

THE

ALUMINUM

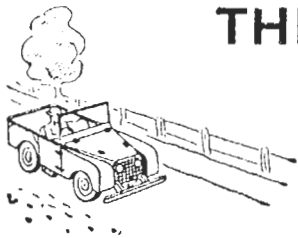


WORKHORSE

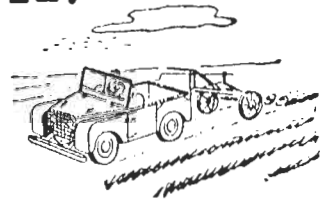
MAGAZINE



FALL/WINTER 1992



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December, 1950



Volume IX, Number III, Fall/Winter 1992
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LROA, P.O. Box 6836, Oakland, CA 94603

Member, Association of Rover Clubs, Ltd., U.K.
Corporate (voting) member, Tread Lightly!

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Items for publication should be original. If copyrighted, please include permission to print. All contributions: news items, event schedules, articles, technical tips, etc. may be hand written or typed. The most preferable media is a Macintosh formatted, 3 -1/2" diskette. The ALUMINUM WORKHORSE is produced using Pagemaker v. 4.0.1 and Microsoft Word, v. 4.0.

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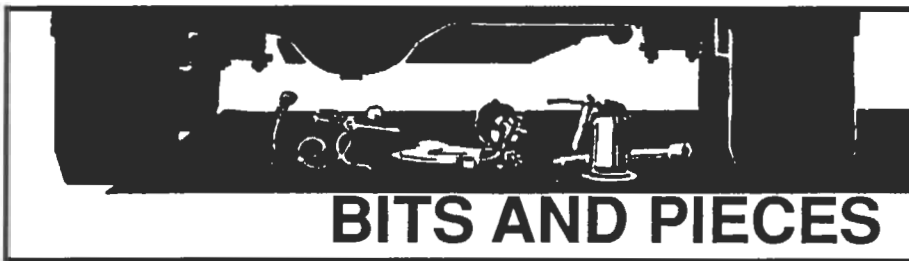
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Front Cover: Photo Chris Komar of Farmington, MA in his 88 'Special' at the Rovers North Rally, Summer '92.
Courtesy Rovers North, VT.

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MORE, MORE, MORE... Just when we thought that we had whipped this newsletter into shape, we are finding that we can't stop now. In this and future issues, you will probably be noticing some more changes marking it's evolution. The overall "look" will undergo a gradual shift towards a "magazine" quality.

For starters, the size of the type has been reduced so that we can fit **MORE** material into the same amount of space. And, if all goes well, we will be introducing a couple of new "sections". A "Rally Report" will be just that; descriptions of all the Land-Rover events across the nation, written by you people who were there. We are also hoping to get someone to volunteer to keep up on the "Solihull Scene". You will be reading some interesting tidbits from the factory, such as new products, sales figures, promotional photos, etc. A "World News" section will keep you up to date with what's happening with Rovers elsewhere on the planet. And I believe that we have coerced a certain Robin Craig to keep us informed about the "Military View" of Rovers everywhere.

A Club section (we'll come up with a catchy title like 'Roundup' or something, later) is on the drawing board and, if we decide to go with it, could replace the current "Regional News" section. A column would be provided to each of the clubs (rather than R.C.s) in North America. There, they would let you know about their upcoming events and such. This one will take some time, but we are shooting for the Spring issue. In fact, we have that issue as our target for a few other changes as well.

TRAITOR?... Byno means should you feel uncomfortable belonging to several Rover clubs. We receive club newsletters from across the country and there are always real good tech articles and interesting reports of treks into who-knows-where which are well worth the dues.

While on the subject of other newsletters I happen to know, from reading the Blue Ridge Land Rover Club newsletter, that the BRLRC has had a bunch of grill badges made up. They are very high quality badges and if you are interested in purchasing one, you should write to the club at:

BRLRC
PO Box 537-A
Round Hill, VA 22141

WHAT'S IN A NAME?... apparently a couple of countries in this case. The LROA, USA is changing it's name to LROA, NA. Neat, eh?

ANOTHER NEW CLUB... called the Capital District Rover Club has popped up. Give Eric Shyer a call. 518-733-6244.

VIVA LA DIFFERENCE... The new 110 has some differences from the "old" 110. Did you notice the tail lights? No more round lenses. Or how about the spotlights built into

the front bumper? They put on a "running board" type of step and the rear chassis crossmember has been beefed up. Even the spare tire cover is new!

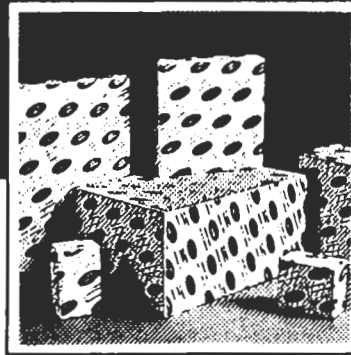
THANKS... to Glen Foster of MA who sent a donation for "Pizza and a Six Pack". Uuuurp.

TRANS-DOMINICAN RALLY... We've received a flyer which describes an "adventure rally" starting in Sosua, Puerto Plata Province, Dominican Republic on Dec. 2, 1992, and finishes at the same location one week later.

This sounds **RUGGED**. But the tropical terrain that is described sounds intriguing. The costs for participation range from \$2,500 to \$4,000 or more, depending on how many in your "crew" and whether you use your vehicle or theirs. (Wouldn't you think that shipping your vehicle to the Dominican Republic could be tricky? What about getting it back?)

The promoter's name is Michael Ruge (he's not an LROA member) and he describes him-

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self as having extensive experience in 4x4 international marathon rallies and motorcycle racing.

Sound like your cup of tea? It's too late for this year, but what about next year?

The numbers we were given are:
800-571-3090 or 809-571-3553.

4x4 INSTRUCTIONAL VIDEOS... We received a letter from an Australian businessman who now lives in San Diego, CA. He's in the business of importing "quality Australian off-road products from tents and sleeping bags (called swags), to Aussie Roobars. Mr. Butcher also offers an instructional video series which is entitled "The Right Way". He offers a 10% discount to club members. Interested?

FAIR DINKUM ENTERPRISES
P. O. Box 91231
San Diego, CA 92169
(619) 223-6789

COMMERCIAL ADVERTISING... rates are going to have to go up. We're sorry but, presently, our rates don't cover even one half of the costs to produce that ad. Our costs are \$50+ per page, per issue, and we have been selling space at \$40 per page, for TWO ISSUES. Doesn't make sense, does it? No.

So, the rates for the Spring, '93 issue will be noticeably higher than they are now. We'll be sending out a letter to the businesses listed on the Parts & Service page.

MEMBERSHIP INCREASING... or that's what it looks like we're seeing. And the biggest reason for the most recent influx, is the ATLANTIC BRITISH PARTS newsletter, ROVERLOG. They ran an ad for us for free. And the response from it was really something! We'd like to express our thanks to them for their assistance and support!

Hey, Duuudes!

The LROA is, like, TOTALLY dependent upon it's members for contributions of, you know, like Articles, Tech Tips, News, Artwork and, like, any of the other kinds of material found in the WAY COOL WORKHORSE.

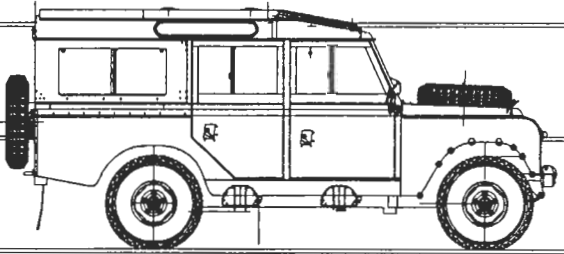
So, duuude, share that, like, AWESOME Rover story that you always tell to your buddies. Or maybe you've discovered a, like, RADICAL maintenance thing that you could get really SERIOUS about. Hey! What about Land-Rover/Range-Rover jokes? Toons? Photos? News? Get creative, Duuude!

We're, like, TOTALLY committed to print, like, ALMOST everything that comes in, so, like, you know... contribute.

Hand-written or typed is fine, or,
If you have a Macintosh computer, please send it on diskette.

Our address is:
LROA
PO Box 3836
Oakland, CA 94603

THE
ALUMINUM
WORKHORSE



UK LAND ROVER UK

OFFICIAL PUBLICATION OF THE LAND-ROVER OWNERS' ASSOCIATION
Volume VIII, Number III, Fall/Winter 1991

Here's the cover design that Lance Johnson (WA) sent in. He did it using the computer program, AUTOCAD.

Events Calendar

N. CENTRAL

•Oct 6... Indy British Motor Day. Indiana Military Museum. Call Howard Holden, 317-251-8531.

NORTHEAST

•June 27-27, 1993... Downeast V. 100+ Land Rovers, specialist companies, and clubs.

Saturday: Mount Desert Island and Acadia National Park. Evening bonfire and barbecue at a private beach. Camping available.

Sunday: Owl's Head Transportation Museum. Air show, Marquee tent, big-screen TV, Land Rover historic videos. Land Rovers from Series I to latest V8 Defender 110, also Range Rover, maybe Discovery, and Rover cars.



NEWFOUNDLANDROVERS is a club for Newfoundland Rover Owners. Founder, Kevin Burton owns the station wagon on the right. On the left is a series IIA 109 with a 6cyl. Chevy engine.



Rovers to the rescue, of course. This photo by Kevin Burton shows a mid-50s series I pulling a whatsit from a Newfoundland bog.

Contact Myles J. Murphy, RR 2, Box 84, Lincolnville, ME 04849, phone (207) 338-1659 or Steve Hanson, RFD 1, Box 1355, Rockland, ME 04841, phone (207) 594-2097 (Due to the expense, phone calls will not be returned. Try again.)

Down East Rally is free. See you there.

NORTHWOODS

•Regular events scheduled on the 3rd Sunday of most months... check with your R/C.

Vermont Rally

"Rover Roundup '92" was held over the weekend of August 1st. at Rovers North, Westford, VT. Close to 100 Land-Rovers and Range-Rovers attended. Also in attendance was the new Defender 110. Roverists came from all over the country with a strong showing from Canada and a sprinkling of overseas visitors.

The rally is owner Mark Letourney's way of saying "thank you" to his customers. The August 1 date also coincided with the date that Range Rover of North America became Land Rover of North America.

It was a wet weekend, but that didn't dampen spirits any. There was plenty of mud to play in.

Awards were handed out for the most unusual, most functional, and nicest looking vehicles. There was an award for the vehicle that most of the people would not like to own. Jim Pappas, of the Bay State Rover Owner's Association won the award for best restoration with his 1964 109" Forward Control Land-Rover.

Canadian Maritime Trek, June 1993

MIke and Rosalie Brady of NY bring up the subject every year at the "Downeast Rally... They want to explore the Canadian Maritime.

Well, they're not the only ones with an island hopping adventure in mind. As a part of a get acquainted, "pre-Around the New World in Eighty Days" trip, a group of international roverists will depart Bar Harbour, Mt. Desert Island, ME by ferry for Nova Scotia. Two days later they will board a ferry for Newfoundland for a three day tour there. Then they will return to N.S. for the short ferry trip to Prince Edward Island for two days; returning to Mid-coast Maine through New Brunswick two days before the 5th 'Downeast' Land-Rover Rally at the end of June.

This group is going for the culture (Irish, Scottish, Acadian), not the off-roading stuff. No fee involved. Just pay your own way. They will link up with Land-Rover owners and clubs in N.S., N.F., P.E.I. and N.B.

If you are interested in joining the tour, you should get in touch with Myles Murphy as soon as possible. 207-338-1659.



Rovers North's Mark LeTourney provided us with some photos of their annual "Round-Up", held last Summer. At left, Dale Guyer of PA keeps his feet dry while waiting for a recovery team.

Land-Rover North America supplied a 110 for rally participants to drive. For many, it was their first opportunity to drive a NEW Land-Rover. Below, Bob Burrs tackles the trials course.



Heavy rains forced the "off-road" closed and turned the trials course into deep mud. It was not uncommon to have 3 or 4 Rovers stuck on different parts of the course at once.

The sun finally came out Saturday afternoon to dry things out for dinner. Things had been so muddy that, Sunday, after most of the participants left, route 28 was solid mud for half a mile in either direction of Rovers North.



Downeast IV was held at the Owl's Head Transportation Museum in Maine. These folks are the owners' of the Land-Roves which reside the farthest East of any others in the US. 1st left; Mark Burgess. 2nd from right; Skip Kurz. 3rd from right; James Sparaga



A New Hampshire 88-1/2 showed up at the 'DownEast'. Nice job on the trailer!



'DownEast' canine participant.



Left: On his way to 'DownEast IV', Niel McPhee's Ex-Military 2a stopped of at the very popular Liberty Tool Company, Liberty ME. We're told that Liberty has a Land-Rover Only ordinance in effect. Note the 'No Range-Rover' sign on the front porch.



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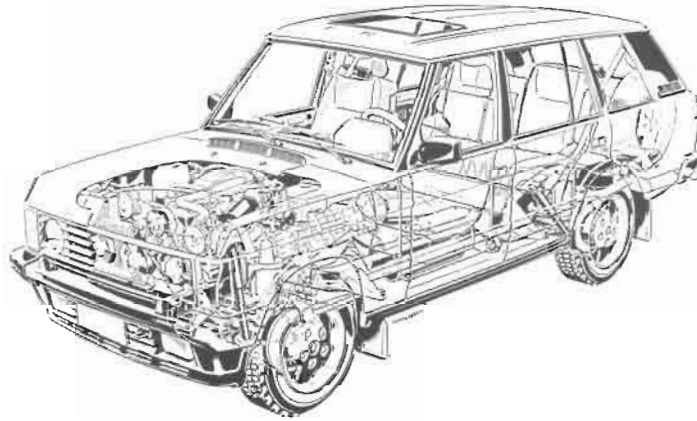
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News

Range Rover 108

The Range Rover 108 has debuted. It looks like any other RR except the wheelbase is 8 inches longer: more room for polo sticks and more comfy for rear-seat passengers. What is unique about this vehicle is the suspension. The 108 introduces the air suspension system. It has different settings to suit load and driving conditions [see October Land Rover Owner Magazine for full details]. It's no doubt destined for the U.S. market.



1993 Range Rover County LWB

PC9310 080692
LAND ROVER NORTH AMERICA, Inc. • 4330 Parliament Place, PO Box 1503, Lanham, MD 20706 • (301) 731-9041 • FAX: (301) 731-9056

Sectional Illustration of the 1993 Range-Rover County LWB with It's new Air Suspension System.



A promotional photo of the new Range Rover County LWB. The electronic Air Suspension will raise the vehicle 16 inches with the push of a button, allowing it to wade through water 22 inches deep.

Irish Rovers

A 4x4 of the Year Competition was held in County Wicklow, Ireland. Organized by Off-Road and Four Wheel Drive Magazine, ten judges considered the on and off road abilities of ten 4WD vehicles over a four-day period. Range Rover was named the overall winner. The off-road section was won by the Discovery TDi; second in off-road was Range Rover, with Defender 90 TDi coming in third. The judges considered the design, in addition to the on and off road performance, including specification, value for money, and 4x4 [sex?] appeal.

Russian Discovery and Defender 110

Earlier this year General Vasilij Juriev, head of the Moscow traffic police, accepted the keys to a Discovery from Chris Woodwork, managing director of Rover International. The five-door Disco is white with a white bush bar and an electric winch. The usual red-and-blue flashers appear on top with an even bigger blue rotating light aft of them. The Discovery will patrol the city's main road network. A defender 110 is being used in Moscow's outer rural districts. Both vehicles are under evaluation.

Rovers All Over

Defenders, Discoveries, and Range Rovers are now sold in 120 countries and are in service with over 70 military and paramilitary forces.

Seven former Warsaw Pact nations have purchased Defenders for their defence forces. Many more former Soviet Bloc armies are seriously considering or are currently evaluating the Land Rover line.

In the 1970's it was commonly thought that Land Rovers could be found in every country of the world except Albania and North Vietnam. When Vietnam reunited, the large LR population of South Vietnam was assimilated. Albania then was the last hold-out. No sooner had LR Ltd pointed out this fact than photographs of an Albanian-registered Series III landed on the desk of Colin Walkey, LR's director of external affairs. So now it is safe to say that Land Rovers can be found just about everywhere. [ed: There's even a 'Rover' on the Moon!]

The Albanian Land Rover population is increasing. A late IIA LHD ex-military 109 ambulance was donated to a children's hospital in Gjirokastra. The 109 will be the first of many going to Albania and Rumania that are prepared and donated by a group of British Army soldiers led by Corporal Mark Stanton.

Special Operations Vehicle Update

The Special Operations vehicle (SOV) Defender 110 is in service with the U.S. military. It's comprehensively equipped for military gentle folk [!]

As we mentioned in the previous issue, in which we weren't far off the mark, it has a crew of up to six. The driver, well, drives. The commander has a general-purpose machine gun mounted on the cut-down bulkhead. Another stowable GPMG is mounted on a pylon at the rear and is operated by the left-rear passenger. The other rear passenger has to bring his own weaponry, it appears. The turret operator has the best choice of arsenal. He can use twin GPMGs, a heavy MG, 20-mm or 30-mm cannon, or a 40-mm grenade launcher. The remainder of the crew has at their disposal assault rifles, sub-machine guns, grenade pistols, mortars, anti-tank weapons, and Claymore and Glade mines. All of these weapons are stowed in and on all sorts of special clips, brackets, hooks, clamps, and boxes.

Let's take a quick walk around the SOV starting with the front bumper. It's a special-built affair with an electric winch of at least 8000 lbs. Two large D-rings are fitted to the front chassis, two more on each end of the bumper. Similar lift rings appear on the sides and at the rear, all on the outside, for a total of 10. Lighting is standard in front with two convoy lights mounted on the radiator grill. Covers held in place by velcro strips can conceal the lights front and rear. Skid plates protect the vitals underneath. Well-ventilated metal boxes are mounted atop the front wings with the front end of each sitting on the bush bar. A shovel is mounted on the right side wing. Another box 6"x6"x3' is bolted to the other side, with a small mortar strapped to the top of it. The ground plate and another sizable chunk of the base of an even larger mortar is strapped to the hood. Ammo boxes for the front GPMG sit on the passenger/commander's side floor.

A communications equipment deck fits between the front seats. There is no provision for an am/fm/cassette/CD. And, would you believe, there's no cigarette lighter or ash tray.

Mounted on the bulkhead behind the front seats are two sub-machine guns and below them a couple of grenade pistols. Boxes of all sorts of ammo are stored in the rear bed. Eight anti-tank missiles take up the very rear. No tailgate is fitted.

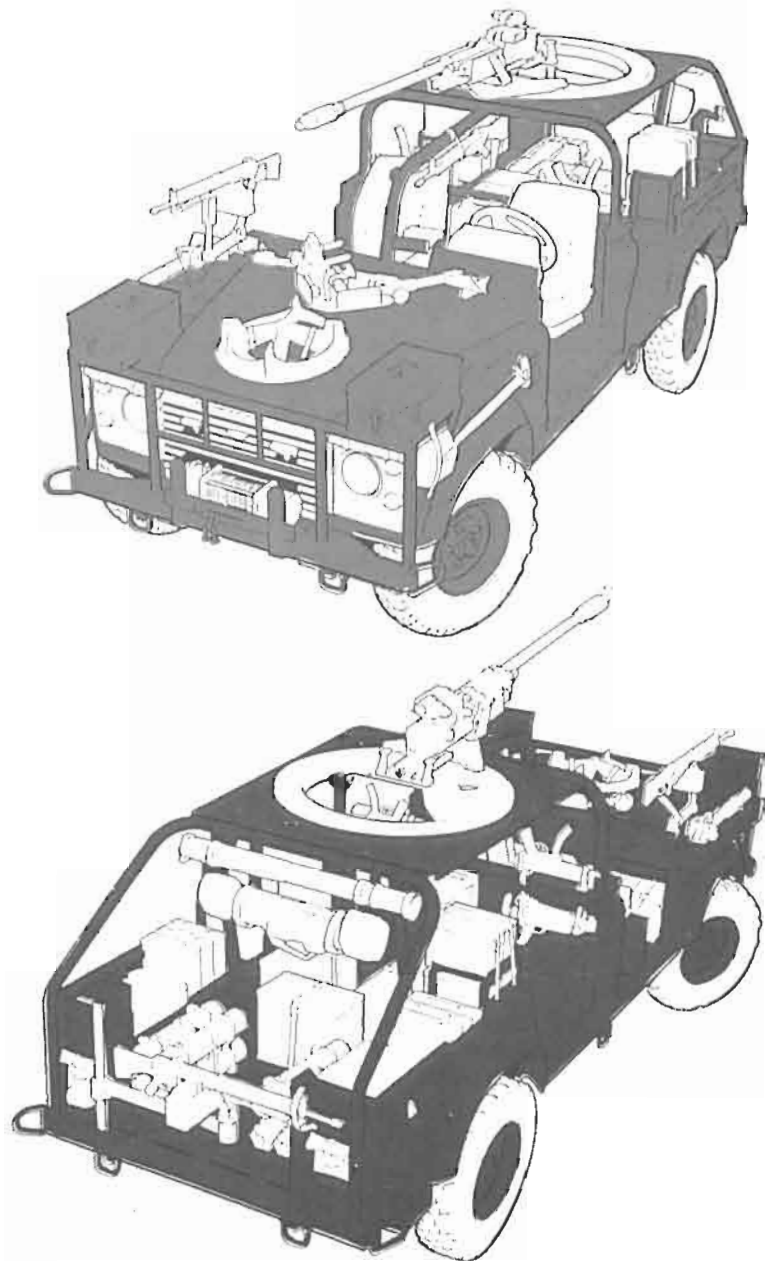
The substantial roll cage and turret support bars carry cannons and so forth. Where the bar extends to the front bulkhead between driver and passenger there are wire cutters and two

assault rifles. Aft of the turret, the muzzle of the mortar is stored. Below that, the anti-tank missile launcher. Anticlimactically, there is an axe mounted on the rear left side. The fuel tank filler is in the usual place on the right rear.

An interesting note is that it looks as if the U.S. won't be the sole user of type. A color glossy brochure states that the SOV was developed and tested to meet the air transportability and mobility needs of multi-national rapid-reaction and special forces worldwide.

This rolling arsenal is powered by Land Rover's own 2.5 turbo-charged direct injection diesel (200 TDi) or the 3.5 V8 petrol engine.

MJM notes that he's confident Land Rover knows what they're doing, since they've been at it for over 40 years. He also expresses confidence in the Army spec writers. But he would like to know what the troops are going to do when they get a flat. There's no spare tire!



This illustration of the U.S. Military Special Operations Vehicle (SOV), makes clear some of its "special" features. Courtesy Land Rover World.

Robin Craig of Ontario, Canada provided us with these three very special photos of the fully armed 110 Left Hand Drive SOV. We will be hearing more from Robin in future issues as he writes about his favorite subject; Military Land-Rovers.



Around The New World in 80 Days - Update

Myles Murphy, the organizer of this event has sent us his schedule:

Expedition groups will depart the Owl's Head Transportation Museum at 4pm, right after the 'DownEast V' rally on June 27 (see 'DownEast info on page 4). First stop - Rovers North, VT.

2nd Wknd: After PA, W. MD, WV, arrive DC. Meet Blue Ridge Club, Rover Owners Assoc. of VA. Lunch at LRNA on 3rd. Fireworks, Mall, DC on 4th, and more. Contact Blue Ridge, ROAV.

3rd Wknd: Dixieland Rovers, Tifton, GA after VA, WV, KY, TN, NC, SC. Contact Steve Johnson or Tom LaManna, FL.

4th Wknd: Fossil Rim Wildlife Center, Glenrose TX for TX rally after FL, AL, MS, LA, AK, OK. Contact Chuck Willis, TX.

5th Wknd: Telluride CO. Get together with Solihull Society after NM. Following Week thru Moab, UT to AZ, Grand Canyon & NV. Contact Solihull Society.

6th Wknd: Death Valley, CA thru Sequoia Natl. Park, Kings Canyon, Yosemite, to S.F. area. S. CA LandRover Owners, please get in touch.

7th Wknd: Lake Tahoe to Black Rock Desert, NV. Black Rock Enthusiasts take note, let's do something!

8th Wknd: OR, Pacific Coast. Meet Doug Shipman & rest of Portland area Roverists. Contact Doug Shipman.

9th Wknd: Thru Bitter Root Mt Range, ID after WA via Mt. St. Helens. N. ID to Glacier Park,, MT, then to WY & SD thru Pine Ridge Indian Res. & Badlands Natl. Pk.

10th Wknd: MN meeting with local Rover owners N. of Twin Cities. Contact Bill Osterheim.

11th Wknd: Chicago Area after WI & IA. Then thru IL, IN, MI, OH, PA, NY, via Niagara Falls. Contact Chicago LRC.

12th Wknd: Atlantic British Parts on Sept.11. And British Rovers, VT on Sept 12 & 13. Return to ME on 14th.

LROA members are welcome to join the expedition at any point for a short or long period. If you are very familiar with routes, you may take the lead. We'll be your guests. There will be plenty of rallies and other gatherings en-route.

Land Rover Businesses, if you are on or near the route, we'll come visit you. Anyone who could provide or knows of camping facilities, please get in touch!

Around The New World in 80 Days is not a commercial venture. We will not attend any LandRover gathering where a fee is charged.

This trip is for Rover Enthusiasts, Clubs, Companies. The more you put in, the more you get out of it.

Call or Write : Myles Murphy
RR2, Box 84
Lincolntonville ME 04849
Ph. 207-338-1659

Many LROA Regional Coordinators & members are listed as having information about this event. However this event is not sponsored by the LROA and the LROA will not accept any form of responsibility for any circumstance associated with it.



NEW WORLD EXPEDITION ROUTE MAP

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Q: What's the most important feature of a Land Rover?
A: Inbuilt 'Social Interaction Capability'



News &
Information

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Here is where you'll find LRNA's latest Press Releases.

Land Rover Defender 110 Buyers
to become members of Tread Lightly!, Inc.

With the introduction of the Land Rover Defender 110, Land Rover North America, Inc. will automatically enroll owners as members of TREAD LIGHTLY!.

TREAD LIGHTLY!, Inc. with headquarters in Ogden, Utah, is incorporated in California as a non-profit, education organization. Its scope encompasses all modes of back-country transportation from trucks and sport utility vehicles to ATVs, mountain bikes, snowmobiles and motorcycles.

The corporation is an expansion of a program of the same name developed by the U.S. Forest Service and the Bureau of Land Management over a three-year period. It was initiated by Cliff Blake, then of the Forest Service, who serves as executive director of the new organization.

"The national forests offer recreational users more than 200,000 miles of back roads and 100,000 miles of trails in some 156 national forests," Mr. Blake said, "TREAD LIGHTLY! gives its members a role in the protection of these natural resources."

"As Founding Members of TREAD LIGHTLY! we want to support the educational work of the organization in every way possible," said Charles R. Hughes, president of Land Rover North America, "Buyers of the Defender will no doubt use their vehicles off-pavement more than other sport utility models. The TREAD LIGHTLY! principles will teach them how to explore in harmony with the environment."

Land Rover of North America's involvement with Tread Lightly! is a natural extension of its parent company's 40-year history of scientific expedition and environmental research support.

Individual membership in TREAD LIGHTLY! costs \$20 annually. Members receive guidelines, patches, wallet card and a newsletter. More information can be obtained by writing

TREAD LIGHTLY!, Inc.
298 24th Street, Suite 325-C
Ogden, UT 84401
(801) 627-0077.

The Land Rover Defender 110 is imported by Land Rover North America, Inc., Lanham, Maryland. The vehicle is manufactured by the Rover Group Ltd. at the Land Rover Facilities in Solihull, England.

TM

TREAD LIGHTLY!
ON PUBLIC AND PRIVATE LAND

The Tread Lightly logo. Yes, LROA, NA is a member, and will begin to promote their principals.



Teams from 16 nations will tackle the wilds of Borneo in Land Rover Discovery vehicles when the Camel Trophy Adventure takes them to Sabah Malaysia on the island's northern tip May 3-22 for the 14th annual trek over 1,000 miles of the world's toughest trails.

LAND ROVER NORTH AMERICA, Inc. • 4390 Parliament Place Lanham, MD 20706 • (301) 731-9041 • Fax (301) 731-9054

LAND ROVER OWNERS ASSOC
P.O. BOX 6836
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Letters



THE FOLLOWING LETTERS ARE THE VIEWS OF THEIR AUTHORS AND NOT NECESSARILY THOSE OF ANYONE ELSE.

Dear Mr. Blevins,

May I, through the pages of your excellent magazine (He sure knows how to get my attention. ed.), express my thanks to Trevor Hunt and the many other people who made my stay in Maine very enjoyable during the Owl's Head Land-Rover meet over the weekend of June 24th and 25th? Trevor volunteered willingly to put me up at his house for the two nights covering the weekend.

I first read about the meet on LRO MAGAZINE and decided to attend. Being chairman of the local Land-Rover club, covering North London, Essex and Herts I am dedicated to all Land-Rovers and the people that drive them. The majority of these are pretty nutty too!

After convincing my wife, Sandy, that it would be great to visit Disneyland this year with our two daughters, I let her get used to the idea for a bit before casually mentioning to her that, coincidentally, there was a Land-Rover meet during the two weeks we would be in America and would she mind if I left her in Florida for that weekend. This she agreed to, much to my surprise, and on Friday the 26th of June, I was Maine-bound from Florida.

On Saturday morning, I met up with Trevor Hunt and together we went on to meet a few other Land-Rover owners in Rockland. We spent an enjoyable day roving the local countryside, visiting various places and various local characters.

One place I particularly enjoyed visiting was Ted Howards workshop in Warren, Maine, where I was lucky enough to see not one, but two 107" station wagons. Even though I have been around Land-Rovers for thirteen years, I have never seen one "in the flesh". They just don't seem to exist in England.

The day was finished off with a nice meal out with Trevor and his friends Russel and Maurice and, of course the odd beer or two. The Sunday proved to be a great day at the Owl's Head Motor

Museum with just under 70 Land-Rovers and Range-Rovers attending. Everyone I met that day was extremely friendly and, for me, my trip to Maine was the highlight of my trip to America.

Anyone who is thinking of coming over to England on holiday and would like to meet up with a Brit Land-Rover club, you can write me or call. My address is

73 Mallows Green
Harlow
Essex
CM19 5SB

and my phone is 279-416901, plus the UK code of course.

Anyone wishing to correspond with a Land-Rover owner in England to swap news and views should also write. I will guarantee a reply.

Once again, thanks to all the people who made it so. I hope I will be able to attend in the future.

Duncan Mansfield

Dear Dom and Brad,

I hope all is well with you both. There is a small problem with the notice on the bullet connectors. I needed to get a new box in December. Last week I finally got an answer on the order; they are no longer available from Waldom. I will try to find an alternative supplier.

Geoffrey Tobin
Vacaville, CA

Dear A.W.,

I spent 8 years after high school going through the trades system in Germany. Now, with my Masters title as a Mech., I'm taking a look at the USA.

I've seen most of southern Europe with my Land-Rover. I'm not sure if I'm going to stay here or where I'm going to stay. I'm hoping to answer these questions on my journey.

My girlfriend from Switzerland was with me until mid-September. She flew from LA back to Germany. We started in Maryland where my folks live, and then went to Key West, having luckily bumped into a guy named Glen Foster who drives a Range-Rover. We had a great long conversation and he told me about the club. I was, while in Germany, a member of Blue Ridge Mountain Rovers. The group is great and very helpful.

Glen was nice enough to give me his edition of A.W. (Aluminum Workhorse), Spring, 1992. Just by reading the booklet, I'm very interested in meeting some people. I'm very in love with the car and the hobby itself. I plan to keep it as long as my lower back will allow me to. Thank you. Chris Brunner



Chris Brunner's 88 on the ferry to the mainland from the outer banks of N.C. It's carrying 2 windsurfers, 2 kayaks, a box full of gear, 2 bikes, and his & her shovels! You'll find another photo of this Rover in the Summer, '92 Issue of the WORKHORSE, which was taken by Glen Foster in Key West, FL.

Dear Sirs,

I was a member of your esteemed association while I was studying Biology in the U.S.A. In Kenya, East Africa, Land-Rover is a household name. In fact, the army uses only Land-Rovers. They used the old, reliable 109s for many years, though they are now switching to the not so rugged (for Africa, at least) 110s.

I am involved in luxury camping safaris. These safaris are done with small sized groups, excellent food (a client from California remarked that it should be called an eating safari!), personal service, and, of course, a good African experience in Land-Rovers. I personally use a 109 Station Wagon with roof hatches for comfortable game viewing.

I would like to renew my membership... I still use the old newsletters for maintenance information, and hope to see some members come over for an old style Land-Rover safari.

Pritpal Soorae
P.O. Box 44919
Nairobi, Kenya
East Africa



Frank Lawson, FL, is a new member of the LROA. Here's his beautiful Series III 88 shown with the windscreen down. Thanks Frank!



Steve hanson & friend, ME. Steve did a great deal of the work on his 88 himself. Much of the mechanical work was done by a local Land Rover service center. Some bracket alignment problems were encountered with the new galvanized chassis, but she's a sweetheart now, eh?

Gallery

We've received a lot of military & civil service photos lately, so we've decided to put them into this issue's Gallery. We hope you'll find them interesting.

Ken Fritz sent in the photos on this page. At right, Ken is standing in front of a Range Rover owned by some Saudis who were camping out in the desert for the weekend.



At left, a couple of 109s in for maintenance.



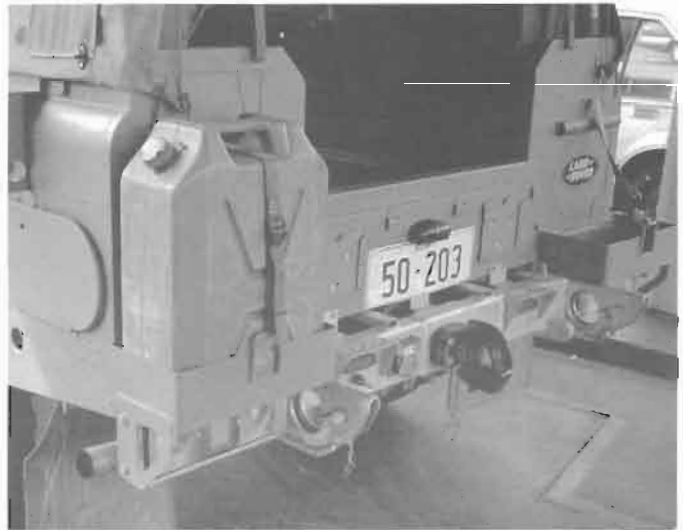
Above: RAF 39 Squadron, 39 Regiment from Cyprus. They got their muddy gray colors for the vehicles by simply mixing various available paints.

Below: 1st Aeromedical Squadron vehicle. It's pink!



Right: A 109 and a 'lightweight' in for maintenance. Dhahran, Nov. '90.

Right 2 photos: A 110 built for the Australian Army by Jaguar Rover Australia. Features include Japanese diesel engine, and a unique galvanized chassis which extends beyond the rear body. Lighting is standard at front, except for the convoy lights which are just hidden behind the bush bar, above the headlights. At the rear, the lights are built into the rear crossmember below the jerry can holders. Bodywork extends across rear at 1/2 tailgate height and those 'oval' plates at front & rear of the rear wheels are storage lockers. Just under the tow hitch, you may be able to make out a few treads of the spare tire. Brackets on the hood are for securing pick handle, axe, shovel, and pick head. Apparently, Australian Army 110s are seen in the US on military exercises every now & then. Photo via Robin Craig. Info by MJM.



An interesting line-up at a Land Rover Club gathering in Tasmania. L to R: An early Range Rover, a Series IIB 109 Forward Control (ex-military), a Series III air conditioned (unit on roof) 2-door 109, and a 1950-ish Series I 80. Downunder Roverists are very fond of overbuilt 'Roo' bars.



Two 'Centaur' half-track Land Rovers. A Series II on the left, and a 110 on the right. Both are powered by 3.5 liter V-8s. Centaurs were extensively tested by the British army but did not enter service. The rear bed is wider than the Land Rover front, which you can see on the 110. Courtesy, The Tank Museum, UK.



2 photos of a left hand drive (LHD) Military Spec. Series IIA 109 Station Wagon with 10 seat configuration and 9.00x16 tires. Some military style items to note: Front bumper over-riders; Side light configuration is vertical whereas civilian IIAs are horizontal; Light lenses twist off; Headlight mounting ring.



At the rear end are galvanized bumperettes, military tow hitch and military style license plate illuminating light. In the background of the rear view photo are two ramps. A 40° ramp on the right and a 60° ramp with staircase on the left. The ramps are, of course, used for tests and demonstrations. These two photos come from the Belgian Tank Museum in Brussels. From the vintage of the vehicle, they were probably taken in the mid-60s. Thanks to Robin Craig, Canada.



**Military Forward Control 101.
Robin Craig.**

Ventures Search and Rescue cadets in British Columbia, 1991. 'Ventures' is a British youth organization. Their CEO is 'Tiffy' Pearse-Smith (with the beard) who leads a North American expedition every year. Green Road Wilderness Expeditions, in Vancouver, British Columbia, Canada, supplied the 109 for this trip.



Ventures Search & Rescue also use 101s. Below, a Forward Control with V-8 and power driven trailer, making it a 6x6.



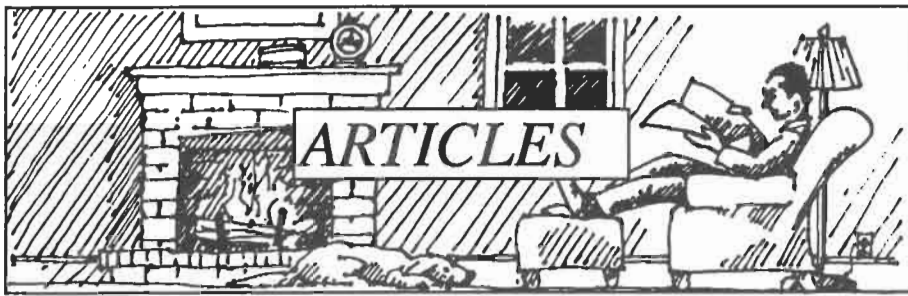
The Land Rover owners' dream: Perfect driving conditions ahead

Ventures Search & Rescue tows a T-Bird out of soft sand in Arizona. The T-Bird owner said, "My wife will never believe I was rescued by a British Search & Rescue Service!"



Ventures' other expedition vehicle is this 110.





Best Maps for Off (or on) the Beaten Track

by Myles J. Murphy (Maine)

DeLorme Mapping Company of Freeport, Maine (L.L. Bean country) has a motto "Mapping America's back roads one state at a time." They have produced several highly detailed and very accurate maps of US. States. I have been using them for years, and can vouch for their accuracy. Every turn and dip in the road -- dirt or otherwise -- is accurately reflected on the page. The only time I get lost is when I forget the map. Keep the things well hidden; quite a few of mine developed



Some of the titles available from DeLorme.



A small section of Page 29, Colorado map. It shows an area of the Roosevelt National Forest, starting 5 miles west of boulder and running west to the continental divide. Scale 1:160,000 or 1" = 2 1/2 miles.

legs or learned to fly when left unattended. (That reminds me, Hey Mike, I want my New York map back.)

DeLorme constantly upgrades and updates their products, and introduces a new state about every two months. Currently there are about 20 states available, ranging in price from \$12 to \$15. The scale varies from state to state. Smaller states such as Vermont and New Hampshire are split up into 59 or 60 sections/pages, respectively. The scale for Vermont is just under 1" to the mile while New Hampshire is just over 1". A state like Colorado (sample section illustrated) is 2.5 miles to 1". Protective waterproof jackets are available. A quick reference grid is printed on the back cover and usually on page 1 or 2. All roads and trails are in red, unpaved in broken red. Power lines, pipe lines, and railroad lines are all detailed. 4WD trails are listed as such, and so are Jeep trails (there must be a difference.) I have written to DeLorme asking them to change "Hiking trails" to "Land Rover and Hiking trails" and "Land Rover 4WD only trails."

Seriously, maps currently available are North and South California (two atlases at \$12.95 a shot,) Florida, Colorado, Illinois, Maine, Michigan, Minnesota, New Hampshire, New York, Ohio, Oregon, North Carolina, Pennsylvania, Tennessee, Vermont, Virginia, Washington, and Wisconsin. The Gazetteer section lists biking, BLM public lands, campgrounds, hiking, historic sites, national forests, parks, wildlife refuges and wilderness areas, to name a few. All are listed with their map page and grid reference.

You can buy DeLorme Atlas and Gazetteers direct from the company at:

Latitude 43° 50.8325' North
Longitude 70° 06.7525' West

Failing that, try:

DeLorme Mapping Company
P.O. Box 298

Freeport, Maine 04032

1 (207) 865-4171 or 1 (800) 227-1656

Two Miles High — the U. S. National Land Rover Rally '92

by Susan McCasland, photos by Neil and Susan McCasland (CO)
(Reprinted from *LRO*, Nov 92, with the bits they cut out put back in)

The 1992 National Land Rover Rally for the U. S. had the widest range ever (for us) of Land Rover vehicles. There was an absolutely pristine Series I SWB, a Discovery (not imported and presently unimportable), and two of the 500 brand-spanking-new '93 Defender 110s. Wow!

The setting was the San Juan Mountains of southwestern Colorado — a vertiginous piece of the Rockies that seldom dips below 7000 feet altitude. Staging for the 13 - 15 August event was out of Ouray, a pseudo-Alpine, touristy town with business names like The Swiss Chalet and Hotel Wiesbaden. (I know Wiesbaden isn't in the Alps — tell that to the Ourayans.) Ouray's major redeeming grace is its fabulous setting: nestled at the end of a huge box canyon with mountains rising a mile on three sides.

Rally registration in the city park reminded us all of our British heritage. It rained. Contests included Judge-the-Width-of-Your-Rover and Welly Wanging. Do you really do that over there? Those wet wellies are really slick, and more often than not ended up wanging into parked Rovers rather than flying down the playing field.

I counted trucks in from 13 states, including California, Vermont, and Florida. That pretty well spans the continent. Bill Teutsch, one of the members of the Solihull Society — the event organizers — told me later that 42 vehicles were registered. Of these, about half were Land Rovers and half Range Rovers. Not bad at all.

The rain stopped as the convoy pulled out for our first off-road tour. On the steep, bumpy climb up to Engineer Pass our '65 Series IIa was either right in front of or right behind a 110 Defender. That Defender was s-m-o-o-t-h. Lust. Lust. Say, got a suggestion, Solihull. After you sell off these 500 super-deluxe, gold-plated Defenders, how about sending us some more ordinary, working-type Defenders that cost less than a Range Rover. We'd be ever so grateful.

After descending from the above-timberline vistas of Engineer Mountain, the group had lunch in Animas Forks, a mining ghost town founded in 1880. Animas Forks had some classy buildings in its day, including one two-story house with a bay window that had a view forever. The altitude "down" there was still 11,160 feet. It's quite obvious at that altitude that nearly half of the earth's atmosphere is below you where it can do you



absolutely no good. Many people had screwed the high-altitude jets into their carburetors. Short of an oxygen mask, there was less they could do for themselves.

We set out after lunch up Picayune Gulch. One small problem. The Picayune Gulch Road dead ended on the side of a mountain. Now, one or two Rovers backing down is no big deal. But try getting the front 15 or so, many of whom don't have CBs, to back down to a turn-around spot. Not so easy.

Our fearless leader put us on the correct, through road and we climbed again above timberline, passing a billion sheep (it looked like Wales!) and one shepard-horse-dog combo.

The San Juan Mountains are literally riddled with old mines and prospect holes. On our way down into California Gulch we passed one mine that's still active. These guys had brought in a Caterpillar dozer and some other heavy equipment, but it still looked like back-breaking work. Most of the prospecting was for gold and silver, which had inspired many more romantics to go break their backs than, say, coal would have. The miners' legacy for 4-wheelers is the network of crude roads blasted into the sides of the mountains. No one else would ever have gone to that much trouble for us.

The trip down became arguably the most technically challenging driving of the rally. One large, twisting rock step almost guaranteed to put any 88s right rear tire a foot above solid ground. Some guys started standing on the offended fender. But other than a psychological boon for the driver, there was little to be gained from it. The longer-wheel-base coil springs took this ledge better.

The road became a dry, rocky, steep creek bed that threw one fellow's poor dog onto the shift knobs. I decided a new type of driving glove might have been useful — one with velcro palms.

We all got back to Ouray 2 1/2 hours later than planned, tired but exuberant. Total driving distance, including asphalt: 45 miles. Time on the road: 9 hours.

Next morning we gathered in the parking lot of the Ouray Municipal Pool, which is fed by a natural hot springs. This was a good chance to see all the different Rovers in attendance and talk to their owners.

The Camel Trophy Disco was a big hit because Discoveries are not imported and can not be registered for ownership in this country. It seems there are two Discos here for purposes of training the U.S. Camel Trophy team. They are classified as engineering vehicles and at the end of two years must either be destroyed or exported. Or so I was told when I asked how in the world a Disco had come by Maryland tags. This Camel Trophy Discovery came fully outfitted with recovery gear, sand ladders, and two former Camel Trophy drivers. And a whole fan club of wanna-be Disco drivers.

...continued on page 22



Starting down 'the steep stuff' on Black Bear Pass.

Another vehicle decalled all over was one of the Great Divide Expedition Range Rovers. Three years ago, Range Rover of North America took nine white Rangies, put some interesting mountain and forest decals on them, filled them with automotive journalists, and had the lot drive for three weeks (three different groups) zigzagging back and forth over the Continental Divide and other nearby mountain passes. Some of the roads we were driving on this rally were part of the Great Divide Expedition. And two of the Range Rovers in our group were part of the nine, though only one still boasted the original decals and stickers. It's a sight to turn heads, too.

We set off as a long convoy down the highway for the turn off to Black Bear Pass. Has a ring to it, doesn't it: Black Bear Pass. Our trail boss for the day, Tom Collins (one of the ex-Camel drivers), gave us all a pep talk before we actually pulled the red lever back.

"Black Bear Pass has a certain reputation in Colorado." Yes, sir, it does. And that reputation is that people die on it. It's said that about one truck a year goes over the side. "The side" is 2300 feet high in places. Neil, my husband, maintains that is doesn't matter if you fall 2000 feet or 200 feet; you'll die of fright within the first 20 feet and all the rest is just spectacle for the onlookers.

Tom went on, "There's no real technical driving involved. But some of the switchbacks are so tight that no vehicle here can get around them without backing up. Take your time. Go slow. It's no big deal. Rental Jeeps go over every day." And just how did he mean that? "I took one Range Rover rep over and when we got down he wondered what all the fuss had been about."

All the fuss is about having your nose inches from a cliff you can't see the bottom of and having to reverse once or twice to get around the hairpin. It's child's play on flat ground. But hanging precariously on the side of a mountain, you check and double check that the gears are in reverse and not first, that the hand brake is working before letting off the foot brake, that you've engaged the gears enough before letting off the

hand brake. And still your palms sweat, heedless of what your head is telling them.

Other than some high adrenaline counts, the group made it over Black Bear with no ill effects on drivers or vehicles. We heard on the CB that the hi-cap and maybe other LWB Rovers backed down a couple of stretches rather than attempting the tightest turns. Looking back toward Black Bear from the town of Telluride, it doesn't seem possible there can be a road down that sheer cliff.

Originally a mining town, Telluride has the distinction of having been home for several months to the infamous outlaw, Butch Cassidy, Butch severed that relationship when he robbed their bank and skipped town. Now Telluride, which has a nice ski area, has been "discovered." It was quite crowded when we rolled in for lunch, hot off the Bear.

Neil — who had driven all of Black Bear Pass (yes, call me chicken) — decided that, since I was driving that afternoon, he would partake of one of the local beers. Well, he'd earned it.

The route most of the rally participants took back to Ouray was over Imogene Pass. The road up Imogene pulls out of Telluride as steeply as Black Bear had dropped down into it. The big difference is that there are few switchbacks and the ones there are are wide enough to get around in one go. Instead of constant hairpins, the road hugs the side of the hill and goes on forever, following vertical canyons in and out, until it opens into a broad, above-timberline meadow that once housed the Tomboy Mine. Tomboy's ruins are massive — lots of brick and lots of concrete — and that all had to be hauled up the steep road we had just driven using mules and wagons.

Our leader in a V8 radioed back that he was going to pick up the pace above Tomboy. But leader, we're pedalling as fast as we can now!

Just shy of the summit, the sustained climb, the altitude (over 13,000 feet), and the "fast" pace conspired to give us a case of vapor lock. Three other vehicles — the hi-cap (which just happened to be driven by Randy Botala, a Rovers North mechanic), a Rangey, and an 88 — stayed back with us while we cooled the fuel lines down with snow. Yes, snow in August.

Once over the top we had no more problems. We could still hear the front group on the radio.

A word about CB call signs. A couple of trucks used their own "handles" — that is radio names they gave themselves. These two used "Red Rover" and "Blue Rover." Only there were so many red and, in particular, blue Rovers around I never knew who they were. More useful handles were assigned by others in the group picking out something unique about the particular truck they were calling. Vanity plates were useful; we were thus "65 Rover," from Nevada came "My Landy," and from Colorado a RR was "Fine Four-Wheel Drive" (FYN4WD). Though the decalled Rangey had vanity plates "Durango," they were never called anything but "Great Divide." The Discovery was unique within the state, much less within our group, but was usually called "Camel Trophy" or sometimes "Camel Disco" as if there were several to distinguish between. Other calls overheard went to such as "Hi-Cap," "Silver Kansas Rangey," and "Red California 88 with a Dog." Given names were seldom used. Such is part of the lore of CB.

Back to Ouray and the total travelled distance was 46 miles in about 7 1/2 hours.

That evening the awards dinner was held in a barn-like affair called the Bar C Chuckwagon. Their shtick was Old West — you got a "Western" meal served up by "Western" types and later were serenaded with cowboy songs. So while Bill Burke was showing us his Camel video and telling us what is was like in Burundi, there were announcements about holding your metal plate under the apple sauce so you wouldn't burn your fingers when you got ranch beans, roast beef, and corn bread.

The People's Choice award went overwhelmingly to the beautiful white Series I from Wyoming. The Furthest Driven award went to a Range Rover from West Virginia who had meandered his way out to Colorado over 2474 miles. One suggestion was in future each Land



On Engineer Mountain

Rover mile should count for about four Range Rover miles, that being more representative of driver wear and tear.

On the last day of the Rally we again gathered in the pool parking. A notable new arrival was an ex-MoD ambulance, complete with OD paint and red crosses. The owners had set it up as a fine camping rig with a double bed in the back.

The driving was to be easy. Ophir Pass, our route, was, one man assured us, so simple he had almost been able to drive his TR-7 over it, but for some slippery rocks near the top. And he was right. Still, you could pick out the crushed remains of a couple of vehicles over the edge.

Near the ghost town of Old Ophir, the organizers had set up a couple of challenges. One was a Rover teeter totter and the other a blind-folded obstacle course. There were 30 some Land Rovers and Range Rovers along side a fairly-well-travelled dirt road. This drew the curiosity of more than

one passing 4x4. As a bit of background, Land Rovers in this country are, well, rare. Once when I took our Landy in for an emissions test the garage man asked, "Type?"

"Land Rover."

"Is that a Toyota?"

"No."

"Who makes it?"

"Land Rover."

"Don't you mean a Land Cruiser?" And so it went. So to see so many of these old, peculiar vehicles and luxe, new vehicles intermingled was more than some passers by could bear.

One Range Rover drove a tire off the teeter totter, which must have weakened it (the teeter totter. The Rangey was fine.). A few trucks later a newly-restored 88 was on the teeter totter when it collapsed. But Rovers are made to take a beating. The only casualty was driver Dan's nerves.

With the end of the challenges, the '92 Rally officially ended. It had been a super one, capped by the truly spectacular scenery. Thanks to the Solihull Society and Rovers North for great organization and sponsorship.

One last thing — you still need time and distance. Neil and I drove back to Ouray from Ophir with Richard Worthington and Ginger ("Red California 88 with Dog") on a graded dirt road called Last Dollar Road. Total today for us was 68 miles in 7 hours, including the challenges. Easy going, indeed!

Principles of "Tread Lightly!" Advertising

The principles of Tread Lightly! advertising are based on promoting the actions or disciplines exercised by off-highway vehicle operators that help protect our public and private lands.

"Tread Lightly!" promotes these principles of vehicle operation, so it makes sense that advertising also promote them. If the user public is urged not to damage the environment, the same message should be depicted in advertising. The power of advertising is great. An advertiser who depicts irresponsible operation is guilty a thousand fold over the single misuser.

Stay On Designated Roads. Straying from designated roads is the biggest offense against nature. Established plant life is destroyed. Animal habitat is ruined. Unnatural erosion begins. Food chains are disrupted. The scars left are not only ugly, they are expensive if not impossible to repair. The effects of this offense last many years.

There is no benefit from straying off designated roads. The reason roads exist at all is because they lead to destinations that are interesting or important. Straying off the road gets

you nowhere. The challenges and excitement of off-highway operation can be found across the nation on thousands of miles of designated trails. The infamous Rubicon Trail is actually a designated county road, even the Camel Trophy competition and Baja races actually take place on designated roads.

The BLM or Forest Service may temporarily or permanently close a designated road. This is always for good reason — a closed road cannot be used!

The U.S. Forest Service and Bureau of Land Management can direct users to interesting, environmentally secure off-highway back roads.

Avoid Wet Backroads. Heavy vehicles can damage wet or soft backroads. Huge ruts created by a careless 4x4 may make the road

impassable, encouraging others to bypass the obstruction, thus creating ghost roads. Driving through deep mud isn't macho, it's mindless.

Streams Are Not Roads. Don't drive in streams. All bodies of water contain extremely delicate ecosystems. Use bridges or cross at designated fording points.

Avoid Excessive Wheel Spin. Many designated backroads are soft and can be damaged by excessive wheel spin. Carefully crawling over a tough spot, or using a winch, is more effective and easier on the equipment than trying to power your way through. Spinning tires just to spin tires is mindless.

Excessive Noise Is Offensive. Peace and quiet is also one of the benefits of visiting our

TM

TREAD LIGHTLY!
ON PUBLIC AND PRIVATE LAND

wild lands. Noise offends other users of the trail system. More importantly, noise can frighten wildlife and alter their normal behavior patterns.

Leave No Trace. Anything carried in must be carried out. There should be no trace of a visit to wild lands. Trash must be picked up—even if it was already there. The glass fibers of a cigarette filter can last hundreds of years.

Backroads Are Not Race Tracks. Primitive roads must be used with caution. Visibility and conditions of backroads make high speeds very hazardous. Medical help or evacuations could take a long time especially in remote locations. Assume a hiker is in the middle of the road around the next bend.

Know Where To Go. The fun of owning an off-highway vehicle is enjoying the unique features and capabilities. There are more than 200,000 miles of backroads in 156 national forests that are open to recreational users. Local Forest Service offices can provide maps, directions and information on road conditions. The U.S. Forest Service and the Bureau of Land Management promote and encourage the use of designated backroads.

"Off-Road" is Not "Off-Highway". The term "off-road" has become synonymous with "go anywhere." Staying on the road is the most important Tread Lightly! principle. Every effort must be made to avoid the term "off-road" in advertising, editorial and educational materials.

"Wilderness" Is Always Off Limits. The operation of any motor vehicle in a designated wilderness area is prohibited. The word "wilderness" must not be used in advertising or editorial to describe or imply where a vehicle can be used.

And finally, the "Tread Lightly!" Pledge:

- Travel only on designated routes.
- Respect the rights of others .
- Educate yourself.
- Avoid streams, meadows, wildlife, etc.
- Drive responsibly.

The Roving Poetry of Ray Wood

Ballad of the Prodigal from Solihull (Reprinted from OILEAK ILLUSTRATED, Fall '91)

In Lillooet there chanced to dwell
A Land Rover as we heard tell.
On the phone the dude told it was 'clean'
The finest IIA ever seen,
His father's pride (Pa, now deceased,
Had polished it and kept it greased).
And now the family destitute
Needed the loot.

We went up in our Series I
Past Whistler town and Pemberton
With Sally's mother in the back
And three kids and a bumper jack;
The dog barfed in my sleeping bag,
The offside springs began to sag —
Best left to imagination
Transportation

"Past the Indian reservation
Ten miles from the railroad station
Where the dirt road forks in three
Turn right at a twisted tree
Go through the creek and round the back
Of the junkyard to the shack..."
Watch the guard dog salivate;
Sound the horn and out comes Jake

"There she is under that tree
I'll move the tractor then you'll see.
I don't know where Dad put the top;
The doors are down under the shop.

I'll get the cables out of my truck
She oughta go unless she's snuck.
I don't mind the chicken shit,
I kinda like the smell of it."

The colour was a sort of green
Or so it was where paint had been.
It made a quite artistic match
To mosses in the body cracks.
Below the hood was really bad,
A packrat nested in the rad,
And there was only empty space
Where once had been a transfer case.

We nothing said, but stood and stared
Reflecting how life must have fared
To reduce a Rover to this plight
She really was a sorry sight.
Yet when our host hooked up the wire
This stalwart son of Warwickshire
Jumped in the air about a foot
And covered him with greasy soot.

I must confess (I've no defence)
At that point I'd lost all sense.
Before my family's very eyes
I pulled out three twenty-five
And gave it to the grinning loot
(He started then to dance about).
Perhaps I can now interest you
In purchasing a Series Two.

AMSOIL SYNTHETIC GEAR LUBES KEEP YOUR TRUCK OR HEAVY EQUIPMENT RUNNING COOL IN ANY WEATHER!!!



AMSOIL Synthetic Gear Lubes Can:

- Improve fuel efficiency (up to 9% in actual demonstration)
- Reduce rear-end temperature (up to 50° compared to conventional gear lube in actual demonstration)
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My First Land Rover by Fritz Radicchi (CA)

Well, where to begin? With "Clarence, the Cross-Eyed Lion," of course! I believe that to be the first time I realized what a Land-Rover was and that I wanted one. Must have been in the early sixties. I mentally filed this info for use at a later date.

That date was in June 1972. I was living in Boulder, Colorado and saw an ad: "1965 Land-Rover, runs, \$500" for sale in Loveland, Colorado. Gone in sixty seconds describes my haste as I raced to view what I hoped would be my second ever car and my first Rover.

I remember it well. Red with a white roof, tailgates, non-opening side windows, and no glass in the windshield. Seems it had been rolled, slightly, and had some other peculiarities, but I was blindly in love. Sure, I saw that the fenders looked like crumpled paper; sure, it was awfully loud; but it ran and all systems seemed to operate. Within ten minutes the deed was done. The used car dealer (!) would replace the windshields and I would return to pick up Elizar (new nickname — from the LZR symbol) on or about July 1st.

After driving my girlfriend home to New York, I hitched back to Colorado to assume ownership of my Rover. Do you

remember the first drive away from your Rover's old owners? That uncertainty. Will it make it to my destination, or even the next mile? Yes, it did. I drove straight to my friend's house, where he initiated me, officially, into Roverdom by helping me change manifold gaskets. Wow, what a difference! It was quiet inside; remember, I'd only been in one Rover, mine, which had a major exhaust leak.

So, what do you think the first thing I did with my new Rover was? You're right. I completely overloaded it and hit the highway for New York. Wouldn't you?

Three days later, I arrived, unpacked, and picked up my friend, Jay, for some real off-roading. Into the wilds of the Catskill Mountains surrounding our town of Monticello, NY we ventured. Up hill and down dale, looking for a dirt road.

On our left appeared a rutted, slightly wet field. With not a glance at Jay, I wheeled left into the field at about 25 mph, drove for about 50 feet, and high-centered on a hidden tree stump. Well, I thought, this is what four-wheel drive is for. Jump out, lock in, shift down, and spin those tires uselessly. Seeing the look of concern of Jay's face, I reassured him that we were in a "Land-Rover" and, therefore, could not be stuck.

This was not to be an isolated incident. We all have tales of rescue from "static driving mode" to tell; some due to desperation, some due to inspiration, and all mixed with perspiration. But I digress.

Time to inventory recovery equipment. Let's see: no winch, no rope, no chain, no hi-lift jack, nothing of any use except — what is this? A standard GM-type bumper jack. Now, how can I use this to get us out of here? Hmm, there's enough room to put the jack under the tow hitch plate at the back. I'll jack it up and put rocks under the tires and we'll drive out. Okay, here we go. Up, up, up, yes, I can see daylight under



Fritz Radicchi's last two 88s.

the truck now! It's working! I don't believe it. Okay, take it easy now, just a little higher. Oh nooooo!!!! The truck is tilting the jack! Watch out, Jay, I can't hold it, it's going over!! Sure enough, over it goes, about a foot to the left of where it sat so immobile moments ago, and just next to the tree stump that used to hold us up.

Now, I don't claim to have invented this recovery method, but at the time it sure felt like it. Needless to say, from that time on, a bumper jack earned a prominent place in all my Rovers, at least until I got a hi-lift!

I didn't start out to tell such a long story (tall tale?), but there it is. And there's more. Did I ever tell you about my straddle story? You see, it started out one dark night, after a six-pack of Heineken . . .

LROA Crossword

by Susan McCasland (CO)

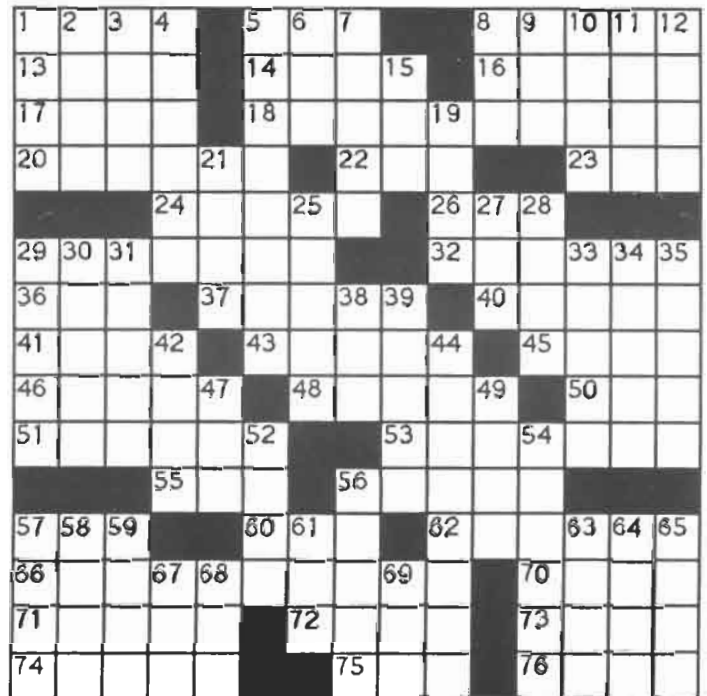
Across

1. Walton, Browne, and Hill
5. Decay
8. Big L.R. event, with 51 across
13. Our org.
14. I,I,I in Tecate
16. Mountain group in Switzerland
17. Site of 2 National rallies, with 3 down
18. Paris to _____
20. Discount
22. Self
23. _____ Vegas
24. Talked too long
26. Spy org.
29. Magic was one
32. Blades
36. Author of *The Name of the Rose*
37. English county
40. One prima donna
41. One quintillionth, comb. form
43. Planted
45. What Brad Blevins does
46. "You are afraid; _____ am I!"
48. Hawaiian geese
50. Summer in Paris
51. See 8 across
53. Where Rovers like to go
55. Oneself in Versailles
56. Pico de _____, highest peak in Pyrenees
57. Mrs. in Castille
60. Make a wax job look good
62. Apache relative

66. Two terrains for Rover fun
70. Panache
71. Sioux relative
72. To be in Grenoble
73. Collect leaves
74. Public assembly in Olde England
75. Sensory organ
76. Perceives

Down

1. Impugn
2. Johnson of *Laugh-In*
3. See 17 across
4. Classic Land Rover milieu
5. Incivility
6. "_____ clear day you can see forever"
7. Transit money
8. Train segment
9. Military computer language
10. To heat and spice wine
11. Ms. Fitzgerald
12. Ballads
15. Droop
19. Black _____ Run
21. Seize
25. Mr. Welles
27. Predicament: be _____ jam
28. Assistant
29. Most tiny
30. Thespian
31. A game of chance
33. Taped pictures
34. Webber musical
35. Full



38. Ram's mate
39. Flash tube ingredient
42. Uh oh
44. Our newest import
47. Exclamation of exultation
49. Bay Area teachers' org.
52. Scottish earth
54. What we all drive
56. To make less
57. Cars make it
58. Trick
59. Eve's mate
61. "_____ it or lose it"
63. Wings
64. Diesel engine brake: _____ brake
65. 14 across in English
67. "Long, long _____"
68. Total after expenses
69. Gun org.

Trans-Canada Alaska Tour '92

by Arthur . Person, MS

Space doesn't permit a complete story about Trans-Canada Tour '92, however I will try to give all of you Land-Rover owners an overview of the trip.

Cheryl and I are from Mississippi, and decided on this trip as a way to see a part of the USA and Canada that we had never seen, but had talked about for several years. We learned about the trip approximately eight months before departure date. We decided to go, and thus unleashed a mad, sometimes frantic, and from this perspective, comical dash to prepare our 1971 series IIA, and ourselves for the trip. How many of you have camped out for five or six weeks? Or, better than that, climbed into your 20+ year old Land-Rover and set out on a trip that would put over 14,000 miles on the odometer before you got back home? Not many, I'm sure. We managed to get a fairly good set of camping supplies together and with the wonderful help of the Rovers North folks, about 200 long distance phone calls to Vermont, and our friends at UPS, we got our Rover in shape. Even with all this help, we couldn't have done it without the special help of Mike Moore, a Rover owner and perfectionist mechanic from Baton Rouge, Louisiana.

Nothing comes easy for us, though. And on our drive up to meet the rest of the trip participants in Maine, our Rover died. Because it happened on a Saturday, and we were due at Rovers North in Westford, VT on Tuesday, we decided to rent a truck and trailer, and haul our Land-Rover up to Vermont. Two days later, we arrived at Rovers North with the Rover on a U-Haul trailer. Charlie and Steve soon diagnosed the trouble, replaced the worn out distributor, and completely re-wired the beast in two days. Thanks guys!

We met several of the other participants at Ron Mowry's in Maine. Ron and his two children, Bryana and Morgan, would be travelling in a 1984 Range-Rover that he was delivering to Kodiak Island, Alaska. We also met Walter Janney from Vermont, with his immaculate series IIA and a matching travel trailer, and Jeff & Sandy Guyer from Pennsylvania in their 1985 2-door Range-Rover also pulling a trailer. So far, Cheryl and I were the only ones with a tent! We met the rest of the group in Nova Scotia. The other "thru-trippers" were Rene' Boekel, from Holland, driving an ex-military soft top, and two couples



Jaaka Polyantull, from Finland, dips his wheels in Halifax Harbor

from Finland and Sweden, Jaakka and Helena Polyantuli and their friends Raimo and Kaya Toivonen. They were driving a Series IIA diesel 109. This group made up the participants that were going "all the way"... Halifax, Nov Scotia to Anchorage, Alaska. John Cranfield from Nova Scotia travelled with us to Manatoulin Island, Ontario and refused to let us kidnap him for the rest of the trip. We kept the Labatts cold for you just in case you showed up again, John. John's sister, Jeannie and her handsome son, David drove with us to Moncton, New Brunswick. They were lots of fun and we hated to see them leave.

After getting the group together at John Cranfield's farm, we set off for Halifax and the official beginning of the tour on July 3rd. We dipped our rear wheels into the Atlantic Ocean in Halifax Harbor, and were off on our great adventure. John Cranfield was the designated leader for this part of the trip, as he was familiar with all the highways and byways in the area. We soon found out that John never saw a dirt or gravel road that he didn't like. We travelled through rural areas, forests, and game refuges, all on unimproved roads... the muddier, the better. No wonder John's license plate reads "MUDDY"! From an off-roading standpoint, this was to be the last that we would see until we got all the way across the country into northern British Columbia.

As we settled into the trip routine, we developed a pattern of fairly frequent stops, some sight seeing and about five or six hours of driving each day. Averaging 70 to 80kph, we were able to cover from three hundred to four hundred km each day. That's about all you can comfortably



The USA contingent, meets the rest of the group at Yarmouth, Nova Scotia. We had just cleared customs after crossing on the ferry from Bar Harbor, Maine.

tolerate in a Land-Rover on a day in, day out basis. The trip was an event that I will never forget. We saw some of the most beautiful country on the North American Continent, and made some real friends and demonstrated to ourselves and many others along the way just how rugged and trouble free our trusty Rovers were.

We were not without our troubles, however. The weather was the worst the Canadians had experienced in years. It rained, and it rained. We told the people all along the route that we were actually rain makers, hired by the government to insure that there was no drought this year. And it worked! We got rained on in areas that never see rain during July! It was also cold and very windy. Not your typical T-shirt and shorts type summer.

Our most serious encounter was to happen all the way across Canada in Calgary, where Ron had an auto accident, injuring himself and

the children, thankfully, not too seriously. His Range-Rover was destroyed and they were unable to continue. As far as the rest of the group, our mechanical problems were fairly few and far between, and not serious. Cheryl and I realized early into the trip that our tired rear springs were going to be a problem unless we could get them fixed. John Cranfield and I found a Spring shop in Moncton, New Brunswick and they were able to replace some of the leaves. Wow, what a difference! I could actually see over the bonnet now. Jeff Guyer broke a throttle cable while driving on the main throughway in Montreal. That was a real treat. Jeff, a retired Pennsylvania State Trooper, set out flares which the Montreal drivers promptly mistook for a slalom course! Jeff jury-rigged the choke cable and got off the throughway. He then got a chance to see some different countryside as he and Rene' drove to Rovers North to pick up a new cable. Jeff,

aren't you glad it didn't break in the Yukon? We had one broken axle on the diesel 109 and had to replace a bad starter in Calgary. We didn't have a single flat tire on the trip, only a couple of small windscreen "pecks" on the Alcan, and not one vehicle disabled while on the road. Sorry, we did have one. Rene' and his friend, Peter decided to explore a cutover hillside up in the Yukon. They got stuck and called for help on the CB. Cheryl and I made our way up the hill and assisted them in getting themselves out. We also read them the riot act about getting separated from the group without letting the rest of us know where they were going. Not that it did any good, as our "free spirit" decided to ford a river several days later, and had to be pulled out by a (choke) Jeep.

He also had to siphon about ten gallons of water out of his under-seat tool box.

Although we didn't do much off-roading on the trip, unless you consider the entire length of the Alcan as one long giant off-roading adventure, we were introduced to some real "down dirty" stuff by the Toronto Land-Rover Club. This very strong organization has a great place set up near Picton, Ontario. Right on the shore of Lake Ontario, they have muddy bogs, forest trails and fresh water ponds. We spent an entire morning with this wild and crazy bunch, mostly in awe as to what their Rovers could do in mud and water. They have not the slightest qualms about getting their Rovers dirty, wet, stuck, you name it. One of the highlights of reliability was demonstrated by Tom Tollefson, who drove his 109 into the lake to "wash it off" and promptly went in over the top of the bonnet! We towed him out, pulled the plugs, dried the distributor, turned the motor over and blew water out of the cylinders, put it all back together, and fired it up. Doing nothing else, he drove it back to Toronto, several hundred kilometers away. I was amazed at the abilities of these vehicles. Probably one of the most disappointing aspects of the trip was that we were on such a tight schedule that we weren't able to do a lot of the things that the various clubs and individuals had planned for us. We were really sorry that our timetable wouldn't allow us to explore forest and mountain trails with our local tour guides. We just couldn't afford to get behind in our schedule. The other problem that we were concerned about, was the risk of a major trip-ending breakdown due to our over zealous off-roading in our Land-Rovers. Hopefully, we will get a chance to do some of these trips at a later date.

We were all impressed, not only with the scenery but, with the people we met. Everywhere we went, the people were friendly, helpful and very interesting. We certainly couldn't have done this trip without the help of all the Land-Rover clubs throughout Canada. These fine folks went out of their way to assist



Rene' Boekel tries out the Toronto Land-Rover Club's off-road course near Picton, Ontario.



John Cranfield's "MUDDY" disappears in a huge wave, as he is passed by two of the Toronto club members. This shallow lake was next to Lake Ontario.

us in every way possible. They were wonderful hosts and all of us who made the trip owe them a debt of gratitude. They also can do things in the mud and water with their Rovers that I wouldn't have dreamed of. We also were fortunate to meet two young Englishmen, David Newell and Johnny Bergius, who were travelling in a beautiful 110 diesel. David was touring the world, after taking five years off. He had already been through Europe and Africa, and was going to Australia next. They were quite interesting, and had some really great stories. All in all, the people we met in Canada and Alaska were friendly, helpful, and generally amazed that we would even attempt a trip of this type in our "vintage vehicles". Thanks again, folks for your wonderful hospitality. All of you who guided us through cities, provided places for us to camp, set up those wonderful side trips, and everything else that you did to make this truly a trip of a lifetime, a heartfelt "thank you" from all of us. We couldn't have done it without you.

Would I do it again? Not in this format. I wouldn't trade this trip for anything, but having done it once is enough. A trip of this type gives you a wonderful overview of the country that you are travelling through, but just as overview. Our schedule was so demanding that we often had to forgo side trips and points of interest in order that we stay on schedule. Unfortunately, with a trip of this magnitude, going vast distances, you cannot allow yourself to get too far behind schedule. What it does allow you to do is "sample the wares" and plan other trips to specific areas allowing more time to see the sights.

Even with a trip like this, the Rover is a great machine. It forces you to slow down and savor the scenery, rather than seeing it through tinted windows with the radio blasting in your ear. If you ever get the chance to do one of these trips, even on a more limited basis, I urge you to get the old Rover out, open the windows (as much as you can), throw in the camping gear, and take off. You won't regret it.



Heading towards the mountains, "Lone Rover" travels in beautiful solitude toward a mist shrouded mountain in the Yukon.



Jeff Guyer dipping his front wheels in the Pacific ocean. Sadly for all of us, this was the event which marked the end of a wonderful trip.

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Black Rock Controversy-

Another View

In the Spring '92 issue of A.W., we ran Marvin Mattson's summation of a draft from the Bureau of Land Management (BLM) concerning the future of the Black Rock Desert. In response to that article, BLM sent us the following:

Dear Mr. Blevins,

We thank you for the opportunity to submit an article in your newsletter to clarify the Interdistrict Management Summary we are working on, and our activities in the Black Rock Desert/High Rock Canyon of northwestern Nevada. When we produce the final draft of the Interdistrict Management Summary, we will send you a copy.

In order to accomplish our mutual concern with making sure the facts are correct, we would appreciate it if you consult with us about any editorial changes you need to make to the attached article.

We hope that this article will help begin a cooperative, productive relationship with your organization.

Sincerely yours, Ron Wenker, District Manager

In the Spring edition of this newsletter, the "News from the West" column carried an article which tried to describe a future management scenario for the Black Rock Desert. This article invited readers to write to the Bureau of Land Management (BLM) with comments. So far, one letter has been received, but we asked the reader to send us a copy of the article, and we were surprised at how inaccurate it was.

It seems the draft Interdistrict Management Summary we put out for public comment was misinterpreted. The purpose of this document was to summarize management activities already in place in the Black Rock Desert/High Rock Canyon area, identify current management issues, and present some future management issues which may arise. The only new activities mentioned are to provide information to visitors using the area, and find out more about them. There is a Management Summary advisory committee made up of members of various interest groups and local government agencies which has guided us on writing the draft Ed Dunkley from the California Association of Four Wheel Drive Clubs represents ORV interests).

To go through the article point by point:

- Nowhere in the draft document, nor in the final document we're working on, is there any mention of making people register to use the area. The High Rock Trekkers, a four wheel drive club, installed **voluntary** visitor registers near the Double Hot Springs and the mouth of High Rock Canyon, in a cooperative project with us. The purpose was to gain a better idea of how many people are coming, where they are from, and allow people to express their feelings about the area.

- There is no proposal to restrict use to daytime travel.

- There is not, and won't be, any requirement for groups of five or more to file an environmental impact statement and obtain a use permit. BLM policy for all public lands is to issue permits for competitive event, commercial events and other recreational activities involving 50 or more vehicles.

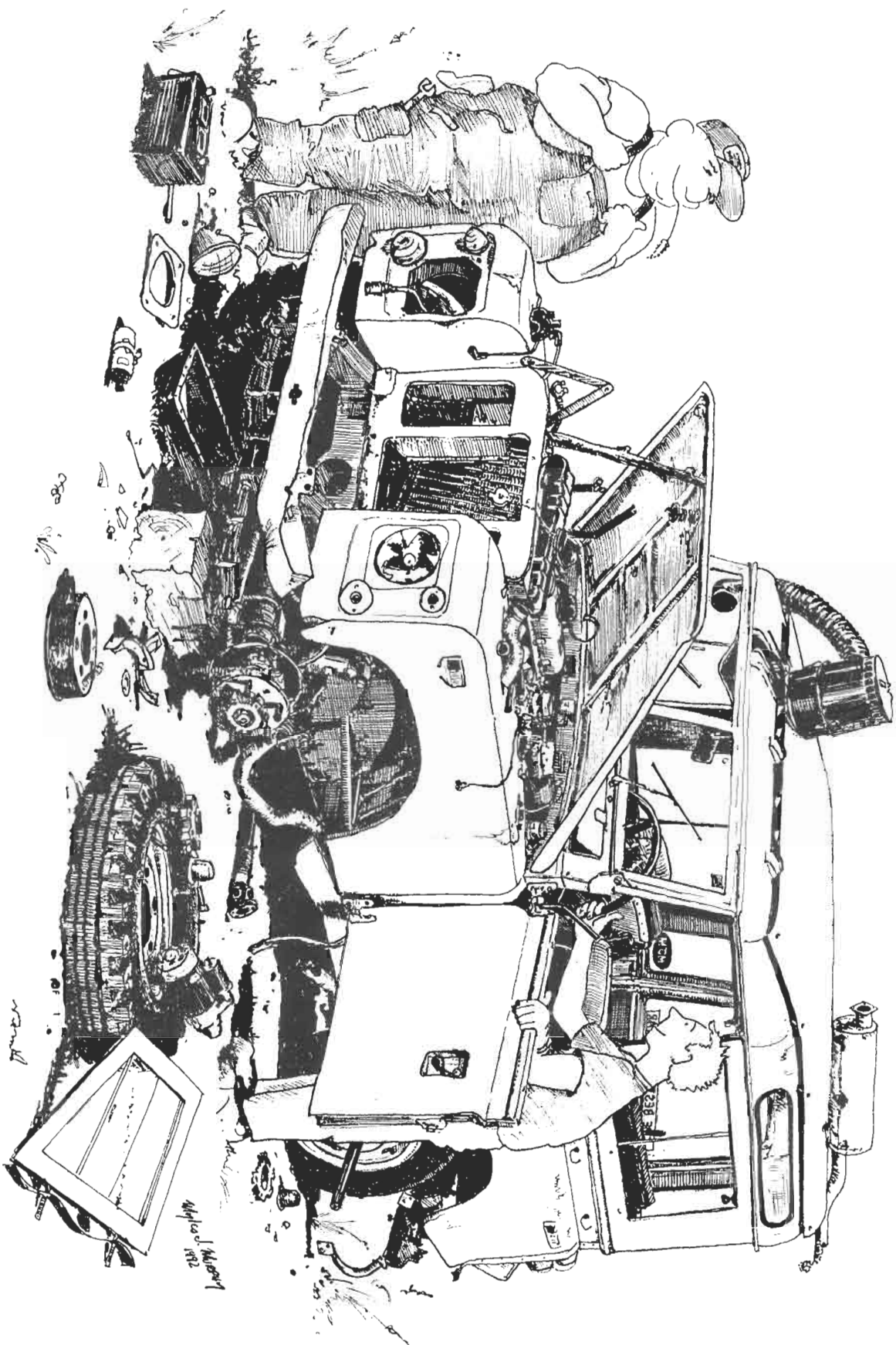
There are several proposals by various groups to introduce legislation that would designate all or part of the Black Rock/High Rock area as a National Conservation Area (NCA), to protect historical and landscape values. The Nevada BLM has been neutral on these proposals, serving to provide information to the various groups involved.

There are many different types of people who use the Black Rock/High Rock for different purposes, but two important feelings most users seem to share is that they feel a real attachment to the area, and that recreational use is steadily growing. This means that an important part of our job in managing the area is to involve concerned groups, take into account their values, and exchange accurate information with them about resource conditions, and levels of use. We welcome your organization to participate in this process in a positive, cooperative, and well-informed way. Another way to participate is to help us in management activities through cooperative projects. Those interested can contact:

Jeff McCusker
Outdoor Recreation Planner
705 E. 4th St.
Winnemucca, NV 89445
702-623-1568



A group of Land Rover Owners stop in the Black Rock Desert for a short break.



Coloring Contest for Kids! Brain Puzzle for adults!

Kids:

Make a photocopy of this drawing, the same size or larger. Send it to British Rovers, PO Box 602, Cavendish VT 05142. Include name, address and age. The first and several of the best will get a 100% cotton T-shirt with this illustrated on it. The T-shirt also features the caption "It's Never Over With a Rover"

Adults:

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Tech Tips

How to Check a Land Rover

Reprinted from Off Road Australia, circa mid '70s

Listed below are the methods of checking a used Land Rover. There are several finer points, but the points listed are merely a guide that anyone can follow:

1. Check for rust, especially on the flat angled section of the fire wall where the pedals are, also passenger side, and lower parts of doors and side screens.

2. If possible get the vehicle on a hoist, look for oil leaks from engine, transmission, both diffs. Check for wear in splined section of front propeller shaft, and rear propeller shaft on handbrake drum, check front and rear diff bearings.

3. Check lights, condition of lens, electrical components, horn, etc.

4. Check brake and clutch pedals for wear on pedal facings.

5. Check slack in steering by moving steering wheel until wheels start to turn. Get someone to keep moving the steering wheel and check tie rod ends for slackness. Also check steering relay box and splines on relay box.

6. Check battery by turning engine over a few times with ignition off. Check if there is water in battery.

7. Start engine; check amp meter and if oil light goes out. However, before starting, see if the end of the exhaust pipe is black (means burning oil); grey means it's all right. Check if smoke comes from exhaust. Thick blue smoke means the engine is worn. Check after driving four miles if exhaust is grey or black.

8. Check tyres, inside and out (cracks can be put on the inside). Check spare, check front tyres for uneven wear, check back tyres also as they may have been rotated. All tyres should have the same tread.

9. Get hold of the top of front wheels and see if you get any play in the swivel pin housing (large balls on front axle). If you get play and clunking it could be costly. Check condition of balls with steering on full left and right lock. Look for pitting and general wear. If you can get the front wheels off the ground to check the play, etc., all the better.

10. Look under the bonnet for water leaks around radiator, hoses, welsh plugs, and water pump. Check for oil leaks, check engine oil for cleanliness. Check there is no water in oil. Oil will look grey if there is water in it after engine has been running. Check for bubbles in radiator when hot. Bubbles mean the engine or head may be cracked.

11. Listen for odd engine noises with bonnet up. Any unusual noises could be expensive.

12. Check clutch slip by applying handbrake and, with engine running, engage top gear; let clutch out. If engine dies, clutch is not slipping. If engine doesn't die, clutch is slipping. Check for clutch shudder when driving. Check engine mounts.

13. Check steering when moving. See if vehicle wanders.

14. Check brakes for stopping power, or if brakes pull to either side. Check handbrake. It should pull on and stay on. Check handbrake drum for oil leaks. Check brake hoses and lines.

15. When in top gear, listen for differential whine at 30 m.p.h., and transfer case whine when you take foot off accelerator at about 35 m.p.h.. Check first and reverse gear for noise. Check it doesn't jump any gears, particularly third.

16. See ammeter shows a charge when engine first started, and drops to zero after a run. Check speedo is registering m.p.h. and miles covered.

17. Check on modifications, that is neatness of fitting of extras, wiring loom, etc.

18. Check condition of tow bar; wear indicates hard pulling.

The above covers the most important areas of a Land Rover that could be faulty. Of course check body for dents and seats for tears. Check chassis in front for signs of repair after an accident.

WE NEED TECH ARTICLES

Got any little "tips"? Write em up... maybe draw a picture to go with it, or take a picture. Send it in to us. We'll get it out in the WORKHORSE so that other members can benefit from it.



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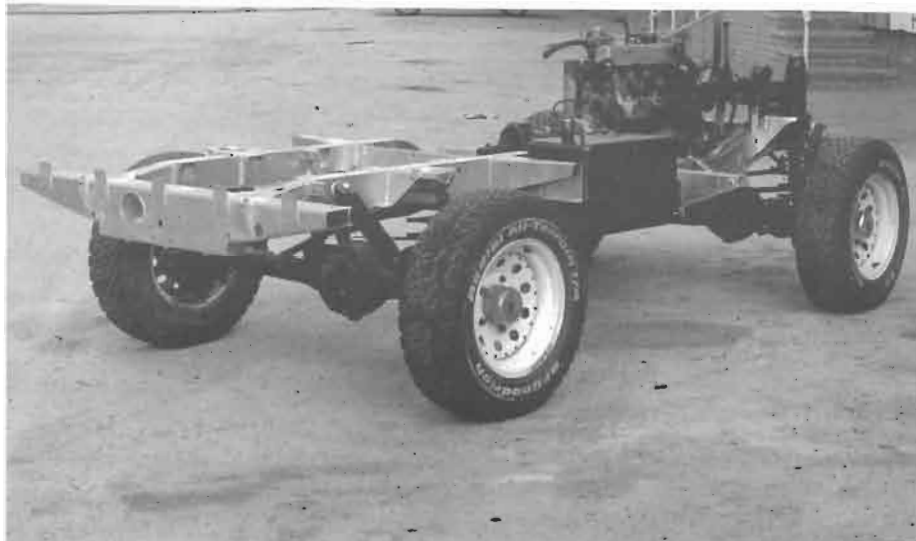
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Coil Springs for Leaf Springs

Definitely not for the purist, but a good idea. The photo shows an 88" rolling galvanized chassis with fuel tank, 2.25 liter 4-cylinder engine and standard Series II 4-speed gearbox. Fixing points normally used to secure leaf springs and the shock absorber mounts have been deleted. Instead the otherwise normal chassis has been modified for coil suspension.

The front radius arms are anchored to reinforced and modified bulkhead outriggers, while the rear axle link arms (bottom link) are attached a foot or so further back. The axles, springs, shocks, disc brakes, panhard rod and bracket, and the steering linkage up to the drop arm are Range Rover. Everything above the chassis is normal Land Rover 88 or 109.

The frame is available by itself or comes with all the relevant bits — axles, springs, etc. — for you to assemble at your leisure. Finding the appropriate bits from a junked early



88" rolling chassis, modified for Range Rover axles and coil suspension.



The finished job. Note the wider track ground clearance under the diff.

Range Rover in the U.S. would be next to impossible. An assembled, ready-to-go, rolling chassis is also available. Getting all these components shipped to the U.S. should be very straight forward. I'm not too sure what the situation is regarding a rolling chassis (I ain't gonna make another phone call to find out). The other solution is to ship your Rover to the U.K. Have the old frame replaced with the coil spring version including a quick refit and respray. As soon as the job is done, book passage for self and family on the first steamer, pick up the old beast and take a leisurely trip around Europe. In coil sprung comfort, of course. If you can manage to keep a straight face coming home through customs — and the kids keep their mouths shut — you should sail through without difficulty. I personally can't see what they could be fussy about. EPA will have nothing to say; it'll have the same engine. DOT may have something to bitch about — but who listens to them.

Conversions are available for 88 and 109 Land Rovers. The vehicle illustrated is a Series III, but the Series IIA will lend itself to the same treatment.

With this conversion other possibilities arise, like alternative engines — V8, TDI, etc. — and Range Rover 4- and 5-speed (or 90/110) gearboxes and permanent 4WD that some arrangements will offer. Putting together a 90 or 110 look-alike is also possible. Some of these look-alikes are very convincing, even though they retain their 88 and 109 wheel base. Coil spring conversion kits have been available for years for the DIYer. But this conversion is the first serious effort to do what Land Rover intended to do in the late '60s and early '70s, but simply didn't have the will or the money. Just think, the Series III could have had coil springs from the outset. As is the case with many a Land Rover product, the Series III was yet another stop-gap compromise.

Before you delve into the possibilities of a smoother ride, wider track, disc brakes, and all the wonders this conversion makes available to you, have a chat with your Land Rover parts specialist on this side of the Pond for their advice and consent. They might be able to get everything together for you. Failing that, contact Arrow Services, Attn. Derrick Sturgess, Unit 4, Churchill Buildings, Churchill Road, Doncaster DN1 2TF, U.K., phone 011-44-302-341154, FAX 011-44-302-341736. Be very specific about your needs — you know left-hand-drive and all that. And tell them where you read it first. The light-hearted aspects of this article are exactly that. This conversion is a definite alternative for some. Get all the facts before you write a check.

Range Rover Tire Critique

Ken also would like you RR owners who are looking at tires to take advantage of his research. He writes, "The original M+S 205R16 Michelins worked very well and were quiet on the highway. At about 30,000 miles they were OK in sand and rock but not too good in the snow.

I replaced them at 41,000 miles with Avon Rangemaster 215R16. The Avons were severely out of round and I sent them back. The replacements were better, but not as good as the Michelins. With 23,000 miles on them, the Rangemasters are really noisy, which may be expected because of the more aggressive tread. They still have great gobs of tread and grip to go almost anywhere. If the Avons were truer, they would probably be quieter and last longer.

My Range-Rover book suggests leaving the tires alone, i.e., not rotating them. I have tried the Michelins on a 5,000 mile rotation schedule and got even wear. The Avons wear unevenly because they are not round. I hesitate to have them shaved (trues) and lose even more rubber.

Range Rover Air Cleaner Option

Ken Fritz, CA writes that he fitted a K&N Cleanable Air Filter to his RR and has gained 1-2mpg on the highway. This is, as Ken says, a good deal at \$1.40/gallon for premium fuel".

Some Tips of Diesel Exhaust Smoke

by Tom R. Gilbert (MN)

My experience with diesels started with a Ford Escort, then a Land Rover (3 years now), then a Peugeot, and finally an Isuzu. I've read every book I can get on the subject and do as much of my own work as possible. I'm not a mechanic by profession, and I welcome any comments or disagreements from anyone out there with more experience or training. Diesel owners have to stick together since there is a lot of ignorance out there, and people can screw up your vehicle more easily than fix it. My first tip is one I got from Chip Marvin, who advised me to take my distributor pump into a certified CAV service shop to get the timing checked. He was right — another diesel injection shop, which said they know all about CAV pumps, had set the timing off by five degrees. That caused me some serious smoking problems. The key here is that if you can't do the work yourself, and can't blame yourself for messing it up, then be sure the people doing the work are qualified to do it right.

The kind of exhaust smoke you get from your vehicle will tell you a lot about it's condition. All diesels have some visible smoke under certain conditions, but if it becomes very noticeable or strong-smelling then there is something wrong with either the performance or design of the system, or the way you are using the vehicle. Many people may find this hard to believe, but diesel engines are inherently cleaner than gasoline engines when it comes to CO, NOx, and hydrocarbon gases, but they can produce significant amounts of carbon particles, such as we've all seen.

There are basically three kinds of diesel exhaust smoke: black, blue, and white. Some black, or rather visible grey to black smoke, is considered normal on all diesels when accelerating hard or under load conditions, such as climbing a steep hill or towing a heavy load. With most diesels, if you floor the pedal at low rpms or take the engine toward its upper rpm limit you will get significant amounts of black smoke. This smoke simply means that the engine is at its power limit for that speed and that the amount of fuel injected into the cylinder is greater than the engine's ability to burn it cleanly. Different vehicles will smoke in varying quantities, and my Land Rover at 3500 rpm has about normal smoke for most diesels. Air restrictions will dramatically increase the black smoke, since there is not enough oxygen to burn the fuel thoroughly. This can come from a clogged air cleaner or a flattened or crushed air-intake hose.

You may also find that your diesel will smoke more on one tank of fuel than another, or when getting fuel from different stations. There is considerable variation in diesel fuel, and generally the higher the BTU content of the fuel, the blacker it will smoke. I have found in all of my diesels that winterized fuel (blended #1 and #2 diesel) will smoke less than straight #2. I'm told that #2 fuel oil will smoke even more. As the BTUs go up, so will your mileage, so you will always get better mileage on #2 than mixed #1 and #2. Also, as the BTUs rise, so will the cylinder temperatures, so you will want to keep an eye on your smoke. The most dramatic change in fuel seems to come when you travel, since the stations are more likely to get their fuels from different

refineries. For my Escort, my best mileage has been in Colorado (55-60 m.p.g.), while my worst has been South Dakota (30-35 m.p.g.). Wisconsin's diesel fuel seems to be a little better than Minnesota's. Though the difference in mileage will not be as great with a larger diesel engine such as in the Land Rover, the difference will still be there.

Black smoke will usually get worse when the injectors begin varnishing from the diesel fuel. Putting a can of diesel injector cleaner in a full tank of fuel will usually solve it, but if it is persistent then you can do it for as many tankfuls as you need. This has occurred to a small extent with my Land Rover, but it doesn't get enough miles put on it for it to be a significant problem. In severe cases of dirty injectors, or varnish in other parts of the fuel system, I was told you could put one quart of automatic transmission fluid in a full tank, and the detergents in the ATF will quickly clean up the problem. The owner of a diesel injection shop told me this, so it should be reliable. I

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tried it once in my Land Rover, and except for a slight bluish cast to my exhaust, it worked fine. It greatly reduced the black smoke I was getting.

Black smoke can occur if the timing is set too early, so that the fuel is injected too soon. This can also lead to detonation if the fuel burns too quickly in the cycle. This has only happened to me on my Escort when the timing belt slipped, and it was so bad the car had to be towed.

Blue smoke is the same as with a gas engine; it means that engine oil is getting into the cylinders. The only other things that can give you blue smoke are a slight bluish cast from ATF or engine oil added to the fuel, or from unburned diesel fuel in a cold or badly-timed engine, when the fuel is injected too late. Most people say that the diesel fuel looks white, but to me there is a slight bluish cast.

To tell if your compression is a problem then either take it to a shop that KNOWS diesels (two shops have given me erroneous readings) or do it yourself. My factory manuals do not give any values for the compression of the 2.25 liter diesel, and no one I talked to seemed to know either. I wrote to Tim Clark at Land Rover Ltd., and he replied with "The compression for your Land Rover is quoted in our service manual at 31 to 33 kgf/cm squared." This comes out to, in my reckoning, 440.9 to 469.4 psi (which is high for an automotive diesel). To get a reading from your engine you will have to first buy a diesel compression gauge, and make an adaptor from an old glow plug for your engine. I have been told by two diesel mechanics that there are several factors that can alter your reading. The engine should be warm so that the metal parts have expanded and the oil is warm. The starter and battery should be in good shape to crank it properly; the fuel should be cut off completely, and the glow plugs should be removed to reduce drag on the other three cylinders. Then crank the engine for ten rotations; the highest compression from the ten will be recorded on the gauge. If you do not eliminate all of these factors then your compression reading will vary greatly. Before I did it the right way, my compressions varied from 360 to 440 psi.

White smoke can come about from several sources, and almost every diesel owner will get white smoke at certain times. The most common is when first starting the engine. This smoke will sometimes just be water vapor in the exhaust system, as with a gas engine, but also often contains some unburned fuel, since the cylinders are still too cold to thoroughly burn the fuel. Some automotive diesels will smoke white whenever they idle because the cylinders will cool sufficiently to reduce efficiency. Jim McIntyre told me that he thinks that the hot plugs in the head do not retain their heat well enough at idle. I believe he is right. One book I read says that this occurs primarily

Jeff Case of ME picked up his newly restored 1963 88 recently. It's a much admired vehicle. Jeff and his dad are constantly approached by people either wanting to buy it, or inquiring about the nearest dealership. Are those folks ever surprised when they are told it's 30 years old, not for sale, and not available anymore!



The Infamous "before" shot.



First day with the new top!



Didn't they come with the oil & grime from the factory?

with diesels using a swirl, or turbulence, chamber design rather than an open combustion chamber or precombustion chamber design. The Land Rover uses the swirl chamber design, as do most automotive diesels, and so is more likely to cool too far, compared to the other designs. Most diesel Land Rover owners I have talked to have this problem, but some don't, so there may be other factors involved, such as timing problems. Some supporting evidence that it might cool too far comes from my pyrometer (exhaust gas temperature) readings. Supposedly, diesel fuel needs a temperature of 600 F to ignite properly, and the compression alone is supposed to provide that, but my pyrometer will drop down as far as 350 F if the engine is allowed to idle for very long. The drop is slow and hovers around 500 - 600 F, but then goes lower. A pyrometer can be ordered from any parts store, or you can look for a shop that caters to truckers. Mine cost about \$80, and is very useful for monitoring high and low temperatures. Diesels should never go above 1200 F, and when my timing was off the temperatures soared to 1650 F. Severe engine damage can result, I'm told, from too high a temperature, but I lucked out with only burned exhaust valve guide seals. If the timing is either advanced or retarded then your temperatures will go up, and many diesels can exceed the proper limit even when timed properly.

The Mazda diesel used in the Ford Escort has a solution for this problem. They call it afterglow, and whenever the temperature drops to a certain level, including initial start-up, the glow plugs will continue operating, but at a reduced voltage to reduce wear. It certainly seems to work on the Mazda, and I have recently installed an afterglow system on my Land Rover. It may just be the unseasonably warm weather we've been having here, but I haven't had any white smoke at idle since I installed the system — whether I use the afterglow or not. I have verified that the afterglow will help raise cylinder temperatures about 100 F, but varies depending on how long I leave it on. It should help when the weather cools. Also, I found that the glow plugs and resistors are a great power drain if you leave them on. My ammeter will show little change at idle, but when I begin to accelerate the amps jump to 30, which is the maximum output of my alternator. All I did to make an afterglow system is install a separate power lead (using 10 gauge wire) to another glow plug resistor in series with the original resistor, and leave the original wiring intact for the ignition switch glow plug circuit. This cuts the initial voltage to the glow plugs from 8 volts to 5 volts, and still allows the glow plug indicator light to work. The power is controlled by a heavy-duty toggle switch, so it is manually controlled. I monitor the temperatures at the pyrometer and turn the toggle on and off accordingly. This is

Here are the answers to
the crossword on page 17.
How'd you do?

S	A	M	S		R	O	T		C	A	M	E	L		
L	R	O	A		U	N	O	S		A	D	U	L	A	
U	T	A	H		D	A	K	A	R	R	A	L	L	Y	
R	E	B	A	T	E		E	G	O			L	A	S	
					R	A	N	O	N		C	I	A		
L	A	L	A	K	E	R				K	N	I	V	E	S
E	C	O		E	S	S	E	X		A	D	I	V	A	
A	T	T	O		S	O	W	E	D		E	D	I	T	
S	O	T	O	O		N	E	N	E	S		E	T	E	
T	R	O	P	H	Y				O	F	F	R	O	A	D
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M	U	D	A	N	D	S	A	N	D		E	L	A	N	
O	S	A	G	E		E	T	R	E		R	A	K	E	
G	E	M	O	T			E	A	R		S	E	E	S	

a rather primitive setup compared to the automatic systems, but it is fine for the testing I've been doing. If I decide to keep the afterglow on a permanent basis then I will figure out how to drive a relay from a pyrometer sensor.

Temperature is not the only source of white smoke. If the volume of smoke is significant, then there is probably a timing problem. This can occur either when timing the distributor pump to the flywheel, or at the timing chain, or if the special locating screw for the drive gear for the distributor pump slips. Another source is the internal timing of the distributor pump. This happened to me and when it was corrected the white smoke was totally eliminated except for a little at idle or start-up, and the exhaust temperatures dropped 250 F at the high end.

The injectors can sometimes cause some white smoke, but only if they are malfunctioning. If one happens to stick open then the timing for the following cylinder can be affected because of altered pressures in the pump. This can also lead to air being forced back through the injector into either the pump or the spill pipe. From the spill pipe it is possible for air to bleed back to the second fuel filter, and from there back into the pump. If air gets into the fuel lines it will screw up the timing of the pump because air compresses very differently from diesel fuel, and the various injectors will inject either early or late, depending on the fuel pressures. Air leaks can also occur at any fuel line fitting, inside the lift pump, at the fuel filters, or even in the distributor pump. I have found it useful to use clear plastic hose for the low pressure lines, since you can see where the air is coming from. This is not really a permanent solution since the plastic hose is not intended for fuel lines and will yellow and harden with age. I found three years to be about the maximum life for the plastic. I find this a reasonable time span, considering that I have had fuel/air leaks at the lift pump, spill pipe, one fuel filter, and the distributor pump. Maybe I have had more trouble than most people, but the plastic does help. You should also be aware that the plastic, when new, is quite soft and can tear if you tighten your clamps too much. You should replace all washers in the high pressure lines when you remove them, since the washers all compress and can get tiny grooves in them that can leak if you reuse them.

Another cause of white smoke can be inadequate fuel supply from the lift pump, either from clogged fuel filters or a faulty lift pump. Either cause is relatively easy to fix, and a fuel pressure gauge will clue you in if there is a problem.

One uncommon, but severe smoking problem occurs when the injection system is damaged from wax (gelled fuel), water, or algae being forced through the system. There will probably be a significant rise in both white and black smoke, since the system has been severely damaged. This means repairs to both the injectors and the distributor pump, and in the case of algae, thorough cleaning of the fuel tanks, all lines, lift pump, and filters. Algae will start growing in diesel fuel if it is left to sit in warm weather for six months or more. This is not common except on diesel ships, unless you have a diesel that you are not using and so just let it sit. If you intend to do this, then save yourself a lot of trouble and money by draining the entire fuel system and filling it with a preservative designed for storing diesel injection parts. The safest thing is to just keep using the vehicle periodically.

Smoking in general, whatever the color, is more common as the system ages. This is from wear in the components leading to decreased efficiency. The point at which you repair the components is up to the owner, but will eventually be necessary. Most components, whether injectors or pumps seem to be affected by both heavy use over many miles and just age. My Land Rover has many fewer miles than my Escort, but has given me much more trouble. I attribute this to both age and some ignorance of the part of one or more owners in the past. Diesel injection systems are designed to last a very long time and, with proper care, will do just that.

Which Winch?

by Lea Magee

While on the annual Black Rock trip in 1988, a curious thing happened with two low profile winches.

There were two new vehicles on the trip. A range Rover, owned by Glen Foster of MA, and a 110 Land Rover brought over from England by Jonathan Rogers and David Jenden. Both trucks had new electric low profile, 8,000lb. winches with 80ft. of 5/16 cable.

I was leading this part of the trip and we were on the flood plane of the Quinn River. Spirits were high and all were looking for some adventure. The going was very easy and this was being mentioned over the CBs. The group consisted of 88s, 109s, the Range Rover and 110. The call went out for a bog. Scanning the horizon, I saw the tell-tale desert sign of water; scrub taller than 24 inches, and headed in that direction. After a couple of miles, a respectable bog was found. Richard Brengman hit the bog first, in his 88 pick-up. Getting about half way across, he used his Warn electric, 8,000lb. upright winch and a snatch block to pull himself from the bog. A single line pull would not have worked because the trucks were mired to the frame. When a vehicle is in this situation, the winch comes under tremendous load, as it is pulling a weight with four anchors (the buried wheels) and the frame also scoops through the mire. Advertisements aside, a winch can either do the job, or fail.

I was curious to see how the RR would handle the bog. Glen approached the bog correctly, slowly driving into it and when he lost traction he did not spin his wheels. His low profile electric winch was hooked into the four deadmen we had driven into the ground on the opposite side. The Range Rover moved about 10 feet and came to a halt. The winch could not move the truck any farther. I thought this might be an isolated problem of some sort. The 110 had a low profile winch and it would perform differently, or so I thought.

The 110 hit the bog, wheels spinning, and went to the frame. The winch cable was hooked up, button pushed, and the truck moved about 4 feet before stopping. The winch was unable to budge the truck.

A winch that is not adequate is not so bad when with a group of trucks equipped with winches, but when alone in the bush...

What I saw of the two low profile electric 8,000lb. winches was that they are probably suited for a Samurai, but not for a heavy 88, 109, 110, or Range Rover. If a low profile winch is to be fitted, one would do better with the 10,000lb. or 12,000lb. models. You should also replace the 100ft. of 3/8 cable, which is somewhat standard, with 150ft. of 5/16 inch cable. Many times, the 80 or 100 foot cable lengths are too short. And if a snatch block is used, that length is halved. I understand that Glen has upgraded to a 10,000lb low profile winch since that time. This should make his Range Rover unstoppable.



Lea Magee with '69 88. Lea will be on this years Camel Trophy, in Borneo, as part of the support team.



Glen Foster in his 'new' Range Rover on her maiden voyage. The 8,000lb winch was unable to budge her.



Marvin Mattson, using an upright, winches past the mired Range Rover and 110 in his '59 109 pick-up

'61 LAND ROVER 88", trop. locking hubs, dual tank shocks, FM cassette. M...
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Attn.: Harrold Huggins

Bay State Rover Owner Assoc.
PO Box 342
North Scituate, MA 02060
Attn.: Jim Pappas

blue Ridge Land Rover Club
PO Box 507
Parkersburg, WV 26102-0507
Attn.: Cheryl Ritchie
Ph. 304-422-0531

Canadian Series 1 Club
RR 5
Bracebridge, Ontario
P1L 1X3
Canada
Attn.: Dave Davey
Ph. 705-639-2518

Island Rovers
2685 Otter Point Rd.
RR2,
Sooke, BC
V0S 1N0
Canada
Attn.: Ron Low

Land Rover Annual Picnic Club
8 South 18th Ave. West
Duluth, MN 55806

Land Rover Club of Chicago
4358 N. Bell #30
Chicago, IL 60618
Attn.: Scott Struik
Ph. 312-403-0914

Land Rover Owners' Assoc., North America
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Oakland, CA 94603

Land Rover Owners' Assoc. of Manitoba
PO Box 331
Powerview, Manitoba
R0E 1P0
Canada

Land Rover Register of Alberta
PO Box 1299
Gibbons, Alberta
T0A 1N0
Canada

Land Rover Register of Canada
945 Marine Dr. #311
West Vancouver, BC
V7T 1A8

Maritime Organization of Rover Enthusiasts
RR1
Kingston, Nova Scotia
B0P 1R0
Attn.: John Cranfield

Newfoundland Rover Register
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Mt. Pearl, Newfoundland
A 3H4
Canada
Attn.: Kevin Burton

Northwoods Rover Group
2547 152nd Ln. NE.
Hamm Lake, MN 55304
Attn.: Bill Osterheim

Ottawa Valley Land Rovers
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Attn.: Mike McDermott
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Rover Car Club of British Columbia
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Rover Owners' Assoc. of Virginia
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Toronto, Ontario
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Attn.: Tom Tollefson
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230 N. Mt. View
Yerington, NV 89447
702-463-2011

N. CENTRAL

Peter Donnelly
1271 Taylor
Highland Park, IL 60035
708-831-2208

N. GEORGIA

Jack Walter
481 Schaffer Rd.
Marietta, GA 30060
404-438-7746

NW. COAST

Cliff Johnson
Rt. 2, Box 436 G
Smith Lake Estates
Warrington, Oregon 97146
503-861-1538

NORTHWOODS

Bill Osterheim
2547 152nd Ln. NE.
Hamm Lake, MN 55304
612-434-8144

OREGON

Doug Shipman
945 NE. 188th
Portland, OR 97230
503-661-5123

S. GEORGIA

Steve Johnson
Rte. 3, Box 368
Tifton, GA 31794
912-386-8498

SOUTHEAST

Chris Winters
361 Utah Ave.
Fl. Lauderdale, FL 33312
305-791-2214

TEXAS

Chuck Willis
1121 Forrest Dr.
Arlington, TX 76012
817-461-9280

WASHINGTON

Gord'n Perrott
119 NE. 60th St.
Seattle, WA 98115
206-526-5858

Rover Parts and Service

This list is printed for your benefit.
Please help us keep it updated by letting us know of new businesses
and of those who are no longer in business.

* P= new parts, UP= used parts, SV= service/repair, S= rover sales, F= custom fabrication, R= component rebuilder, RS= Restoration.

A.M.E.I.
P.O. Box 1077
Santa Barbara, CA 93102
805-965-3338

Arlington Motorcar Service
1712 Wilson Blvd.
Arlington, VA 22209
703-276-8022 *SV *R

Atlantic British Parts
P.O. Box 110, Roversridge Dr.
Mechanicville, NY 12118
800-533-2210 *P *UP *R
518-664-6169
FAX 518-664-6641

Atlantic British Parts, Canada
P.O. Box 1068, Waterloo
Quebec, Canada, JOE-2NO
514-539-2669 *P *UP *R
800-32 ROVERS

Atlantic British Parts, California
P.O. Box 620
Lewiston, CA 96052
916-778-3922 *P *UP *R

Auto Technica
6655 Arapahoe, suite D
Boulder, CO 80303
303-444-0022 *SV *P *UP *

Autocenter 4x4 Specialists
2343 Cranberry Hwy.
West Wareham, MA 02576
508-295-7292 *SV *S R

Badger Interior Coachworks
259 Great Western Rd.
S. Dennis, MA 02660
508-394-2680 *F *RS

British American Car Service
426 25th St.
Oakland, CA 94612
415-452-4322 *SV

British N. W. Land-Rover Co.
1043 Kaiser Rd., S.W.
Olympia, WA 98502
*P *UP *SV *S *F *R
206-866-2381 (service)
206-866-2254 (parts)

British Pacific
101 W. Green St.
Pasadena, CA 91101
213-681-9783 *P *UP *SV *S *F *R

British Rovers
P. O. Box 602
Atkinson Road
Cavendish, VT 04512
1-800-327-6837
(1-800-32 ROVER)
[In the last issue we got their phone number
wrong.]
Cantab Motors, Ltd.

North Bridge Street (Rt.1304)
Round Hill, VA 22141
703-554-2211 *P *UP *SV *S

Cheshire Foreign Auto Service
441 E. Main St.
Marlboro, NH 03455
603-876-4613 *S *SV *RS

Chris Auto Service Ltd.
12508 125th St.
Edmonton, Alta, Canada TSL 0T3
403-455-2404 *SV

Classic Rover, The
125 S. Main St.
Woodbury, CT 06798
203-263-2815 *S *RS *SV *P

D.A.P. Enterprises
7 Kendrick Rd.
Wareham, MA 02571
508-291-1311 *SV *S
FAX 508-295-8002

Dixieland Rovers
Rte. 3, Box 358
Tifton, GA 31794
912-386-8498 *SV *F

1st National Garage
4734 Pearl St.
Boulder, CO 30301
303-449-7195 *SV

Green Hill Automotive
Green Hill Rd.
Barrington, NH 03825
603-332-8443 *SV *RS

Helm Automotive
69 E. Lewelling Blvd.
San Lorenzo, CA 94580
415-278-6887 *SV

Howard's Garage
Vaughn's Neck Rd.
Warren, ME 04864
207-273-2370 *S *SV *RS

Import Garage, The
1815 S.E. 50th
Portland, OR 97215
503-235-5951 *SV

Inland Rovers
553 Site 19 COMP 77
Cranbrook, B.C. VIC 6H3
Canada *UP *SV *S

Land Rover Enterprises
2104 Jerome Ave.
Yakima, WA 98908
509-453-8580

Morgan's Sports Car West
1570 S. 300 W.
Salt Lake City, UT 84115
801-487-5979 *SV

Paul Safari Components
P.O. Box 39, Queenston St.
Ontario, Canada LOS 110
416-262-4446 *P *UP *F *SV

Rovers North
Box 71
Westford, VT 05494
802-879-0032 *P *UP *F *SV

Rovers West
4060 E. Michigan Ave.
Tucson, AZ
602-748-8115

Roverworks
Box 307, Ruskey Ln.
RR1, Hyde Park, NY 12538
800-999-6402
914-266-5025

Rover Works, The
8788 Baltimore National Pike
Ellicott City, MD 21043
301-461-7162 *S *SV *P *RS

Scotland Yard
3101 E. 52nd Ave.
Denver, CO 80210
303-297-9237 *SV *P *UP *R

Ship's Mechanical Services, Inc.
12755 NE. Whitaker Way.
Portland, OR 97230
503-252-5566

St. George Rover Company
Rt. 90
West Rockport, ME 04865
207-236-7075 *P *S *SV *RS

Tom's Mechanical Emporium
601 Genesee St.
Syracuse, NY 13204
315-475-0271 *SV

West Coast British
6398 Doherty Rd. #34
Dublin, CA 94568
415-824-6091 *P *UP *SV

Rocky Mountain Rovers
732 51 Ave., S.W.
Calgary, Alberta, Canada
403-253-7977

CHANGE OF ADDRESS

If You move, fill in this form and send it in to us. Thanks.

NAME _____ MEMBER # _____
 OLD ADDRESS _____ CITY _____ ST _____ ZIP _____
 NEW ADDRESS _____ CITY _____ ST _____ ZIP _____
 OLD PHONE # _____ NEW PHONE # _____

SEND TO :
LROA
P.O. Box 6836
OAKLAND, CA 94603

BUSINESS ADVERTISEMENT INFORMATION
Ads will run for 1 issue. Payment in advance.
Feel free to place it for a year at a time.

Please send your ad to us ready to go... artwork and everything actual size and camera ready. Any ads submitted to us that have L/R or R/R copyrighted material will not be printed unless accompanied by a letter of permission from Land/Rover's legal department.

NEW RATES PER ISSUE
FULL PAGE.....\$60
HALF PAGE.....\$30
1/4 PAGE OR LESS....\$15

MEMBERSHIP INFORMATION

Memberships are \$20 per year (Feb. 1 to Feb. 1). If you join mid-year, just pay for the number of quarters left till Feb. As a member, you are entitled to our quarterly newsletter, THE ALUMINUM WORKHORSE MAGAZINE, the membership directory (updated semi-annually), and the opportunity to attend as many of our outings and other events (locally and nationally) as you wish. Tech sessions are held from time to time and cover a wide range of topics. All events are family oriented. We strive to make them safe, fun, and planned well in advance. We don't carry insurance. For one-time national events we are able to get a very limited liability policy but it doesn't cover members or their vehicles, so be sure to carry your own!

APPLICATION FOR MEMBERSHIP

SEND TO :
LROA, P.O. Box 6836, OAKLAND, CA 94603

NAME(S) _____
 ADDRESS _____
 CITY/STATE _ _____
 PHONE (____) _____
 OCCUPATION(S) _____

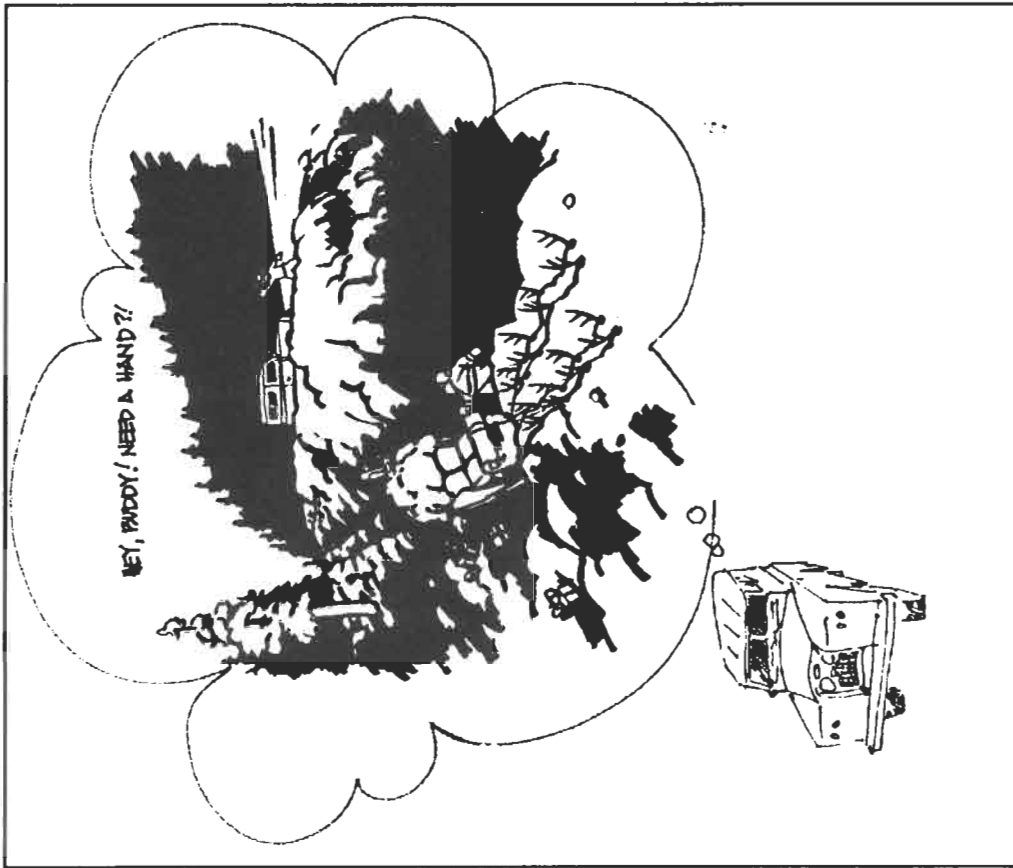
DATE _____
 ROVER INFORMATION
 YEAR _____ PETROL _____ DIESEL _____
 MODEL _____ LIC # _____
 ORIGINAL _____ MODIFIED _____
 EXTRAS _____

ACTIVITIES/INTERESTS _____

OTHER _____

Wishful Thinking

by Brad Blevins



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P.O. BOX 6836
OAKLAND, CA 94603

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117 Vinsant St.
San Antonio, TX 78235-1015