

# Low friction, high performance nano technology transmission oils.

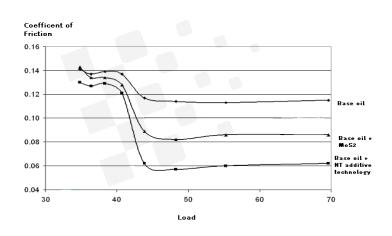
Nano Technology is a diverse field concentrating on structures of 100 nanometres or less – a nanometre being 1 billionth of a metre.

Imagine adding billions of tiny ball bearings into the oil. Under very heavy loads, these tiny ball bearings deform, and take the shape of tiny rollers which reinforce the oil molecules.

- Increasing the load carrying capacity of the oil
- Reducing friction
- Reducing heat and wear.

This technology gives improved performance over oils which utilise more conventional "solid lubricants" such as molybdenum disulphide and PTFE. It also has the advantage that it can be used in synchromesh gearboxes where it is unwise to use these other forms of solid lubricant.

Testing has shown reductions in friction of up to 25% when compared to oils with "solid lubricant" technology.





### Millers Oils driving technology



**CRX 75w90 NT FULLY SYNTHETIC LIGHTWEIGHT TRANSMISSION OIL FOR SYNCHROMESH GEARBOXES AND TRANSAXLES.** Incorporates *NANO TECHNOLOGY* additives to further reduce friction and increase gear life.

CRX LS 75w90 NT FULLY SYNTHETIC LIGHTWEIGHT TRANSMISSION OIL FOR LIMITED SLIP DIFFERENTIALS, NON SYNCHRO (DOG) AND SEQUENTIAL GEARBOXES. With shock protection and NANO TECHNOLOGY additives to further reduce friction and improve gear life.

**CRX 75w140 NT FULLY SYNTHETIC HEAVY DUTY TRANSMISSION OIL FOR SYNCHROMESH GEARBOXES AND TRANSAXLES.** Incorporates *NANO TECHNOLOGY* additives to further reduce friction and increase gear life.

**CRX LS 75w140 NT FULLY SYNTHETIC HEAVY DUTY TRANSMISSION OIL FOR LIMITED SLIP DIFFERENTIALS, NON SYNCHRO (DOG) AND SEQUENTIAL GEARBOXES.** With ultimate shock protection and *NANO TECHNOLOGY* additives to further reduce friction and improve gear life.

Note: All our CRX transmission oils are manufactured to far exceed the requirements of API GL4, GL5 & MT1.





Millers Oils beat competition from motorsport legends McLaren and Williams to scoop the prestigious 'Most Innovative New Product' award, at the World Motorsport Symposium 2009 with the revolutionary NANO TECHNOLOGY gear oil range.



## Motorsport

# Low friction, high performance nano technology transmission oils.

Millers Oils' unique 'NT' (Nano Technology) transmission oils have had proven success in many high profile motorsport series, including the British Touring Car Championship and the British Rally Championship.



MILLERS OILS

"A high-tech racing car requires high-tech products. Millers Oils provides us exactly the products we need for driving in the rough conditions of the World Rally Championship. Through the Nano Technology gear oils we achieved lower temperatures of gearbox and differentials which on hot events is a big advantage in comparison to other oil suppliers." Quirin Müller, team manager Jipocar Racing **Callum Black**, Rally Driver, commented in 2011 "1,000 miles of racing, 18,000 gear changes, 1 seasons hard driving – and the gearbox is still in excellent condition"

We asked Callum for his used gearbox parts to check for wear and he said yes, but not yet – he's still using them.





TH Motorsport owner Trevor Humphrey, said; "The NT oil seems to cope with the heat much better than any other gear oil we have used and retains its viscosity far longer. The oil seems to stick to the gears and dog rings much better and approaching the halfway point in the BTCC season we have only spent about half of what we spent last year on replacement gearbox parts." Team KWR, Jason Hughes stated: "Team KWR have used Millers Oils since 2005 and we have experienced fantastic reliability. Impressive test results from our engine builder against one of the worlds no.'1' oils back up our faith in Millers products."





KAPS Transmissions' dogkits are at the top of the rally market and demand a top performing oil that can match the gearbox performance. Millers Oils' new range of oils containing Nano Technology additives which significantly reduce internal friction and power losses, whilst providing additional shock protection to dog rings and gears, was considered

as the preferred choice with testing to begin. Over 2009, KAPS Transmissions and Millers Oils had begun testing of its Millers premier oil CRX LS 75w140 NT in KAPS Transmissions dogkit applications. Over this time, testing was conducted in both Mitsubishi and Subaru gearboxes, on and off the track.

Samples of oil were taken for analysis after 300kms of SS racing (recommended period for KAPS Transmissions dogkits is 250kms SS racing), with results now coming to hand. Not only was the condition of the oil important, the wear and tear on the complete gearbox was taken into consideration, along with driver feedback.

In the KAPS Transmissions workshop, gearboxes were stripped, all parts reviewed with Millers Oils CRX LS 75w140 NT needing to pass the KAPS Transmissions strict quality control checks. There were no visible signs of oil overheating or breakdown. Additionally, parts were found to be in great condition and appeared to be well lubricated for the duration of the test period.

> KAPS Transmissions now recommends Millers Oils CRX LS 75w140 NT in all of its dogbox applications.





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#### David Pinkney Motorsports' Andrew Dean commented in

2010: "We are pleased to have Millers Oils on board this year, and have been very impressed with the performance of their products – the NT gearbox oil in particular has even drawn praise from gearbox suppliers and engineers in terms of the wear protection which is evident when the boxes are inspected post-race."

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