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PO Box 36055, 1318 Wellington Street, Ottawa, Ontario, CANADA KIY 4V3

#### **General Information**

**Ottawa Valley Land Rovers** is the oldest and largest Land Rover club in Canada. Membership is open to all Land Rover enthusiasts. Executive meetings are held on the first Monday of every month. Social meetings are held on the third Monday of every month, generally at the Prescott Hotel on Preston Street.

**OVLR** offers a monthly newsletter and a variety of activities throughout the year, from mechanical seminars and off-road rallies to social events and family oriented outings. Members receive discounts on parts from a number of North American suppliers. Off-road activities come in several categories. The light version, which is usually entertainment during a rally or at one of our family summer events, consists of a little "mud bogging" or tours along country lanes. The heavy stuff, which is usually several days across public lands navigating by compass, topographical maps and aerial photos, involves bridge building, river barging, and driving conditions ranging from cedar swamp to rocky hill winching.

**Membership:** Canadians joining throughout the year pay CD\$30 per year, Americans and others pay US\$25 per year. membership is valid for one year.

#### The Ottawa Valley Land Rovers Newsletter

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is published twelve times per year for club members. The editor welcomes submissions of text and photographs for publication.

**Submissions:** Articles may be submitted to the Editor, Dixon Kenner (dkenner@fourfold.org) or via post, to the club address. Photographs should be sent directly to Spencer Norcross at 1631 N. Barton Street, Arlington, VA 22201, USA. Please include captions and a return address with photographs.

**Deadlines:** Submissions to the OVLR Newsletter must be received by the first of every month for inclusion in that month's newsletter. All items submitted for publication should be legible and signed. Names maybe withheld at the request of the writer. This is your newsletter. If you wish to write anything, we welcome your input of any kind.

**Editorial Policy:** The Editor of the OVLR newsletter reserves the right to edit any submitted material for space and content considerations. Articles, statements, and opinions appearing in the OVLR newsletter do not necessarily reflect the position of the officers, board of directors, members of the OVLR, or its sponsors or advertisers. Where specific data regarding operation, safety, repairs, or legislation are concerned you are advised to obtain independent verification. The Club, officers, and contributors can accept no responsibility for the result of errors or omissions given in this newsletter or by any other means.

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## The OVLR Newsletter

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OVLR Radio Frequencies:

VHF: 146.520 CB Radio: Channel 1 FRS: Channel 1 sub 5 Shortwave: 14.160Mhz More details regarding Land Rover events can be found at: http://www.ovlr.org/Events.other.html

> Land-Rover FAQ: http://www.lrfaq.org/ OVLR/Land Rover HAM: 14.160Mhz @ 01:00GMT Tuesdays

## Greetings;

Well, December saw the seventeenth Chrismas Party. Like last year, this was held at the Hungarian Community Centre in southern Ottawa. About fifty eight people attended for a traditional Christmas dinner of turkey and the trimmings. Beating out Roy Baillie this year on the eating from was Ted Rose. Christine Rose had a new selection of OVLR clothing to tempt people with.

Ted Rose set up this year's round of challenging "Feelie Meelie" boxes whereby you have to guess the parts inside the boxes. Not as easy as you might think as you will later read. Murray Jackson continued his tradition of designing a Christmas crossword just for the ladies. To ensure that any male help would be somewhat useless, more obscure (to the generally clueless spouse) clues were put in dealing with various non-automotive related issues. Movie stars, romantic singers and such I understand

Our out of town visitting contingent was about the same this year. The greatest distance travelled goes to Mr. Szpilfogel from Halifax, Nova Scotia. Bruce Fowler came over from Maine, and Jeff Berg & Amiee Ingram from Connecticutt. Les Parker and several other Rovers North staff members came up for the festivities from Vermont came up from Rovers North.

While there was no auction this year, the numerous items donated by Rovers North, Atlantic British, Land Rover Enthusiast and others were either raffled off or used as prizes for some of the various competitions at the party. This year's gift to members who attended the Christmas Party were some neat clear glass coffee mugs with the OVLR logo etched on the side. These mugs will also hold a standard Canadian pint bottle of beer. These mugs are available from the club. Drop a line to Dave Meadows or Christine Rose for details.

#### AWARDS:

#### LUGNUT AWARD:

#### Kevin Newell

Keven finally finished a long anticipated rebuild of a Series III this year. With very detailed finishing touches, excellent paint and interior, care was obviously taken with all of the creature comforts of this vehicle. However, in the areas that are less visitted by human hand or eye, such attention faltered on several aspects. Ancient hydraulics, used clutch parts necessitated the removal of floors and seatbox several times as one gearbox grenaded, the clutch needed to be replaced, and lastly, another very questionable gearbox being inserted into the vehicle.

## I'M HAVING A BAD WEEKEND THIS DAY AWARD:

#### Gordon Bernius.

A one time award for someone who demonstrated that not only can something go wrong, but they can go wrong in a quick succession, and that escaping harmlessly from one doesn't mean that fate isn't still riding on your shoulder in a very playful mood! One of the Calabogie romps started off quietly. However, while convoying out to Calabogie on the highway, Gordon's hood blew up, obscuring his vision. As he slowed, a gust of wind came by and it came crashing down. It seems that Gordon forgot to use the latches as never used them before. His spare tire always weighed the bonnet down. No problem. They all started up again. Five hundred yards later, they all stopped again. The vehicle had died and would not start. A little searching and it was discovered that Gordon's under-bonnet mounted horn had chopped the fuel line in half when it crashed down again. It was repaired and off they went.

Fast forward to Lanark. The convoy stopped to fill up with gas for the weekend journey. Gordon fills the smallest container anyone had ever seen. It was the size of a purse.

On the trail, they come to a stop to rest for a moment. Gordon turns the vehicle off. Upon the signal to leave, his engine will not start. An investigation reveals a rather dodgy battery. Gordon knew it was bad, but was preparing to replace it next week. A boost, and Gordon was off, though he couldn't turn his Land Rover off without getting another boost.

A little later, his Land Rover grinds to a halt on the trail. Engine wn't fire. Boosting it won't help. It is quickly determined that he has run out of fuel. Why? Well, one gas tank leaks, so there is never any gas in it. The other tank has a broken fuel gauge, so he never knows how much is in there. After adding his purse full of fuel, another five gallons were dumped in to keep him going.

A little later (yes!), Martin Rothman sinks his Land Rover in a swamp. Peter Gaby goes to pull him back, but can't get enough purchase to pull him out. So Gordon comes up behind and ropes onto Peter. It was on a bit of a hill. Remember, Gordon can't turn the engine off. Gordon remembers after his Rover has rolled down the hill and into the back of Peter's Toyota that the emer-

This Month's Cover:



## in the next month or so...

| January 8     | Executive Meeting.<br>Telephone Andrew Finlayson for<br>the time and location. |
|---------------|--|
| January 15    | <b>Social at the Prescott</b> ,<br>Preston Street, Ottawa                      |
| January 17    | Annual General Meeting<br>(See newsletter for details)                         |
| February TBA: | The Winter Romp, Unity Maine   |
| February 5    | Executive Meeting  |

## future events:

| (Dates & times subject to change) |                         |
|-----------------------------------|-------------------------|
| February 19                       | Social at the Prescott, |
|                                   | Preston Street, Ottawa  |
| March 5th                         | Executive Meeting       |

April The Maple Syrup Rally

gency brake didn't work as well.

March 19

Happily for Gordon, the rest of the weekend was pretty uneventful!

Social at the Prescott,

Preston Street, Ottawa

#### TOWBALL AWARD:

#### Christian Szpilfogel.

Normally this award goes to someone like Ben Smith, who is towing 101's all over the countryside, or Quintin towing his 80 inch up and down the eastern seaboard. Eric Zipkin is another regular, especially since he added his Air-mobile option to his ZippyTow operation. However, this year someone who is in the habit of towing Land Rovers to and from events had some problems. Problem that should not have occurred.

Upon leaving the Birthday Party this past year, Christian managed to get stuck in his OneTen while towing his Series III. Not only stuck in a flat field, but he managed to jack-knift this little train so well and the towbar was under the OneTen. To heap more embarrassment upon a situation that was rapidly going down hill, he had to have Francois Juneau tow him out with his Unimog. We note, while towing vehicles, Christian has a habit of running out of gas, running out of oil, et cetera...

#### GASKET UNDER GLASS:

#### Francois Juneau.

Poor Francois. He richly deserved this award which takes the motto "We can't believe it actually ran". Not only this year, but for the past couple of years Francois has been studiously avoiding the fates that are clearly telling him that he really should get that 80 inch that he has always wanted. His poor Unimog makes it out to lots of events. The problem is, it rarely makes it home on its own. Recently returning on the end of a hook, or tow rope, has become more common, the latest adventure resulting in the requirement for another motor. For an award that originally had an air of something to be avoided, the Gasket Under Glass award is so striking that it has become one that people are actually competing for. Jeff Berg was extremely reluctant to give it up, and in fact loudly pronounced his intention to try and win it back next year! We expect he will have competition from many, including Francois who has now taken a liking to it!

#### SILVER SWIVEL BALL:

#### Peter Gaby.

Exemplifying members who don't mind getting dirty, do not complain, are always around to lend a hand when help is required, Peter Gaby came through this year with his help around the events. Grilling chicken to eleven at night, being up at the crack of dawn to help clean up, always having a good story to tell, Peter demonstrated how much members can help out to make our events the best possible.

#### PERSEVERENCE AWARD:

#### Ted Rose & Andrew Finlayson.

An award handed out by the previous years recipient to a deserving person(s) for perservering with their Land Rover. This year, Dave Meadow's bestowed the award on both Andrew Finlayson and Ted Rose for providing advice to people, coming over to help people and fix what they have fixed, always keeping a straight face throughout it all.

#### AQUAROVER AWARD:

#### Keith Elliot & Christine Rose.

A new award inspired by the Junkyard Wars episode where they have to build an amphibious vehicle. The winning team modifies a junked Series Land Rover so that it floats and will cross a small lake. This year, we

4

looked around at the various people who have attempted the same feat, though without many of the floating-type modifications that are usually required to help something like a Land Rover actually float. Several candidates came to mind, but Keith Elliot, as shown on the cover of the October newsletter, managed to make the most efficient attempt at an amphibious Rover. Honourable mention goes to Dale Desprey & Madeleine

#### AWARD OF TECHNOLOGICAL ACHIEVEMENT:

Merry Christmas and Happy Holidays from OVLR Photo: Lori Sickley

#### Martin Rothman

A new award to recognise technical research and development within the club. This award is given to the member, who during the last calendar year best exemplified the Land Rover spirit of pioneering technical development.

Martin, already a pioneer in other areas picked as this year's project one that has baffled and frustrated Land Rover service engineers and owners

for decades. How exactly do you remove that thick, waxy (a heavy cosmolene protective coating applied to some OME parts) stuff that you find bearings coated in?

Having exhausted all of the standard cleaning procedures such as Mineral Spirits, Lacquer Thinners, Gasoline & finding them all to consuming in time, our ever efficient Mr. Roffman then decided to go at the problem from another direction.

Eschewing such tried and true methods such as mineral spirits, gasoline, turpentine, parafin, kerosene and many other chemical compounds, Martin decided it was time to think outside the box. Try something new. Something less messy and time consuming. Approach the problem from another direction. A method that should be a lot cleaner, leaving no messy residue that you need to clean up later.

Now, if the Cosmoleane is wax like in nature, then maybe it will melt off with the application of heat. So, Martin decided to experiment with heat. Now, not your normal kind of heat. Using the



Joh Humphries after dinner at the Birthday Party Photo: Lori Sickley

wife's hair dryer is out. She wouldn't like the competition for a favoured appliance. So, Martin looked about and spied his trusty propane torch. As an instrument of destruction, it was invaluable helping to remove stuck nuts and bolts, various seized articles. If it was so useful there, applying the same concentrated energy on lead bearing coated with cosmoline would surely make the waxy like stuff just melt away.

After a number of experiments Martin is pleased to report of great success with the system on Engine Blocks, Leaf Springs & Boat Anchors, but warns us the process is less than perfect on items such as Lead Big-End bearing shells.

He believes that further development work will be required in the regulation of heat for the system to be reliable in all areas. In order to congratulate him for his efforts to date & to encourage him to continue this valuable work in the future, we are proud to make this award

to Mr. Martin Rothman & look forward to hearing more of this exciting work as it develops.

#### **APPRECIATION AWARD:** MIKE ROOTH

For many years now, readers of the newsletter have

been fascinated by the writing of Mike Rooth. His articles, and the Friday Stories, are always there, they tell an interesting story about the various trials and tribulations of Land Rover ownership, or just life in general. However, Mike has never managed to get over to Canada for an event, so as a token of appreciation, the Club is sending over a package of OVLR stuff for Mike.

#### AWARDS THAT GOT AWAY:

A summary of some stories that we heard at the Christmas Party after the awards above had been given away...

Niall Forbes. Seems there was a judder whilst driving his Land Rover. Some sort of vibration in the front end. "Oh, must be mud on the tires throwing the balance off" though Niall. So he sped up to try and knock it off. It seemed to work, sort of ... Well, as he was driving down the main road, the vibration was getting worse, but he was almost to the diner. Finally he had to pull over, something was definitly wrong. Got out to look and to his astonishment he saw that all the lug nuts but one were missing on the drivers front wheel. The one remaining nut was on by about two threads!! He walked to the diner and told his sorry tale. Gerald Rudderman happened to have a box of brand new SII lug nuts in his Disco that he very generously gave to me. Borrowed a jack, then a wheel wrench (can you tell how well prepared Niall was(!) and put the wheel back on. Returning to the diner he ordered breakfast. From the table in the corner where Jeff Berg and Bruce Fowler were sitting he heard "Hey Niall, are you an OVLR member? We think you should join ... "

Bruce Fowler: Seems his trusty 109 lunched on a valve one Monday afternoon, so he spent the evening lapping in a used one. Our sources indicate that it seems to be ok as he has regaped everything and hopes for the best. However, Bruce has now used the same manifold gasket three times this year. We are not sure if he has actually replaced anything before the gasket blows.

## CHRISTMAS PARTY AFTERMATH: **Competitions and Sponsors**

Murray Jackson has been creating crossword puzzles for the newsletter and the Christmas Party for several years now.

Annual Crossword Puzzle Competition sponsored by Rovers North. This year there was a tie amongst the top four participants. Sharing first place, Ted Rose and Richard Wegner each received US\$100 gift certificates from Rovers North for having perfect scores! Coming up right behind sharing second place, Andrew Finlayson and John Parsons each received US\$50 gift certificates for having only one wrong answer.

At the Christmas Party, Murray makes a specialised crossword puzzle just for the ladies, which they complete in the course of the evening. This year, three ladies tied with perfect scores. With a time tested tie breaking system the results of the competition were: 1st - Amiee Ingram, 2nd -Madeleine Leclerc, 3rd - Nancy Barrett.

Every Christmas Party there is a series of challenges whereby the participant tried to determine various Land Rover parts. Originally a

single box of various parts, the popularity of the competiton has grown to such an extent where there are now six parts. This year a new rule was added. You can only win one of the parts. Winning multiple rounds will gain you just the highest level of the Easy through Extreme, or Seelie Meelie. For the Feelie Meelie, where you identify the parts in a box, through a black, plastic garbage bag, the winners were:

Easy: Winner - Harold Friese. Items: Door handle (RR/Disco); Coil lead (not a spark plug lead); horn; cigarette lighter (RR/Disco/Def); wheel nut (RR/Disco/Def); Series LR nameplate

Medium: Winner - Charlie Speedie. Items: Tailgate hasp (Series); hub cap (Series); Marker light (modern); rear window lock (Series); wheel cylinder piston; oil pressure switch.

Expert: Winner - Roy Parsons. Items: Release bearing collar (Late IIA/III); SI brake/choke switch; Bulkhead throttlelink support; main nut from IIA/III steering box; Swivel top pin (IIA); Starter pinion drive sleeve. Extreme: Winner - Les Parker. Items: Series II rear main seal; SI/107 rear wheel cylinder; SI 80" engine mount; Late IIA/III reverse light; Inertia switch; SII/IIA/III softtop door channel corner.

Seelie Meelie: (identify what these parts are. You can look, pick up, examine) Winner: Dixon Kenner. Items: Disco Glovebox latch; Late IIA/III reverse light switch; SIII clutch remote bleeder support; 1600cc centre exhaust manifold clamp.

"Does not Belong": Five items where one of the five does not belong with the others. Winners - Bruce



Shine a light on OVLR... Photo: Lori Sickley

Ricker, Dale Desprey & Fred Barret. Items: Four of the five items were Zenith carb parts. The fifth part was from a Solex carb.

This year's contest had an assortment of Series and modern parts, so our members with the newer vehicles wouldn't feel left out. However, despite the mix, there were some notable parts that stumped most people. The coil wire was thought to be a spark plug wire by many. Most people could not identify the marker light. Many people participated in the feelie meelie contests this year.

#### **SPONSORS:**

Rovers North

Atlantic British

Sunoco

Jeff Berg

Land Rover Enthusiast

For organising and helping with the seventeenth Christmas Party:

Christine Rose, Dave Meadows, Andrew Finlayson, Ted Rose, Peter Gaby,

Martin Rothman, the Hungarian Community Centre



#### HELP THROUGHOUT THE YEAR:

Christine Rose for organising all of the major events Dave Meadows for handling all of the paperwork and monies

Ted Rose for organising off-road romps

Dixon Kenner & Spencer Norcross for the newsletter



Andrew Finlayson hitches a ride from Ted Rose Photo: Roy Parsons

Fred Joyce, Murray Jackson, Bruce Ricker, Andrew Finlayson, assisted by

Sean McGuire and Roy Parsons for acting as the core stuffing crew for the newsletter. Rob Ferguson who has taken over duties as chief label, renewal notice, and membership card producer.

The following firms or individuals supported OVLR during 2000 at either the Birthday Party (BP), Christmas Party (CP), or at other events:

Atlantic British Parts (Mechanicsville, New York) BP,CP

DAP Enterprises (Massachussets) CP Great Basin Rovers (Utah) BP Rovers North (Westford Vermont) BP, CP Wise Owl (Vancouver, British Columbia) BP

Land Rover North America (Lanhan, Maryland) BP

MiniMan (Stittsville, Ontario) BP

Rescue 42 (Chico, California) BP

Simpler Thyme (LR shaped soap & biscuits) BP

Sunoco (Toronto, Ontario) BP, CP

WARN Industries (Toronto, Ontario) BP

Land Rover Owner Bookshop (Oshawa, Ontario) BP

Land Rover Enthusiast (Oshawa, Ontario) CP

Canadian 4x4 magazine, (Vancouver, British Columbia) BP

Jeff Berg, Trevor Easton, Louise Hamilton, Bill O'Hara, Jared Shilbersher, Lori Sickley, and Andrew Thorpe all donated goods to the club at the Birthday Party or Christmas Party

Space for events: Kanata Collision provided space for the Oiler, the Deacon's allowed us use of their land for the Birthday Party, MiniMan allowed us use of their facilities for the Tune-up, the Fairhead's allowed us use of their land for the Maple Syrup Rally, and the Royal Canadian Legion (Kanata) for providing space for the Annual General Meeting.

#### THE ANNUAL GENERAL MEETING

The next major event of note is the Annual General Meeting. As it has been traditionally held on the darkest, coldest night of the year, we have decided to tempt fate and move it off a week. Our predictions say that the third Wednesday of January, namely the seventeenth will be the day.

The AGM will be held at the Royal Canadian Legion (Kanata). This is the same placewe have used for past three years. The RCL is located off of March Road at 70 Hines Road. Their telephone number is 591-5570 if lost.

The Annual General Meeting is where the membership can attend and comment, make motions, vote on



Andrew Finlayson and what looks like his dry cleaning on the Labour Day offroad. Photo: Roy Parsons

issues affecting the club, and help determine the direction the club will take over the next calendar year. Discussion and approval of a timetable of events for the year. Votes for the 2001 Executive will be accepted by Murray Jackson up until the beginning of the meeting.

Agenda:

1. Reading and approval of the minutes of the 1999 Annual General

- Meeting
- Reports:
- 2. President
- 3. Events Co-ordinator
- 4. Off-Road Co-ordinator
- 5. Executive Member-at-large
- 6. Secretary-Treasurer
- 7. Auditor
- 8. Newsletter Editor

9. Returning Officer 10. Association of North American Rover Clubs (ANARC) Bar Break New Business 11. 2000 Events a)Maple Syrup Rally b)Tune-up c)Birthday Party d)Off-Road Events e)Frame Oiler f)Christmas Party 12. Appointment of Auditor 13. Appointment of Returning Officer 14. Business from the floor Motion to Adjourn

# other News, Rebuilds/Projects, Lies, Rumours, Trivia

From the editor: Late breaking news: Bloody Nora is proposed for the scrapheap. Recently Mike Rooth totaled the gearbox in the poor old girl, and between that and chassis problems and the like he is considering the fact he needs to replace the old girl. More sadly, it's looking like the replacement is going to be

Eurotin rather than a Rover - Mike's longing for a bit of creature comfort and now that he has the leisure to travel wants to be able to do so. Ring the bells and intone the rituals, for a gallant Rover may have lost its battle. Sadly Mike is not on the Internet right now, but we shall be pushing for Nora to be saved!

A note from Roy Parsons: A few weeks ago I was stripping the paint off my ex-military 109". What a job that was! While doing the rear box what did I find but bondo, filling two shallow dents. I am the first civilian owner; "Land Rover - professionally maintained, low miliage, one owner - The British Army". So I suspect the damage and repair was done by Land ROver. I've heard of other makers like Chrysler and BMW doing the same. Damage in transit etc. - repair and sell as new. The only panel straightening I've seen performed by the military involved the use of a hammer and screwdriver, not bondo. The dents were too shallow for the Army to bother swinging a hammer for. They would just wait for the dents to fill with mud and top coat.

A note from Dave Bobeck: Well... Bill Rice was here recently. Many beverages were consumed and much Rover and other related discussion took place. Bill will soon be moving from GA to Fort Collins CO. I got to drive Mrs. Merdle, to see if I liked the standard 2.5 Pontiac engine. Different.

Saturday I worked on RedSq, cutting some metal away from the chassis to allow the alternator to adjust up properly, tightened the exhaust pipe, replaced the shorting out dome light wiring, tightened the leaky radiator hose clamp, and lopped off the ends of the bolts that were keeping the rotating pintle hitch from rotating. Also put the original battery back in as it was previously considered suspect and the current (no pun intended) one belongs to Grace (black Volvo Amazon).

Last night I was delivering a box of records to my friend's house and RedSq's starter cashed in its chip, if a starter could have a chip, and no amount of persuasion or swapping back of the old battery or anything would make it go. I guess I haven't ruled out the starter button either. Time for the screwdriver test. Didn't have jumper cables so had to park on a hill and carry the records a long way. I refuse to buy a new starter. I will not I will not I will not. I guess I should go and have one professionally rebuilt though. I'm having somewhat limited success trying to keep all these 40 yr old components functional.



Kevin's deep in the soup... Labour Day offroad. Photo: Roy Parsons

Rebuilding vs Enjoying by Jean-Leon Morin I just thought with all this talk of originality and restoration, I should say something. I've never liked "restoration" type work - getting everything clean and painted and original. I really enjoy a restored landie when I see one, and I appreciate the kind of work that goes into it, but I think I'd rather clip my toenails with a sawzall than attempt such a project. The amount of time that goes into details is incredible, and not a time and money investment I would be willing to make for a 4wd truck.

I'd much rather spend my time building custom steel brackets and modifying things to fit... It's the kick I get out of Land Rovers. A big meccano set. I estimate that right now, my truck is about 50% land rover parts, the other parts are either one off custom made, or off of other vehicles. Right now, I have lurking in the rover, somewhere:

1981 Ford F150 2wd 197? Ford F350 Tow truck 197? Scout II Travelall 1982 Chevy van 1987 Dodge colt (don't laugh, just the doors seals) 1971 VW bug ;-) 1981 Oldsmobile delta 88 When I finish the brakes 1984 F 250 4X4 1980's chevy car Nissan 4X4

Yes, it makes for a very unoriginal vehicle, but it still looks like a bone stock rover (except for the larger tires and snorkle). It has twice the horsepower, thrice the torque, and the drivetrain is bulletproof. I didn't intend to attempt this type of meddling when I got the truck, but after hard thinking I figured out that a fully restored landie and I would not get along. I would be scared to get it dirty, and it didn't allow me to get creative and inventive, something that I really cannot do without.

In my case, a frame off resto like I originally planned would have been poison to me. I did a complete frame off to my rover, but that was when I put in the custom tube frame, and I had it all said and done (and running) in about 5 days of on and off work. The reason everything went so well and quick is that I didn't spend hours cleaning up parts with a toothbrush - I knew very well that they would be covered in muck that very same week.

The point here is, know exactly what you are willing to put in, and what you want out, before taking on such a project. There is no perfect rover - A full resto might leave you wishing for beat up fenders to go bush bashing, and (in my case) a healthy offroader might leave you longing for something a little more presentable and less dented (naah). The trick here is to set realistic goals and look at your track record when dealing with such projects, and also figure out what you will be doing mainly with your vehicle.

The Lego principle (I must be tired...)

All this can be explained at how you handled your lego sets when you were a kid ; You -

1. Followed the instructions, built a model, and put it up for display so everyone could see how nice it was:

- - Definitely a restoration type person. Beatilful series truck, little or no heavy off-road.

2. Followed instructions sometimes, also built stuff from scratch, took care to have matching colour blocks and esthetic details, kept it on display for a couple of days, and then trashed it to start over again:

- - A working restoration, still beautiful, but functional. Most rover owners are in this realm. Some offroad, but no metal mashing (or as little as possible)

3. Threw away the plans, built some monstrosity of a million colours combining all the sets you could lay your hands on, and proceeded to smash it up as soon as it was built to start something else:

- - This is getting a little more in my realm. Timm Cooper's S1 109 comes to mind.

4. Didn't play legos.

- - Rangie or Freelander owner!

Before attempting any large scale landie project, you should carefully evaluate why and how you will finish it.

A different view of lead gas additive by Anon.

Should you use lead additives? If you keep the exhaust valves adjusted a little on the loose side, the LR engine will go for a very long time. Remember, lead was introduced into fuel as a cheap octane booster, not a valve seat lubricant. Today's regular fuel is



Wellies? Check. Rain slicker? Check. Rain hat? Check. Life preserver? Photo: Roy Parsons

a better quality than what Land Rover had in mind for their vehicles back in the 6o's. While some engines had valve recession because they were designed with softer seats. Not Land Rover engines. But, people have problems because they beat the living snot out of their trucks. The North American mentality of straight long boring roads and wanting to get from A to B as quickly as the poor Land Rover can go. When some I know hit the highway, and it is foot to the floor, all the time. Some have passed me at 70, which I didn't think was possible. I figured the 60 psi tires and leaned out engine helped. I never had problems with the heads on my petrol. So listen to LR Cool King Dick.

Yo, Yo, Ya gotta keep it 55 spechla if ya got no overdrive If ya go 60, yo gonna be messin' wit premature valve recession when da' bitch hit 65, homey, you be glad to be alive At 70 she'll be crammin', rammin', flamin' engin pumpin', tranny jumpin', cars bumpin' tires woblin', bolts loosnin', bowels loosnin' parts flyin', people diein', babes cryin' Ok, I'll stop now. I must be sick!

If Dr. Seuss wrote LR manuals...

Part two by Alan Richer

If your wiring is smoking like a charred black piece of toast, and the sockets are on fire like a cooked-hard piece of roast, and the fuseholders are glowing like the lamps that they protect, then disconnect the batt'ry let it get badly wrecked!

Part three by Matt Peckham

If you're cruising down the highway doing about fifty five, and you start up a slight incline as is common on your drive, and you're stepping on the gas, but the speedo starts to dive, then the choke needs a yank, or at home late you'll arrive.

Part four by Trevor Easton

from Dr Di-ode... (Is he Welsh?)

If yer diodes are all dying and your alternator screeches and the belts are really smoking, oh the stinking sons of bitches. If your regulators glowing and the battery's overflowing then you didn't heed my warnings about welding and it's your own damn fault.

This note from Roy Parsons arrived in the post today:

A few weeks ago I was stripping the paint off my ex-military 109. While doing the rear box what did I find but bondo, filling two shallow dents. I am the first civilian owner; "Land Rover professionally maintained, low miliage, one owner, The British Army". So I suspect the damage and repair was done by Land Rover. I've heard of other makers doing the same. Damage in transit etc. - repair and sell as new. The only panel straightening I've seen performed by the military involved the use of a hammer and screwdriver, not bondo. The dents were too shallow for the Army to bother swinging a hammer for. They would just wait for the dents to fill with mud and top coat. Dead poets Society by Michael Leys On his Rovers - With apologies to John Milton When I consider how my life is spent with Rovers twenty two and more to come. And many think my fascination dumb to play with trucks and then to see them bent. My first, a Series I was never right. The engine blew three times inside a year And wallet opened many times in fear of future sessions with Lord Lucas' might

My "Scouting Taxis" now have all but gone and Dusty sits at grass and waits forlorn as pass of time has slowed my wandering ways. And now I talk and type of better days, and spend the time with Gromit at my bench. They also Rove who only wield the wrench.

Little Miss Pinky, a note from Russ Dushin:

Few months back I may have mentioned a new neighbor of mine. He's a young thirty something Brit and had bought a decent RN Ex-MOD 109. The bug apparently caught and caught but good. He's just got a container back from the UK and had two additional rovers in his driveway last night. I drove past in the dark and spied what I thought (and turned out to be) a nice and clean lightweight (it's a '73) as well as another 109... but this other 109 turns out to be none other than a pink panther! Complete - or at least with most of the gadgets - gun mounts, camo covering, jerry cans galore (there's at least six of them and room for four more), smoke grenade launchers, tripod, etc.etc.



Right out of the sales literature... Photo: Roy Parsons

12



The Land Rover FAQ hosted on fourfold.org has been given its own URL to make life simplier for people trying to remember a long path to the existing location. While the old URL works, you can now just type http://www.lrfaq.org and the Frequently Asked Questions will appear.

For those that collect some URLs, here is one that might be worth keeping for reference on the Buick/Olds 215: http://www.rover-v8.co.uk/images/1961HRM.pdf

One of the SIIa Land Rovers, that appeared in an Ace Ventura movie, is for sale on ebay. See item #513005277. It started out at US\$150. The vehicle is totaled, though the owner states that axles, and such should still be good.

Martin Bagshaw discovered this interesting bit of Land Rover items to pass around... This could be old news to some, but it was new to us. Paddock spares Ltd UK, is presently selling Radiators for the 2.25 liter engine. They are proudly announcing that they are Made in Canada! Indeed, they are being manufactured here in the great white north, by Spectra Premium Industries (SPI), at their Stratford Ont plant. You can find out more about them on-line at http://www.spectrapremium.com/ (En francais aussi, si tu veut pratique votre nouveau language sur l'autoroute informatique ). Can you really trust a company named Spectra to supply Land Rover parts ? Spectra, the son of Lucas. Manufacturing Director Marin Burela said: "We have an enormously enthusiastic and committed workforce who understand well the importance of ensuring our products are of world-class standards. This further investment in our people is the right step to take and is critical in ensuring the long term success of Land Rover."

He went on: "As part of a larger organisation now, we aim to take advantage of any synergies that can be found to the mutual benefit of the plants involved. I am very excited about the new, more efficient practices that we will be able to implement as a result of this."

The workforce will go through the training programme over the next six months. Two thousand employees will be drawn principally from the Land Rover Discovery and Land Rover Defender lines, with a further 1000 from the Range Rover line.

The announcement comes less than a month since Land Rover revealed that £130 million would be invested in new plant and equipment at the Solihull facility between now and the end of 2001.

Whilst employees take part in the training, the Land Rover Defender and Land Rover Discovery lines will be upgraded and modernised as the first stage of the new investment.

Land Rover is announcing a new range of all-terrain cycles at the British International Motor Show that opens today. The cycles, reflecting the 'go-anywhere' spirit of the



Three thousand line workers will take part in training programmes based at Ford, Jaguar and Volvo sites, to ensure that the company can benefit from sharing best practices with colleagues in the parent organisation.

The training involves placements of between 10 - 15 days, during which time Land Rover employees will examine the techniques used in other manufacturing plants and determine how best to implement quality improvements at their own site. The programmes will engage employees of all levels and will focus on increasing awareness of customer satisfaction.



More Labour Day offroad Photo: Roy Parsons

Land Rover brand, have been developed in conjunction with leading British cycle firm, Pashley, the cycles are hand built in England from the highest quality components. Three versions are available from a simple and robust machine to a sophisticated full suspension cycle.

The Land Rover cycle range features strong elements of British engineering and are based on a frame made from Reynolds cro-moly steel tubing. The cycles reflect Land Rover heritage in the silver frame finish with green and black decalling. The range features the highest quality components such as Shimano and Rohloff internal gear sets and 'Rock Shock' front forks.

The Full Suspension cycle is the top-of-the-range model. The unique, 'floating drivetrain' system separates the suspension and the drivetrain into two separate systems to eliminate unnecessary movement in the suspension making pedalling more efficient. Front suspension is provided by 'Rock Shock' forks. Customers can choose between an external SRAM 3 X 9 gear set or a Rohloff fourteen-speed internal hub unit. Front and rear disc brakes provide efficient braking in muddy or wet conditions.

The mid-range Cross Country features higher grade Reynolds tubing in the frame which is also reinforced at crucial stress points. Key to the Cross Country is Shimano seven-speed in hub gear system for easy, rapid and accurate gear changes. First in the range is the Free Ride cycle which is fitted with a single speed drive train and rigid forks for low maintenance. Front and rear V brakes give strong and reliable braking and platform pedals mean that the bike can be ridden in any shoes.

The Land Rover Cycle range will be available in 2001 from Land Rover dealers, specialist cycle shops and other outlets. The Free Ride will cost £299 and the Cross Country £599 while the top-of-the-range Full Suspension will cost £1950.

Pop star Ronan Keating has drawn his dream Land Rover for a special charity event at this year's British International Motor Show, which opens today.

Ronan's Land Rover drawing will appear at 'The Star Studio' in Hall 3, where all the celebrity sketches will be auctioned to raise money for BEN, the motor industry's benevolent fund.

Ronan said: "I've been passionate about Land Rover for years and it was a real pleasure to help conceive a Land Rover for the future. I tried to make my design look as sporty as possible while preserving the characteristics of the this great 4 X 4 brand."

Ronan's creation was produced with the help of former Royal College of Arts Design Graduate Dale Grewer. Dale, currently New Concept Designer for Land Rover, was particularly pleased to work on the project for Ronan. Dale said, "With Ronan's immense enthusiasm and passion for Land Rover, it was difficult to decide which ideas and features to leave out from his dream vehicle. The drawing displays futuristic energy and excitement for the best off-road vehicle in the world."

Land Rover supplies Ronan Keating with a Range Rover for his personal transport and with additional Land Rover vehicles to support his appearances and promotions world-wide.

Land Rover are launching a new used vehicle programme called 'Land Rover Approved' that offers significantly improved benefits including improved warranty, Europe-wide roadside assistance and a 30 day 'no quibble' exchange guarantee.

Land Rovers sold under the new Approved programme will be available from 130 Land Rover dealers in the UK and will have undergone a full pre-sales inspection, mileage and history check.

All Approved vehicles carry at least 12 months warranty made up of the balance of the manufacturer's warranty topped up by Approved warranty plans. Approved Plus covers vehicles of up to 45,000 miles and the Approved scheme covers vehicles of up to 60,000 miles at the time of sale. Both Approved Plus and Approved offer all-component cover up to 120,000 miles and are limited only by the purchase price of the vehicle with no limit for individual claims. All vehicles sold under the Approved scheme are covered by a comprehensive, Europewide roadside service provided by Land Rover Assistance.

On picking up his vehicle the Land Rover Approved customer is handed a pack containing details of the inspection checklist and the vehicle's history. For ultimate peace of mind Land Rover Approved provides customers with a 'no quibble' exchange for another vehicle of equal value within 30 days or 1,000 miles of purchase.

Commenting on the new scheme Mike Wright, managing director of Land Rover UK said: "Used vehicle ownership is increasing in popularity and Land Rover Approved is a programme that meets the expectations of our customers by offering a Land Rover in peak condition and covered by a comprehensive warranty package. The 30 day no quibble return policy offers extra security. The new programme was assessed by 'What Car' in their Used Car Dealer Guide and rated 14th out of the 32 schemes surveyed - ahead of major brands such as Mercedes-Benz."



And you thought just dogs loved Rovers... Photo: Lori Sickley

## General Servicing: Repairs, Humour, Tales & Trivia

### How to waterproof a Range Rover Andy Grafton

Take the carpets out (or at least the underlay) before or after your water games or they will stink. Take out the plastic spongy underlay in the loadbed as it sops up water and induces rust. This doesn't take long.

Raised breathers. Buy a commercial pipe fitting which will fit in place of the axle breathers and some stiff air or fuel pipe. Bring the ends of the pipe above the likely water level. Route pipes with zip ties. This will not stop water getting into the axles, but will help reduce the likelihood. Some Range Rovers will have raised breathers on the gearboxes already (look for 2 white pipes with bent over tips in the engine bay behind the air filter).

The inverted bottom third of a 2 liter soft drink bottle makes a great distributor splash cover. Slice the bottle and work out a way

to make the wires come out the top. Secure the thing around the distributor base with zipties.

There is an itsy-bitsy hole in the bottom of the distributor which can let water in. Plug it if you need to.

A sheet of very thin, soft rubber cut to be correct shape and size will seal the distributor cap to the distributor body. It should be superglued to the cap so it doesn't shift, and



Andy proving his bona fides

High power coil. Again, better spark under marginal conditions.

Condom over the coil to coil wire junction. Pass the +,- and coil leads though the (snipped off) tip, secure with a zip tie, reattach wires and stretch condom over coil top. Problem is that this lasts about 1 trip. maybe a 500ml coke bottle would be better but I never tried it.

The fan is your biggest enemy. Especially when reversing in water. For occasional deep water wading, you can use string or lightweight wire to tie a blade of the fan to something (suggest the air conditioner compressor input/output pipe fittings). Do this \*Before\* you start the engine... There will be little or no strain on the tether if the viscous unit is working OK, otherwise

it will snap. Don't run the engine for hours, or too long at high (\*greater than 3000 rpm) speeds or you may fry the viscous unit. No fan means no splashing. Very effective.

If you wade a lot, consider changing to an electric fan. This will improve fuel consumption, reduce vibration, reduce loads on the water pump bearings and let you switch it off when going through water. Ford

bath seal type silicone helps seal around the location notches and wire inlet.

Vaseline or high temp waterproof (rubber-friendly) grease around the plug lead ends and coil lead ends seems to help keep the water off.

New and regularly replaced plug/coil leads really help.

Correct plug gap.

Check distributor cap by replacement with a friend's or new if you suspect it is anything other than 100%. It is always good to have a spare anyway.

Electronic ignition or Ignitor style electronic points. They will provide a better spark under marginal conditions. Personally I prefer the electronic points because they have fewer wires. Sierra 3 litre (local to ZA only?) has a good one which is big, thin, multi-speed and moves enough air. The crappy aircon fans will not do the job. Electric fan needs temp. switch for auto operation and handswitch in cab for auto-on-off selection. Where you put the temp. sensor is up to you - there are good places in the block, thermostat housing (later RRs have a housing with a hole already tapped I think), manifold, and you can always cut a radiator hose in half and tap the sensor into a dummy pipe with which (and 2 hose clamps) you re-join the hose.

On newer Rangies and Defenders, the wheel bearings are grease packed and IMO you should remove the seal in the rear axle casing (well stub axle) which seals between the bearing hub and the halfshaft. The front axle has a seal on the stubby shaft between swivel housing and bearings. This allows the bearings to be oil fed from the diff or swivel, and as such water is removed from them when you change the oil. This eliminates having to repack the bearings to get the water out after deep water work. On a stock '79 the bearings are oil fed.

Cover the radiator grille for deep wading (where you'll get a bow wave). The best thing for this is a piece of plywood of the right size to fit right across between the lights. You can secure it with bungee cords stretched from an attachment in the engine bay to under the bumper. Else a black bin liner opened up can be put in place and trapped under the bonnet. Both very effective. Note obvious overheating problem when out of water, esp. when accompanied by disabled fan.

Oil (other than in engine). For regular wading, either use cheap stuff (water will get into low down components) or very expensive fully synthetic. The fully synthetic should have much better lubricating qualities when mixed with water and will not emulsify/mix as conventional oil does. With synthetic after a night standing you can drain the water through the drain hole in the sump, with a bit of oil for good luck, and just top up to the level. I never got water in the engine oil or power steering, but I guess you want a full change + filters if you did. If you have a manual steering box then it may need draining as per the diffs, gearbox and swivels.

Q20/WD40/quik-start... Works when the engine does stop. Carry a can. Use if beforehand if you get the chance. I tend to wipe out under the dizzy instead of spraying, but I dose the plug leads and coil with it to good effect. If you spray under the dizzy, wait a few seconds for the propellant and light fluids to evaporate. I have observed a sharp bang and cracked dizzy cap twice as the spray exploded on spark.

Carburettor overflows. If the carb. overflow pipes from the stock Stromberg or SU fitment are sufficiently under water - or blocked for any reason - then you will get a gradual loss of power, followed by misfiring, followed by a failure to run. Sounds almost exactly like moisture problems in the electrics, but no amount of drying out will solve this one. There are other pitfalls, on a '79 Rangies the overflow pipes come from the carbs along the LHS inner wing and terminate under the coil. If the car is LH front deep under water or buried in mud then your problems will start about 30 seconds later. The problem is to vent the pipes somewhere where any dripping fuel or vapour will escape and not ignite (i.e. not in the cab and not onto the exhaust) and is below the level of the carburettors so that fuel in the pipes will vacate the area by gravity alone, presenting no obstruction. If you find a good solution to this then let me know. I moved them up and rearwards to near the fuse box, and through a rust hole into the outer wing.

Water will get in the cab, and very quickly if you stop. Plan accordingly and keep your belongings high and dry. Remember what is under the seats as I have lost a few nice things due to water that way.

The clock, oil pressure meter, oil temperature and voltmeter are low down in the dash and can get easily submerged. The clock is (in my experience) history if it gets wet, but the other gauges seem OK.

You can't see what you are driving on under the water. Think about a diff bash guard if you are going to be doing regular crossings of water that has a rocky bottom.

Lights may fill up if they are the semi-sealed type. Check that the rubber seals on the bulbs and around the wires are good and replace as necessary. If you care about water in the lights remove them and dry with compressed air or hairdryer. The silvering corrodes fairly quickly.

Marker lamp fitments into the light clusters (indicators, brake lights etc) will tend to corrode quickly if you submerge them regularly, making them a real bugger to remove. High temperature grease seems to work nicely to coat the metal against corrosion.

Starter motor. Yuk. The later ones with reduction gears ('85 onwards?) are a much better bet from a longevity and electrical point of view. The early ones are a total disaster when you get them wet and/or muddy. The solenoid goes, the windings clog up, the brushes get rubbish in them. Aaaaggggh. If you wade a



Dale's no Gilligan either...

lot, you will be overhauling the starter a lot. Or you can spend money on a sealed unit from the likes of Mean Green.

The stock non-EFI air filter is designed to ingest just about anything thrown up by the fan, including mud, sand and water. In sloppy mud it is possible to ingest enough gook to trash the filters and stop the engine. You can nestle a tin mug in the valley, fixed by its handle to one of the nearby hoses to shield the intake from flying debris. This will affect the inlet efficiency. A permanent deflection device would undoubtedly be better, but I moved the air filter.

Finally. Bellhousing wading plug. The wading plug is screwed into a blank hole next to the bellhousing drain hole, and should, in theory, be put in place before wading and removed afterwards. This is the most difficult one to give advice on as it depend what you're going to do. My day playing in a Rangie normally consists of widely ranging obstacles - deep water, mud, hills, rocks, grass. So I put the wading plug in and drive through axle-deep mud, then I stick a bag on the front and go drive through deep water for a while. Then I return to the mud and go play on some rocks, maybe via the water... I don't want to take the plug in and out every 10 minutes, lying on the cold ground and digging in mud around the gearbox crossmember with my 10mm spanner. Thus I used to leave the wading plug in all day. Until the day when water did get into the bellhousing, at the beginning of the day, and couldn't get out. When I undid it after cleaning at home a good litre of hot water fell on me. The clutch was odd for weeks afterwards but recovered. Now I leave the plug out unless I know that it is just one bit of water work, or playing for only a short and defined period.

If the clutch does get wet, it may be a good idea to jam the clutch pedal down halfway (with a stick or whatever) overnight so the clutch is disengaged from the flywheel whilst it dries. Wet clutches can seize/rust solid onto the flywheel, and the mechanical methods of braking them free can mess up the clutch plate.

Best advice: Avoid water. It buggers up your car!

### Tutorial: On the subject of CB radios:

#### Alan Richer

Speaking as one who's installed far too many radios of all sorts, any Citizens' Band transceiver (to give it its proper name) built by a reputable manufacturer will work more than adequately. As the basic design of a CB (crystal-controlled AM transmitter and receiver) is basically 50-year-old technology on a good day with specifications to match, getting one up and running well is not rocket science. A good antenna and intelligent installation is a prerequisite, though.

Intelligent installation doesn't have to be professional. All it really means is to pay attention to what you're doing and how.

When installing a CB, good ground and power contacts with adequate wire diameter for current is a must. Run the wiring direct to the battery leads and fuse it - this way Joe Lucas is unlikely to put you out of commission unless the battery itself goes completely to pot. Run the coaxial cable where it needs to go for your antenna in a shielded position and secure it at frequent intervals - and **don't** use cheap coaxial cable. Also, a solid and relatively vibration-proof mounting is a must - vibration can cause component failures and is no friend of electronics of any type.

As regards polarity of the connection, if your truck is already negative ground you are all set. If not, I recommend either converting or finding an older set with a ground switch enabling it to work positive ground. There are dodges for using negative-ground equipment (isolation caps and the like) in a positive ground vehicle, but they're not really suited to the novice electronics type. In short, keep to the KISS principle and it won't be a problem.

When mounting the antenna itself, solid and electrically grounded are your close friends. The car itself is the ground plane of the antenna, so good electrical contact is a must for proper transmitting radiation and a low standing-wave ratio (also called SWR).

Cheap antennas are also a no-no. My own personal favorite for a Rover is a stainless-steel centre-loaded antenna mounted off the front wing. With a good spring in its mount it will survive damn-near anything, and the radiation pattern is decent. Beware of the rear-crossmember mount on a hardtop Rover the bodywork will shield the antenna through a good portion of its receive pattern.

A wonderful thing to have among a group is an SWR bridge - it's the meter that makes tuning a CB antenna possible. Many rigs have them built in, but personally I have a good old \$20 special SWR bridge that I use. Actually tuning an antenna is a very simple process taking about 10 minutes or so if the installation is done right. Anyone who wants more data on that process can contact me - it's easy enough but an essential part of an efficient system.

A good source for this "service", by the way, is a local ham operator. A dozen doughnuts and a cup of coffee can work wonders in getting your antenna tuned...been here, done this too many times... Look on the Web for your local ham club (and there is one, trust me) and a phone call will likely get your antenna tuned, system checked out and a little friendly armtwisting to get a "real" radio license....all in one stop. Hams are good folks and unless you come over as a total jerk are usually more than inclined to help.

I have to admit, that of all the many CBs I've owned over the years I have only bought one new - all the rest have been used rigs which have run the spectrum from \$50 (in 1970 dollars) to "Take that damn thing off my hands" \$5 rigs. All of them have been good performers, often doing a lot better than shiny new toys with el-cheapo antennas. My present one is a Regency 40-channel unit that I use because electrically and mechanically it's an exact match for my 2-meter rig - I can swap the rig and the antenna mast and be up and running on 144 MHz in minutes with this setup.

Now, if you want to talk about the 6-volt, 6-channel tube-type Lafayette CB I still have in my shack, then we're talking rocket science...as well as impossible to get parts.

## The 80 Inch files: Renewal Of The Series I Landrover Rear Axle Bearings and Seals

by Ash Smith

I eventually arrived at this job while restoring the 55 107" that some sod had palmed off on me as a worthwhile project, while I was looking for a series 2 axle for my 64 2A.

First set up an area where there is enough room for a small table to hold the beer, somewhere adjacent the garage fridge will do. Get your small folding seat, and you are ready to start.

Assuming you have already removed the rear assembly prior to chopping all the footrot out of the chassis, get it from wherever the wife has been cursing it for the last several months.

Replace the wheels you absentmindedly took off, as you will need them to prevent the diff from turning when you slacken off the pinion nut to replace the leaking pinion seal. If it hasn't been leaking, you have probably been running it without any oil in, although if by some strange quirk of fate, there is oil and there in no leak, breath a sigh of relief, have a beer and leave well alone! Otherwise, chock the wheels, support the pinion housing with an axle stand and pull out the split pin from the castellated pinion nut. Now, select the appropriate BSF or Whitworth socket, insert the longest wrench handle you can lay your hands on, place on the pinion nut and give it the sharpest blow you can manage. Make a mental note to slacken the nut before removing the assembly from the chassis in future.

Retire to the table and have a beer while you plan your next move.

Take off the springs by undoing the two U-bolts holding each one on, put them to one side then

remove the wheels you have put back on . Mark the springs, as there is a right and a left one - they have different degrees of arch. Have another beer.

For the next move, either put on a truss to prevent a triple hernia while you pick up the assembly, or use a hoist if available and place the assembly on a couple of saw-horses.

Remove the brake-drums, shoes and if necessary, the brake cylinders. [Believe me, its always necessary to remove the cylinders for a quick honing or replacement]

Select the appropriate socket and ringspanner and remove the 6 bolts from the flange at each end of the banjo.

Have a contemplative beer.

Take a firm grip on the bearing housing with one hand, and tap it at the axle flange with a small hammer or similar. The bearing housing complete with axle, bearing and seal should fall away from the flange gasket.

Take a look at the seal which you will see in its housing at the inner end of the hub. You should be able to see the inside of the seal, i.e., the lips should be pointing in toward the diff, as the hub bearing requires no oil, not like the Series 2 with the fully floating rear axle. If, like mine, the seal is placed with its lips pointing towards the bearing, this will explain the gallons of oil that have been traveling through your rear brake system.

If the bearings are in good condition, breathe a sigh of relief, and have a congratulatory beer. In fact, you should be so relieved, you may as well have a couple, for it is possible to remove and replace the seal without having to press off the bearing. If on the other hand, your [by now finely tuned ] ear can hear the dread rumble indicating a clapped out bearing, you may as well have a couple of melancholy beers, for your trials are about to begin.

When you consider you are sober enough to drive, take your axles and another dozen beer down to your local workshop, which should have a press of some 30 tons capacity. If you confide in the foreman, that they are off a Series 1 Land Rover, he should, when his eyes stop streaming from the helpless laughter, wave you in the direction of the press. Being observant, you will have noticed that the backing plate is still trapped between the hub and the axle flange, therefore, unless you have con-



Lori's Soapmobile Photo: Lori Sickley

structed a device similar to that shown on the Land Rover manual, the bed of the press has to be wide enough to let the plate pass through it. all the sections of steel that were placed between the bearing housing and the press bed also flip off the bed and travel at the same rate in the same general direction. I would imagine it



The Birthday Party site, Saturday afternoon Photo: Lori Sickley

When all is ready, start pressing the axle through the collar. Mine let go at 25 tons! It was disconcerting. There was about 3 inches of daylight under the boots of half the mechanics in the shop, and having been standing at the press, I had to carefully check my shorts for signs of involuntary exertion. Once started, it will probably only need a few tons to keep it going. This leads to the next pitfall. Once the sleeve has reached the end of the machined section on the axle, the axle plummets through it, gathering speed at 32 ft per second squared. At the same time, looked very interesting, trying to levitate both feet off the floor, while at the same time trying to prevent the axle from smashing into the concrete.

Sit on a box and share the beer with the mechanics. There's nothing like a beer after a particularly hilarious comedy show.

Once safely home, examine the new bearings that you have bought. They will have cost \$200 NZ each, so you will want to have a good gaze. You will perhaps notice as I did, that the sleeve to hold the bearing, bears no relation to the one you pressed out, being an 1/8th in thicker, and only about 3/8th inch in length. Carefully ensuring that the backing plate is on first [and the right way round], the bearing is in the hub, which

is also the right way round, you return to the shop and press the new collar on the axle, snugly against the bearing. Now press the old collar on after the new one. You need this, for this is what the oil seal runs on.

You can now push the seal housing complete with new seal, into the housing.

Voila... More beer. It is done.

The remainder is a reversal of taking it apart.



December 2000 Newsletter Ottawa Valley Land Rovers

## **Rover LT77 gearbox origins** Dr. Dashund Cogs (my friends call me "Datsun")

Regarding the "recent" history of the LT<sub>77</sub> gearbox, I feel we should try to get our history correct! The LT<sub>77</sub> box is of true Rover Company development and manufacture. This was not some "old Jaguar box"! (we'll get to that connection later).

The Rover company developed the LT77 gearbox for use in the new 1976 Rover SD1 automobile, the 3.5L-powered 4-door wedge shaped passenger car. Production quantities of the gearbox were limited, as the SD1 V8 was selling well. As the 2.3L and 2.6L in-line 6 cylinder SD1's came on stream in future years, they also had the LT77 gearbox available (BW65 automatic was the alternative in the SD1 models).

Meanwhile, BL/JRT "sister" Triumph had already been selling the TR7 since 1975 with a Spitfire/Austin(actually Morris) Marina 4-speed gearbox, and desired the 5-speed box for the TR7. Some North America-bound TR7's got these LT77 boxes as soon as 1976, but full-time only for 1977. For the UK, a few 1976 TR7's also got the 5-speed, but it was quickly withdrawn as quantities were just not available to Triumph.

Jaguar wanted the 5-speed gearbox to put behind their 6cylinder (XJ6) models, and they also obtained access to the LT77. I can't remember the exact details, but this may have been for the "new" 3.6L Jag engine of the 1980's.

I hope this sheds a better history of the early days of the LT77 gearbox, and brings to bear the understanding that this **really** is a Rover product! I have left out other applications of this LT77 box such as the Leyland Sherpa Van etc., only wanting to highlight the true beginnings.

Now why do my friends laugh about heavy rain showers when they say my name...











## Land-Rover: chosen by the world's greatest explorers.

Everyone knows there's no better way to cross the Sahara than by Land-Rover.

But most of the fun that people have in Land-Rovers is on expeditions to places rather nearer home. Like their favourite beach or picnic spot. Or places no more foreign than the New Forest, the Yorkshire Moors or the Cornish coast.

Because a Land-Rover is not just a rough tough go-anywhere vehicle for terrifying trips in jungles and deserts. A Land-Rover seats you in soft-cushioned comfort.

It's a smooth cruiser on motorways.

A sporty convertible when the sun's shining.

A "hold-all-the-family-andall-their-things-and-even-thedog" transport on a picnic trip. A Land-Rover will take you

places where a car has to give up.

Its aluminium body won't corrode.

It will seem to last for ever, whatever diabolical treatment it has to put up with. It will even cross the Sahara should you ever have a mind to. So in the meantime, enjoy your Land-Rover on shorter excursions. And if in ten years you feel like tackling the Sahara wour Land Power will

Sahara, your Land-Rover will still be roaring to go.



You'd be surprised how many things a Land-Rover can do. Solihull, Warwickshire.