



PANTS & BARKS

Jan 86



Journal of the HANTS & BERKS ROVER OWNERS

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CHAIRMAN'S COMMENTS

Last year, the Club attended the Bristol Classic Car Show (in March) and we hope to have a stand again this year. This time we hope to have no accidents. (Bam Bam wrecked the end of the Chairman's Rover!!).

This year we hope to have more volunteers to man the stand. Could be for one, or both days depending on the members involved. We also need two vehicles to put on display. If you can help, please ring Pete on 5194.

We hope to arrange a factory visit to **ASTON MARTIN**, and maybe a few other well known companies. The Aston visits take about 12 months to materialise (full details when we get them). These visits are during the week, and if you book then you must keep to it. This is very important.

Our Editor has given you details of the Treasure Hunt and we are having another on 26 January. We have had a challenge from the White Hart pub in Overton for February, so our reputation and Club honour are at stake. So let's have a big turn out. Bring along a friend to navigate.

Well, I'm off back to my Alka Seltzer, due to having too much "amber nectar". Hope to see you all soon (subject to hangover)!!

SECRETARY'S REPORT

There's no point in me starting this month with another reminder about renewing your membership, because if you haven't rejoined you won't have received this newsletter!! If a friend asks to read yours because his hasn't arrived, suggest to him that he sends off his £6 pronto.

Thank you all for returning your questionnaire. They are being examined and the committee will be planning future activities with them in mind. Talking of future activities, on 12 Feb. we will be having a video evening at the Hinds Head Aldermaston starting at 8 pm. We are planning a selection of films of motoring interest. Bring your friends.

Looking further ahead the Association of Rover Clubs National Rally is being held on 24 - 26 May (Spring Bank Holiday) at Eastnor Castle (south of Birmingham). For those who are not familiar with the ARC Nationals, it is a weekend long event, camping or caravanning (the organising club, this year the Midland ROC, can probably advise on other local accommodation) with a number of events ranging from a Concours to a camp safari, with an excellent social side. Having seen some of our saloons I know we could hold our own in the Concours and having seen our Land Rover drivers in action, I am sure we would not disgrace ourselves in the Road Trim Vehicle Trials, so make a note in your diary now (whilst its new) to both attend and enter something.

FREEWHEELING HUBS

Some of you may know that I recently had a problem with my hubs (that is, my Landie's hubs), and having sorted it out I thought, "this is what the newsletter is for, passing on info". Then I realised some of you may be wondering why I was removing my freewheel hubs, then again, some of you may not even know what I'm talking about at all, so back to basics.

On most models the Land Rover four wheel drive system involves permanent drive to the rear wheels and selectable drive to the front wheels. In normal running, on the road, only the rear wheels are driven. However, although they are not driven directly by the engine, the front drive train (propshaft, diff and driveshafts) are still revolving, driven by the front wheels. Freewheel hubs disconnect the wheels from the drive shafts, so prevent this.

They come in two forms, manual and automatic, and we will look first at manual hubs. To select the drive on these, a switch in the centre of the hub is revolved (either by hand or with a spanner, depending on the type) giving two positions "Free" and "Locked". These hubs have several advantages and disadvantages.

The first, and mainly quoted point, is improved fuel consumption. Obviously, turning all the front drive train,

especially the diff, takes quite a lot of power. I have yet to see any hard evidence, either through personal contact or in the off road press of how much fuel is saved. By the same score, some people claim an increase in performance. The next claim is a reduction in noise. This must depend on how noisy your diff is to start with, and to me, smacks at treading the symptoms rather than the cause. Finally, they reduce wear in the front drive train; with the cost of diffs, who could argue with that.

They do have their disadvantages though. Firstly, cost. At present, they cost about £35. Whether you get this back in fuel savings will depend on how you use it. On the steering the top swivels are lubricated by the splash of the universal joints spinning in the front hubs, which doesn't happen with freewheelers. This, I am sure, is one of the major causes of the stickiness/wander so common on Land Rovers. Certainly, my steering was transformed within 50 miles of removing mine. Of course, the instructions do tell you to lock the hubs from time to time to guard against this. It is necessary to lock the hubs before engaging four wheel drive. This wouldn't normally cause any concern but if you are caught out, it will mean dismounting, into whatever you've just got stuck in, to lock your hubs. Don't forget that low range automatically engages four wheel drive to spread the load so if you need to use low range in a hurry (say when pulling away uphill with a heavy trailer) you will again need to lock the hubs. Failure to do so could lead to the sort of bills at the back that you are trying to avoid at the front!!

Incidentally, what happens if you snap a rear half shaft on a slope whilst the hubs are "free"? Don't forget, its a transmission hand brake. It has happened to one of our members.

What about Automatic hubs?. These work rather like a bicycle free wheel, when the drive shaft is turning faster than the wheel they lock, but when the wheel speed exceeds the shaft's (ie in two wheel drive) they are free.

The advantages are obvious. No need to ever leave the driver's seat.

They do have their snags. The first, again, is cost. They are even more expensive, if still available. The other problems mainly revolve around not being able to over-ride them, and manually lock them. The biggest problem is that they do not lock on over-run, so trying to descend steep hills in the approved fashion, low range first, both feet glued to the floor, is done in two wheel drive. To lubricate the top swivels you will need to engage four wheel drive to get the U Js spinning. Of course, as on a hard road, the front wheels turn faster than the rear (if you do not understand the basics of Ackerman, I'm not going to explain it now, just believe me, if they didn't the 80" 4WD system wouldn't work) you will not actually be in 4WD, so shouldn't have any problems with transmission wind up. This also means that you need low range on the road you will remain in 2WD. A further problem is that in all normal running the front prop shaft will be stationary, making it impossible to engage four wheel drive, or low range (if you've mastered the gearbox) on the move.

I should point out at this stage, that the Automatic Hubs fitted to the Colt Shogun (whatever that is) work in a different way.

Now on to my problems. You may have guessed that I am no fan of auto hubs and decided to remove mine. First, what do you need? Most of the parts are obvious, but there are a couple of oddities so I will list them all, one of each per side :

Driving member and gasket
Oil seal (the little felt one)
Plain washer (to go between oilseal and retaining nut)
Split pin
Hub cap
Nut and tab washer for front hub (the big one)
Bolt and washer for fixing driving member to hub (the ones on the auto hubs are too long). (Forget what I said above, you need 6 per side).

Those of you who are familiar with hubs have probably spotted the unexpected item, the nut for the front hub. The one fitted with auto hubs have a collar with a key way that prevents the cage containing the rollers from moving, this sticks out and prevents the drive member from sitting flush against the hub. Unfortunately, I didn't realise this and assumed it was just a bit sticky on the flanges, and just needed pulling up the last one sixteenth on the bolts. How to shear two studs in one easy lesson (no, I'm not that stupid, the second one snapped in sympathy with the first).

I won't go into detail about how to do the job as it is pretty straightforward. If you wish to retain the hubs in a usable state, be sure that as you remove them the outside end is turned upwards, otherwise the two halves will separate, depositing little rollers everywhere.

SIMON AND SALLY

Last month, mention was made of Simon and Sally Slater who have gone East. Those wondering how they were managing to drive through Russia, wonder no more. They are travelling by that other civilised form of transport - the train through to Peking. In fact, their visas to China only came through two days before they left the U.K.

Also leaving the U.K. for a time is **Tim Gardener** of Aqua Rover fame!! He is travelling by landie (another one!) through North Africa. We hope to have an article from him when returns in the Spring.

(Is it something we said or did that is making people leave the U.K.?).

TREASURE HUNT

Pete was going to write this article, but as I was the one injured, I will write it from my point of view. Editor.

Having duly arrived at Overton for the start (10 am), I was amazed at how many saloons and Land Rovers turned up. Kathy (the typist) was going to navigate for me (help!) but as she was the only lady, she decided to scratch, so I navigated for Colin Gross.

At 10.15 am Roger Roger and Andy Pandy (will they ever speak to me again?) set off, to be followed shortly by me and Colin. It soon became very apparent that the "clues" were very "cryptic" and had to be followed to the letter. After the first set of clues had been followed we came to a junction. "Turn left" was the direction, which we did, only to find R.R. and A.P. coming the other way!! Thought, funny!! Well, there were cars going everywhere, but we soon found our way.

At one point we had to get a "code" from a phone box. Only trouble was a bloke was using the phone at the time, so the box was surrounded by LR's and people peering in (he looked a bit nervous). As soon as he came out, I pounced in, got the number and got back into the LR, shouting the number to AP "O594827" (which was wrong) but crafty old RR had also taken the number (swine). As we went further we became aware of what Pete was doing. (maybe for the 1st and last time, Ed). We arrived at a junction and the clue said "total mileage". Well, we added all the numbers on the signpost (back and front) only to turn round and see another signpost for 1½ miles. (one member put down his total car mileage 63,425!!). We then had a very funny clue "T.R. at the Walnut Terrace". How can PINK be called WALNUT?

Getting towards the end of the treasure hunt, the clue said "head towards the concrete bridge and T.L. for the picnic area". Pete drove in his car plotting the route, and could only see the second bridge.

(A L.R. is a lot higher), so when we saw the dreaded bridge - **NO WAY**. So, at the second bridge (Beacon Hill) and the clue was "Who resides at the top of the hill, and how long had he been there?". Colin and I could find no mention down at the picnic area, so we asked some old dear. "Oh, its Lord So and So", but that was no help so we started to climb the hill. Met a lady coming down: "Oh, yes, its Lord Caernarvon". "He died about 50 years ago". Still, no good. So we carried on, until at the top we found a barbed wire fence plus iron railings, so I climbed over, and peered at the plaque (eyes are not too good these days), shouts to Colin "It's Lord Caernarvon" "died 26th April 1923", so runs back down the hill (gasp, gasp), trips up, gashes leg, and bloodies trousers. This took about 30 mins, so back to the White Hart, at Overton at about 1.15 pm, meets RR and AP in the bar with Pete. After some discussion we asked Pete "Do you know who is at the top of the hill?". "No" says Pete. "I didn't go up there. I thought if all the answers were the same then it must be right". **WALLY**.

The treasure hunt, according to Pete "will take about 1½ hours, and is about 25 miles". Reality: - over 2½ hours and at least 40 miles (double wally).

We all enjoyed the treasure hunt even if I did tear my trousers and impale my knee on the barbed wire (not to mention Colin's near heart attack after climbing the hill), and as you will see in the Events list, we will be doing it again on the 26th Jan. So, let's have lots more people this time (non-members welcome). One last passing comment - one of the cars had Wife driving - Hubby navigating!! They started off speaking to each other, but after 55 miles they abandoned the hunt at Micheldever Station (about 10 miles from the start) and came back at 2.30 pm, definitely NOT SPEAKING. **Moral of the story; choose your navigator carefully.**

Only Pete could achieve this without even trying, but a very enjoyable time was had by all. Here's to the next treasure hunt, which is being arranged by RR and AP.

ROGER'S REBUILD

Well, the gearbox is now rebuilt, replaced in the Landy - it also works (correctly). One small hiccup was that on testing it in the Landy, I was unable to select high ratio. O.K. in low ratio but no high. A little worrying as there had been no problems when bench tested. Had I missed out an important part, and had when lifting the gearbox into the Landy allowed untoward movement? External examination indicated that everything appeared to be in the correct place with reference to the photographs and diagrams in workshop and parts manuals. In fact, the answer was that everything shouldn't have been in the correct position! Because, I had a non-standard fitting on the Landy - a heater! This was preventing the high/low selector lever from moving right forward. By moving the mounting bracket to the other side of the clutch housing all was well!

On the way to get an MOT test for the Landy, I discovered that the "horn was gorn". Parked in a layby a number of people were wondering why I was attacking the back of the steering wheel I had taken off! I get it working and also got an MOT, the only comment being that the rear shock absorber bushes were beginning to wear. I think that they start to look worn after about 5 miles from new.

Roger Pattie.

EDITOR'S EPISTLE

You will have noticed our new format (if not, go and get your Dec. newsletter). A lot of work and words, have gone into doing this, and first and foremost we must thank EQUIPU for arranging all the photocopying at no cost to us. We only have to buy the paper, and for this they have a full page advert on our back page, many thanks EQUIPU.

Again I am asking for more articles for the newsletter. We seem to have more "off road" rebuilds than saloon (maybe we don't break down!!). We all know that Pete is in the process of doing Roaring Rat (I have two write ups to print Ed) and my car (the black PIG) is having the middle bit done so lets hear from you all (or maybe one or two!!).

A Winter Tip : with all the windscreen sprays, road grit and salt and general yuk around, windscreens and in fact all car windows can get rather gunged up. A quick and easy (and cheap) method of cleaning is to use a handful of muddy clay (preferably one with not too many stones in it. You'll find that it cleans the glass up and can be washed off very easily. O.K. It's now on the body of the car, but at least your vision is not impaired. It is a little known fact that the army uses this method and collects and packages (under part FZ L35A1 = 0 for OE) "windscreen cleaner" from their property in Bovington in Dorset.

MEMBERSHIP CARDS

To keep costs down, membership cards will not normally be sent separately. They will be sent with your newsletter at the first opportunity. If you renew your membership in the latter half of the month, you will probably have to wait until the subsequent newsletter.

NEWSLETTERS

There have been a number of instances when newsletters have been seriously delayed in the post. If you are one of those members who have experienced delays, let Howard know, but keep the envelope (with its postmark) and make a note of when you received it. Also, if you have been missing out on newsletters (presumably your membership has been renewed! and we have your present address) then let Howard know.

CHRISTMAS DINNER

We all had a smashing time at the DOVE, Micheldever. Really good meal, in very pleasant decor and nice and HOT. It was agreed by everyone there that this will be the venue for next year's dinner.

Things to note for next year's dinner :

Hugh Glossop will wear a new jersey,
Roger Pattie will leave early enough to catch his train,
Will Ian Stewart be Wally of the Year again?

THE SAGA OF LANDIE Q941FLD

by Colin Gross.

PART TWO

As you may remember from last month, the task I had set myself was relatively simple. Rebuild the engine and gearbox, fix the steering, weld up the bulkhead, and seal the leaky roof. With the date for the start fixed as August 4th I spent several days prior to this in trying to find an engineering works to do the rebore etc. Unfortunately for every recommendation there were other stories of problems. Also the average price for reboring, regrinding the crank, and supplying pistons, rings, valves, etc was in the order of two hundred and fifty pounds. On top of this there was still the oil pump to refurbish and sundrie other parts to replace. Whilst discussing which company to use with my local parts supplier (E.V.E. components in Iver) they pointed out that they would supply a full rebuilt exchange engine for only three hundred and fifty pounds. Since time was short, and the cost penalty was not too great, I finally decided to buy the engine from them. I also purchased both the official Landrover repair manual and the two Haynes manuals covering the diesel and petrol vehicles. Investment in both Haynes manuals was justified several times during the rebuild since they contain different photographs in each book and ideally complement the official manual.

Thus arrived August the 4th. Things did not go well from the start. The engine hoist crane that I had hired for the day arrived late, but the torrential downpour was right on time. Working outside with my father to help, and wearing plastic rubbish sacks to keep off some of the rain, we quickly had the engine ready for removal. The worst task had been laying under the oily Niagara which rushed through the open engine bay to remove the clutch housing and engine mounting bolts. With the aid of the hoist the engine was

easily removed and placed on a cradle built from chipboard and blocks of 3 by 2. With the cradle supported on lengths of broom handle it was then possible to roll the engine around the garage even after the hoist had been returned. The gearbox was also extracted relatively easily once the floor, seat base, and passenger door had been removed. The only other difficult task that day was to push the landie about 300 yards from the back to the front of the house.

The next day was spent in stripping and cleaning the engine and gearbox ready for exchange. It now became obvious that the starter and alternator were also badly in need of repair. The following day the engine was collected using a friends company Transit van and we realised just how heavy it was when the two of us had to unload it by hand. Luckily E.V.E. did not want my old engine in exchange, so at least we only had to lift one engine. On examination of the engine I decided that my original camshaft and distributor drive gear were in better condition than the new ones and so these were swapped. Since this required the removal of the head and timing system the new engine was virtually dismantled, enabling me to check the condition of the engine's internals. Thankfully the reconditioning work had been properly carried out, and I had probably been over critical of the camshaft drive gears. This 'new' engine was then reassembled and completed by the addition of replacement starter and alternator plus the other refurbished ancillaries. In practice following the workshop manuals gave rise to no problems during the engine rebuild.

After dismantling the gearbox into it's three main units it was found that the oil leak was caused by the bearing housing in the rear of the main gearbox rotating in the gearbox casing. With the exception of the mainshaft and synchro assemblies that appeared to be in good condition, the gearbox assemblies were completely dismantled, cleaned, and reassembled. The faulty bearing housing was assembled into the casing using Loctite Bearing Fit, and to date the repair has proved satisfactory.

With the engineering out of the way I started to clean up what little rust was present on the chassis. This was when disaster struck. Whilst cleaning the main chassis leg behind the offside rear wheel I made a small hole. Within the hour I had riddled the chassis with holes. The problem was caused by the chassis having rusted (and delaminated into layers like cardboard) from the inside of the box members. From the outside all looked, and sounded if tapped, well. It had even fooled all my friends who had given it a very close inspection. However the chassis was now considered not worth repairing by my local welder, since the rot was so widespread.

Thus I found myself with a good engine, gearbox, and body, but no chassis to hold them together. At this point despair set in.

Next month..... Chassis building for beginners.

LATE NEWS

Grovelling voice on phone : "I've got a problem. Could you come down with plug spanner and jump leads". So, we open our daughter's Christmas present which is a car aerial and jump leads, and armed with these I arrive at the Falcon Garage to find Pete sitting in his P6 all fed up. "Won't go" says he. So, little me gets under the bonnet (being small has its advantages), out with plugs, you could grow spuds on the electrodes, looks at points "Blimey, Pete, you aint got a gap". Pete says "Well, I was going to give it a service". (Isn't it funny how tall people shrink when they are found to be a **WALLY!!**). Goes to adjust gap, and the cam has about 1/8th of side play. "Yes, it is a bit worn" says Pete. Well! to cut a long story short, we get the car going with a 5 thou gap, but seriously, what are mates for, if not to get you out of the mire!!

EVENTS

Jan. 9 - 12 : **RACING CAR SHOW**

This is at Alexandra Palace, Wood Green, London. Anyone interested in going in a party on the 11th or 12th, contact **PETE** on Tadley 5194

Display of Ancient and Modern racing cars plus many trade stands.

26th Jan. : **GRAND TREASURE HUNT (SUNDAY)**

Meet opposite "Wheelgame" in Tadley at 10 am. Finish will be at Hinds Head for usual meeting.

12th Feb. : Video night, Land Rovers and various muddy films.

~~26~~²³th Feb. : **Treasure Hunt Challenge**

White Hart at Overton have challenged us (no chance!!). Assemble at the Community Car Park (opposite White Hart) at 10.15 am for 10.30 am start.

22-23 March : **BRISTOL CLASSIC CAR SHOW**

This is the first major event of the year.

NEXT CLUB MEETINGS

8th Jan. Wed. : Hinds Head
22nd Jan. Wed. : Hampshire Bowman
26th Jan. Sun. : Hinds Head

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