



TECHNICAL TOPICS

*A series of technical tips and articles
reprinted from La Vera Vista*

Hints and Tips,
Various models



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Hints and Tips

by John Faulkener/LVV132

When removing a 180° head (this may apply to others) with the engine in the frame you have to remove the long through studs, but one will not come out as it fouls a frame tube.

DO NOT use the Tim Parker recommended method of "bending" the through stud past the tube as it is likely to leave it permanently bent. Even a slight bend will make it a complete pain to replace the cam bearing.

Get someone else to give you a hand, and while lifting the head slightly, the stud can be manoeuvred out past the offending frame tube. Replacement, as all the best books say, is the opposite of the removal process.

SPRING LINKS

Always replace the spring link after you split the cam chain to adjust the valve clearances. The first time I did mine the spring was missing—I don't know for how long but it gave me a cold sweat. I've since heard of other people with similar experiences.

Stuff a rag down the chain tunnel to prevent anything falling down it while working, but if you need to recover any lost bits or fit a new chain (although normally you use the old one to 'pull' the new one through) you will have to remove the camchain protection pillar. The fixings are symmetrical so it could go in either way—correct way is the flat on the curved end to the alternator side. (Thanks to Phil Todd)

STRIPPING AND REBUILDING 180° TRIPLES by Henry Morgan/LW155 I/ Clearing Sludge from the Crankshaft Sludge Traps

The most efficient way I have found is to obtain a car windscreen wiper arm, which is made of spring steel. Cut off the hooked end onto which the blade fits using an angle grinder, and shape the severed stump of the arm to form the perfect de-sludging tool, which is comfortable and easy to use.

2/ Piston Ring Compression without Tears

Clearly, two pistons must enter the barrels simultaneously, and without the assistance of 'another' this may prove difficult. American manufacturer Lisle produce a narrow band piston ring compressor which can be undone after the piston has entered the barrel. The quarter inch female drive to wind up the compressor makes for easy use with a ratchet wrench. Once entered, a plastic knob enables the release to take place. The part number is LISLE LI 9000. They cost £33.35 a pair to your door from HD Tools on 01798 813837 or fax 01798 813949.

3/ Wellseal Jointing Compound

This is a non-setting type and has served me well on all my Jota 180° gasket faces for many years. It is a very old established brand and was used by many motor manufacturers on original assembly. A

huge 100 ml tube costs £5.24 + VAT retail. I buy mine from a local branch of Edmunds Walker. You could also try Wyko Bearings outlets.

GENERAL

by John Faulkener/LVV159

On my oil drain plug for the engine, I use crush washers from a Peugeot 205 GTI. They are concertina-type, and seal well without excess pressure and less chance of thread stripping. They are M16—plug is M14. but I have not found it a problem.

After replacing fork seals on my '76 Jota and refilling with the recommended weight and volume of oil, the forks were unbearably stiff, so I put 5 wt. in instead. Much, much better, but a bit light on rebound so I'll try 7.5 wt. soon.

On early 180's check the wiring under the rear mudguard for damage due to tyre rubbing.

TOTAL "BOL D'OR" IS TOTAL "SILVER" SHOCK from David Balcon, nr.2194/LVV 104

Just a brief note that may be of interest to anyone who wishes to run their Laverda on Total Bol D'Or 20/50. I like I'm sure many others, thought that if Massimo said this is what my bike should run on. then who was I to argue—so off I set in search of a reliable and economic source of the golden fluid.

I was not having a great deal of success and so I telephoned Total's HQ in London. After much messing about on the switchboard I found someone willing to help who didn't know the answer, but said he would 'phone me back. Sure enough, 15 minutes later he called back and said "I've spoken to one of our boffins at the refinery and he tells me that Total Bol D'Or and Total Silver (the cheap 20/50 sold at petrol stations around the country) are one and the same product in different packaging. I asked him to repeat this as I could hardly believe my ears. Could it be true that us motorcyclists had once again been victims of price skimming by being sold an ordinary product in a fancy bottle? It would appear so!!

ENGINES DON'T WORK WITHOUT OIL!

by Alan Cudlipp/LVV162

Just a short note as a warning to any members who have braided oil cooler hoses with anodised aluminium fittings on their bike.....

Spring sun was beckoning recently and the RGS was itching for its first run of the year, so the tyre pressures were checked and petrol changed (and plugs renewed, but that's another story....!) and off we went. A good ride out for about 60 miles, then back home to give the bike a bath and a fresh nappy before bedtime.

During the bathing routine I noticed a crack down the length of one of the threaded anodised sleeves that secures the oil cooler hose to the bottom banjo. Gulp! On checking the same fitting on the other hose all that remained was evidence of corroded aluminium — gravity was the only thing

in my favour holding the hose to the banjo. Eeek. Fortunately, it's a low pressure system so the hose remained intact. It doesn't take a qualified mechanic to work out the consequences of an engine trying to work without any oil, so beware.

Suggest you get out to the garage now if you use the same fittings.

Incidentally, the sleeves are unavailable separately—the complete banjos are £27 each plus postage, VAT, betting tax.... Ride safe.

MISC. TIPS

from Kevin Savage, LOG USA

1. Ever drop the cam chain into the crankcase? I did...four times in one afternoon (Grrr!). Rather than remove the cam chain protection and drop the engine oil to retrieve the chain I used a different method. I cut two lengths of solid copper electrical wire 24" long. After stripping off the insulation about 2" from the ends. I bent a hook into each wire so as to have some way to grab the chain....then I went "fishing". Using one of the wires I hooked onto a link of the chain and pulled upward. Upon inspection of the chain (viewing it through the cam chain tunnel) I determined where more loose chain was (i.e. forward or behind the link that I had hooked) and using the second "fishing" wire, hooked onto another link "upstream" of the link that I had firstly hooked.

By grabbing another link somewhere "upstream" of the last and alternating "fishing wires" I was able to walk up the chain and grab the last link and then pull the chain back up and out of the cam chain tunnel. It is much easier to do than it sounds and is less time consuming and messy than going through the bottom of the engine.

2. Of course, the idea is NOT to drop the chain into the sump in the first place. I developed a method to help ensure that the chain does not fall off the cam sprockets. I acquired two 6" long lengths of large diameter thick-walled surgical tube from a doctor. I pushed the tubing between the cam chain tunnel and cam sprocket (the cam chain being on the sprocket). This way, the rubber tubing presses the chain against the sprocket. I can now undo the master link or replace it without worry of the chain slipping from my grasp and falling into the motor in the process.

3. Nuts, washers, master link spring clips will also fall in through the cam chain tunnel even with the recommended shop rags stuffed around the sprockets. Cam chain protection will allow you to put your fingers into the sump and to feel around on the floor (of the sump) for the wayward bits that fell in.

4. Round (circular) oil catch pans don't seem to quite cover the shop floor when draining the oil. A rectangular kitty-litter pan seems to get all the oil without spillage.

5. Long-term storage of metal parts subject to rusting (valves, springs, gears, etc.) should be immersed in fresh engine oil. I place such pieces in one pound (weight) coffee cans that have plastic resealable lids. Fill the can with a quart of oil and snap on the lid, simple. For camshafts, purchase a 3" piece of plastic plumbing pipe 14" long and two plastic plumber's end caps. Glue on one cap and when dry insert cam. Fill the tube with oil and seal the other end with the remaining cap. Tiny pieces such as carb jets, etc. can be stored in pharmacy pill bottles with screw-on lids. Again, fill with oil!

6. For storing valve shims I located a compartmentalised box of moulded nylon with a hinged lid. It was located at a ladies' sewing shop as a thread storage box. I carefully marked and cut away a portion of the moulded partitions to lay in my micrometer, (a side note: always measure and mark new shims; I've found that the factory markings are not always correct).

7. I located 0.008" thick washers with a flash light bulb marketed under the brand name "Krypton" bulb. (Sold through police uniform supply stores for police flashlights), the washers were perfect for accurately shimming out the slop that had developed in the clutch lever of my 1200. Now all the effort is directed to pull the lever straight back, not partially misdirected vertically by a wavering lever. The effort exerted to pull the lever has been reduced by about 25% just by shimming out the vertical slop.

8. Mineral spirits (paint brush cleaner) is the same basic compound as is sold in auto supplies as engine degreaser. A one gallon bottle costs the same as a 16oz aerosol can of engine cleaner. Just "paint" on the spirits with a CLEAN brush and wash off with dishwash liquid and water.

9. Now that many Laverda's have got a "Classic" tag to them, this often means that many machines have been standing unused for a long time. In less than a year in some cases, the petrol left in the carbs deteriorates into a sort of resin, which quickly bungs up jets etc. It's easy enough to clean out the pilot and main jets, but the needle Jet and needle may have become coated with crud leading to a weak mixture at anything over one quarter throttle. It doesn't take much for the area between the jet and needle to become smaller than the area of the main jet causing all sorts of strange results when a larger main jet is fitted to overcome any weakness. When cleaning the needle jet, be careful not to scratch it internally, clean the needle with fine wool to avoid changing its critical dimensions.

FUEL

by Pete Brendan/LVV161

Chats at rallies etc. revealed universal disgust with LRP and happiness with lead-free in RGS motors. I only managed a limited mileage on the ill-fated SFC 1000 using Millers VSP and detected a slight closure in valve clearance, but that may be because the engine has done less than 6,000 miles from new anyway. I still think the integral octane booster is worth it in the high compression engine—it runs (ran) beautifully. FBHVC approved additives are :-

Castrol Valvemaster / Valvemaster Plus

GTA Power Plus Formula 2000

Millers VSP-Plus

Nitrox 4-star Lead Treatment/ 4-Lead Substitute

Red Line Lead Substitute

Superblend Zero Lead 2000

CARBURATION TIPS FOR THE 1200

from Kevin Savage

My bike is running well now. I am expecting little or no problems with it this season. The dragging of the chain drive on the silencer is corrected. The problem was twofold, a sacked Regina chain and an improperly-aligned exhaust system. Took the exhaust system apart and cleaned up all the parts and reassembled using a new R.H. Silencer and new RK brand O-ring chain. The chain now only contacts

the silencer stub when the bike is on the centre stand. I am keeping the stock 3-into-2 system as you suggested. I went back to Nr.65 pilot jets (stock). Discovered that the NGOs worked ONLY because the choke system was not fully off and the bike was running on partial choke constantly! might suggest to readers to replace the little brass plungers (hung on the end of the choke cables) every few years. The rubber seal on the plunger's bottom can lose its ability to seal off the choke circuit. Obviously, this will muddle carburation. Also, the brass plungers get dings or dents easily if banged about during carb disassembly-reassembly. Surface irregularities can catch on the carb body and stop the plunger from dropping down fully.

I am using a product called "Lead Substitute". It is supposed to protect the valve seats and stems like leaded gas did. Several companies market the stuff in the US. It works out to about 25 cents per tank full. I have no idea if it actually works, but the claims made by outfits like S.T.P., Wynn's, Gumout Corp. etc.... seem quite specific and ironclad. I can only assume that in the light of the fact that all the US is pro-litigation, they have done ample product testing to ensure their claims are factual.

1200 CARBURATION

from Adrian O'Meara

Although I was pleased with the 1200, I wasn't so pleased with the fuel consumption. Having put up with an average of 32mpg for a year, the increase in petrol prices and the mileage I was covering made me decide it was time to reduce its thirsty ways or say goodbye—so I paid a visit to Phil Todd and his accomplice Martin. I was hopeful of the former as it was running rich and Phil was optimistic about improving economy as other 1200s had been 'dried out'.

The cure was quite straight forward. The entire contents of the air-box were removed except for the air filter itself. The main jets were upped to 130 and the K14 needles were unceremoniously hoiked out and replaced with Jota K1's. The three carbs were then balanced on vacuum gauges.

The effect was shattering. I am now getting a generous 40-42mpg around town and up to 44 mpg on a touring run which means I refuel after 160 miles instead of 120. The performance too seems a little brisker and immediate. although it was never bad.

The simple operation was more gratifying as it was done just before I did 2,000 miles touring France—saving about £15 on petrol in two weeks, which is more than the surgery cost in the first place!

So, if anyone is suffering the same problems, don't go and buy a BMW for better mpg, just do as I did.

A CURE FOR HESITANT PICK-UPS ON 1200S

It is rumoured that the use of number 58 jets cures the weak spot on 1200 carburation just as the throttles are opened.

ELECTRICAL SYSTEM

Pete Brendon

For those not using their bikes in the winter, it's a good idea to disconnect all wires from your battery. I don't know the real reasoning behind this, but batteries usually last a fair bit longer if

disconnected. If the battery is easily removed, it also seems to help storing it indoors, preferably in the airing cupboard—I always stored my CDI black box there as well and was one of the fortunate few who never had enough to cough up for a replacement!

Early triples can be prone to the starter relay points intermittently sticking together. If the engine fires all sorts of jolly noises are produced; switching off kills the ignition but the starter keeps on running until you disconnect the battery or motor lead, the battery drains or the motor burns out. whichever happens first!

You can recon the relay if not too far gone by carefully prising off the peened cover, carefully cleaning off the burn marks on the contacts with a magneto file or very fine wet and dry and most importantly, carefully bending the contact arms so that the points close square and parallel. Misalignment will have caused the original fault, forcing all the current through a small, high-resistance contact area, causing overheating and burning. It would be worth checking the replacement if yours is beyond salvation. Smear some silicone sealant around the joint when replacing the cover to keep out the damp.

STARTER SPRINGS

by Stuart Irwin/LVV162

I hope this will help if someone is in the same boat as I was with the starter on my 1200. After a Winter lay up (I must be getting soft or old) I found that the Lav was very slow turning over, so a scratch of the head brought me to have a look at the starter. On inspection I found that one of the springs had broken so it was not holding the spring against the armature. I phoned round but could not find one anywhere from a Lav dealer. So I went off to the local Bosch dealer, not with much hope, but what the heck. The bloke there, to my joy, was a fellow biker. He was able to bring up the number on his computer screen for the starter, but there were no parts listed. He said he would have a look at some other springs, and found one to match—the ref. number is 2004652002. I hope that this can help someone if they're ever in the same position as I was.

THE END OF THE NIGHT

by Henry Morgan/LVV159

Improved headlamp output can easily be achieved without the illegal up-rating of bulb wattages. The common H4 Halogen headlamp bulb in its improved spec, commonly known as a 'four season' bulb in 60-55w form will provide appreciably more light providing the reflector and alignment are good. Phillips claim 30% more light from their version with improved mist and fog visibility. Broadly I feel this is not an unreasonable claim, I have ridden my bikes over many dark miles and have used these bulbs for about 4 years now.

I must go on to say that all bulbs are not the same and those sourced from certain Pacific Rim and East European areas are really worth avoiding. Some well-known names sell bulbs made from these areas. A name worth buying is Osram. absolutely guaranteed not to be from a Mickey Mouse manufacturer and their new H4 and H7 Silverstar bulbs deserve a mention. These bulbs have a new metallic end cap which improves their appearance inside the latest spec headlights. Their H4 produces 30% more light than standard and the H7 produces 20% extra. The H4 carries reference number 64193SVS and the H7 is 64210SVS.

Remember, there is light and there is Osram!

If your horns stop working and the only solution seems to be replacement, you may save yourself some dosh by dismantling them and checking that the contacts are not covered in muck. With Voxel's drill / grind and tap out the rivets, clean contacts inside, reassemble with small Allen bolts (mushroom heads) to make any future jobs easier. Don't blame me if that doesn't cure it though.

One further point. The starter motor relay packed up on me some months ago and my local Bosch dealer quoted about £13, so instead, I bought a solenoid for a Mini from Halfords for £3 or £4 and it's worked fine for several thousand miles. It was bigger than the original item, but fitted on top of the air filter box okay. (Dave Williams)

JOTA ELECTRICAL TALE

from Ronald Dunhill. nr.792

I am writing to tell you about a disaster I have had with my Jota. It all started on my way back from a very wet Antler Rally (it rained for 36 hours). I managed to get as far as Carlisle, where I stopped to dry out. On returning to the Jota it refused to start. I checked all the usuals—plugs, etc. On calling out the AA the man asked where the points were. At this stage it was obvious he knew nothing about it and eventually he went for a trailer.

On ringing Geoff Streeter he suggested I check the starter relay. This was faulty, and on changing it I had sparks on 1 and 2 cylinders. Changing plugs and plug caps, I had sparks on all three but the Bendix drive had sheared. When I replaced this, the starter switch went. Next the starter solenoid went so that as soon as you connected the battery the starter motor started!

Total parts list reads: starter relay, Bendix, starter clutch, starter solenoid.

I thought my problems were over as I rode my Jota out of the garage...but no. It happened... I took a left hand bend too enthusiastically and dropped it. The bike slid until it made a large hole in a dry stone wall. Usually you bend the forks, but not me. I had to make the bike hit the wall with the clocks, tank, tailpiece, etc. I am pleased to say that I did walk away with only minor injuries, but a bent Jota certainly draws a large crowd—even 5 miles from the nearest house!

FRAME AND BODY, WHEEL WOBBLER; from Kevin Savage, LOG USA

My US spec. (1979) 1200 came equipped with a non-adjustable tubular handlebar for a more upright position. This was probably due to the factory's and US importer's opinion of what sells in America. After searching for the gremlin that was causing my bike to wobble at 80mph, I found the culprit to be the handlebars. Here's my opinion why: the installation of the upright touring bars which work so well at our national speed limit of 55mph, place the rider too upright and too far back at higher speeds. A rider's weight shifted towards the rear reduces the front tyre's ability to track by lessening the pressure on the contact patch, couple this with the rider literally hanging onto the bars at higher speeds and it's no wonder that the bike wobbles. My proof is the results that I obtained by installing a Moto Morini (350 K2) adjustable down bar. The wobbles disappeared and the steering is still light and VERY responsive at high speeds. I can only assume that 180° Lavs were not designed for touring or superbike style bars (regardless of what the factory tried to market).

CABLES TO YOU

by Dave Fickling/LVV132

I recently had my Smiths rev counter overhauled by Joe Shaw & Sons, Deepcut (Tel : 01634 861552) and they gave the following advice on instrument cables.

The correct length of cable is crucial to prolonging the life of the Smiths clocks. The instrument end of the inner cable should project no more than 3/8" from the aluminium end piece when the cable is in place and the lower end is engaged, either with the speedo drive or the rev counter.

Any projection over 3/8" places pressure on the instrument bearings and causes rapid failure.

Since cables can and do stretch, and a hot cable will extend due to expansion, it makes sense to check your cables regularly and keep them lubricated.

GRACEFUL ARCS

by Henry Morgan/LVV162

Nothing to do with ballet, but on cable-operated clutch triples, the cable needs to enter the gearbox in a graceful arc, which means it projects leftwards with a slight protrusion factor. I have seen many bikes with the clutch cable tucked in tight, entering the clutch arm abutment at too sharp an angle. This promotes frictional resistance giving fuel to the heavy clutch operation debate. A correctly routed cable will wipe the smile off the face of any surreptitious squeezer!

SPEEDY CABLES

by Henry Morgan/LVV162

The Mews, St. Paul Street, Islington N1 7BU is the home of "Speedy Cables"(London) Limited, They can make virtually any cable to pattern. The postal service is very rapid. They also have an instrument repair department. Tele : 0207 226 9228

FITTING PANNIERS TO A LAVERDA MIRAGE 1174

from Martin Fargher. nr.

Some years ago I successfully fitted a pair of Krauser panniers to my Mirage and thoroughly recommend the system. There are the large pannier which I think were called the "de luxe" version. Attached to the bike is the resin-moulded carrier and pannier frame rather than the cast aluminium version which was also available at that time.

The fitting was quite easy and generally as shown in the Krauser instructions except that:

1 / the bottom support strut which fastens to the inside of the rear footrest mounting was reversed in direction so that the hub is at the forward end rather than at the rear.

2/ the top fixing was not gained from the top of the suspension unit but from the rear bolt of the underseat trim moulding via a small bracket that I made up from a flattened piece of 22mm copper tube bent to the correct shape—not actually as bad as it sounds and quite easy to make and install.

I did make the mistake of not providing locknuts on the rear cross strut support bolts which pass through the number plate. As a consequence the number plate soon fell off. The addition of locknuts rectified this problem.

For a tank bag I used a large, round soft bag which I fastened to the top of the tank using elastic clips. The tank was protected by a tank cover.

The carrier/panniers were used for four years until the bike was taken off the road for family reasons. It remains in position for future use.

KRAUSER MODS

by Henry Morgan

I have noticed a problem with the Krauser universal luggage frame brackets which brace the mounting frame transversely out of the rear mudguard and behind the number plate. The multi-slotted angle bracket eventually cracks in the elongated slot area and welding is only a stop-gap repair. Krauser have modified this component rather crudely in my opinion, but at least you can get them if you order from your dealer. The universal frames work well on my 180° Jota for continental trips and I have been generally quite impressed by the durability of the entire system over many thousands of miles. Like most spares for anything these days, the prices are shocking—I paid £22 for two brackets and two replacement lock keys!

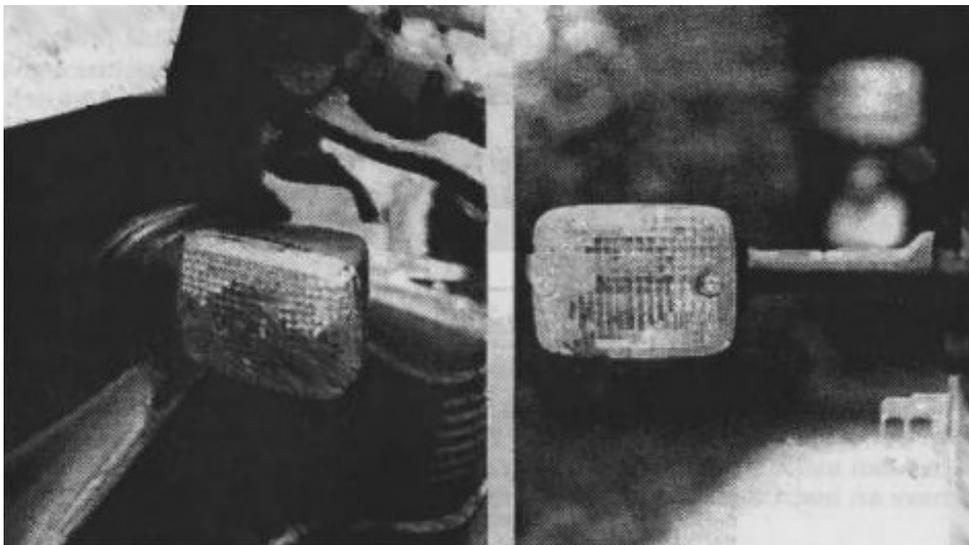
FLASH 'N' CARRY

by Steve Dixey/LVV75

After crunching an indicator whilst manoeuvring my RGA in the yard and having to fork out £27 for a new one, I set about looking for a set from another bike to replace them. The result is shown in the photos. They are pattern indicators for the earlier GPz 750/1000's and cost £7.50 for the front, £9.50 for the rear. I got them from a local 'sell anything' bike shop:-

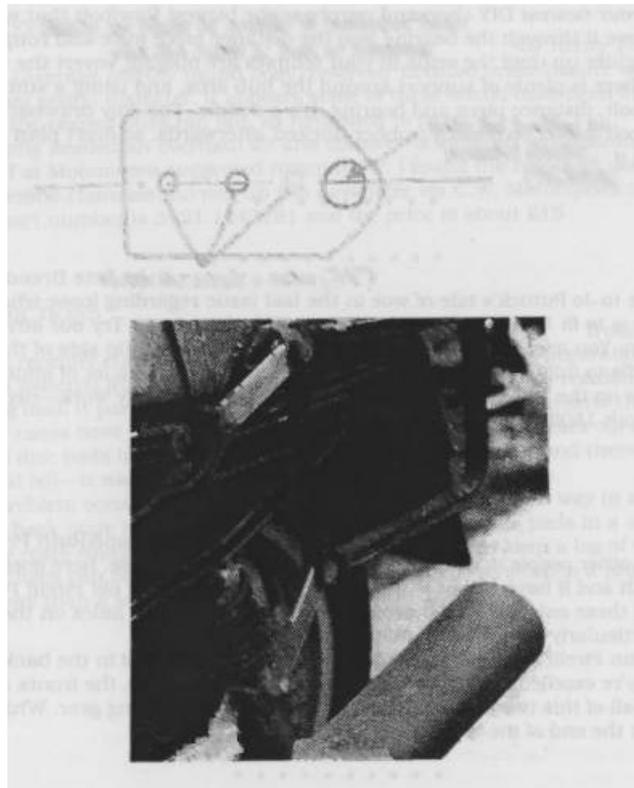
Rex Brown Motorcycles, 74 Mill Road, Cleethorpes. S. Humberside.

Phone : 01472690797



As you can see, the front ones fit and blend in fairly well. How they'll fit on the RGA Jota/RGS full fairings I don't know. The nose fairing brackets need slotting as the GPZ mounting studs are about 1/4" further apart. You'll also need some sort of crimp-on spade connectors. The rear indicators should be easy to fit to the back end provided you can get hold of some rubber washers. The stud is a 10mm metric fine thread, usually found on Jap bike footrests or engine mounts.

Also, some of you may like to know how to fit Krauser panniers to your bike. You will need the Universal fitting kit although I've made up my own (longer) stainless brackets. With the standard fittings, the panniers tend to make it awkward to use the pillion footrests. This is because the bends required effectively shorten the brackets and bring the panniers forward. The back end is standard Krauser. If you use the RGA/RGS indicators, you'll have to make up a mounting plate for them and then bolt it to the indicator mount on the pannier frame. (SEE DRAWING)



750 REAR WHEEL BEARING SIZES

Dave Williams

I thought I might bring to the attention of other club members an error which I found in Tim Parker's manual, concerning the bearings for the rear chain hub in 750s.

Tim quotes a 17 x 47 x 14 size (this is in fact a type 6303, which is correct for the rear WHEEL). Correct size for the chain HUB is 25 x 52 x 15 (type 6205—same as the upper steering head yoke) as I discovered to my expense when I bought the smaller size recently! Further inspection of the assembly shows that the chain hub bearing HAS to be bigger than that for the wheel)

A HANDY HINT FOR WHEEL BEARING REMOVAL **from Dave Laker**

I'm currently 'doing up' an SF3 and was wondering how to remove the wheel bearings with minimal damage to the wheel when the following came to mind—and it works. Go to your nearest DIY shop and purchase the biggest Rawlbolt that will fit in the inner race, shove it through the bearing into the distance piece (nice and rough in there), tighten the blighter up until the veins in your temples are bulging, invert the wheel making sure there is plenty of support around the hub area, and using a suitable drift, drive out the bolt, distance piece and bearing. It's a doddle. The only drawback to it is that the Rawlbolt is ever so slightly 'rubber ducked' afterwards, so don't plan on doing too much with it.

TIGHT NUTS **by Pete Brendon/LVV159**

Reference to Jo Puttick's tale of woe in the last issue regarding loose wheel spindle nuts, one cure is to fit Nyloc, Aerotite or similar self-locking nuts. Try our advertisers or Dave Middleton. You may need to skim a small amount off the plain side of the nut to allow the spindle to fully penetrate the locking medium. I've used a lot of stainless Nylocs in critical areas on the 3C—they cost a bit but look good and really work—necessary even on a silky smooth 180!!

TYRED OUT? **by Ian & Ruth Prior/LVV135**

I suspect other people may already know this, but just in case, here goes anyway. We (that is Ruth and I) have got an RGS and used to run the good old Pirelli Phantoms on it. Not only did these only last 4,000 miles on the back and 7,000 miles on the front, the backs were particularly bad at white-lining after only 2,500 miles.

We now run Pirelli Matches with 32psi in the front and 36psi in the back, and can report that they're excellent! The back tyres last 7,000 miles or so, the fronts around 12,000 miles—all of this two-up, mostly with panniers and camping gear. White-lining only appears at the end of the tyre's life.

NEW CHAIN FOR AN ANNIVERSARY **by Geoff Streeter**

I have obtained and fitted to my 1200 Anniversary a Regina full duplex final drive conversion. Only minor modifications are required to get it to fit, the first being two washers between the chaincase and its lug in order to space it to the right. The second modification involved taking a file to the tab which holds the gearbox sprocket in place. The gearing is very close indeed to the original and is not detectably different when riding (4000 rpm gives 70mph in top). It will be mid '81 before I know whether the conversion is a success in terms of chain wear, but for those who would also like to try an experimental conversion, you should contact Nigel Brand of Regina International on Windsor 51521. The price tends to fluctuate with the exchange rate—mine came out at £80 for both sprockets and chain.

SCOTTOILER

from Andy Robertshaw. IMOC

It was interesting to read Steve Ernst's experience with the Scottoilier—as I have used one for the last 3 years on my RGA Jota. I thought I'd add my bit. The tee that Steve had some trouble with was simply a case of fitting a nylon windscreen washer tee of appropriate size into the balance pipe between nearside and centre carbs. The oiler itself fits behind the nearside panel, zip-tied to the frame beneath the rear brake reservoir (not too tight, so you can remove it to fill up with oil—at last a good use for GTX!!). The oil supply tube is then zip-tied to the swinging arm brace thus taking it to the other side of the bike, and along the swinging arm to the sprocket feed. The breather pipe is then fed through the existing cable ties, under the lip of the tool tray. The oil supply lasts 1,000-1,500 miles (flow rate must be increased for wet weather)—I can't remember adjusting the chain between tyre changes; 4 sets since oiler fitted.

I think the main problem with chain life is that people underestimate the lubricant that an O-ring chain requires. The constant flow of oil supplied by the Scottollor not only cools the chain and guards against external corrosion, but it also cleans any grit off the moving surfaces by holding it in suspension and chucking it over the bits to which Steve referred. By the way Steve, if your back wheel ain't mucky, you need to turn the flow rate up a little.

BREMBO REPAIRS

by Henry Morgan/LVV162

Some Laverda's employ round body/reservoir Brembo brake master cylinders which have a 14mm piston diameter. It appears some of these would have been fitted when supplies of the correct ones ran out, as happened to mine.

I recently needed an overhaul kit and discovered difficulty in obtaining one until the helpful staff at Motomecca suggested trying BMW. I found the repair kit, long obsolete through Brembo channels, turned up two days later via C.W. Motorcycles of Dorchester. The BMW part number is 3421.1242791 and the price is about £15

AGEING FRICTIONS

from Henry Morgan

I have recently encountered a couple of unpleasant cases of separation of the brake pad friction material from the steel back plate on disc brakes. This resulted in the fretting of the lining until it parted company, allowing the steel plate to run onto the disc.

These cases have been on cars which appear to be about 4 years old and still have the original disc pads in service. In one case the mileage was low and there was plenty of pad material left—it was the unbonding which caused the problem.

The problem occurs over the years as the dampness finds its way in and corrosion of the steel back plate takes place. I have seen some bike brake pads in a similar state, particularly rears which may be used less. I think it's best to keep a log of changeover dates so a check can be kept on such things. Failure to observe such a problem could cost you more than a set of pads!

TIPS;

from Richard Kawucha, Loc.USA

Three years ago I was given a rusty, tired, dirty motorcycle that a friend of mine had bought new in 1969. I had heard of Laverda but had never seen one. He told me it was one of the first 750 Super Sports in the area. On top of that it was an American Eagle model.

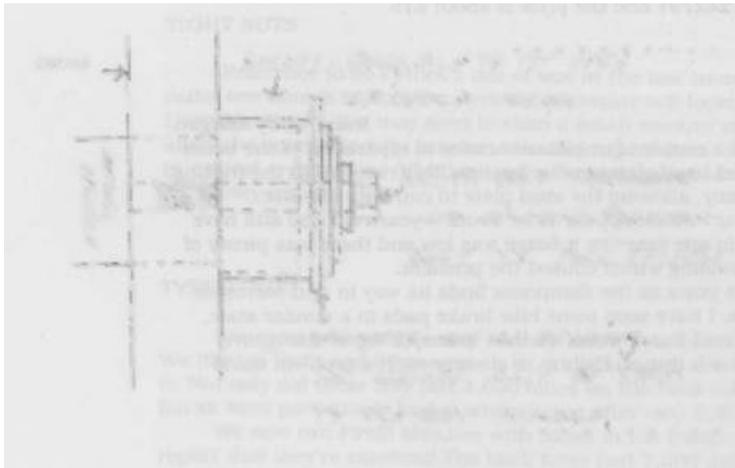
The first year was spent researching the bike and looking for parts. An article in a national motorcycle paper directed me to Roger Slater and he told me about the LOG in the USA.

The friend who gave me the bike used to work at a local bike shop that sold Laverda's. His old boss had recently died and the widow had taken all Laverda parts to her home. To cut a long story short, she sold me two large boxes of parts (seats, tanks) and to top it all, another motorcycle for \$500. This bike is also a 750—a GT American Eagle.

Tim Parker's Green Book shows that both bikes are quite unique. The GT was manufactured in 1968, frame Nr.1399. The SS was built in 1969, frame Nr.2584. At present the SS is being fully restored. As soon as I can I'll send a photo.

750 tips :-

For those bikes with the old-style Smiths instruments, if the rubber suspension ring has perished, use a hold-down rubber from an old Triumph. It's a perfect fit.



An emergency rocker spindle removal tool can be made by

1. Braze a number of washers together of different sizes until you have a tapered cone (Use the thickest available). Your top washer, the smallest, should accommodate a 6mm bolt.
2. Using various length sockets, it is possible to pull the spindle out. Work slowly and only pull it a little at a time.

Whilst slugging my way around Cadwell Park on the Velo day at the end of July, I was unfortunate enough to ground the domed nut under the engine's near side, severely fracturing the aluminium cover around the primary chain adjuster bolt and creating a picturesque Red Arrows-like display of white vapour whilst I finished the race.

This nut is done up firmly onto copper washers and a locking nut and stops any leakage of hot engine oil past the adjuster bolt, thus terminating any potential oil vapour trails. All very superfluous!! So, as stage one of speed preparation, take off domed nut (and throw as far away as possible). Cut about 1/4" off the over-long bolt. General consensus has it that (like the low compression pistons in my "Jota") my primary chain is stuffed and yet I still have a good inch under the locking nut unused. Drill a hole through the bolt and then cut a new groove so you can still use a screwdriver for adjustment. Now lock-wire the bare bolt to the frame tube under the engine.

If you've not read this, stiff cheddar. If you have and then don't follow my advice, you're nuts.

For the latter group of twits, read on—for one day, friends, you too will need a good, handy and cheap alloy welder. I can recommend:-

Don Briggs
Star Garage
East (West) Barkwith
nr. Wragby
Lincolnshire
Tele: 01673858326

TOOLING FOR A JOB

from LW133

If you are looking to have some parts made for your beloved Laverda. be it a simple front mudguard or simple side cover, but all routes lead to a blank response.....try the following company.

P.J. Tooling are specialists in plastic and diecast moulding, so if you need a part and think other members might also be struggling to find said item, this company will, for the right money, make the necessary tooling and then manufacture the part. This may not be as expensive as you think, for the more parts needed, the cheaper the cost.

Contact : Peter & Lynn Pope RJ.Tooling
Hassall Road Industrial Estate Skegness Lines. PE25 STB
Tele/fax : 01754 767818

DISC LOCK TOP TIP

by Ernie/LVV162

I have a new-ish 750S and had a brain wave where to store the disc lock when not in use. Simple solution—drill a hole the same size as the disc lock shaft in the rear mudguard just in front of the numberplate on the left side (stops oil from the chain covering it). When you want to sell the bike, plug the hole with a rubber grommet.

WHIZZO WHEEZES AND DEMON DODGES

from Mick Hart

CLEAN CASTINGS

Place one cupful of biological Washing powder (e.g.Ariel) in a small bowl. Add an eggcup full of washing up liquid and enough water to make a paste-like mixture. Use a paintbrush to apply this

onto all the rough cast engine casings (which should be cold). After 20 minutes, wash off thoroughly with a hosepipe—if you become lazy here your bike will be the focus of attention when it rains! If the front of the engine is badly stained, a stiff bristled brush can be used to work in the paste.

ACCELERATOR PUMPS

If twisting the throttle is not rewarded by a jet of petrol being squirted down the carburettor Venturis, bleeding may solve the problem. First, make sure the float bowls are full of petrol, then remove the petrol tank. On top of each carb, towards the rear of the body, is a triangular casting which contains the pump diaphragm. To one side of this is a large brass screw. Remove the screw using a well-fitting screwdriver and insert a 2ft length of clear plastic tube. Windscreen washer tubing used on cars gives a good air-tight fit. Suck on the tube until the petrol is drawn well up and is free of air bubbles. Then, quickly pull out the tube and replace the brass screw. Slacken the screw half a turn and open the throttle whilst watching for air bubbles around the screw. When just petrol appears, retighten the screw and then close the throttle. Now check the accelerator pump action and repeat the operation if necessary. If dirt has become lodged in any of the narrow carb jet drillings, a full strip-down and airline may be required.

FORK SEALS

A simple way to prevent early leaks is to wipe down the fork legs with a clean rag after each ride. This will remove any deposits which could otherwise ruin the seal lips. If a small chip appears on a fork leg, it can be smoothed down by careful use of 1200 grade wet and dry paper. Finish off with chrome polish in the usual way; this tip can also be used on rear damper rods.

LUBRICATING CABLES

Remove the cable(s) from the bike and suspend them vertically. Using Plasticene (or polythene sealed with insulating tape) make a funnel around the top end of the outer cable. Pour a small quantity of heavy oil such as EP90 into the funnel and leave until oil runs out from the other end. Remove funnel and refit cable(s).

IGNITION TRIGGERS

Late 180s, all 120s and 500s are fitted with variable gap triggers, the air gap setting is critical if smooth running is to be achieved. Varying and incorrect settings will alter ignition timing between cylinders as well as the overall timing figure. The triggers can be found behind the round cover on the primary chaincase, held by three Allen screws.

To check/adjust the gap, remove the cover and spark plugs—covering the plugholes with rag to prevent the inevitable from happening if you don't! Then, turn the crankshaft until the ignition rotor aligns with the trigger centrally. Measure the air gap carefully—it should be 0.010". If adjustment is required, slacken the two Allen screws—one on either side of the trigger body. Then by moving the trigger the gap can be corrected (it may be necessary to enlarge the screw holes on the trigger to achieve this—proceed with care). After tightening the two screws, recheck the gap in both planes i.e. from the side of the trigger and straight onto it. It is impossible to be too fussy over this. Repeat for the remaining triggers and then recheck all gaps again! Replace plugs and cover; then start the

engine and rediscover a tickover. Even bikes straight from the factory have been found incorrectly set.

Long-time Laverda owners will know a lot of these already.

Indicator heads and tail lights on the older 180's are the same as those fitted to Ducati, Moto Guzzi and Benelli which can often be easier to find than Laverda dealers.

Help ease the pain of Laverda clutches by using cables slightly longer than normal—Venhill did/do a 'high bar' cable. You can then have larger radius curves. Save a lot of hassle by taping a spare to the run of the one you are using.

Check under the rear mudguard (on 180's anyway) where wires loop to go up into the rear light. It's very common for the rear tyre to hit this, cutting through the insulation and eventually the wires themselves.

Use a copper crush washer on the sump plug. Either the 'O' ring type (smaller version of exhaust gasket) or the zigzag, type will do. They stop leaks by filling up the small gaps between sump plug and case and lessen the risk of stripping out the threads when doing up the plug. Don't re-use it'