ring, (and not at existing holes) drill ring to take 3mm metric or 5/32" brass screw and drill (carefully) and tap motor housing to take screws. These screws fix the brush housing to the motor body. This eliminates winch failures due to oxidation at this junction.

Hope this is of some assistance to you. SG Leslie will rebuild your winch if you decide you are beyond the task. Don't tackle this one if you aren't well equipped, have access to good drill press and taps, and know how to dismantle and reassemble a typical starter motor.

Footnote: There are equivalent greases if you can't get the Castrol, but the Castrol comes in a convenient 2.5kg pack size. I used a Valvoline equivalent but my local supplier was happy to give me some from a 20kg drum.

I take no responsibility in any way shape or form in the results of your actions if you choose to undertake this task yourself.

DJ