ANTIQUE MOTORCYCLE CLUB OF MANITOBA INC.

RUST 'N' PIECES

PO Box 1074, Winnipeg, Manitoba R3C 2X4

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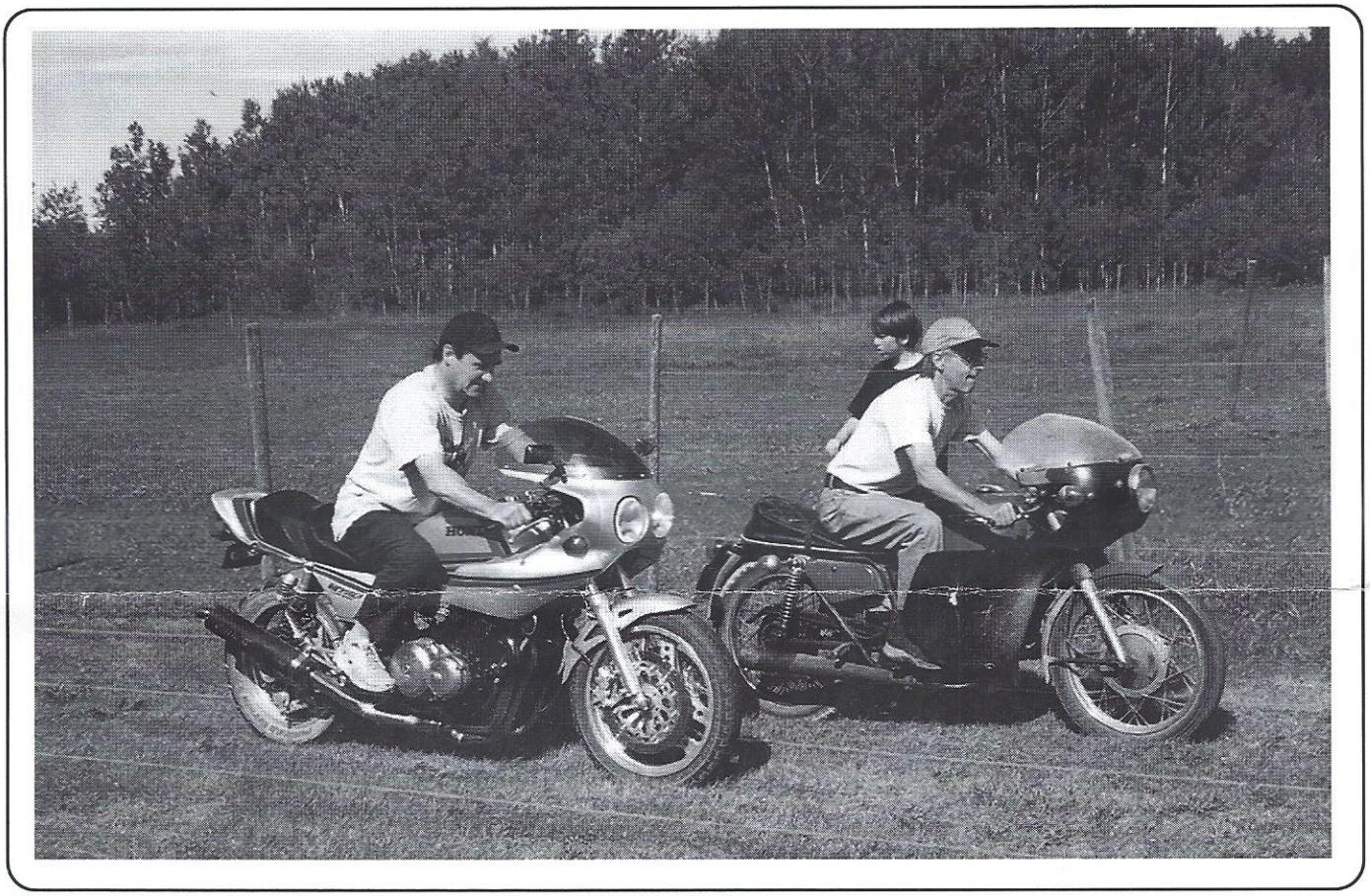

SLOW RACING INTO SUMMER!

EXECUTIVE 2003-04

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NOTES FROM THE EDITOR

Here we are in May and the weather is not cooperating for we riders who like it to be at least 20 degrees before we venture out. As a matter of fact, as I write this, there are snowflakes falling and the ground is white. It's May 10; when is winter going to let go? Greg has my Beemer sitting polished and ready to go but I'm afraid I'll either get blown away by the wind or frostbitten if I go riding; it's so cold. Still we know that summer is on its way and before long we will be enjoying those beautiful evening rides to Lockport or the Bridge Drive Inn. Roll on those lazy hazy days of summer!

I hope all of you who have a Mother in the city had time to visit her on Mother's Day and those of you who don't were able to give her a phone call. Until next month, safe riding!

Cheers!

Marie

PRESIDENT'S COMMENTS

It was great to see so many bikes at our April meeting; riding season must be here! I would like to thank John Tankard for inviting Hank Haaksma to speak on synthetic oils; a very informative and enjoyable presentation.

Congratulations to Lorenz Haalboom for coming up with the correct answer to the quiz question in last month's newsletter. Lorenz received a prize of a litre of oil. Scan the newsletter for this month's quiz question. Also, put on your thinking cap to come up with more quiz questions. We have 42 members at this time; let's keep our club growing. I would like to wish all our members an enjoyable and safe riding season. Remember a bad day's riding is better than a good day at work anytime.

Respectfully submitted;

Greg

WHERE ARE THOSE "RUST 'N' PIECES"?

Wanted

Cable-mounted in-line brake switch.

Contact: Ed Pauch: 832-0255

New Listing!

Wanted

Lead on a complete or restored Harley WLC military 45ci. Original preferred or an older restoration. Any leads will be appreciated.

Wanted

Old Motorcycle Chums and Big Five Motorcycle Boys children's books. Circa WW1.

Contact: Ross Metcalfe: 837-8165 or email: moose102@escape.ca

For Sale

2003 Vino-Burgundy (Scooter, not liquid)

See Jerry S.

Your Classified Here

Sell old stuff!
Find new stuff!
Phone 204-864-2423 or e-mail gokane@mts.net to place your ad.

Wanted

Manitoba motorcycle license plates prior to 1960. Any condition.

"CLASSIC" GARAGE SALE

by David Pritchard

I need garage space!
Will someone share some of my collection?

1952 AJS 18S 500cc

Engine rebuilt, running, new tires and paint, correct in work. A nice machine! **Cost:** $3200. CAN

1969 BSA Rocket 3: Rebuilt motor, excellent condition, Original. **Cost:** $7500 CAN

For Sale: 6x10 "Pace Cargo Sport" enclosed motorcycle trailer, rear ramp/door, side door, four-years old. Very good condition. **Cost:** $4500 OBO

david@bardalfuneralhome.com
or 204-797-6698

A true Classic Biker hugs their bike every day!

UPCOMING EVENTS

MAY

Next AMC Meeting

Tuesday, May 25 7:30 p.m.

Woodhaven Community Centre

CMMG MLA Ride

When: May 20

JUNE

Manitoba Ride for Sight

When: Saturday, June 25 to Sunday, June 27

Where: Legislative Grounds

Registration is Saturday from 9-10:45 am

Moosefest

When: Saturday, June 25 to Sunday, June 27

Where: Dryden, Ontario

JULY

Club Rally

Friday, July 2 to Sunday, July 4

Vintage Rally

When: Third week in July

Where: Craven, Saskatchewan

AUGUST

Breast Cancer Pledge Ride

Southern HOG Show and Shine

Morden Park

SEPTEMBER

Corn Roast

Saturday, September 18; Choquette's

DATE TBA: *Elko, Nevada*

Q WHO? WHAT? WHERE? WHEN?

Brough Superior

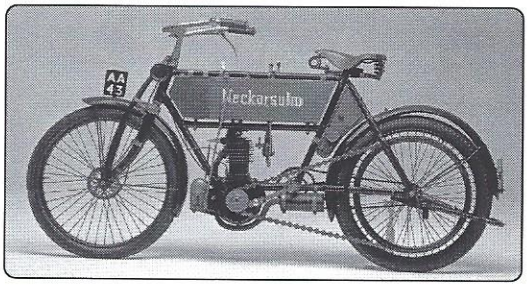
What configuration of engine was Brough famous for?

A

From April Issue:

Brand: NSU

Name on the bike was the name of the town where it was built in 1910.



MINUTES OF THE APRIL MEETING

Due to a promising look to the weather and members' scant regard for the experts at the weather centre, 16 bikes were gathered at the door of the clubhouse. Not a bad turnout with many still trailing the winters' cobwebs behind them.

A total of 31 members plus an R90S, I mean guest Kari, who was entertained by all present. A good turn out– well done all present for the effort–now how about trying for 40!

One of the contributing factors to the major turnout was the anticipation of learning something about the life blood of the love(s) of our lives: Oil!

Hank Haaksma of Jimmy Diesel Parts Co. gave very informative insight into the slippery subject. For those who missed the talk but need info/help on the subject, the following numbers can be used to ask the manufacturers directly:

Chevron: 1-800-582-3835

Exxon: 1-866-66EXXON or www.exxonmobil.com

or

Hank at 1-866-278-7419. He can probably put you on the right path as to who/where to get the best info.

A lot was learned by all present and we were very grateful for his time and effort in trying to correct all of our long-held mythologies on the subject. Thank you again for your time.

The meeting was brought under control by our ever tactful President and business commenced.

Membership stood at 40 paid-up plus honouraries. Only these groups will now qualify for receipt of the news-letter. (Sec's afterthought: how do we tell those who were not present about this oversight on their part? Guess I've got to write them a letter.)

A **draft roster** was handed around to check if all was correct prior to the print run. Expect it out in June.

MPI had been asked about the extent of the **Antique Plate coverage** and confirmed its use was limited to (and from!) a registered rally, registered show or repair shop. Coverage was basically nonexistent but it did enable you to ride (albeit very carefully! Sec)

Tyndall was mentioned for either a club night meet there or a ride out one Saturday. The Saturday ride was carried as the favoured option.

Sec's report confirmed the rally booking of the **catering and tent.** Adverts should be noticed in some of the various other club mags in May and June.

Treas. confirmed a **bank balance** of $2491.00, a whopping $9.99 down on last year. He was also looking for more rally money! Please confirm your intentions; it makes our guessing on quantity much easier.

Mike the Book has been busy and found four new titles to add to our library. Three were on Harleys and one was on Ducs. Hopefully no feathers will be found in the latter (though how one can need three books on the other brand beats me! This comment in no way reflects the views of the club. (Disclaimer over)

Prop Man reported nothing exiting had happened in his world, as usual, so all was good. If anyone needs any of the clothing items still on sale, give him a call and he will bring to next meeting.

For the record, John Tankard has both club banners. He will drop these off to JT at work in the near future.

No other business so coffee time was called. Gone...

JT

TECHNICAL SERVICE BULLETIN

Lubrication of Older Motorcycle Engines

Oils formulated for the modern engine are basically unsuitable for the older designs. There are many technical reasons for this. To start with, there is currently a strong move towards improving fuel economy, which is obviously an environmental consideration. The best way to achieve improved fuel performance is to move to thinner oils that offer reduced viscous drag on the moving parts of the engine. 10W/40s are a common equipment manufacturer's choice, with 5W/40s, 5W/30s, 0W/30s and even 0W/20s starting to appear in handbooks. Thinner oils are also chosen because engines are fitted with smaller batteries and starter motors. These thinner multigrade engine oils work well in the confines of modern engines that have close tolerances and where oil films of 1-2 microns (0.00007") are normal. However, in older engines we are looking at poorer machining finishes with rougher surfaces, requiring an oil film thickness in the order of 6-7 microns (0.0003"). This type of lubrication regime is usually satisfied by SAE 30, 40 and 50 monogrades. The use of monogrades is paramount in such cases because of the way multigrades are formulated with polymers to achieve their wide operating temperature range. These polymers are long-chained molecules that curl up into small bundles to allow the oil to flow at low temperatures, but at high temperatures unravel and tangle together to help the oil maintain its thickness. In the small space between the piston ring and liner, the scraping action of the ring aligns these molecules and the multigrade oil temporarily becomes thinner (regaining its thickness when it drops back into the sump). One of the functions of a lubricant is to provide a gas seal between ring and liner to aid compression and in modern engines, where machining tolerances are very small, the temporary drop in viscosity will have no affect. However, older engines do not have such tight tolerances and the temporarily thinned oil will find its way past the rings leading to high oil consumption and compression loss.

Modern oils also contain anti-wear additives that are designed to protect the valve train and gearing components. In new or re-built engines this type of additive can prevent the satisfactory bedding in of the rings to the bores and can lead to a condition called glazing. Glazing leads to loss of compression and high oil consumption.

Increasing the power of an engine results in an increase in its average running temperature. One of the basic functions of a lubricant is to cool, and therefore, in hotter running engines, the oil temperature will also be higher. At these higher temperatures oils are susceptible to oxidation which causes them to thicken and loose their cooling and lubricating ability. The addition of powerful additives called anti-oxidants can prevent this and stop the formation of lacquers and varnishes that coat critical components reducing their operating efficiency.

This situation is worse in older vintage engines as combustion gases can easily blow by the piston rings and mix with the oil, cause further deterioration, thickening and poor circulation. Overheating often occurs along with rapid expansion of the engine components, often beyond their design limits, leading to increased friction and finally seizure.

To help keep the hotter parts of the engine clean, detergents are also included in the formulation to prevent carbonaceous oxidation byproducts from coating critical components, including: pistons, rings, valve stems and guides. Further additives called dispersants are added to keep these solid contaminants in suspension so that full-flow filtration systems can remove the larger particles from the oil. The same additives also ensure that when the oil is drained at the service interval all of the smaller particles leave the engine, leaving it clean for the fresh oil. However, older engine designs of the classic and vintage variety probably have little more filtration than gauze, tank outlet strainer and a magnetic sump plug!

In these types of engine it is extremely harmful to have solid contaminants continuously circulating. The viscosity will increase, the flow rate will decrease, oil galleries will become blocked, and abrasive wear will take place, leading in the worst case to catastrophic failure of engine components.

Acidic compounds, formed from the processes of oxidation and combustion, may reach a level where they will start to affect engine seals; hardening, cracking or even breaking up the older types of rubber compounds that were used originally. It is much better to use modern replacements made from acrylates or fluorocarbons which are resistant to acidic attack.

Taking all of the above points into consideration, it is quite clear why modern multigrades should be avoided in older engines and the correct high quality lubricant is still far less expensive than replacement parts and time-consuming rebuilds.

Morris Lubricants offer two ranges of oil specifically designed to satisfy these older types of engines: Supreme and Elite engine oils, both ranges available in SAE 30, 40 and 50 viscosity grades. These ranges are basically very similar in make-up; the former being biased towards older car engines and the latter having better anti-foam performance for use in older bike engines and gearboxes.

So far we have considered the basic four-stroke engine, but there are of course two-stroke units and engines involved in highly stressed competition scenarios.

High-stressed competition engines are usually based on humble road-going varieties but modified for increased power output and performance. Of course, this also means that a suitable lubricant will need to be selected to cope with these increased workloads. One option here is the use of castor-based lubricants that have several features beneficial to this area of application. Castor-based lubricants have very high natural film strengths, useful under high shock load conditions and are also very tenacious, offering a degree of seizure protection. In its natural form castor oil is very viscous, about a SAE 50, which provides good lubrication to roller bearings and gas tight seals where there may be wide tolerances between rings and liners of early engines.

Castor-based products can also be improved with the addition of certain additives. Castor oxidizes more rapidly than mineral oils and so has a greater tendency to form lacquers and deposits on rings, pistons, valves and ports. Oxidation is the chemical process which combines the byproducts of combustion (water vapour, acids, sulphur and nitrogen oxides) with lubricant at high temperatures leading to its deterioration. The oxidation process thickens the castor and reduces its ability to lubricate and cool. It is worth mentioning here that castor-based lubricants, two-stroke or four-stroke, do not mix with mineral oils. Failure to recognize and segregate lubricant types may lead to an expensive engine rebuild. A gel-like substance is formed which can circulate round the engine, eventually blocking oil ways and galleries, pipes, strainers, etc., leading to oil starvation and serious damage.

Another problem found with castor is its inherent ability to absorb moisture. This not only reduces its shelf life, but combined with the substantial amount of water produced during combustion can lead to severe corrosion problems. To cope with this, Morris Lubricants incorporate an anti-oxidant and corrosion/rust inhibitor into their castor-based MLR 30, MLR 40 and MLR 50 grades.

It has been proven that moisture can improve combustion, but the excess can find its way into the sump and be absorbed by the castor oil. The additive system will reject the excess water and dump it in the form of sludge in the sump, hence the need for regular and frequent oil changes (competition engines usually every meeting).

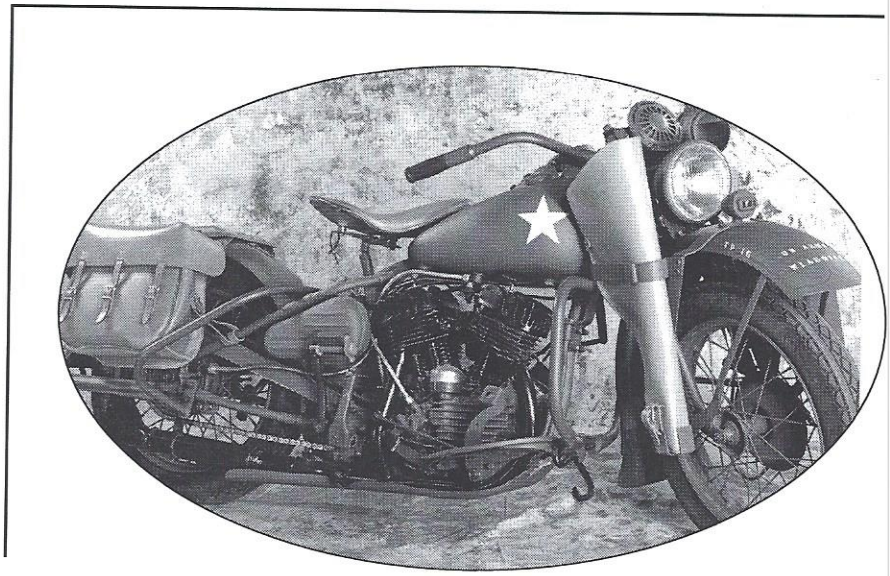
With two-strokes care must also be taken when mixing castor oil with unleaded fuel, as an unbalancing of the additives can lead to sludging that can block fuel lines. Used with leaded fuel and methanol, castor mixes well, but the latter is highly flammable, so extreme care is needed when mixing and handling this fuel type. Also, as mentioned previously, water absorption limits shelf life and so it is good practice to mix only the amount required, as older mixtures can produce sludge and poor combustion.

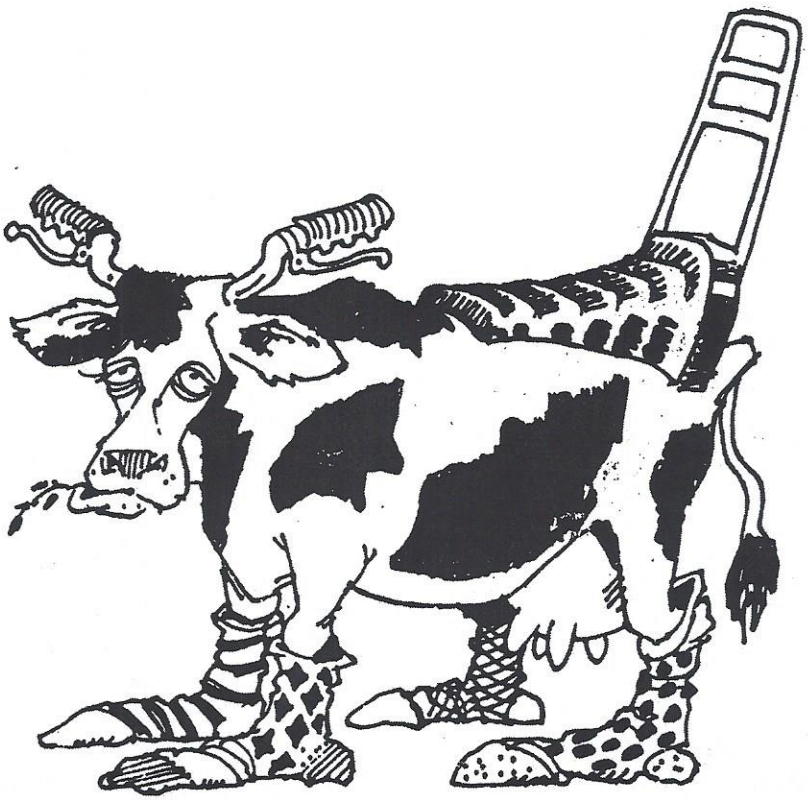
Two-strokes, by design, invariably have a higher power to weight ratio and with the oil acting as lubricant for either engine or gearbox, as well as being burned off during combustion, a balance has to be struck between outright power, minimized wear, maximum reliability and environmental issues.

Taking into consideration previously mentioned factors relating to the crudity of older engines, thick monograde oils with no additive treatment were incapable of keeping engines clean, gave need for regular de-cokes and generally gave two-stroke engines a bad reputation. The Morris Lubricants range of two-stroke oils include pre-mixed products (fully and semi-synthetic, mineral and castor-based) as well as injector-system products (fully and semi-synthetic), all of which contain the necessary additives to enable maximum lubrication, even at today's incredibly lean mixtures.

As two-stroke oils improved with the use of synthetic additives during the '70s and '80s, they became more viscous (thicker) allowing lean mixtures and decreases in working tolerances yet still maintaining their high protection capabilities. A better understanding of heat transfer enables engines to run hotter and burn their fuel more efficiently, hence turning generated heat into energy. As exhaust emissions contain oxidized components of both fuel and oil, there is, because of environmental concerns, a trend towards lubricants that offer the least problems to the atmosphere and accordingly a tendency toward high fuel/oil ratios. If an oil has a tendency to foul plugs, block exhaust ports, cause ring sticking and leave plumes of white smoke, there is a good chance that the exhaust emissions are not particularly environmentally friendly. The two-stroke engine presently faces an uphill struggle for its survival.

Moving on from engine oils, the lubrication of transmissions is a little more straightforward. Most gearboxes in pre-1970 machines have simple gear designs not requiring high amounts of extreme pressure (EP) additives usually required for the protection of some of the latest transmission systems. If too much EP additive (i.e., API GL5 performance level) is present in a lubricant used in a synchromesh gearbox requiring an API GL4 performance level additive, it will eventually lead to notchy gear selection and increased noise. In earlier gearboxes and final drives EP performance may not be required at all (API GL1) and simple non-EP monograde gear oils will suffice. The Morris AG range of gear lubricants, AG90, AG140 and AG250 are available to cover these applications. These >straight= gear oils are also friendly to phosphor bronze components often employed in earlier designs. ●





MOTORCYCLE

COWASOCKY

Just a reminder that we are all udderly flawed !