



Volume XII, Number 10

1016 Normandy Crescent, Ottawa, Ontario, CANADA K2C 0L4

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10 October, 1995

Greetings;

There were a couple of events this past month of the more long distance variety. While the month started with the OVL R Silver Lake revisit that Ted wrote about, the rest of September was followed by the British Invasion at Stowe, Vermont, and for the really ambitious, the Mid-Atlantic Rally in central Virginia. This month we'll be a little closer to home, with the Annual Frame Oiler on Saturday, October 14th. The Frame Oiler will cost the same as it has for the past several years, namely \$25.00 for the opportunity to see if you can spray enough oil on your vehicle to keep it dripping through February. The cost of admission includes some sort of feeding frenzie, but for more details phone the organiser, Roy Baillie.

At the September Social, a number of members showed up to discuss a variety of items, as well as down a few of the Prescott's finest. Discussion focused on the need for more ad-hoc local events and on the role of volunteers at the larger events. It has been suggested that volunteers at large events should get in free in exchange for indentured servitude for the duration of the event. It was also announced that OVL R members can get the wholesale price for goods purchased at Bells Corners Machine Shop. However, members will have to ask for this rate, stating that they are with the club and the club will be supplying a list of members to the store. Bells Corners Machine Shop joins the MiniMan in Stittsville and Valley Hardware as local businesses that offer discounts to OVL R members.

Results of the October Executive meeting: The Christmas Party will be on December 2nd this year upstairs at the Prescott. At the time when a venue had to be booked, the Navy Mess was still negotiating with the NCC for an extension on their lease. The cost for the Christmas Party is tentatively set at \$15.00 for a turkey dinner and fixings. More details in next months newsletter. The Executive has also decided to move nominations and the elections up a month. Nominations for Executive positions are due by the end of the first week in November. The voting forms will be included in the November newsletter to allow people to vote at the Christmas Party. The new Executive will take office at the Annual General Meeting in January. The Executive hopes that this arrangement will make life easier for the Returning Officer and generate more than the 13 votes received last year. As with the Newsletter, if you don't vote or contribute, you have little reason to complain later on.

September 16th and 17th saw the Fifth Annual British Invasion at Stowe Vermont. The first year at a new venue, the event saw an increase in vehicles attending (468 registered), the traditional mess made of registration (both good and bad; a number of OVL R vehicles got in free... and they messed mine up for the fifth year in a row), and generally a pretty good party. The new venue, being larger and flatter does not lend itself to the superb off-road demonstration that Rovers North put on last year, so people missed that excellent showing. In the end there were ten OVL R Land Rovers in and about Stowe. Notably absent was Murray's Lightweight, which that in a weak moment he swore last year would be in attendance, though it has been overheard that the promise stands for next year. Dale's suffering diesel didn't make it either but for justifiable reasons. (See next section on general trivia etc.)

OTTAWA VALLEY LAND ROVERS
 1016 Normandy Crescent
 Ottawa, Ontario, Canada K2C 0L4

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.

OVLRL 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: Those joining throughout the year pay a flat \$20 per year, their membership expiring one year from the last dues submission.

The Ottawa Valley Land Rovers Newsletter

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

Deadlines: Submissions to the OVLRL 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 may be withheld at the request of the writer. This is your newsletter. If you wish to write anything, we welcome your input, in any format.

Editorial Policy: The Editor of the OVLRL newsletter reserves the right to edit any submitted material for space and content considerations. Articles, statements, and opinions appearing in the OVLRL newsletter do not necessarily reflect the position of the officers, board of directors, members of the OVLRL, 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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Advertising Rates: Available upon request.

Upcoming Events (in the next month or so...)

Oct. 14th Annual Frame Oiler.

Come fill your frame, er, oil your frame to save those rusty bits and make them ready for the ravages of salt. Starting at, or before, 9am. There will be two spray guns (the club has wisely decided to purchase these items for the club inventory) available, though one set of the high ramps. A smaller set of ramp will be available for the contortionist who doesn't mind getting coated in oil.

Cost: \$25.00 The same as the past several years. As an added bonus, Roy has made noises that there will be grub there to feed upon.

What to bring: Your poor forlone Land Rover, \$25.00 and some clothes that do not mind getting a bit oily. You are responsible for srpaying your own vehicle, unless of course you can bribe someone else to do it for you. Bring a clean Land Rover. The oil you put on will be slightly more efficient if the frame is not coated in mud. Wash the inside of the frame out while you are at it.

Where: The traditional spot, at the Hart's home in Kanata. To get there is easy. Take the 417 to March rRoad. Go north on March Road until you get to the Dunrobin turnoff (at the stop lights where March Road turns west). Turn right at the stop lights. Follow Dunrobin Road to Harwood Road (about one mile). Turn right. The Hart's home is on the right shortly after you turn onto Harwood. Look for the OVLRL sign.

Questions: Phone Roy at (h) 523-5740 or (w) 831-3397

October 16th Social Gathering at the Prescott.

The monthly social gathering at the Prescott where we can discuss what sucker, er noble person is in line for the Christmas Party awards.

November 6th Executioue Meeting

December (Early) Annual Christmas Party.

Location: Upstairs at the Prescott.
 Events: Slide shows, awards, the feelie meelie and what ever else can be though up as well as voting for the next executive.

However, one of the acknowledged centrepieces of the show field was the club trailer. Although, it was not set up in the best possible fashion for display. Mike designed the trailer to be idiot proof when it came to set it up. Well, let us say a couple of members, myself included failed the test. Yes, the tarp needs bungie cords to hold it down and they were in the trailer (It was too early and we are sticking to this excuse.)

The set-up notwithstanding, here is a sample of various peoples' comments: *"How did you get Land-Rover to build this for you?"*. *"This was obviously built by the British Army for field use. How did OVLR manage to get it off them?"* *"This is really cool! Where can we buy one?"* In summary, not a single person who talked with me, Murray or Fred ever initially asked who in the club had built this trailer. Everyone assumed that the club trailer had been professionally built, either by Land-Rover, the British Army, or by some professional company for one of these organisations. All expressed amazement that the trailer has been built over the past few years by Mike McDermott for the most part, and not by a professional team of experts. OVLR Land Rovers in the line-up included **Gordon Bernius'** military 109, a recently painted 109 pick-up of **Michel Bertrand**, **Guy Arnold**, **Mike Loiodice**, **Phil Tusinski**, **Paul Memont**, **Leslie Stutsman** and **Spencer Norcross** all had petrol 88's, **Mike Buonanduci** had a diesel 88 with Sankey trailer and my 90wt dripping 109 Station Wagon with the disintegrating rear differential. **Roy Bailie's** 88" and **Al Pilgrim's** 107" stayed on the outside of the show field. **Fred Joyce**, **Murray Jackson**, **Mike McDermott**, and **Yves Fortin** all forgoed the five hour journey in their Land Rovers and elected to come by more modern transportation. OVLR also managed to gather in a pair of new members. **Seth Redlich** of Rhode Island and **Stephen Shore** of New York joined the club at Stowe. The only other Land Rover club in attendance was the *Bay State Rover Owners Association* led by Jim Pappas in his diesel 109 Forward Control. In all, there were 22 Series Land Rovers on the field, and some twelve of the modern variety.

The trailer came in useful in another sense. When it was time to bring our trailer down, (which the organisers asked us last year to do) a phone call was made to one of the organisers. If the trailer was going to be at the show, we wanted to camp out near it in case some light fingered individuals were about. They initially refused, stating that there was security guards on the site. But we argued that was not adequate and were given permission to camp with the trailer. Well, Saturday evening it was round up the wagons, as Gordon Bernius defended the west side of the trailer, Mike Loiodice the north, Spencer Norcross the east, and myself the south. Now only if we could have had a bonfire... Next year maybe we will be able to lure Yves Fortin out of a warm motel room and maybe Michel Bertrand will be able to stick around for the entire weekend. Oh yeah, a security guard was never seen by any of us, nor by any of the vendors camped out on the show field.

Expect more of us back there next year, but with propane for the burners for coffee for those early mornings. Finally, many thanks go to Fred Joyce for towing the Club Trailer to and from Stowe.

OTHER NEWS, REBUILDS/PROJECTS, LIES, RUMOURS, TRIVIA...

● The September newsletter again was a combination of lots of effort on various peoples' part. This month we give credit below to many that help out regularly. September I was a bit slow in getting the newsletter together, so I arrived in Stowe with a huge pile of paper that needed collating, folding and the usual care and attention. Spying the club trailer in front of a room at the Stowe Motel, I descended upon Fred, Murray, Sharon and Connie for assistance in this task. With their help, the newsletter was together in record time. Remember, this is your newsletter. If the editor is not told about things, they don't appear in these pages. Besides, as amazing as it seems, there is no one in the lead for the Lugnut Award this year! (Notes: 1. Myles September column has appeared back in Maine. Festooned with "Address Unknown" it at least bears employee numbers and signatures for a very valid address. 2. This October version of the newsletter is the fifth written this month. Let's hand it to the computer wizards at CANMET who can't keep a LAN working for more than two hours)

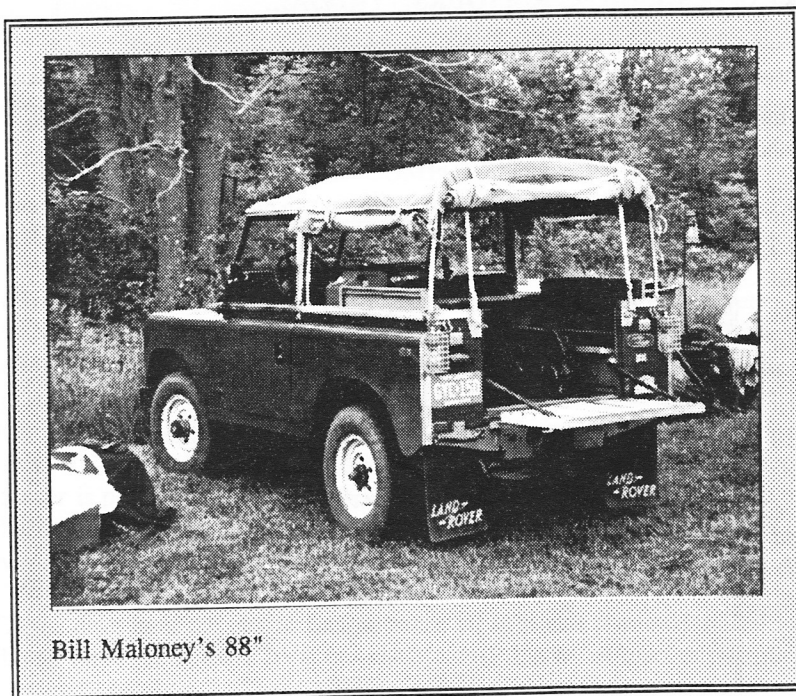
Ottawa Valley Land Rovers Newsletter

October, 1995

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 (for Lugnut submission), Mike Rooth
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 Other help: Bob Wood, Desperate Diesel Dale,
 Murray & Connie, Fred & Sharon,
 Sandra Harris

● **Desperate Dale** has managed to mangle yet another poor piece of his Land Rover. However, this time it wasn't his fault (though it pains me to have to admit this). You see, Dale has been involved in a slow rebuild process of his long suffering diesel. Dale brought the head into Acklands/Acktech on Somerset Avenue to be rebuilt. A couple weeks later he picked up a head that was nice, clean, complete and skimmed. Not think much of the head being skimmed, Dale bolted the engine together and started the break in process. Unfortunately as it turns out, a break in process was not what was occurring. It was more of a break up process. Apparently, skimming the head of a diesel is not a good idea. The hot points tend to like an interference fit with the face of the block. Skim everything smooth (and we have no idea how much of the head was skimmed off) and the rising piston and 23:1 compression is going to make the hotpoint want to move in and up and down motion, especially is the hot point was not seated properly. This rocking motion lead to the hotpoints in #2-4 cylinders beginning to spin about and break up as they ate themselves into the face of the block and into the head. The result, one head, block, three hotpoints and pistons are scrap. Next month we cover the drive back from the Mid-Atlantic Rally (23.5 hours) which featured Dale getting a new(er) engine and getting the diesel back on line.

● **Desperate and I** took a meanander down to the *Rover Owners of Virginia Mid-Atlantic Rally*, albeit it was via the Saab for most of the way. Leaving at 10pm Tuesday evening, Dale and I managed to make it to **Quintin Aspen's** place near Annapolis by 11am the next morning (Hint, if you are interested in going to this Rally, take Interstate 81 to Interstate 64, then go east to the Rally site. It will be much faster) where we borrowed a RHD 1951 80" for the final trip to the Rally (I had been warned that showing up in a Saab might lead to an impromptu Saab Pull). Arriving at the ROAV Mid-Atlantic with Quintin in his 109" crash tender, found *OVL*R members **Jon Humphrey, Bill Maloney, Steven Denis & Nancy** already there. Steve was fresh off work on the engine and nearly didn't make it. **Trevor Easton** from Toronto was the lone Toronto area Land Rover owner there this year. Saturday found another *OVL*R member, **Dave Bobeck** arriving in his recent purchase. The Mid-Atlantic is all it is cracked up to be, with nearly 120 Land Rovers in attendance, from Florida to Ontario. Though falling just short of the *Downeast Rally* for the title spot of the largest Land Rover rally in North America, it did make up for things in the mountains of free micro-brewed beer and food. The off-road trials course? Well.... Suffice it to say that mud was lacking and it doesn't come close to what is available up around our Silver Lake site. However, condisinger Virgina doesn't have Crown Land anywhere and the geography is very different, this is not surprising. Some of the more interesting highpoints: Dale taking on wary Americans in arm wrestling and winning, Steve Denis finally convincing Nancy that the NOTAJEEP was safe to drive and promptly having Nancy try and remove a side step and rear flashing racing down the trials course. *OVL*R did manage to gather in three new members at ROAV's rally, Bill Maloney bringing along **Jeff Berg**, Steve Denis bringing **Jarad Silbersher** and his 101 into the fold, and **Kendall Wilson**, one of the founders of *ROAV*. For those who want a better taste of what this rally is like, suffice it to say that Dale and I knew we were getting close when we passed a huge billboard saying "Jimmy's cut rate liquor, by the bottle or by the case" Getting closer, a store front announced "BEER, PORK, and GUNS". Also in attendance were members from the *Blue Ridge Land Rover club* and the *DixieLand Land Rover club*, these Georgia boys arriving complete with potato cannons. In all, Sandy Grice put on quite a show, something on a scale that *OVL*R couldn't, or wouldn't want to duplicate.



Bill Maloney's 88"

● I'm getting the feeling that because of the lack of LugNut candidates, that some unfortunate person is going to get framed. So, just to minimise these chances, I must relate this following event. Yes, it involved our esteemed and admired President. **Ted "Master of Land-Rovers and British cars in General" Rose** recently purchased some new springs for his trusty 88". Ted decided that the best way to change these springs was to drive the Land-Rover into the garage and work on it there. Ted, in no time whatsoever, managed to get all four springs changed before realising that his old tired springs may have just flattened just a wee bit, and that the nice new springs would have just a bit more arch to them. To quote Ted, "I had to take lots and lots of air out of the tires to get the Land-Rover out of the garage". Nice to see someone else forget basics... Of course, though past history, the chap here using the personal pronoun did manage to send the

garage door for a spin several years ago, but that doesn't count.

- Got a phone call from **Shannon Lee Manion**. A long whining, almost crying message left on my answering machine all about how she is Land Roverless and greatly desires one of these machines. Even if it has a Chevy engine doesn't matter! Give her a call and console her, She has been having dreams about driving Land Rovers around in the wintertime...
- **Jay Flesher** and his Discovery were recently seen on television. The CBC programme *Venture* did a segment on Jay's business and Jay was filmed talking and driving around in his Discovery. Some of this filming was witnessed by Bob Wood at Landsdowne Park, so we did have some advance notice of this.
- **Roy Baillie** was saved by **Mark Letourney** and *Rovers North* while Roy was down at Stowe. Roy broke his forth halfshaft while pulling out from dinner. So, Saturday morning, in frontwheel drive and with **Al Pilgrim** following Roy headed for *Rovers North* for a fix to his problem. Pulling the halfshafts and the diff the reason for four broken halfshafts was seen. Play in the diff, from long use was causing a jerking morion to be transmitted to the halfshafts. After time, this motion sheered off the halfshafts. Rather than watch the painful process of Al and Roy attempt to change a diff, and wanting to get to the Birtish Invasion at a decent time, Mark assisted and the job was done in record time. Roy is now very happy and singing the praises of Mark and *Rovers North*. I should also note, that Mark opened up *Rovers North* on Sunday to allow Gordon and I to pick up some parts needed parts.
- **Andrew Finlayson** got married on the same weekend of the British Invasion at Stowe. Andrew's wedding caused a bit of a downturn in the slowing rising attendance at Stowe as **Ted Rose, Jason Dowell, Bruce Ricker** and former OVL R member **Simon Scuess** forwent Stowe to attend the wedding. Notably, Simon gave an 80" as a wedding present.
- The October edition of *Land Rover World* has arrived with the OVL R masthead figuring prominently in the Clubs section. In an *LRW* article on Myles Murphy's Downeast Rally, the OVL R Birthday Party is described yet again as a "religious experience" Little did **Bill Kessels** realise how widespread his words were going to be. In fact they have also turned up in the *Rovers North* Newsletter. For those interesting in borrowing newsletters from other clubs, we have also received the latest offerings from the *Solihull Society*, the *Toronto Area Rover Club*, the *Bay State Rover Owners Association* and *Rover Owners of Virginia*.
- **OVL R** is getting window decals for the membership. The decals, 3 inches by 5 inches will feature a green background and a yellow Series IIA Land Rover and OVL R name as found on the letterhead and clothing produced for the past several years. The decal will stick on the inside of the window. As members renew starting in January, every member will receive one decal with their renewal. Of course, we should mention that part of the delay is due to the manufacturer. Ordering 500 originally (the best price break point) the first order came back with a white background, a green Land Rover, and yellow OVL R. Round two came back with a light green background and yellow Land Rover and OVL R. Assuming round three is successful, we will have 1,500 of these decals to disperse over the next few years, though with the colour scheme on some, well...
- **Alan Richer** has had Churchill his out this past weekend. To quote Alan "WHEEEEE! I KNEW I loved Rovers! It felt really goo to DRIVE him and not just work on him... 70 MPH - No Problem!"
- Another excerpt from **Richard Wegner**: "Well the Rover is apart again! Over this past summer I had been experiencing a noise from the front of the engine in my 73 Series III - 88 that can best be described as a loud rattle when the engine was idling. The noise would come and then go away for a while. But over



Ben Smith's "Nora"



Richard Wegner's immaculate Series III

This time when I took the cover off, little pieces of aluminum fell out of the cover. Apparently the Tensioner Idler Wheel had decided to self-destruct, and the timing chain was wearing away the aluminum shaft where the gear used to be! Needless to say I was not a happy LR owner, and proceeded to drop the oil sump. As I suspected many little bits of aluminum were floating in the oil sludge in the bottom of the sump. But.....all these little pieces do not come anywhere close to making up the idler wheel. Sooo.....a lot of the aluminum idler wheel has been ground up in to very fine aluminum filings. Now to address this latest adventure"

New Members

Five new members joined this month, all from south of the border this time. As is fairly typical with OVLRL, these five new members bring nine Rover products with them, keeping the vehicles/person ratio in OVLRL somewhere hovering between two and three Land Rovers per person.

- **Seth Redlich** of Rhode Island joins. Seth is involved in importing Land Rovers from the United Kingdom and reselling them in the United States.
- **Stephen Shore** of New York state joins. Stephen doesn't own a Land Rover yet, but is keenly in search for one of those elusive beasts, a 109 Station Wagon.
- **Jeff Berg** of Connecticut arrives through the good graces of Bill Maloney. Bill dragged Jeff down from the suburbs of New York City to show off his recently completed RoverWorks short wheelbase Land Rover. His 88 sports the mother of all toolboxes built into the rear box, taking up nearly half of the load space.
- **Jarad Silbersher** of New York finally makes it OVLRL after several spells of losing the address and having to re-obtain it from Steve Denis. Jarad brings a rather nice 101 Forward Control into the ranks, and while it was not assembled in time for the past Birthday Party, should be at the next to play in our Canadian mud. Jarad also has a nice Hi-cap hidden away that he has slowly been building over the years.
- **Kendall Wilson** of Virginia joins. Kendall has an assortment of Land Rovers, namely a pair of Station Wagons, both a 109 and 88 as well as a Range Rover and Rover P5 rounding out his collection. Kendall is also an enthusiast of Rover corporate history. Kendall's latest project is to seek out a Series IIA Ambulance to add to his collection

the last couple of months it did not go away, and seemed to get louder. After seeking advice from fellow OVLRL members, I had finally convinced myself that it was the timing chain again. I originally had problems with the timing chain back in 1988. When I took the timing cover off the chain had stretched to the point where the tensioner was off the ratchet and the chain was starting to rub on the inside of the case. It did not make a rattling noise then. The timing chain and tensioner was replaced at that time with original Land Rover parts. The Rover has done approximately 15,000 miles since then, and the engine was rebuilt in 1993 due to a burnt exhaust valve. The timing chain looked OK at that time.

SOME NON-OVLR NEWS AND RUMOURS...

● **Customs Update - General Information:** The duty free exemptions for Canadian returning from the U.S.A. have changed. The \$100 limit after 48 hours absence has doubled to \$200.00 and the \$300.00 limit after 7 days absence increases to \$500.00. The duty free limit for alcohol remains 40 oz. (1.1 litre) of liquor/wine or 24 beer and the tobacco limit is still one carton (200 cigarettes). Be sure you have receipts for purchases and proof of the length of your absence from Canada.

Importing used vehicles can result in nasty surprises!. The process is relatively uncomplicated if the vehicle is more than 15 years old. A vehicle less than 15 years old must be examined by the *Registrar of Imported Vehicles* to determine if it complies with safety and emission standards. If it does not comply, it can be modified within 45 days and re-examined. Fees are charged for inspections and the vehicle can not be registered until the requirements are met. The imported vehicle will be subject to Customs duty and the Goods and Services Tax (GST). Provincial sales tax may be collected when the vehicle is registered. OVLR members in the Ottawa area who intend to import a vehicle of any age should contact Customs at (613) 993-0534 and the Registrar of Imported Vehicles at 1-800-333-055

● Land Rover International has an e-mail address on the Internet. If you have comments, complaints, or the like, they can be reached at lro@maxcom.demon.co.uk

● Those elusive Defender 110's that have been appearing and disappearing? Well, it seems that about 100 of them have resurfaced yet again. There is a small wee ad in Atlantic British's RoverLog classified reading: "'92 Def 110s--100 brand new deff 110s (Yes, 100--no typo) built for Desert Storm. Military spec, LHD, diesels, 2-drs, 4-drs, soft tops and hard tops \$26,300 to \$28,500. (907)790-2144 AK" Well, seems an outfit called Grim Rovers has bought 100 of the beasts and are priced as before. They still lack EPA/DOT registration in California. The company is currently trying to register them in Alaska, as it is easier to bring them in there. Curious? Here's their address: Grim Rovers, 8612 Airport Blvd, Juneau Alaska 99801. (907) 790-2144 phone/fax. All LandRovers are 24v. Diesels, some are Turbos, All vehicles are 4 cylinder this time around. the engine is an Italian make.

● **More media Land Rover sightings:** On the movie front: 1. The new James Bond movie "*Goldeneye*" shows a D-90 going off a pier into the water. 2. *Marked For Death* with Steven Seagull has a couple of good shots of a 109 SIII Safari in Jamaica, it is RHD, with a SIII grille but no heater intake in the LH wing. 3. From Roger Sinashon "Saw an ad for American Express last night -- You know, one of those ones where they get some guy from some other company to talk about how

wonderful it is to accept/use the Amex card. Anyway, didn't catch who it was, but it was some relief or adventure travel company or something, and they had two 110's(?) clearly featured throughout the ad." 4. Amoco gas is showing a new ad on TV that has a white Discovery with a caption ID'ing it as such. The ad implies that LR specifies Amoco gas as the gas of choice. 5. There a movie called *Laser Mission*, with Brandon Lee. On the back cover of the video cassette is a neat looking SWB II (III), couldn't see the front. 6. *Black Eagle* with Van Damme and Kosugi is a crap movie but has a feast of sightings, mainly in the first 20 mins so you don't have to watch it all. A battered 109 soft top, a neat 2 door RR and a very neat red SIII 109 Safari in County trim.

On the Magazine front: There is a very interesting poster calendar of the Defender 90 Station Wagon in the latest issue of *Four Wheeler* magazine. Check it out! It had a pull out calander (50cm x 75cm approx) of a D90 with a Rhino charging from behind with about 6 feet to go. The caption reads "We'd love to tell you about the new Defender, not now of course" Amateur Radio and Land Rover seem to go together. In the October issue of the Amateur radio magazine *QST* they have a picture of 2 hams (father and son, KB9CML & N9UFW) with their white Discovery (which has a prominent Warn sticker on the fender). They traveled 7000 miles with it from Indiana (USA) to Belize. They kept in touch on 20M. *QST* in Feb 94 also had a Discovery and a 110 on the front cover from the 93 Camel pro where amateur radio was used for comms.

● Yet another source of information on Land Rovers. Hypothetical question: "Does anybody know how old my Lightweight is or how I can find out its age? Oh yeah, the chassis has been replaced by a galvanised chassis." Answer: Write to: Mr. John Riley, Project Eng., Traceability, LAND ROVER, Lode Lane, Solihull, West Midlands B29 8NW, England

Give him the VIN number and other info from the plate on the bulkhead, not you chassis number as it has been replaced later (by a third party).

● For our American members (Canadian do not have the opportunity to participate) here's your chance to have a go at the Olympics of Four Wheel Drive, the 1996 Camel Trophy which will be returning to good ol' reliable Borneo. That event will take place next April in the southern half of the island - during the rainy season, of course. Here's your chance to apply for one of the US positions. The deadline for applications is October 15, so update that resume. Women are encouraged to apply, and there will be 12 people invited to a non-stop 30 hour trial in northern California in December. Four will advance to the international selections in Spain, with two chosen in Spain to

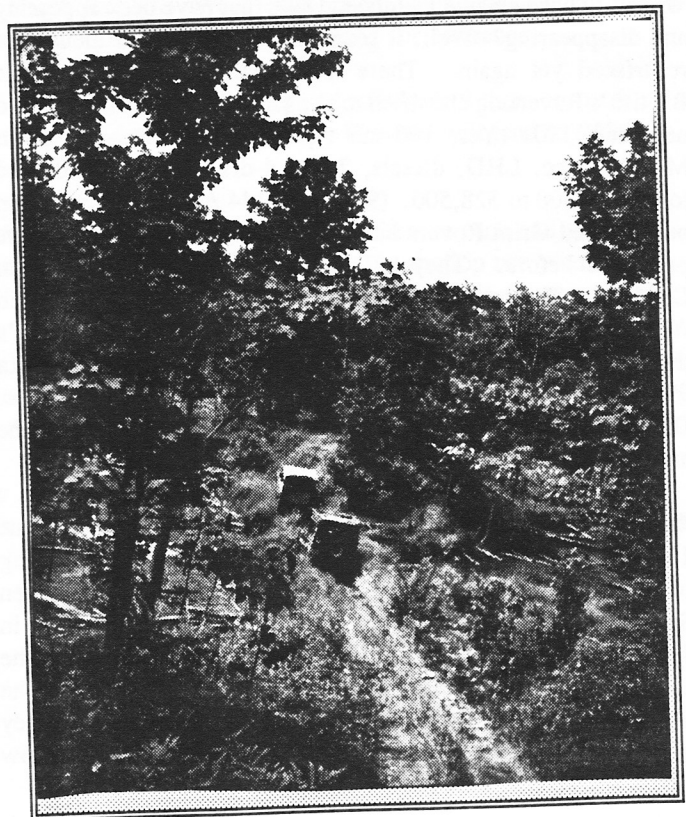
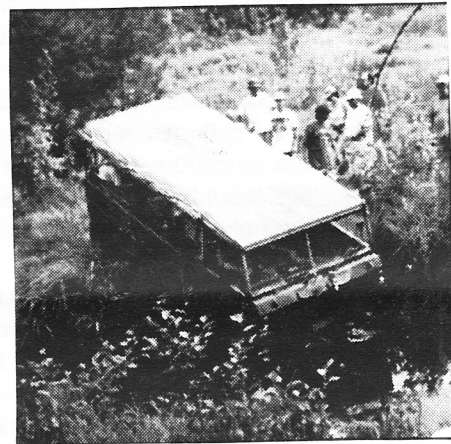
represent the US in April. Applicants must be 21, hold a driver's licence and never professionally raced. Send applications to: Tom Collins, US Camel Trophy Coordinator, P.O. Box 587, Snowmass, CO 81654. Expect: tree-dwelling leeches, thigh deep mud, insects the size of diner plates and three weeks of mind- and muscle-numbing exertion, but all expenses paid. I hope your knees are up to it. Good luck

● For the language trivia buffs out there, you might notice that one of the options on the D90 is "Beluga Black Paint". Well, despite the fact that "Beluga" is Russian for "White (Belo of Byelo) Whale" implying that the D90 colour is "White Whale Black", "Beluga" is also another name for the Sturgeon fish, from which one gets Beluga Caviar, which not coincidentally, is also black. This is the connection LRNA was trying to make.

● In the "for what it's worth department" off the Land Rover mailing-list on the InterNet, (which I know some of you out there seem to detest any mention of it) there is this message that seems a bit interesting: "I was ready to turn back in my recently purchased Superwinch overdrive. It performed as advertised, but had an unbelievable, painfully loud whine. Earplugs were mandatory even during around-town short trips (previously my gearbox was silky-smooth and quiet). Anyway, while visiting British Rovers up in Lewiston on an unrelated matter, I mentioned this problem to Dave (Tom Gannon's mechanic). He says "oh yeah, that happens a lot, go and back-off the right rear sheet metal screw holding down the transmission tunnel cover". Did it ... BINGO ! whining is 100% gone. Turns out that that screw is a wee bit long, and sometimes rubs directly on a brace which is installed to carry the Overdrive's shifting lever. Normal gearbox/overdrive noise then travels through the brace to the screw to the tunnel cover which proceeds to act just like a reverberation chamber and amplify the noises ad nauseum. 30 seconds with a grinder... problem solved."

● Found in a comic strip by the name of "Sally Forth" which deals with various societal issues facing the average family of the '90's. One of September's themes is an ongoing discussion of the husband's proclivity for buying lottery tickets, and the rationale presented to his wife for doing so: *Sally* "You're going to buy a lottery ticket so you can daydream your way through dull meetings?" *Husband* "Sure. I think about what I'd do with all that money." *Sally* "What kinds of things do you dream about?" *Husband* "This is African Safari week." *Sally* "When is dump-the-wife-for-a-younger-woman week?" *Husband* "Hey, is that any way to talk to the guy who bought you a Land Rover in last week's dream?"

● The American FAA doesn't want us to park our Land Rovers within 300 feet of their airport terminals. In its unexplained directive, parking restrictions are said to apply to vehicles over 65 inches tall. The source is the Atlanta Journal, October 4, 1995, via Lexis-Nexis. That newspaper included the "Land Rover Ranger" at 71 inches in its list of terrorist vehicles.



GENERAL SERVICE by Robin Craig

I like starting off with good news. Congratulations to our military member, once nicknamed the TOW God, Charles Widenmaier has now been elevated to the lofty rank of Sergeant. He has traded his missiles for radios and re-roled as a signaller. Charles came back from a tour of Bosnia earlier this year, with he says "tons of Land Roverstuff". Perhaps we will get to see it at the Christmas party. The rumour mill from Petawawa has Charles settling down with a lady from the London area, and staying in the Forces for the duration.

In the newsletter last month I forgot to mention Andy Graham as being present at the Swords and Ploughshares museum and the Stalwart swim event. If it was not for the fact that he scolded me about my error I would not have felt it necessary to make amends. My apologies Andy!

With Christmas just around the corner the model making world is filling up with more and more scale reproductions of our favourite machines. Out of my price range are the metal kits put out by Hart Models in the UK. I must say from the built up and painted models I have seen they are nice but for the most part appear a little clunky when you compare them to the benchmark kits of Tamiya, their SAS Pink Panther and Land Rover Ambulance really looked the part. There is just something about the metal kits that makes them look like die cast toys in my opinion.

In fact in the October issue of Model Collector a feature was done on white metal Land Rovers, covering some of the history and background to the range that is offered by Hart and Transport of Delight respectively. For most people these are more than toys and carry a hefty price tag even as unbuilt kits. The feature was written by Brian Salter of Transport of Delight, who just happen to be offering a newly finished SAS Defender 110 High Capacity pick up in 1:48 scale. Offered right now as a finished and painted model it runs for a whopping 128 pounds, plus your shipping of course. While this one looks really nice, and yes I would love to have it in my collection it is just too much money to be sensible. As a closing thought on these kinds of kits, I must congratulate Hart and T.o.D for having the guts to do such esoteric subjects in these scales.

For the last three years there has been an upswing in the scale model front with regard to modern subjects. In case you did not realise it, there is a big fixation still with World War 2 models. So it is quite pleasing to see a number of contemporary subjects being made in injection moulded kits. Most recently Ayoshima of Japan have released a 1:24 scale Range Rover kit. Recently I managed to pick one up for myself. I was fortunate enough to swap it for some big tank kit I won at a raffle. My big hold back on buying one was the cost. A massive \$64.95 plus taxes! So when my \$5 bucks worth of raffle tickets got me an ugly tank kit I saw a way to get what I really wanted.

Revell Germany is repackaging the Ayoshima kit, and this is how mine came. The box art is very nice and is a good reference for the four door Vogue edition that the kit makes. It is a gorgeous kit with very good rubber tyres, decals for the burr walnut dash and a full interior. I was tempted to rip open the plastic and start into it right away, but I think I should finish a few more of the other kits that I have on the go first. By the way, mine will not end up with a gorgeous red paint job as on the box, I think mine will be painted in a rather different scheme.

During the Gulf war build up, the British Army was using a number of leased Range Rovers for staff officers. When push came to shove and the offensive began these vehicles were seen with overall sandpaint jobs with the rear windows painted out and the distinctive black chevrons on the sides. There were in fact pictures of them in LRO at the time, so I'll use those for reference. If you have a need for one of these kits just ask your local hobby store if they can get any kits from Revell Germany, the kit number is 07373.

Range Rovers are getting around these days, my kids spotted one of the new Range Rovers towing a caravan in a Lotto 6/49 advert the other day. A few days later the ultimate acceptance of the Range Rovers status in society was displayed by my ten year old when he brought home a Simpsons Comic book. Krusty The Clown at one point gets out of his Clown car and runs away shouting "My lower lumbar is killing me. Remind me to trade the Clown Car for a Range Rover!"

Finally rumours are rife that there will be an injection moulded (this should make it reasonably affordable) Defender 90 /110 series of kits coming out in the not too distant future. Right now the rumour mill is rampant but as yet no manufacturers samples have turned up at any of the trade shows to finally pin down who will be making them. I would suspect that it will

be an Orient linked company and they will be smart and put it out in 1/35 scale, helping to reduce the price and increase the appeal to those who make in this popular scale. You can be assured that once this kit does come to fruition there will be plenty of variants produced and the after market add on accessory makers will be tripping over themselves to bring out upgrades.

Series III Hinge Pin Refurb

By Ivor Drillenbrainze

Recently I was given the opportunity to rebuild two pairs of Series III door hinges. The problem was simple, the pins that are mounted in the castings had worn the holes to an oval.

The Series III hinge comprises a male and a female part to make one hinge. The female casting is the part that is mounted to the bulkhead and has a pin set into it. The male casting mounts to the door and has a male tab that lines up with the female casting, the pin runs through the male part. It is the hole in the male part that wears as it rotates around the pin. This is because the pin is stationary in the female casting by virtue of the knurled end of the pin at the top.

The obvious solution to ones problems is to get a new set of hinges from a supplier. On the other hand if you want to save some money and get those doors swinging again soon you can have a go at this one yourself, for quite a bit cheaper. The exact dimensions escape me here as I was not keeping any records, but you should be able to get the picture if you read this carefully!

You will need the following tools to get this job done: electric drill, hammer, small steel chisel, steel file, small diameter punch or small diameter bolt as a substitute, measuring tape, hacksaw, vice, a drill bit and four bolts.

This is how I would suggest you go about this project. As you're move the hinges from the vehicle mark both sides, male and female as to their location, ie left top etc. It will save aggravation later. Trust me, it will. Next using your punch or bolt drive the pin out through the top of the hinge. When you do this it is best to support the hinge over a small gap in the vice, then pound away. Some will almost drop out, other pins will take the bigger hammer, just support it properly as I explained above. Don't worry about little marks that you may make on the hinge, they will file off later.

Once you have removed the pin check the oval hole in the male tab. Find a drill bit that is wider than the oval hole and also a size that you can get a bolt in easily at the fastener counter, say 7/16 or 3/8. Repeat the disassembly on all the hinges, make sure you choose a drill size that will do them all, so go for the biggest hole. Once you have made your size selection you can get bolts to act as replacements. You will need to get a bolt length that will give enough length when you have cut the head and thread sections off, because all you need is the shaft portion; so take your old pin along for reference.

Once you have the number of bolts you need, then go ahead and mount each piece in a vice and slowly drill them out to the bigger size. A few tips here, get the drill turning at a reasonable clip and don't push too hard. The drill will tend to follow the existing hole pretty well, but watching for alignment wont hurt.

Once you have drilled out the male and female portions it is time to cut the bolts to length. File them at each end slightly to remove burrs, at the end that is going to be the bottom file as light taper for the first 1/8 th. At the top use your steel chisel to put some marks along the length of the shaft, these will act as a home made knurling to stop the pin from moving once in place.

Making sure you have the correct pairs, put the pins into the top of the female parts. Next line up the male tabs and continue to drive the pins in. For the last part I would suggest you use the small punch or bolt to set the pin.

This should be a fairly straight forward process to follow. My customer has yet to complain, in fact when I saw him in traffic recently he said they worked fine. Time taken to do this will vary on individual skills and problems.

See ya'll next month..... Robin [rc@fourfold.ocunix.on.ca (613) 738)7880]

GENERAL SERVICING, Humour, Tall Tales, Humour, Trivia, & general rambling

The promised 24 volt to 12 volt conversion article will be delayed a month as a fax machine ate part of the submitted article. No matter, this month we look at another do-it-yourself project, a comparison of parts catalogues and some humour.

Headlamp Stoneguards. Do It Yourself by Mike Rooth

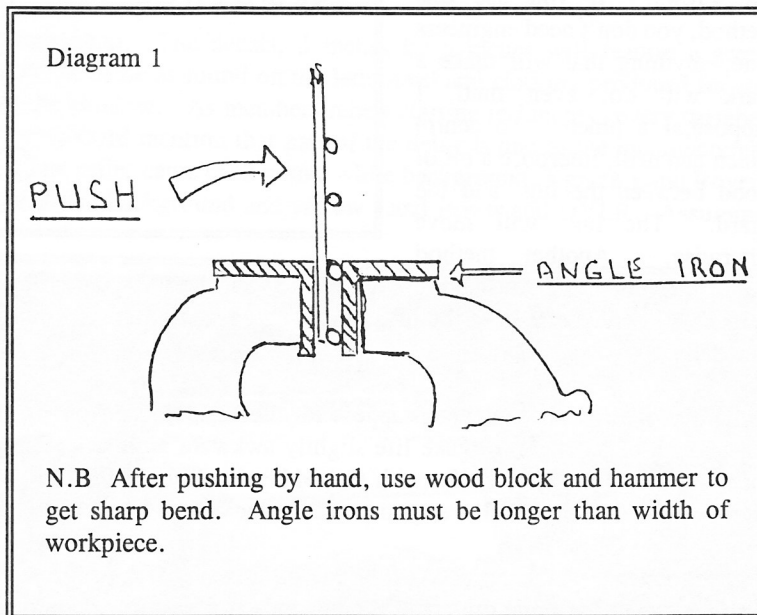
Although lamp protectors are widely available, in my view the current products have several drawbacks. I don't like bull (or bush) bars, simply because I object to running about with most of a field gate bolted to the front bumper. I haven't that much power going spare! The "basket" types are better, but in my experience, I have had more trouble with sidelamps and indicator lights than ever I've had with the headlamps, and I've got heartily sick of having to remove the little baskets from the rear lights every time. Plus the basket types that fit to the front need separate holes drilling in the wings to fit.

What I needed was stoneguards for the headlights, leaving the side and turn lamps free for bulb changing, no extra holes to be drilled to fix, and, ideally, removable without using tools. This latter I didn't achieve, though the first two conditions were met. I still think even the "no tool" condition is possible, but at the time I didn't think it was worth the trouble. I also don't claim this is an original design, simply because someone MUST have thought of this before, it's so obvious. The stoneguards I have made fit using the current screws holding the headlamp surrounds in place. They are only any use for the late S11A with lamps in the wings, and the S111. "Bugeyes" would need the dreaded extra holes in the wing to fit them.

What is required is some stuff we call "weldmesh". It is a security mesh made by welding wires at right angles so you arrive at the same sort of effect as the mesh used to make the commercial "wire basket" light guards. It is, at least in the U.K galvanised. Two pieces are required (obviously) measuring twelve inches by ten. The mesh used is one inch mesh (25mm) and uses wire of 3/32" dia approx (2mm). The mesh can be cut by whatever means comes to hand, I used a pair of double purchase wire cutters, but a hacksaw etc would work OK only slower. The best way to work is to count out ten "stringers" one way, and cut on the OUTSIDE of the tenth, turn the piece round and count twelve the other way and do the same. All right, I KNOW its obvious, so much so I've still got the false start in my shed.....

Put two pieces of angle iron in the vice, like false jaws. Put one of the pieces in the vice with the vertical stringers towards you. The ten inch dimension is the width, by the way. Trap the first horizontal stringer in the angle iron level, or nearly so with the top of the angle iron. What we are after, here, is a one inch flange either end. Now PUSH, hard, with both hands, the mesh away from you. When its as far as it will go, get really technical. Take a bit of wood over ten inches long, a largeish hammer, and BELT the thing until you've got a right angle, and a nice sharp corner. Adjustments can be made by tweaking by hand if you go too far. Repeat the other end, and with the other piece of mesh. Don't forget, the vertical stringers should be on your side and you bend away from you.

Next you need eight bits of sheet steel about 1/32" thick, thin enough (just) to cut with tinsnips. Any thicker you wont be able to work it, any thinner it wont be strong enough. Cut eight pieces, 3/4" wide by 1 1/2" long. I did mine 1 1/4" long, and they fitted OK, just, but if I made any more I'd use the extra 1/4". You could always trim it later. You need a 1/4" long slot 3/16" wide in one end of each of these bits. I used an Abrafile in a hacksaw frame. (See Diagram 2 next page)



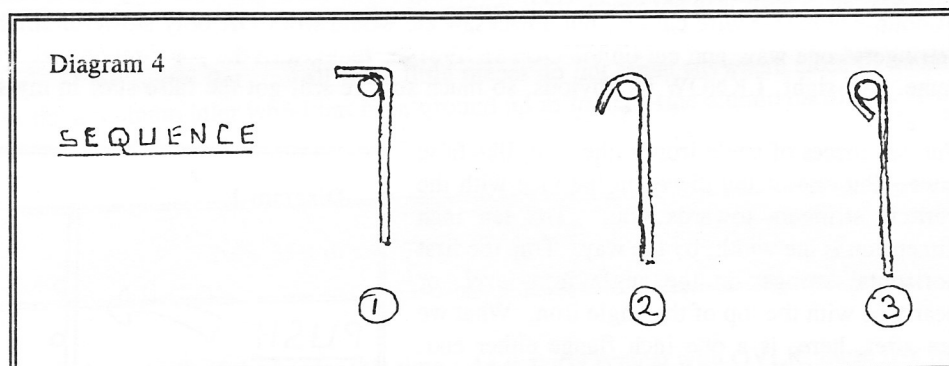
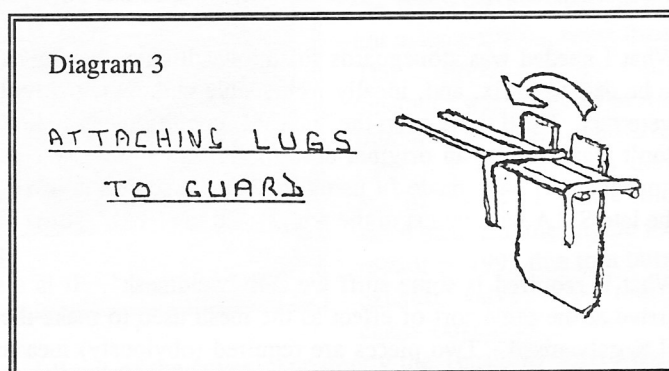
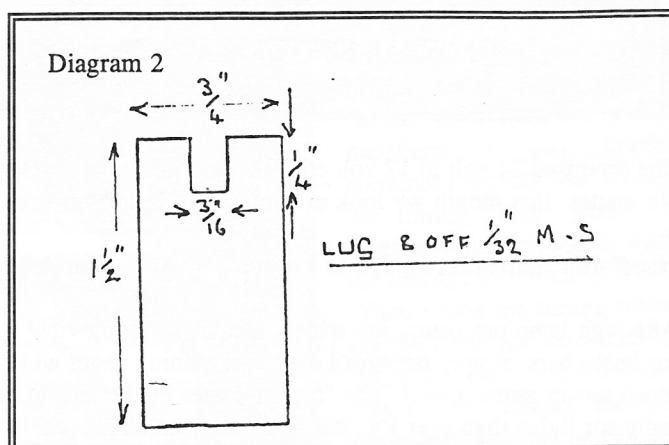
Now, assembly. The screws that fix the headlamp surrounds are at eight inch centres, near enough. You want the fixing lugs (which you have just made) fastened to the guards such that the guards are held slightly proud of the bodywork. That way they won't rattle, and they won't take your paint off. (What do you mean what paint? See article on brushing..). So the slot in the lugs (which should be central by the way, sorry I forgot to mention that) has to be positioned such that the "legs" either side go each side of the first vertical stringer in. It's difficult to explain in words, but obvious if you pop outside and plonk the thing against the Land Rover. Because the stringers themselves are at eight inches, the lugs have to straddle them. If you lay the lugs on the bench, then lay the guards on top, flanges downwards, that's the way they have to be assembled. (See *Diagram 3*) What I did was to pop the lugs in the vice and just above the bottom of the slot bend to a right angle. Then using a pair of pliers, squeezed the "legs" round the wire, either side of the relevant vertical stringer, so the lug grasped the end horizontal one. At least I put it in the vice until I got bored with it, then I held the lug with one pair of pliers, and bent with another. (See *diagram 4*) Ennyroadup, as lot as tha' gets there.

Fitting. The way I did it was to coat the heads of the fixing screws with engineers blue and carefully pressed the guards up against them. Then I centre punched the transferred marks and drilled clearance holes for the screws. If you use this method, you don't need engineers blue, anything that will make a mark will do, even mud, I suppose, at a pinch. To centre punch and drill, interpose a bit of wood between the lugs and the guard. The lugs will move otherwise. Another method would be to take off the headlight surrounds, and lay the guards flanges up on the bench, holding them still, and mark through the screwholes onto the lugs. Try and be as accurate as you can, but some deviation, I found to my surprise, is in fact, OK.

I would suggest getting new self tappers for the headlamp surround/stoneguard screws. The screwdriver has to be used at just enough of an angle to make life slightly awkward with worn screwheads. Phillips or Pozidriv would be even better, but personally I prefer to suffer with slotted heads. The guards can go on with the flanges either top and bottom or side to side, doesn't matter, whichever you prefer, mine or top and bottom.

Be sure to clean off the cut ends of the mesh, either by filing or touching on the grindstone, the sharp ends can be painful. And you can at the same time trim the lug ends if necessary. I sprayed mine with grey primer, since the weldmesh I used was a bit worn (well I DID scrounge it).

They are remarkably stiff when fitted, I can just get a wet rag under them to clean the lamps, or I can use a brush. What is more, if I need to access the lamps, I only have to undo the top two screws and they will hinge down. Stiffly, but they will. Headlamp performance is not affected. They were dim before and still are! And if you *do* need to replace a headlamp unit, you are no worse off, because you still only have to remove the screws you would have had to remove anyway. Oh, and they look good too!



	Atlantic British	British NW L/R Co.	British Pacif ic	Brit Tech	D.A.P	Rover s North	AEW Paddo ck Engla nd	Merse yside Engla nd
Categories:	800. 533. 2210	206. 866. 2254	800. 554. 4133	719. 495. 3775	508. 291. 1311	802. 879. 0032	0629. 584 499	051. 486. 8636
Cost/Free	Free	\$8.00	Free	Free	Free	Free	Free	Free
Black/White or Color	B/W	B/W	B/W	B/W	B/W	B/W	B/W	Color
Number of Pages	58	113	34	20	55	72	36	46x3*
Printed 1 or 2 sides	2	2	2	2	2	2	2	2
Bind: STAPled, RING, COR.	Ring	Sta	Sta	Cor	Sta	Sta	Sta	Ring
Physical Quality: 1-10	7	9	8	1	7	9	5	9
Illustration Qual.: 1-10	6	10	10	1	2	10	2	10
Ease/Illus. Referral 1-10	6	7	10	1	8	10	1	9
Part Explanation: 1-10	8	9	6	4	6	9	3	6
Rover Gen Parts:Y, N, MIX	Mixed	Yes	Yes	Mixed	?	Yes	?	?
Logical Presentation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Prices:IN cat, SEP, Phone	Sep	Sep	In	In	Sep	In	In	In
800 Phone Number: Y/N	Yes	No	Yes	No	No	No	No	No
Part #:Rover Inhouse MIX	In	Mixed	Rover	Rover	Rover	Rover	Rover	In
Other Rover Parts?: Y/N	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Disc. For Quantity: Y/N	?	?	Yes	?	?	Yes	?	?
Additional Helpful Info?	Yes	Yes	No	No	Yes	Yes	No	No
Peripheral Merchandise	Some	Lots	Lots	Some	Lots	Lots	Some	Some
Hard to Find Parts: Y/N	No	Yes	?	?	Yes	Yes	Yes	Yes
Technical Support?: Y/N	Yes	?	Yes	Yes	?	Yes	?	Yes
Sale Flyers?: Y/N	Y/Mo	No	No	No	No	Y/Qt	Yes	?

"When we started to review these catalogues, it became clear that three stood out above all the rest: British Northwest Land-Rover Company, Rovers North, and British Pacific. There was not one catalogue that does everything best. Brit-Tech's catalogue was the lowest scored. However, they are a small company and do not have the capital to produce a high quality catalogue - but their energy level is high. We are just glad that there were so many companies with catalogues to rate - especially for our 30 to 40 year old vehicles. Companies who do not publish catalogues (or we do not have access to) but have Rover parts include: British Rovers (Cavandish VA, 800-327-6837); Rovers West (Tuscon AZ, 602-748-8115); Roverworks (Hyde Park, NY, 800-999-6402); John Craddock (United Kingdom, 011-44-1543-505408); DLS (United Kingdom, 011-44-1629-822-185); Famous Four (United Kingdom, 011-44-1507-609444)"

This table was produced by John Benham of Spokane Washington for his Land-Rover newsletter the Rover Runner. John can be reached at N. 3616 Dowdy Road, Spokane, Washington, United States, 99204

The Laws For Land Rovers and British Sports Cars

by Don Hayward

Most of us are familiar with the physical laws thought up by Isaac Newton, the guy who invented gravity. He said things like 'For every action there is an equal and opposite reaction' and 'if you sit under a tree long enough, an apple will eventually fall on your head, provided you are sitting under an apple tree.' Isaac was considered very intelligent and was eventually responsible for the invention of calculus, which was a new kind of math for people who thought math wasn't already hard enough. He is also the reason why, even today, people who work in apple orchards often wear large, protective hats.

Newton's Laws made sense for hundreds of years, and everybody believed them. They believed them right up until the time when British cars were invented, when it was suddenly realized that a whole new bunch of laws was going to be needed. Many distinguished scientists have worked their entire lives to try and figure out why British autos never seem to obey any scientific laws known to man. These eminent scientists, with names like Wilks, Morris, Healey, Leyland, Mowog, and Murphy, shook the scientific community when they published their new theory of mechanical behavior called 'THE LAWS FOR LAND-ROVERS & BRITISH CARS.' Many people are not familiar with the five major laws, so they are listed below with a brief explanation of each.

1. **LAW OF PECULIAR RANDOM NOMENCLATURE** 'The name of a British vehicle shall consist primarily of letters and numbers, with said letters and numbers chosen in random fashion so that the resultant vehicle name is wholly devoid of meaning.' This law explains why British cars always have spectacularly bad names like 101FC, 'XKE' or worse yet, 'MGBGT.'

2. **LAW OF CRYPTIC INSTRUCTIONS** 'Any book, manual, pamphlet, or text dealing with the maintenance, repair, or restoration of a Land Rover shall be written so that at least every fourth word will be unknown to the average reader. In the event that any portion of the text is understandable, the information contained therein shall be incorrect.' Most people are familiar with this law. Here is an excerpt from page 132 of a random shop manual: 'Before rebushing the lower grunion banjos, you must remove the bonnet fascia and undo the A-arm nut with a #3 spanner.' All attempts to publish an English-language version of this manual have failed.

3. **LOVE OF HARDSHIP LAW** 'The more a Land Rover malfunctions, breaks, and/ or falls apart, the more endearing it becomes to the owner.' You buy a Land Rover. You have had it a year and a half and have replaced every item on the car at least twice. When the engine ist started it sounds as if someone has thrown a handful of ball bearings into a blender (assuming you don't have a diesel to start with). But when someone offers to buy it, you are offended because: 'It is like part of the family' and besides, 'It is so much fun to drive.' Land Rover owners, especially **Dale** often stare into space and smile a lot. This is referred to as the 'Foolish Person Syndrome.'

4. **LAW OF NON-FUNCTIONAL ATTRIBUTES** 'All Land Rovers, regardless of condition or age, shall always have at least one system or sub-system of components which is entirely non-functional, and cannot be repaired except on a semi-permanent or semi-functional basis.' The famous Lucas Electrics Law.

5. **RECENTLY DISCOVERED COMPONENT FAILURE LAW** 'Any component of a British Sports Car which is entirely unknown to the owner shall function perfectly, until such time that the owner becomes aware of the component's existence, when it shall instantly fail.'

Case in point: You have owned a rather natty Land Rover for six years. You never knew there was such a thing as a 'Gulp Valve' until I saw new ones offered for sale by Rovers North. The next day while driving your Land Rover to work, the Gulp Valve fell off the engine and was run over by a truck. You do not know what the Gulp Valve gulps, nor do you particularly care to know, since it sounds messy and dangerous. But you figured you would buy a new Gulp Valve and install it yourself. One look at the shop manual and you decided to have somebody else install it (see **LAW OF CRYPTIC INSTRUCTIONS**, above). While you're driving the car over to the local repair establishment, you notice that the Land Rover is performing just as well as it ever did, and that the loss of the mysterious Gulp Valve has not had any effect on its behavior. I figure this is due to the **NON-FUNCTIONAL ATTRIBUTE LAW**, which means that the Gulp Valve probably wasn't gulping anything anyway, so you decide not to replace it after all.

Three days later the engine had no more oil in it and promptly seized into a solid mass of metal. The tow truck operator, being ignorant of the **LOVE OF HARDSHIP LAW**, offered to take the car off my hands for \$100.00. You just smile.

LAND ROVER SPECIFICATIONS

PETROL ENGINE. Four cylinders. Overhead inlet and exhaust valves. Bore 3.562 in., stroke 3.5 in., capacity 139.5 cu. in. Maximum b.h.p. 77 at 4,250 r.p.m. Maximum torque 124 lb. ft. at 2,500 r.p.m. Compression ratio 7 to 1.

Cylinders. Monobloc, cast integral with crankcase.

Cylinder Head. Detachable, cast iron and carrying all valve gear.

Crankshaft. Forged steel three bearing. Fully balanced and with counterweights.

Main Bearings. Three, thin shell, steel-backed copper-lead. Thrust taken at center bearing.

Camshaft. Forged steel. Four bearings, white metal lined, steel backed. Drive by Duplex roller chain. Chain tension maintained by self-adjusting jockey sprocket controlled by coil compression spring and oil pressure.

Pistons Low expansion aluminum alloy, tin plated. Two compression rings, and one scraper ring. Fully floating wrist pins.

Connecting Rods. Forged steel with thin shell steel-backed copper-lead crankshaft bearings.

Ignition. Coil and battery, automatic advance. Spark Plugs Champion M14Y. Battery 12v. 57 amp. hr. Negative earth system.

Fuel Supply. 12-gallon (45 litres) tank under right-hand seat.

Carburetor. Downdraft, Zenith 36 IVE.

Air Cleaner and Silencer. Oil-bath type with built-in centrifugal pre-cleaner.

Cooling System. Pump and fan, thermostatically controlled. Capacity 21 pints Pressurized.

Lubrication. By pressure from gear-type pump forcing oil to all bearings, timing chain and valve gear. Full-flow oil filter. Capacity 11 pints.

CLUTCH. Single dry plate, 9½" dia. Diaphragm Spring.

TRANSMISSION. Transmission to rear and front axles by open propeller shaft via two-speed transfer box.

GEARS. Four forward speeds and reverse. Two-speed transfer box in conjunction with main gearbox gives eight forward speeds and two reverse.

Ratios: Main Gearbox

	Transfer box	
	High Ratio	Low Ratio
First gear	18.264	43.941
Second gear	12.483	31.398
Third gear	8.414	21.164
Top gear	6.11	15.36
Reverse gear	15.56	39.147

REAR AXLE. Fully floating, spiral bevel type. Ratio 4.7:1.

FRONT AXLE. Fitted with differential similar to rear axle. Drive to front wheels through totally enclosed universal joints.

BRAKES. Hydraulically operated foot brakes requiring light pedal pressure and infrequent adjustment. Mechanically actuated handbrake operates on transmission shaft to rear axle.

STEERING. Worm and nut with recirculating ball; variable ratio 15.6:1 straight ahead, 23.8:1 full lock. Right- or left-hand steering as required.

CHASSIS. Side and cross members of box section forming exceptionally rigid assembly.

SPRINGS. Semi-elliptic front and rear. Telescopic type shock absorbers front and rear.

TIRES. Goodyear 710 x 15—Ultra-Grip (suburbanite)

MAXIMUM DRAW BAR PULL. 4,000 lb. (1,800 kg.).

BODY. Body panels of non-corrodible light alloy, all external steel fittings heavily galvanized.

OVERALL DIMENSIONS	'REGULAR'	
	English	Metric
Wheelbase	88 in.	2.23 m.
Track	51½ in.	1.31 m.
Ground Clearance	8 in.	203 mm.
Turning Circle	38 ft.	11.58 m.
Overall Length	142¾ in.	3.62 m.
Overall Width	64 in.	1.63 m.
Overall Height (max.)	77½ in.	1.97 m.
INTERNAL DIMENSIONS		
Height of body sides	19½ in.	495 mm.
Body interior width		
between cappings	56¾ in.	1.44 m.
Floor width between wheel boxes	36¼ in.	921 mm.
Door width	36¼ in.	921 mm.
Width of wheel boxes	13¾ in.	349 mm.
Body interior length		
between cappings	43 in.	1.09 m.
Height of wheel boxes	8½ in.	216 mm.
Height, floor to roof (max.)	48½ in.	1.23 m.
PAYLOADS (with standard tires)		
On the road	3 persons	
	+ 1,000 lb. (450 kg.)	
In the rough	3 persons	
	+ 800 lb. (363 kg.)	
WEIGHT		
In running trim with 6 gals. (22.5 litres) of petrol	2,900 lb.	1,315 kg.

FREE WHEEL HUBS, ELECTRIC WINCHES and SNOW PLOWS are available through your dealer

BRITISH LEYLAND MOTORS INC.
600 Willow Tree Road, Leonia, N.J. 07605

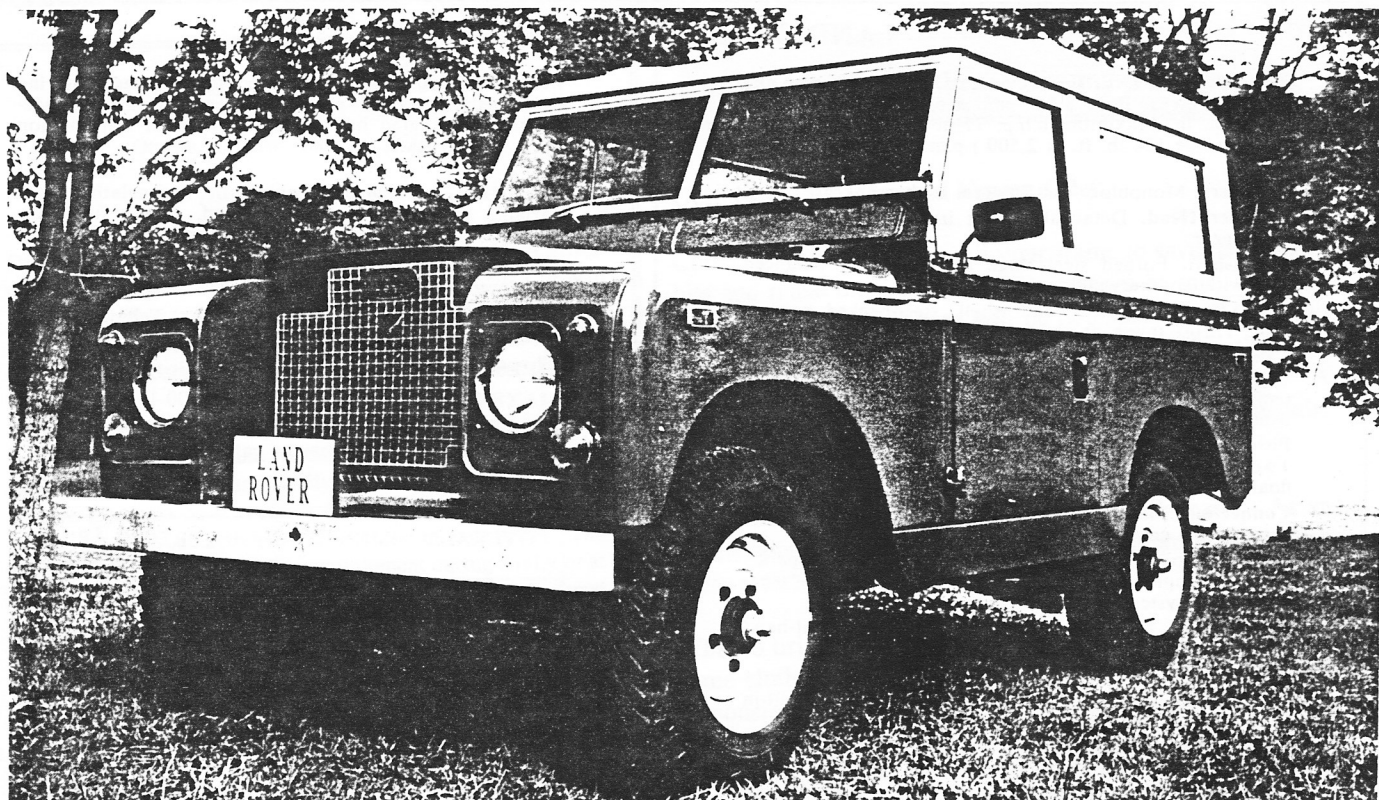
LEYLAND MOTOR SALES, INC.
Zone Offices

620 Industrial Avenue, Paramus, N.J.
1957 West 144 St., Gardena, Calif. 90249

422 Valley Drive, Brisbane, Calif. 94005
50371 E. Russell Schmidt Blvd., Mt. Clemens, Michigan 48043

620 Tchoupitoulas Street, New Orleans, Louisiana 70115





LAND ROVER DELUXE HARDTOP

SUGGESTED RETAIL PRICE AT EAST COAST PORTS OF ENTRY — \$3,900.00

SUGGESTED RETAIL PRICE AT WEST COAST PORTS OF ENTRY — \$3,955.00

STANDARD EQUIPMENT

Full length metal top with sliding side windows, security catches and door locks.

Side-hinged rear door with external locking handle.

Deluxe seating for seven. Front: Two outer seats forward adjusting. Fixed center seat. Rear: Two folding, side facing bench-seats.

Deluxe interior trim including map pockets and dome light.

Rubber carpets (front and rear).

Ash tray.

Interior and exterior spare wheel carriers.

Windshield ventilators.

Shoulder and lap safety harnesses for two front seats.

Hazard warning flashers and dual braking system.

Door mounted boomerang mirrors and interior safety mirror.

Four-speed transmission with transfer box giving eight forward and two reverse speeds.

Fully floating front and rear axles.

Oil pressure gauge.

Windshield washers.

Back-up lights.

Tool kit, wheelbrace, jack and starting crank.

Towing pintle.

Fresh-air heater and defrosters.

Engine emission controls.

Heavy duty 9-1/2" clutch.

Goodyear 710 x 15 "Ultra-Grip" tires.

Side Marker Lights

OPTIONAL EXTRA EQUIPMENT — FACTORY FITTED

	Suggested Retail Price		Suggested Retail Price
E25	\$ 6.60	E1119	\$ 2.95
E28C	\$ 5.50	E1124	\$ 15.60
E1003	\$ 22.50	E1161	\$ 2.15
		E1176	\$ 21.00
E1067	\$175.00	E1185	\$ 4.30
E1069	\$ 52.50	E1205	\$ 20.00
E1071	\$ 12.75	E1363	\$ 5.90
E1085	\$ 5.75	E1378	\$ 6.50
E1094	\$ 45.00	E1386	\$ 20.00
E1106	\$ 5.75	E1435	\$ 5.50
E1107	\$ 7.35	E1507	\$ 11.00
E1113	\$ 86.00	E1518	\$ 7.15
		E1544	\$ 24.00

NOTE: Above prices apply only to items fitted during vehicle production. Locally installed items involve separate shipment of parts plus labor costs which can be considerably more expensive.