

Gearbox Oil.txt

neil geddes

Joined: 08 Jun 2004

Posts: 2

Location: scotland

Posted: Sat Nov 20, 2004 7:01 pm Post subject: gearbox oil

what is the correct oil for a scott gearbox? I have been told that EP oil contains sulphates which corrode bronze. Is this true? Clarification please

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Graham Parker

Joined: 31 May 2004

Posts: 18

Posted: Sun Nov 21, 2004 11:32 am Post subject:

Probably one of those questions that if you ask 10 people you get 11 answers!!

You are right about EP oils not being suitable, Morris Oils of Shrewsbury do a straight mineral gear oil (AG series) which are ok for older gearboxes - I use Morris A.G. 140.

I [b]think[/b] Roger Moss uses Castor Oil - but then he is racing and I know nothing of the pro's and con's of using castor oil - I'm sure Roger can enlighten you (and the rest of us)?

Morris Oils can be contacted at: Castle Forgeate, Shrewsbury, SY1 2EL. 01743 232200 or www.morrislubricants.co.uk. The web site is well worth a visit just for general interest, but it may well also answer some fo your specific questions.

Graham

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Tammy1

Joined: 19 Dec 2005

Posts: 18

Location: the Netherlands

Posted: Mon Mar 20, 2006 10:11 pm Post subject:

@all

I am asking the same question.

But can you tell me a brand what is available everywhere.

How much needed in the gearbox?

thanks

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Frank
the Netherlands

See my Scott at www.scottin.nl

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Roger Moss

Joined: 31 May 2004

Posts: 242

Location: Leicester UK

Posted: Mon Mar 20, 2006 10:43 pm Post subject: Gearbox oil

If I find something that works, I tend to keep using it until some problem justifies a re evaluation. I have used Castor R 40 in my gearbox for years and find it excellent. Unlike using it in engines, where if you were travelling far, you might realistically be concerned about carrying or obtaining fresh supplies, the gearbox hardly ever needs topping up.

Castor 40 sticks to the gears and is much less inclined to be flung off than mineral oils. The thicker film is very suitable for the large gear teeth and especially the bronze bushes. The bronze bush on the high gear is large in relation to the surface speed of the high gear bush and wear and frictional losses are usual here. Castor 40 certainly reduces gear and bush wear and does not gum up in this application. I prefer to modify the case to fit an oil seal on the high gear sleeve and to put oil grooves in both the high gear bush and the small inner thrust head face of this bush that takes all the reaction loads of the clutch springs when you declutch.

Chlorine based high pressure additives in some mineral oils can attach copper bearing bronze bushes, but it takes some time.

While I am rambling on, I will tell you of something that might be of interest in the future. We have re designed the twin cam clutch release mechanism that I have used for years on my racer, so that it can be manufactured more economically. The traditional type is quite heavy in operation and expensive to make. Its thrust is taken by 1/8"balls having point contact. Our aim is to make a release mech with a needle thrust race and oilseal that is smooth, light and long lasting and affordable. Flywheels. We are often faced with flywheels with damaged tapers so we have made equipment so we can accurately regrind these and recover the flywheels.

I must remind myself that when the sun comes out a little, I must take time to enjoy some riding. I will soon decide which VMCC meetings I will compete at this year, but I am definitely going to the Beezumph in early September. Richard has promised to finish his racer so father and son can have a Scott mounted outing together. I shall not go to the festival of 1000 bikes, as this is for genuine historic machines, whereas mine is a private race special. My favorite toy!

Kindest Regards to all Roger

PS Remove the brass level plug about one inch up the front edge of the box and pour in your chosen oil through the top access hole until it starts to come out of the level hole.

Sources of supply. Try your local dealer but otherwise I get mine from <http://www.suprememotorcycles.co.uk/about.htm>

Rebuilding and upgrading of Scott and Silk power and transmission units. New enhanced replica Scott engines. Special manufacture Scott technical info at our website www.mossengineering.co.uk

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Stan Thomas

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Joined: 01 Jun 2004

Posts: 78

Location: Stafford

Posted: Thu Mar 30, 2006 2:47 pm Post subject:

EP (extreme pressure) oils were developed in the thirties for Hypoid rear axles where sliding friction was great.

They will however attack phosphor bronze bearings so are a no-no for Scott gearboxes UNLESS of a "modern" formulation which will not affect phosphor bronze - so you need to check with the individual oil supplier.

Having said that, a straight 40 or 50 grade oil - such as provided off the shelf by Morris oils is quite adequate for a Scott Gearbox.

Resist the temptation to use "thick" oils given the design does not employ any seals as such - as thick oil will both cavitate and not adequately flow into the bearings. Better to suffer some oil loss than starve the internals.

Stan Thomas.