

NC gear shifts ... difficult when cold

Words: David Evans & Peter Ferguson, Eastern Victoria Chapter

David Evans:

I have a 2009 MX-5 NC-2 which, when cold, had a very difficult first and second gear change. In addition, when the gearbox had warmed up, both first and second gear were very noisy.

To solve both of these problems I was recommended by Rob in the Central Chapter at the Robe, South Australia run in 2015 to use **Nulon 75W-90** full synthetic oil.

So I put the oil in, and found instantly that this oil reduced the difficulty of first and second gear changes when cold as well as the noisy first and second gears when hot.

Peter Ferguson:

Having asked David to put together some words about the “fix” for six-speed gearbox lubrication, I thought I’d try it out in the six-speed in my NA.

I purchased:

- » **Nulon 75W-90** (four litres)
- » **some Nulon Smooth Shift** (I’m told this stuff is magic even without changing the oil as well), and
- » **a plastic pump bottle** to push the oil uphill (*SO glad I did!*)

All up cost was about \$120 at Autobarn Warragul, but I only used about half the oil. If you shop around you might get some better pricing.

The *Smooth Shift* comes in a 250ml squeeze tube and says there is enough to do a gear box AND a differential. So I squeezed about two-thirds of the tube contents and then some oil into the pump bottle bizzo and ensured they mixed together before pumping into the gearbox. The box holds close on two litres (ie, two pump bottles full).

I put the other one-third plus some more of the *Nulon 75W-90* into my non-LSD diff, after draining it off (I was surprised how good the oil coming out looked – no idea when it was last changed and I have had the car 15 years!). This was a very easy job to do, particularly with the pump bizzo (right).

I went to top up the “sump” under the gear stick but quickly found the oil promptly disappeared – so, it was on to *the net* to discover that **some** six-speeds don’t have a sump **and don’t need filling!** All five-speeds do – there is a great *YouTube* tutorial from “Mike the miata king” on changing oil in these sumps – well worth a look if you are running a five-speed box: <https://www.youtube.com/watch?v=biBjZhmKxZc>.

Mike also does some other really

useful instructional videos such as a timing belt change – if you have not already had a look, do so ... really useful stuff (just overlook the crown he wears and some of the crap he says when not actually dealing with technical stuff!). By the way, he also sells and ships parts and offers excellent service.

So, did it work?

Initially (straight out of the garage when cold) the synchros on second still *balked* and others *snicked*, so initially I was disappointed.

However, after a run of perhaps 50km, there was a definite improvement. The box is becoming much nicer to use and, although I can beat the synchros on some gears if I shift too quickly, it is definitely improving. I suspect as the oil beds into the box further it may become even nicer, but even now I’d say it has been worth changing – even if it was a bit of a nightmare trying to change the oil with a crook right shoulder and not being able to get the car up high enough.

The diff, on the other hand, was a breeze.

One piece of advice I read on the web **after** I drained the gearbox oil and **before** I got the filler plug open (which fortunately turned out to be a hex nut and easy to undo) is:

- » don’t drain the oil off until you have cracked open the filler “just in case” you can’t get it open and have to drive the car to your mechanic – *bloody hard to put the oil back in!* ●

