What this number stand for

Posted by MyZafira - 21 Feb 2011 15:18

Me also don't know but get some info from other website.. and this is from honestjohn.co.uk

10w-40, what does it mean?

We have answered thousands of oil questions in the last 4 years but the most frequently asked one is “What do the numbers mean?”

In short, if you see an expression such as 10W-40, the oil is a multigrade which simply means that the oil falls into 2 viscosity grades, in this case 10W and 40.

This is made possible by the inclusion of a polymer, a component which slows down the rate of thinning as the oil warms up and slows down the rate of thickening as the oil cools down.

Multigrades were first developed some 50 years ago to avoid the routine of using a thinner oil in winter and a thicker oil in summer.

For a 10w-40 to attain the specification target a 10W (W = Winter please note!) the oil must have a certain maximum viscosity at low temperature. The actual viscosity and the temperature vary with the viscosity grade but in all cases the lower the number, the thinner the oil. For example a 5W oil is thinner than a 10W oil at temperatures encountered in UK winter conditions.

This is important because a thinner oil will circulate faster on cold start, affording better engine protection and therefore lower long termwear!

For a 10w-40 to attain the other specification target a “40” oil must fall within certain limits at 100 degC. In this case the temperature target does not vary with the viscosity grade, if there is no "W" the measuring temperature is always 100degC.

Again the lower the number the thinner the oil, a “30” oil is thinner than a “40” oil at 100 degC, which is typical of maximum bulk oil temperatures in an operating engine.

Engine makers are, of course, very well aware of this and specify oils according to engine design features, oil pump capacities, manufacturing tolerances, ambient temperature conditions etc. It is important tofollow these guidelines, they are important and are stipulated for good reasons.

Finally, if the engine has been modified or is used in stressed conditions, the operating conditions may well be outside the original design envelope. The stress on the oil caused by increased maximum revs, power output and temperature may require that an oil of a different type and viscosity grade would be required.

These examples show viscosities at different temperatures:

Grade.....0degC.....10degC..... .....40degC.....100degC

0w-40.....665cst.....354cst..... .....82cst.....14cst

5w-40.....842cst..... 430cst.....91cst.....14cst

10w-40.....874cst.....440cst .....91cst.....14cst

15w-40.....1260cst.....595cst..... .....107cst.....14cst

In a nutshell, that’s what a multigrade is all about!

Cheers

Guy and the Opieoils.co.uk team

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Re: What this number stand for

Posted by nabira4422 - 08 May 2011 10:10

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Thanks bro...

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