



the
**ALUMINUM
WORKHORSE**

OFFICIAL PUBLICATION OF THE LAND-ROVER OWNERS' ASSOCIATION

Volume VIII, Number III, Fall/Winter 1991



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LROA, P.O. Box 6836, Oakland, CA 94603

A member of the Association of Rover Clubs, Ltd., U.K.

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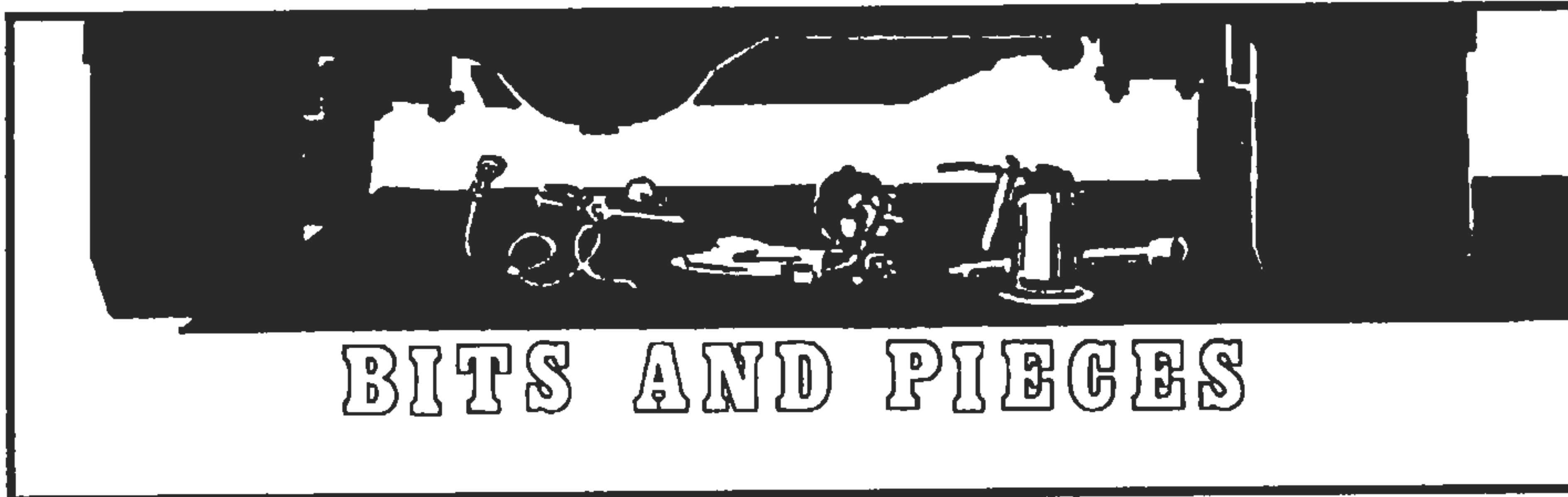
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Krysta Zonker and friends: 109" 5-door Land-Rover, 1991 Range-Rover, and Buckwheat.



Here's hoping that your holidays went as smoothly as that marvel of engineering under the hood of your little Land-Rover.

As you can see this is a "special" issue, covering Fall and Winter of '91. There are still one or two un-printed articles and some tech stuff in our files, but we've now used most of our material up. So if you've been hesitating, now's a good time to write up that, now funny Rover experience that you tell all your friends about.

About the TREAD LIGHTLY membership that we wrote about in last issue... the check was sent in and we should be hearing back from them soon. We opted for the Corp. Membership... it lets us vote. By next issue, we will probably be displaying their logo and printing their material for you to read. Think a TREAD LIGHTLY section would be appropriate?

CALL FOR ENTRIES! It's time to give the cover a face lift. All you graphix guys and arty kinda guys help us out, ok? Draw up a couple of ideas for a new cover layout that we will use or the next 5 or 10 years, or until they can print in 3-D. Send them in as soon as you can. We will want to have different photos each issue, and will need to change the date & stuff, but your Masthead design might go into perpetuity (what does that mean?).

OLD LROA ISSUES ANYONE? We have had a couple of inquiries about this very subject recently and I happen to know that our Secretary, Dom Dias, has at least one copy of most, if not all, of the newsletters in LROA history. We have spoken about offering to provide copies (photocopies when we have only one) of back issues for minimal cost and if you'd like to drop him a line, I'll bet he'd be pleased to help you out. If you are a real fanatic, there were a couple of predecessors to LROA that published newsletters.

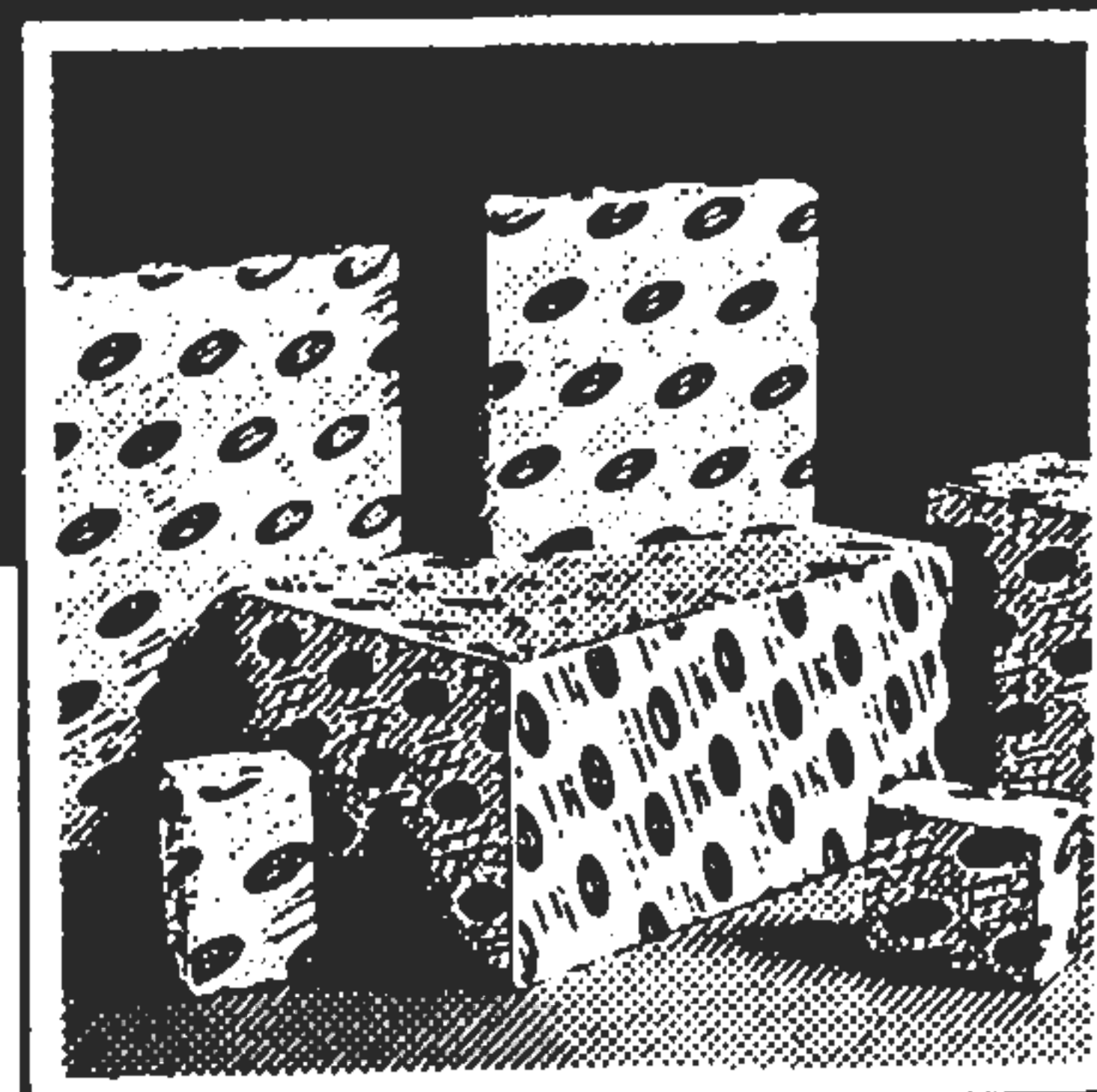
The early members might be a good place to start your search for information about them. Hey! After you've tracked down the LROA history, you could write an article for the newsletter!

Speaking of good ideas, we've been having more and more contact with people in Canada who like Land-Rovers and want to keep in touch. In fact, we've even had an offer or two for Canadian Regional Coor-

dinators! There is a group in Canada attempting to unify the country's Land-Rover community by means of a new newsletter called OILEAK ILLUSTRATED, and we certainly don't want to interfere with their efforts... indeed we would like to encourage and assist them, if possible. Still, is there any reason that we couldn't have R.C.s in Canada? What about changing our name to LROA, N.A. (North America)? Anyone have any thoughts they'd like to share about this?

"U.S. Senator William Roth has authored a bill known as S2237, unofficially known as the "Clunker Bill" which seeks to ELIMINATE ALL CARS MANUFACTURED PRIOR TO 1980!" This was part of a flyer found in the mail boxes of members of the 1800 Car Club of Northern California recently. It quotes excerpts from an article by David A. Boles,

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courtesy of Custom Power News, and comments by Paul Stutrud of the 1800 Club.

"The reasoning is simple (Stutrud says simplistic), cars of yesterday need to meet the stringent emission requirements of today and there is no middle ground.

"Senator Roth and his band of unmerry men would like to see all of the major auto manufacturers participate in giving you and me the whopping sum of \$2,000 for our pre-1980 car. Actually, it's worded as a \$2,000 credit, so I guess we can all see where this is headed: Trade the old car for a brand new one and get \$2,000 credit toward the new car's purchase."

"Sure there will be exceptions for museums or show-only cars but for the average Joe Citizen out there... your favorite ride will either be supporting daisies or will become the down payment for a new 1992 Ford. Oh, what a joy."

In California, the Dept. of Motor Vehicles has already told everyone that they

have to register all inoperable vehicles. Kinda makes you wonder, doesn't it?

See page 24 of this issue for more about the Clunker Bill.

WORLD CLUB LIST! We'd like to publish a list of all the Rover clubs in the world. However, we don't know of too many. If you know of any, please send us the address. We'll probably have a page with them in every issue, just like the Rover shops page, once we have enough addresses. So far no one has sent anything in, so your information is needed!

LROA member Glen Foster has moved to the FLORIDA KEYS. He would welcome any contact from Rover folks. The address is:

PO Box 1398
Key West, FL 33041

SHOCKS FOR LESS... K-Mart has shocks for your 88! \$12 or less when on sale! Part # 31000.

DUES UP TO \$20!

Payment is due Feb. 2. Dues have been \$15 for 7 years now and the cost of operating is a little higher now than it was then.

Sure, we are doing our best to keep them down but it's time to do it.

Some will say that it's only the cost of a hamburger & fries and others will say that they could buy a whole meal for that much. If you want to receive the next issue, send your check today!



New book by Lindsay Porter tells you everything you need to know about series I, II, and III Land-Rovers. History, purchase and DIY restoration. Published by Haynes, the same folks who brought us the Haynes LR Shop Manual. These books are available from most LR parts companies.

scotty's
Foreign Car Service
Est. 1960 British Trained

**THE Authority on
Chevrolet Engine
Conversions in
Land-Rovers**

Many Hard-to-Find Parts
.....

**510-432-2221
510-676-4874**

680, "A" Garcia Ave. Pittsburgh, CA 94565

REGIONAL NEWS & CALENDAR



IF YOU DON'T SEE ANYTHING FROM YOUR REGION IN THIS SECTION, GIVE YOUR REGIONAL COORDINATOR A CALL AND SUGGEST THAT HE SEND SOMETHING IN. FOR INFORMATION ABOUT ANY OF THE EVENTS LISTED HERE, CONTACT THE REGIONAL COORDINATOR FOR THE AREA. R.C. NAMES AND ADDRESSES ARE LISTED ON THE INSIDE FRONT COVER PAGE OF THIS ISSUE.

N. CENTRAL

•Oct 6... Indy British Motor Day. Indiana Military Museum, 6424 W. 79th St., Indianapolis. Call Howard Holden, 317-251-8531.

NORTHEAST

•Oct 19... 3rd annual Frame Oiler.
•Feb. 29, '92... Winter Safari II. Help celebrate the leap year in the snow!

•June 27-28...Down East Land-Rover Rally IV. 75+ vehicles expected in mid-coast Maine. details from

Trevor Hunt
HCR 68, Box 139
Cushing, ME 04563
H) 207-354-8850
W) 207-594-0473

•June 30, 1992... Staging for the beginning of the Trans Canada Alaska Tour schedule.

•Early July... British Rovers Rally. Call them for info.

•Mid-July... Atlantic British Rally. Call them for info.

Ron Mowry is always looking for new ideas for events. One interesting idea that came up was what they are calling "THE URBAN JUNGLE... an off road adventure through the rough and grotty outskirts of Boston.

Let Ron know if you are planning to attend any of the events up in his area so that he can notify you of possible changes in agenda, ok?

NORTHWOODS

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

OREGON COAST

September 28-29... Camp Rilea Outing. Stay in military huts for weekend and drive army obstacle course.

S. CALIFORNIA

•Sept 29... San Diego British Car Day. Del Mar Race Track. Call John Souders, 619-460-1128.

The 4th Annual 'Down East' Land-Rover Rally

June 27th & 28th 1992

What has arguably become one of the best privately organized Roving experience on the east coast. In keeping with the casual pace of life in mid-coast Maine, participants are not required to follow a regimented format. All you have to do is attend, family and all...with your Rover, of course.

Saturday, June 27

Breakfast for Friday and Saturday morning arrivals; On/off road scenic (slightly challenging) drive (to justify owning a Rover). Alternatives are 1. Spend the day at a local beach (no crowds 'round here). 2. Sail the Penobscot Bay on one of the many schooners out of Camden Harbor. 3. Take the kids whale spotting in the Gulf of Maine. 4. Sample the local cuisine at one of the many excellent area restaurants with fellow Roverists Saturday evening.

Sunday, June 28

Breakfast with yesterday's new-found friends and/or make your own way to the Owl's Head Transportation Museum. Rt. 73 (south of Rt. 1 and Rocklandtown). Arrive around 10am. Special parking display area, day long air show, free access to all museum facilities, LR videos, LR model display, LR clubs, LR parts (new, used, buy, sell, swap, trade and free), Vehicle sales, test drive a new Defender 110 and Range-Rover.

No fee required to participate in Down East Rally. Free access to museum if you arrive in a Land-Rover, Range-Rover or Rover sedan (stuffing your 109 with friends from the parking lot is a no, no). 2 adults and children per Rover, please. Food, fuel and accommodations are your responsibility... there are food concessions at the museum.

For details on where to stay and anything else, get in touch with Trevor Hunt. HCR 68, Box 139, Cushing, Maine 04563. Phone 207-354-8850(h) or 207-594-0473(w). When mailing, please include legal sized SASE for hotel, motel, bed& breakfast, and campground listing.

As for me (Mr. Murphy), He'll be on safari next Spring and Summer...or to be more precise, in some remote part of the U.S. doing a bit of recon for the "Around The New World In 80 Days" expedition of 1993. I expect to be in town for the rally to meet old friends and make new ones - see you in June. MJM

For your other 'Rover'

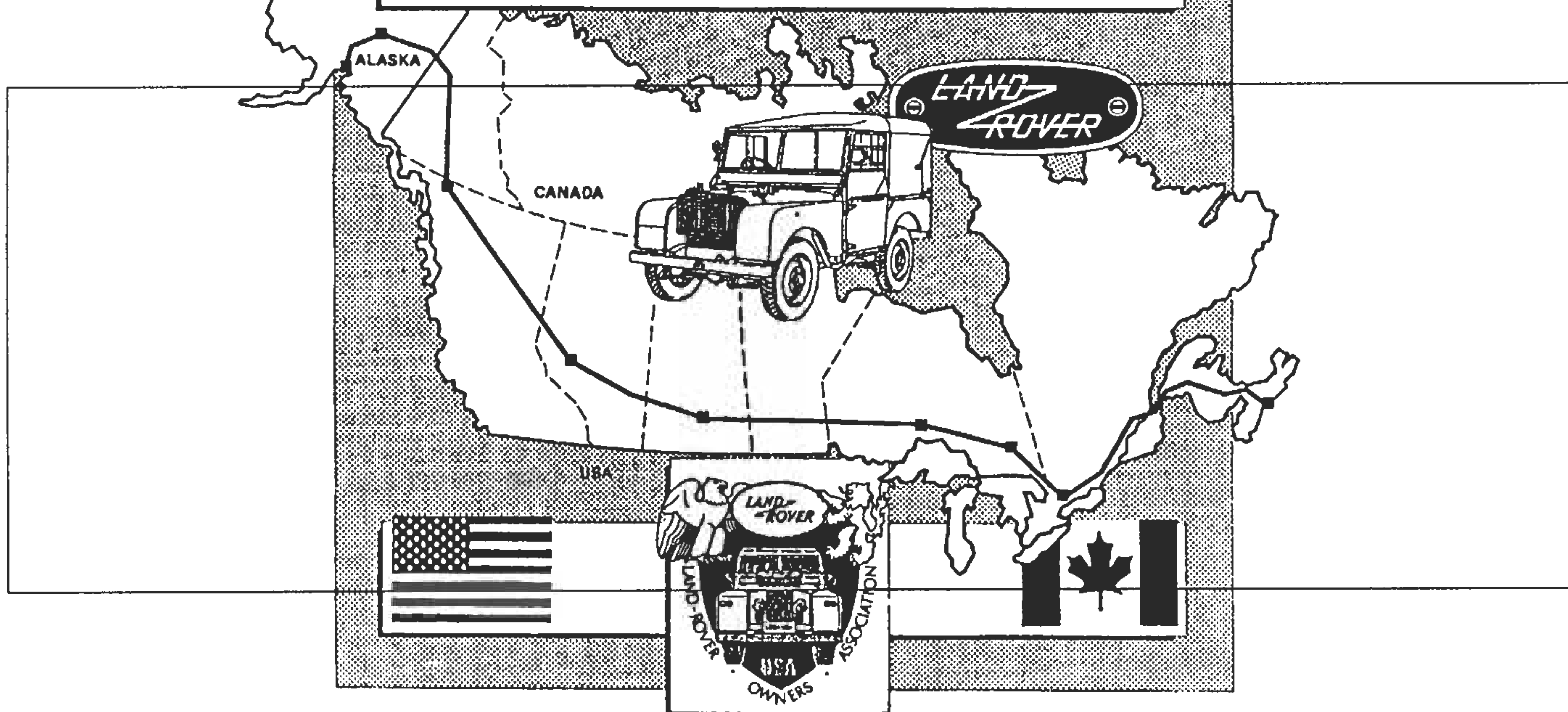
Moon Over Vermont All Natural Dog Biscuits
Made with only the finest ingredients.
Dogs love them and they make a great gift.
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or mail order to:
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VT 05494



1992

Trans-Canada/Alaska Tour



Proposed event for LROA-USA
 When: July 1992
 Where: Halifax, Nova Scotia, CA
 to Anchorage, Alaska, USA
 Time Required: About 1 month
 Exact dates and itinerary to be
 set later. This gives everyone
 1 year to prepare for this
 adventure.
 Details: This event will require
 a great deal of assistance from
 all interested parties.

As background information we will be using the basic format proven by two very
 successful North American crossings by Citroen 2CV's. Raid USA was a New York
 to California event in 1982. Raid Canada was a Montreal to Vancouver event in
 1986.

Our event will begin in Halifax, Nova Scotia, Canada. Halifax has an excellent
 port with facilities to handle automobiles that may be brought in by European
 enthusiasts who wish to make the trip. European enthusiasts are encouraged to
 bring pre-1967 registered Landrovers suitably prepared to make the trip to
 Alaska where the owners can probably sell their vehicles for a profit, or con-
 tinue on their own journey. Any Land Rovers that were legally imported to
 North America may participate in this adventure also. Range Rovers are always
 welcome too. We will set up a network to connect buyers and sellers of vehicles
 to help pre-arrange sales.

The Maritime Canadian Landrover Organization is rapidly developing and will
 hopefully be able to host a kickoff rally. As we cross Canada we will
 co-ordinate with organizations and individuals who may wish to have events of
 their own and help us arrange places to stay and sights to see. We are actively
 seeking members and working on establishing an Alaskan Region of LROA-USA.

We are soliciting feedback and ideas from everyone interested in this event.
 Please write to us with anything you have to offer. We would like to hear
 from the following people:

1. Canadians and Alaskans along the way interested in helping organize
 or joining us as we pass through.
2. Europeans interested in shipping over trucks to take on the trip with
 them.
3. Others coming from further away, wishing to acquire Landrovers in Halifax,
 in which to make the trip, or looking for an empty seat to ride in.
4. Anyone who just wants to have a really superb vacation. If you are an
 organization, please inform your members of this event and if you are an individual
 please spread the word. We are making a special mailing list for this event,
 so if you want to be kept informed of details you will have to write back
 saying so. Some information will also be published in the Aluminus Workhorse,
 LROA-USA's newsletter. Write to: Land Rover Owners Association USA
 Northeast Regional Co-ordinators
 Ron & Bernie Mowry
 P. O. Box 1023
 West Lebanon, Maine 04327

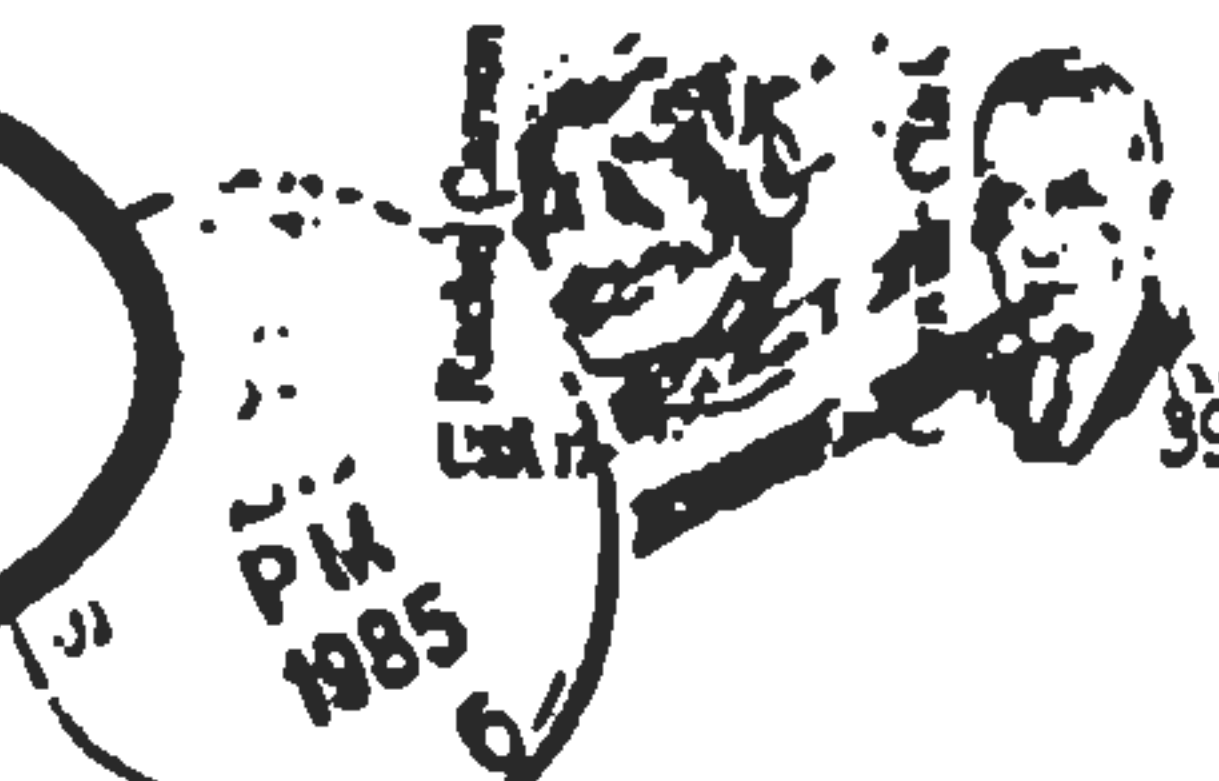
Telephone: (207) 638-9064

Dates For: Trans Canada Alaska Tour 1992

MO/DAY	Event	Name
07/03/92	Kingston, N.S. Assembly	MORE -
07/04/92	Halifax, N.S.	MORE -
07/05/92	Moncton, N.B.	MORE -
07/06/92	Fredrickton, N.B.	MORE -
07/07/92	Allagash Area	MeLROA NE Region -
07/08/92	Quebec City	Que. -
07/09/92	Montreal, Quebec	-
07/10/92	Ottawa, Ontario	OVLK -
07/11/92	Ottawa-Toronto	OVLK -
07/12/92	Toronto, Ontario	Rover Club -
07/13/92	Manitoulin, Isle	Toronto -
07/14/92	Wawa, Ontario	ROAM? -
07/15/92	Thunder Bay	Willoughby -
07/16/92	Thunder Bay	Free day -
07/17/92	Kenora, Ontario	-
07/18/92	Portage La Prairie	Manitoba -
07/19/92	Regina, Sask.	-
07/20/92	Medicine Hat	Alberta -
07/21/92	Banff, Alberta	-
07/22/92	Jasper, B.C.	-
07/23/92	Prince George	B.C. -
07/24/92	Dawson Creek	B.C. (Chetwynd) -
07/25/92	Fort Nelson, B.C.	-
07/26/92	Watson Lake, YUK	-
07/27/92	Whitehorse, YUK	-
07/28/92	Carmacks, YUK	-
07/29/92	Dawson, YUK	-
07/30/92	Dawson, YUK	-
07/31/92	Tok, Alaska	-
08/01/92	Fairbanks, AK	-
08/02/92	Denali Nat. Park	AK -
08/03/92	Anchorage, Alaska	Event complete -

LAND ROVER OWNERS ASSOC
P.O. BOX 6836
OAKLAND, CA 94603

Letters



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



John Curelli's 1986 110" V8 is one of only a few 110s in the country.



A shot of the ex-Camel Trophy Range-Rover (used in the U.S. trials) with John's 110 in the background.

Dear LROA,

Enclosed is photo (May 1990) of my 1986 110" V8 county seen with the ex-Camel Trophy (now trials) Range-Rover. This was used for trials in the States for 1990 Camel driver Fred Monsees of Monument Beach, Mass.

My 110 has always raised a few questions, being one of a limited number over here. If any member is interested, I live on Martha's Vineyard Island, 6 miles off the coast of Mass. and would welcome island tours/beach treks. Call ahead and I can help with ferry arrangements.

I would also be interested in hearing from other 110 owners in the states about service, use, etc. of their vehicles.

From out East,

John Curelli
508-693-4380

Dear Editor,

A few things relative to the LROA:

1) Book review of How to Shit in the Woods, by Kathleen Meyer, Ten Speed Press, paperback, \$5.95.

This book should be required reading for everyone going "back-country". I would especially recommend it for anyone leading a group. The book is very entertaining as well as being informative. It should be in stock at your favorite backpacking store. If they don't have it, ask them to order it, or try a national (or local) bookstore like Walden Books.

As to why we should concern ourselves with this issue, let me quote from the author's introduction: "Masses of bodies are thundering through the forests, scurrying up mountain peaks and flailing down rivers, leaving a wake of toilet paper and fecal matter Mother Nature cannot fathom... Rules signs, application forms, and their ensuing costs are... brought about not solely by increased numbers of people, but also by the innocently unaware and the blatantly irresponsible. The willingness to inspire preservation comes most naturally from those who delight in the wilds; it is they - we - who have the greatest responsibility for respect, care, and education. And it is we who must learn and teach others how and where to shit in the woods."

The alternative is a backlash of rules, signs, application forms, land closures, and locked gates.

2) Based on the Treasurer's report in

the Spring, '91 issue, it appears that the current balance is far short of the potential. \$4,339.00 represents dues from only 289 members. With new members being assigned numbers in the 800s, we surely must have more than 289 *actual* dues-paying members. My assumption is that a lot of members are remiss in submitting their dues. With only 650 members our income would be \$9,750. It looks like several *hundred* members have failed to pay their dues in Feb. I know that following up on this is going to be a huge job, but it seems that a form-letter, postcard, or something should be sent to those members who have not yet paid.

(Editor's note: This is quite timely, since a postcard *was* sent out last summer and those members who are not current as of the release of this issue will not be receiving issues until they *are* current.)

3) The LROA could use it's national membership and newsletter to keep us informed of land-use legislation and policy changes that have an influence on our access to "green lanes" and public lands. This may be more important than we realize. This year the Sierra Club petitioned the BLM to restrict the Red Rock 4-Wheelers Jeep Jamboree in Moab, Utah. We could lose access to many of our favorite back-country areas during this decade due to the tremendous pressure from competing land-use interest groups. Our own self interests can best be protected by being informed, being active, and joining forces with other organized groups. To that end, the LROA and individual members could join and

support several groups, including:
United 4WD Association
105 Highland Ave.
Battle Creek, Michigan 49015

Blue Ribbon Coalition
PO Box 5449
Pocatello, Idaho 83202

Multiple Use Land Alliance (MULTA)
30218 NE 82nd Ave.
PO Box 400
Battle Ground, Washington 98604

We are a unique group of people and perhaps we can contribute something to the debate on public land usage.
Thanks. Bill Reid, ID.

**Feb. of '92 is your
expiration date!**

**Please pay your dues *now* to
receive the next issue of
THE ALUMINUM WORKHORSE**

Just put your check for \$20 (yes, after 7 years at the same rate, dues have finally gone up) and a note saying it's for renewal of member #____ in an envelope, and send it to:

**LROA
P.O. Box 6836
Oakland, CA 94603**

Gallery

Bill Osterheim, MN
A Northwoods outing near Chet Miller's place near Lake City, MN.



Marvin Mattson, NV
The McCasland's military 88 in the Black Rock desert, NV.



Bill Osterheim, MN
One winter "play day" at Charlie Malachek's folks' home.





**Simon Trapp, CA
A lone survivor of the Oakland,
CA fire in the winter of 91**

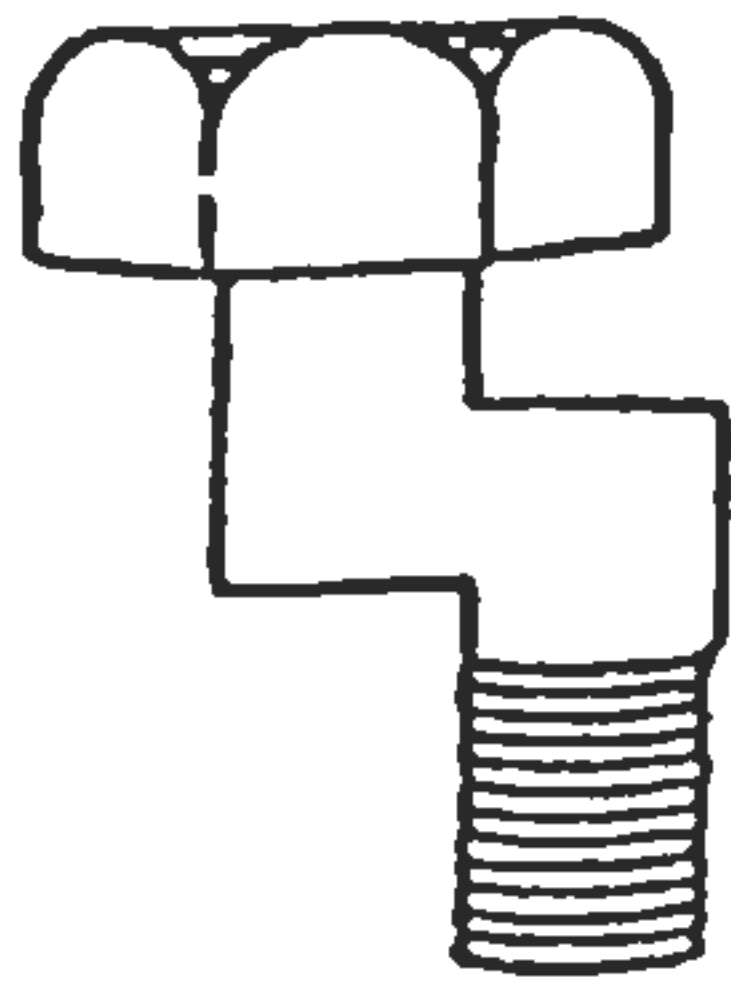


**Capt. Gary O'neal
British Army vehicles located at
Kuwait City HQ for task force
Freedom.**

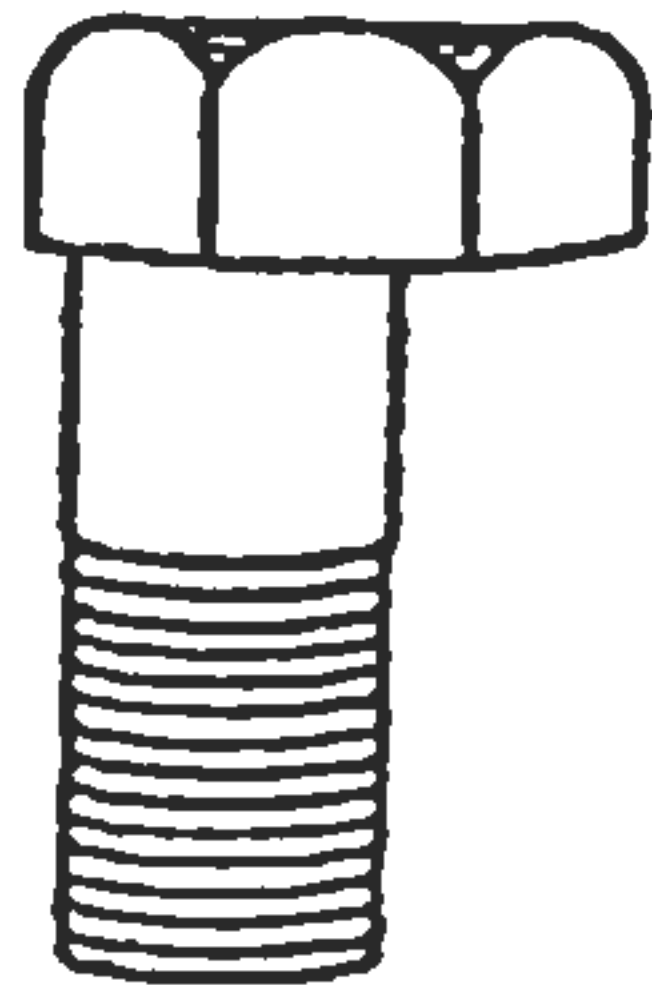


**Capt. Gary O'neal
March, '91**

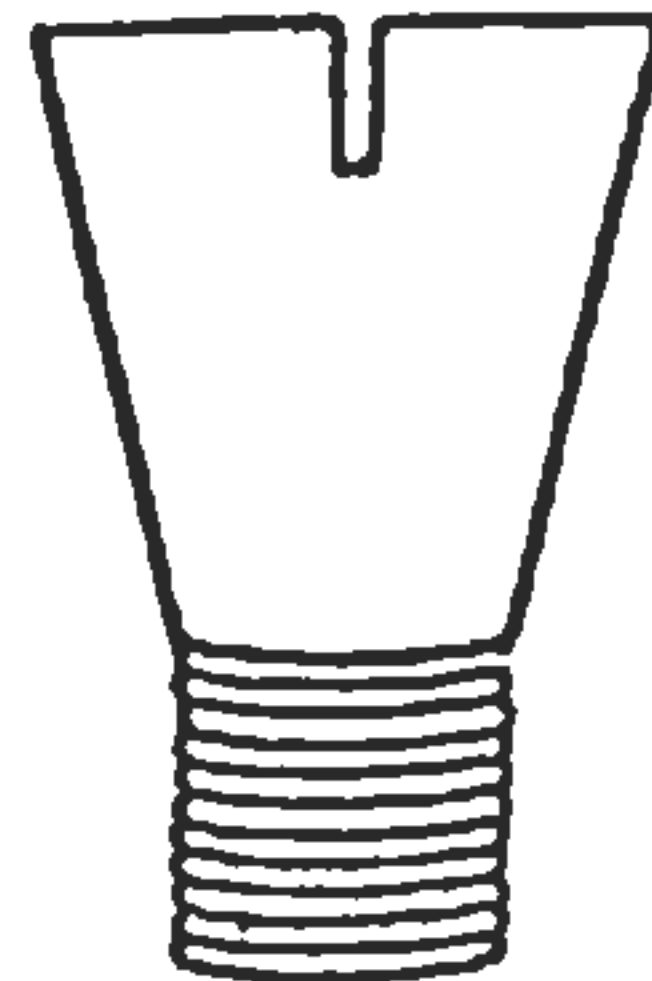
BOLT INDEX



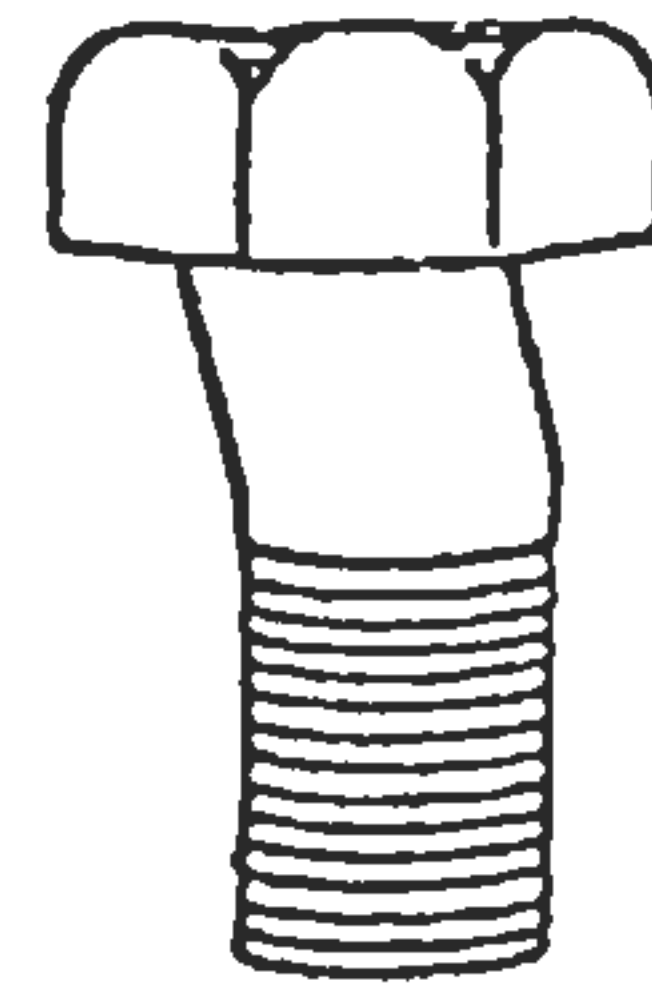
For Mismatched Holes



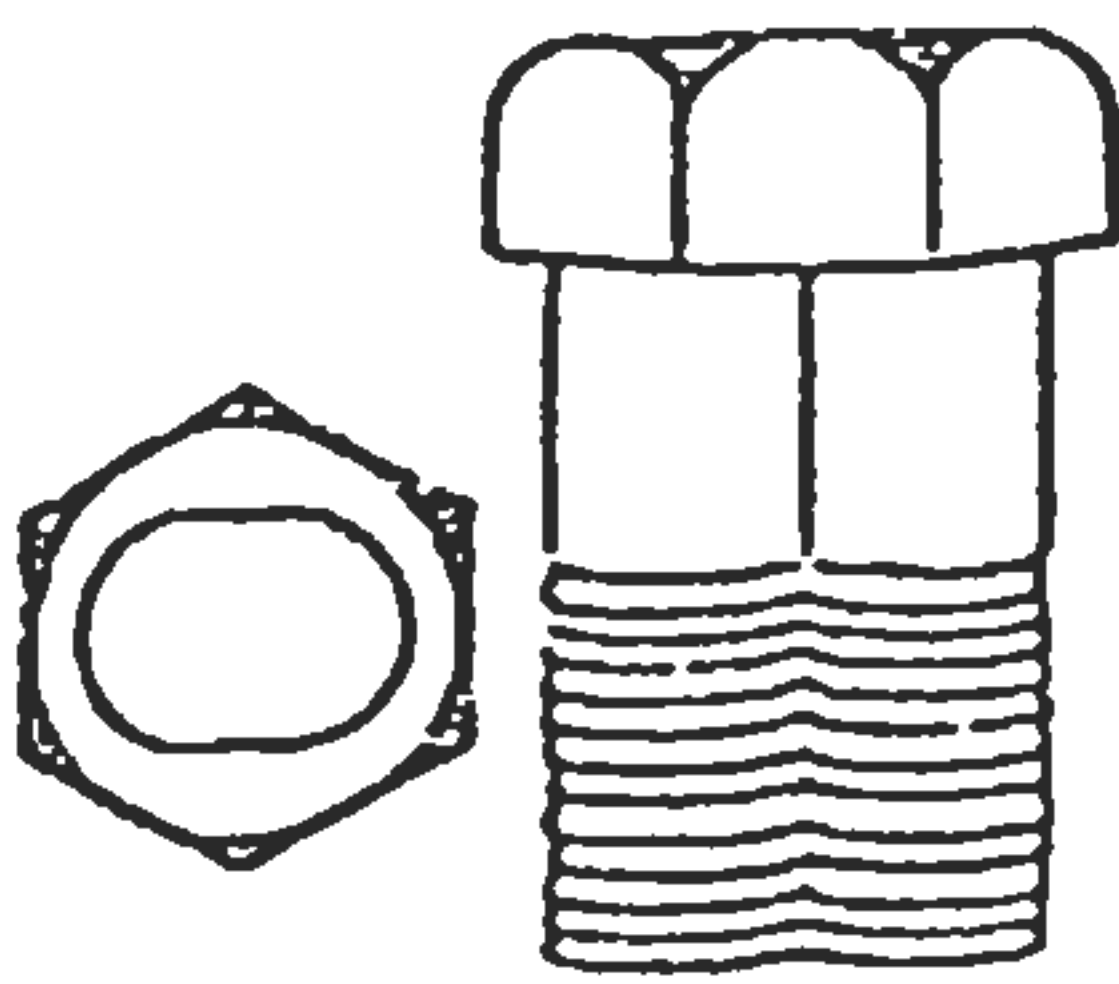
For Holes Too Near the Edge



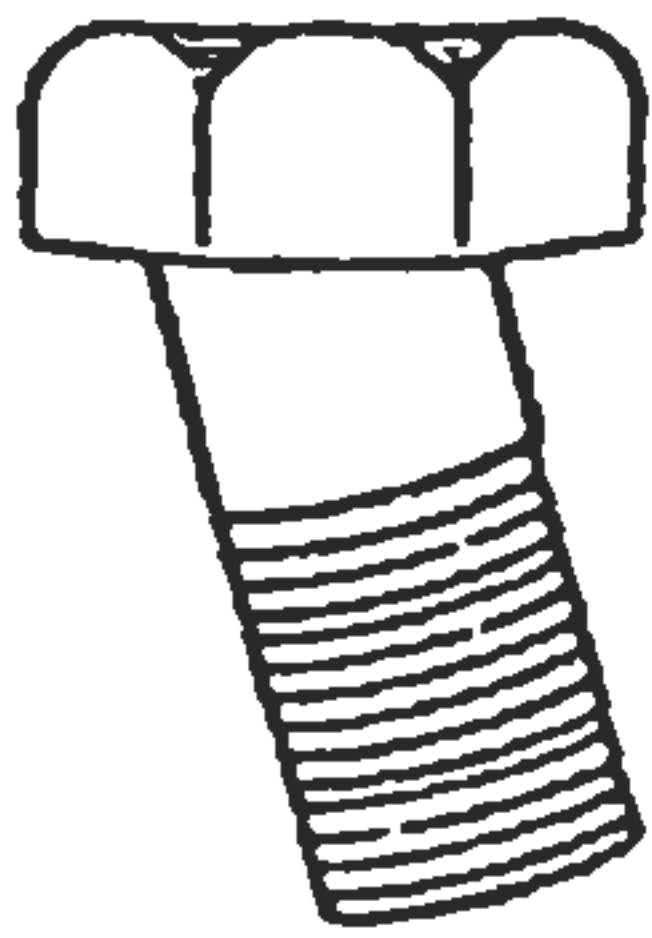
For Holes Counter-Sunk Too Deep



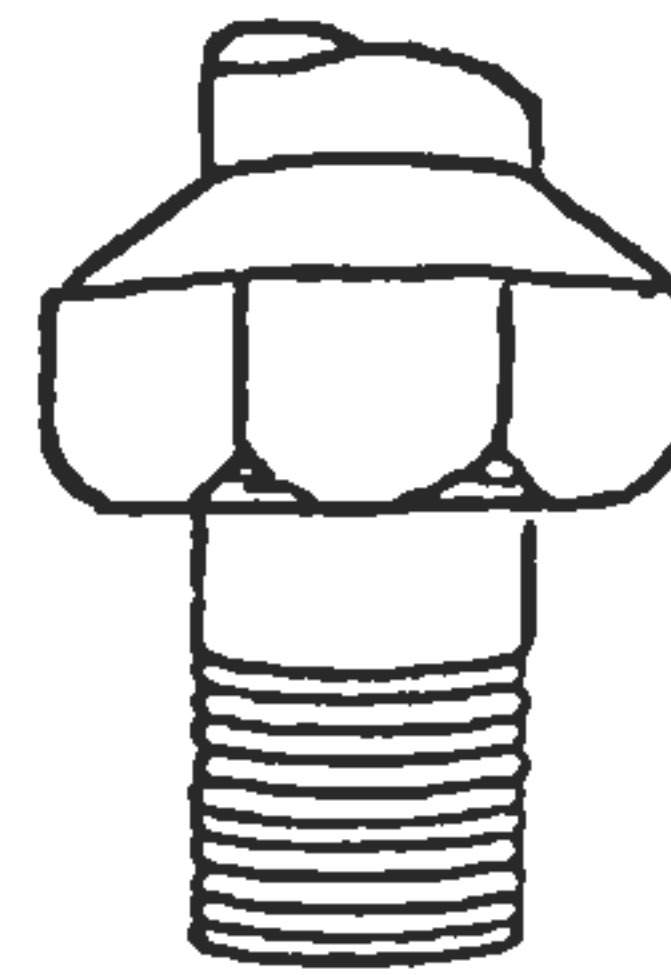
For Holes Drilled Crooked then Straight



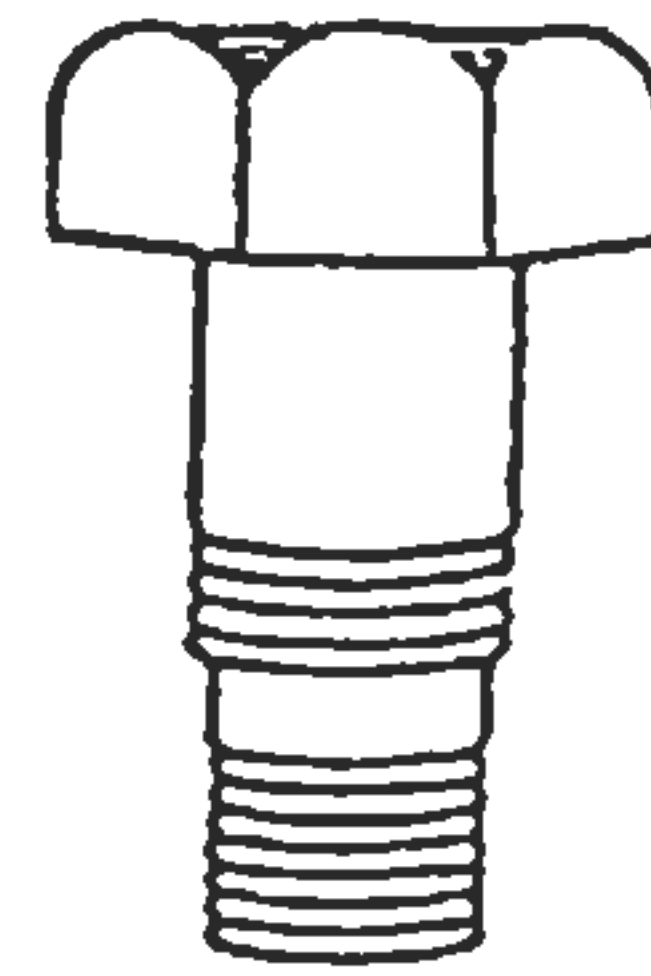
Binocular Bolt - for Double Drilled Holes



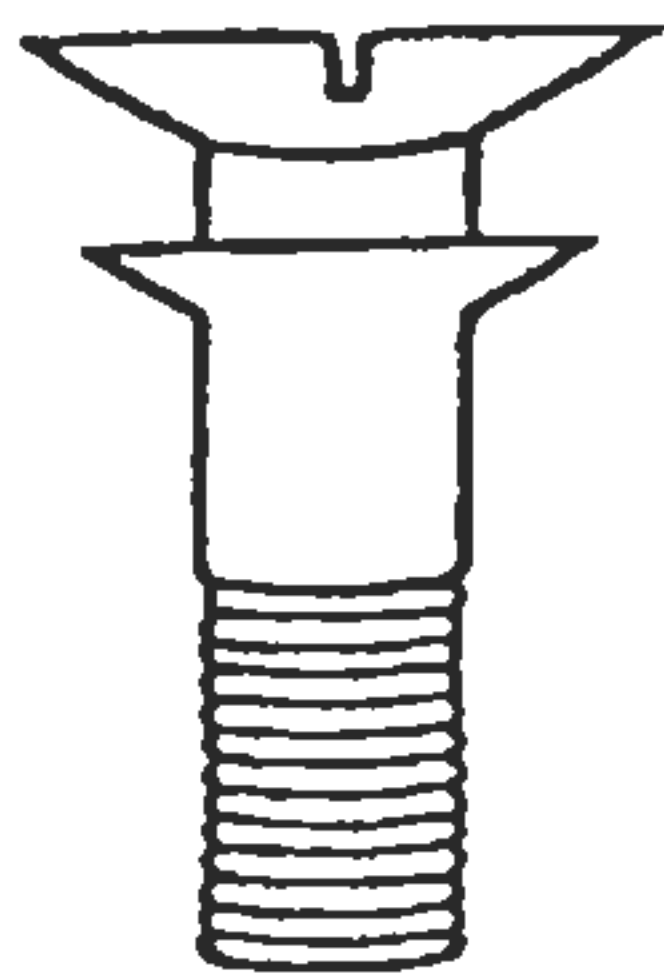
For Holes Not Drilled Straight



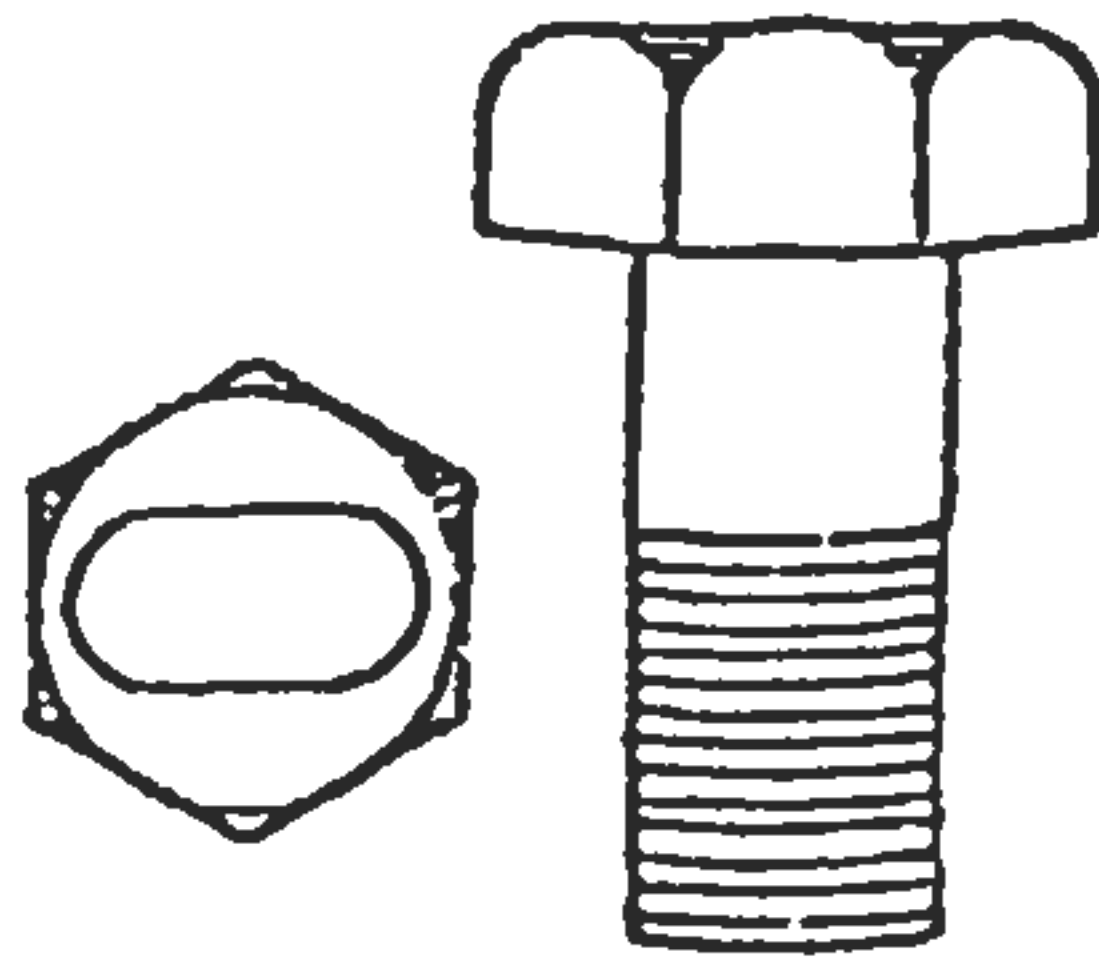
For Holes with the Counter-Sink on Wrong Side



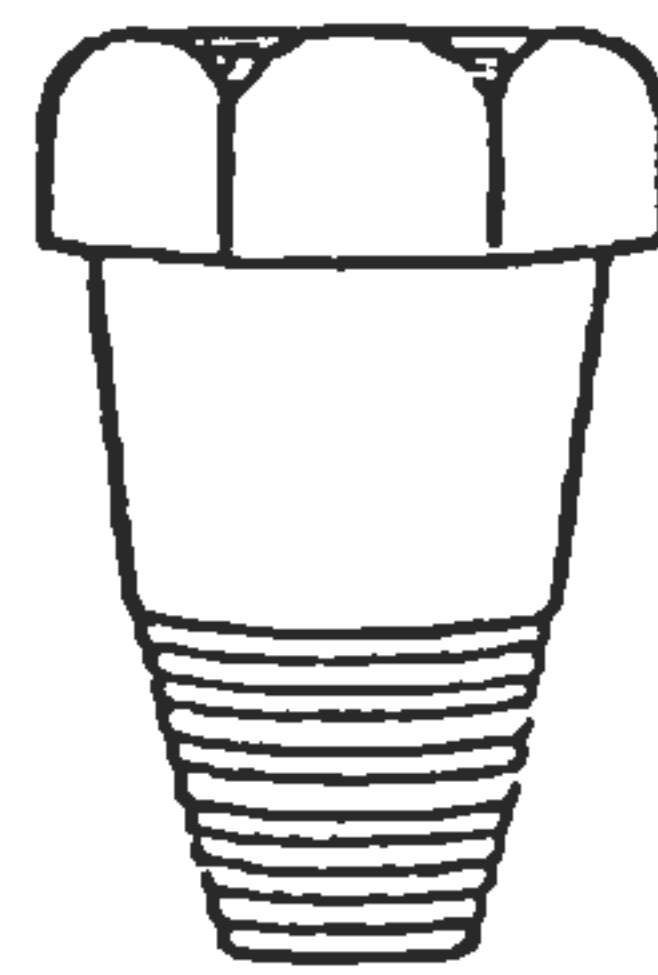
For Holes Drilled Too Big, Then Right Size



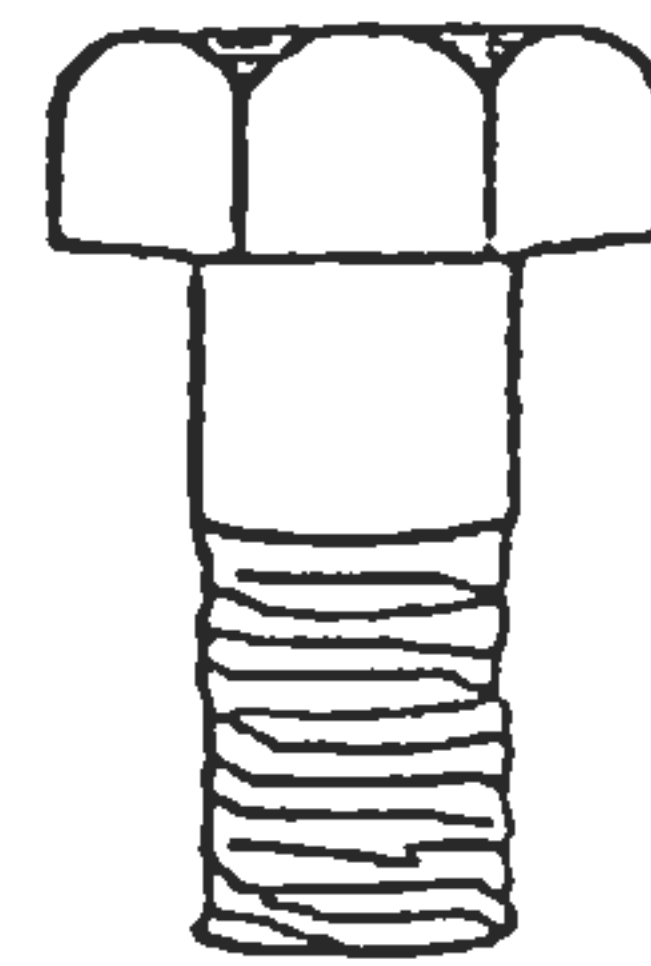
For Double Counter-Sunk Holes



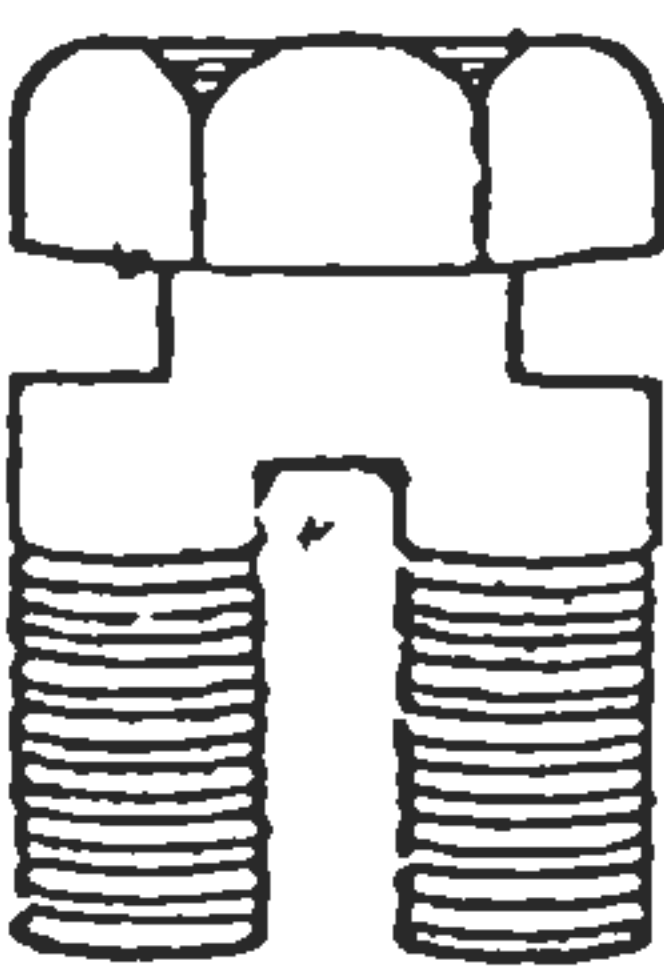
For Out-of-Round Holes



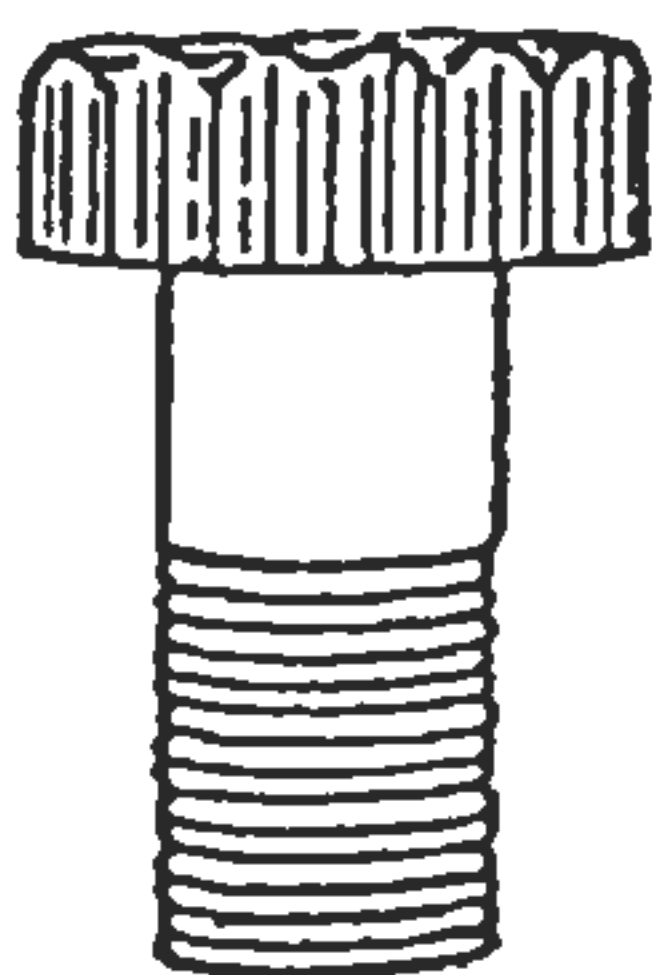
For Tapered Holes



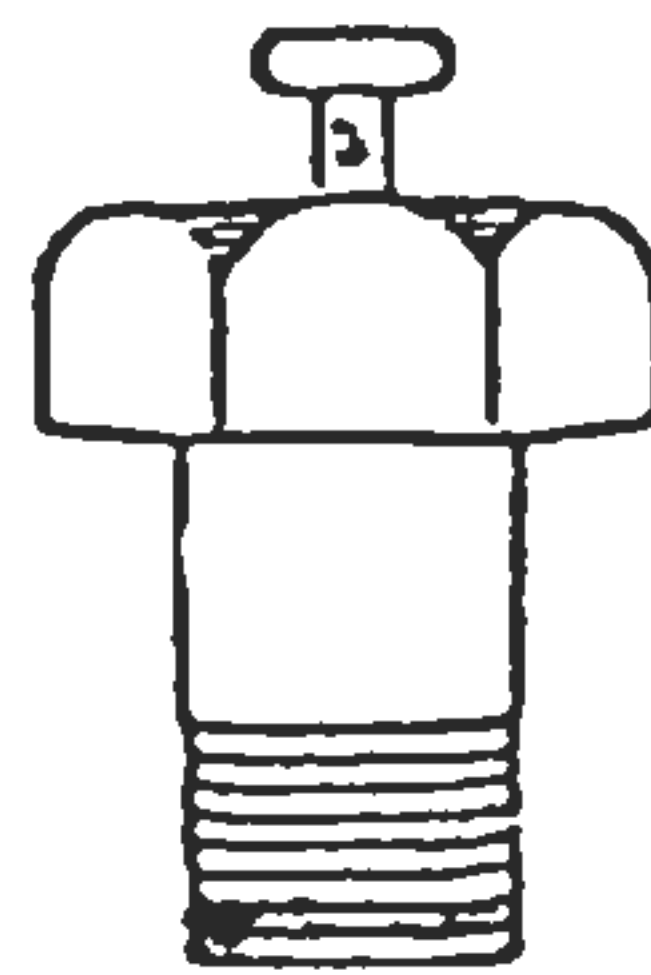
Prestripped for Easy Overtorquing



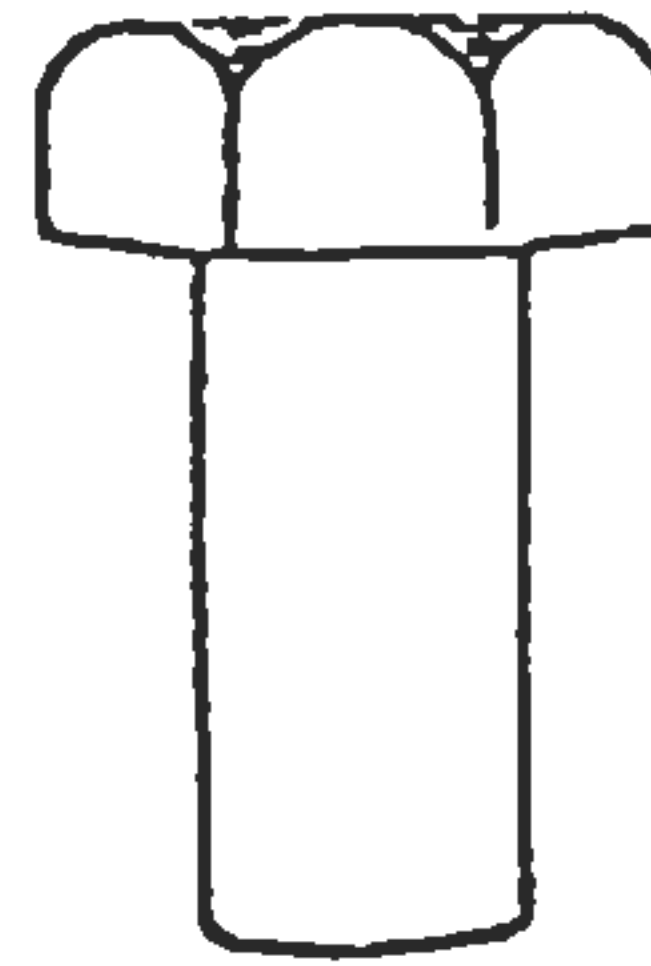
For Redrilled Holes that Still Don't Match



Serrated Head for Visegrip Torquing

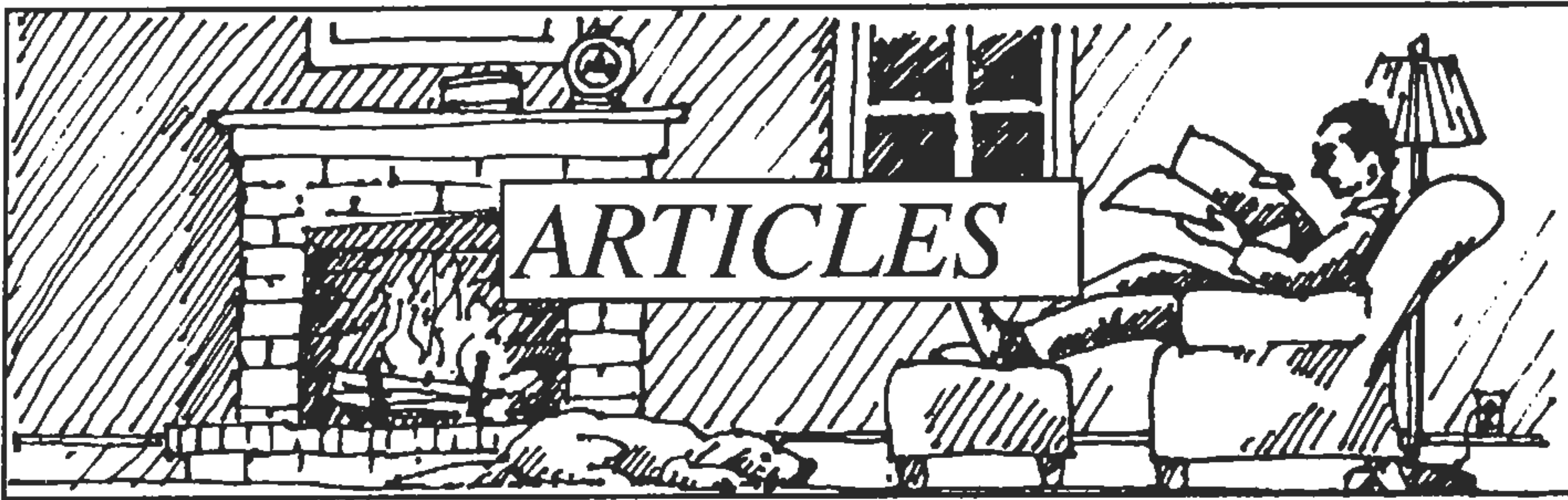


Hammer Head Bolt - for Hard-to-Start Holes



For Threadless Bolt Holes

Back by popular demand, this index of specialized bolts was published in one of the very early WORKHORSE issues.



Little Sahara

by Bill Davis, #44, UT

In west-central Utah lies an area known as Little Sahara. It is a BLM-administered ORV area, and is appropriately named. It is 180 square miles of active sand dunes ranging in size from three feet up to the 300-foot-high Big Sand Mountain. The vast majority of the area is open to ORVs with the exception of Rockwell Natural Area.

The area at one time was a 10-mile-long sand bar in ancient Lake Bonneville, once a huge inland sea covering a large portion of Utah. About 10,000 years ago the lake breached a portion of the Red River Gorge in southern Idaho, creating one of prehistory's largest floods and emptying Lake Bonneville into the Snake River. The remnant of Lake Bonneville is the Great Salt Lake. In the past 10,000 years the sand bar has migrated about 18 miles north.



Boyd Hatch to the Rescue



Descending the Steep Side

The area is roughly two hours from Salt Lake City. Easter is the traditional time for Salt Lakers to shake off the winter doldrums and go play in the sand. We in the Land Rover Club decided to visit the area a couple of weekends later to avoid the crowds. It turned out to be a fantastic weekend, as you can see from the pictures.

Most of the vehicles you see at the dunes are specially built sand rails, dune buggies, motorcycles, and ORVs. We had the only street-legal vehicles that we saw the entire weekend.

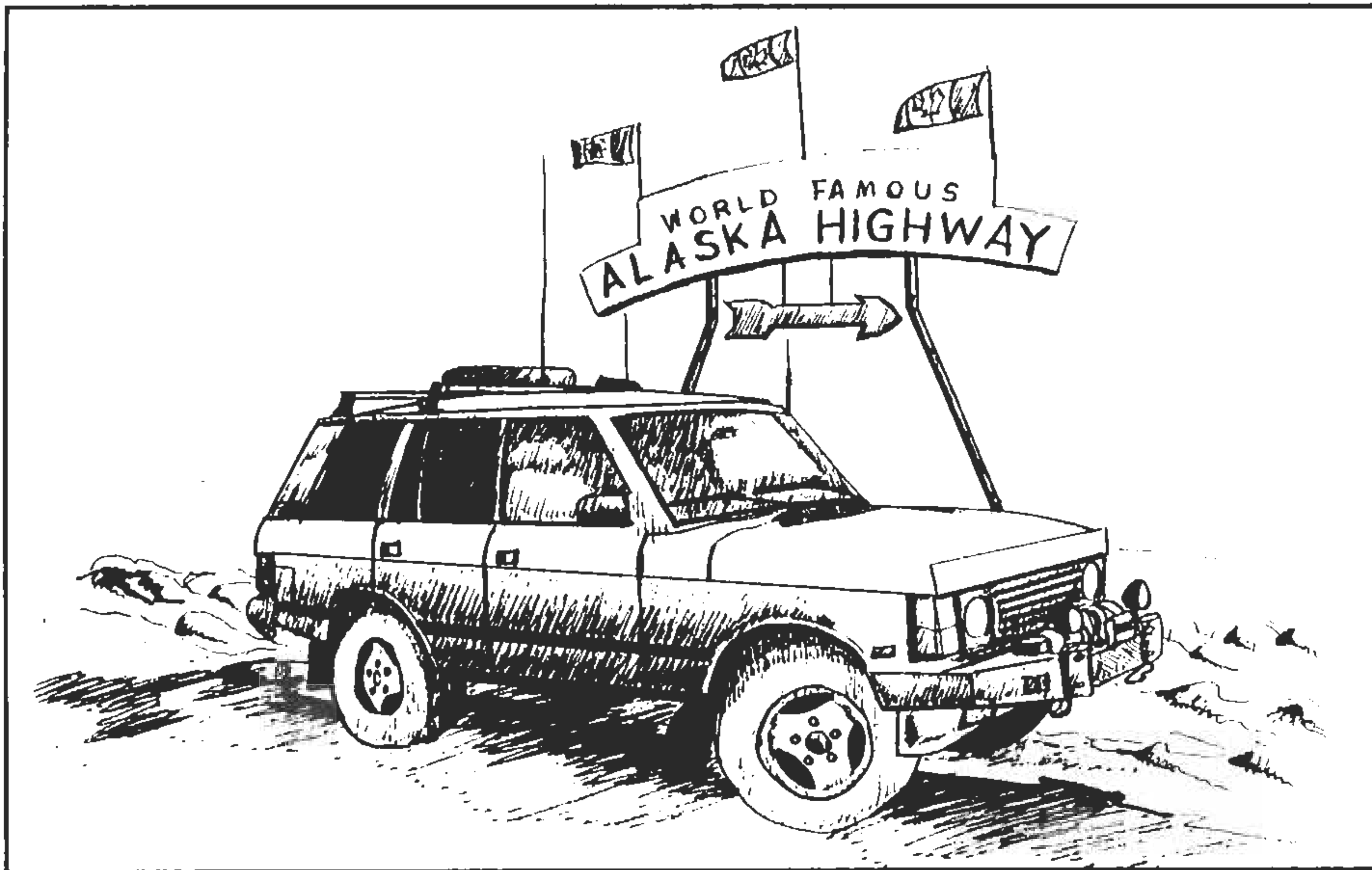
Light and fast is the hot set-up for the soft sand you encounter here. Admittedly, Land Rovers are slow and heavy, but they performed remarkably well. It required some getting used to: plenty of driving skill, good judgement, and, in my case with deep-lug tires, dramatically low tire pressures in the range of 10 to 12 lbs.

Sand dunes have a hard-packed, gently-sloping side and a very short, soft, and steep side. The technique is to drive up the gentle side then slide down the steep side. If it is a small enough dune, you can do them backwards. Momentum helps.

Saturday we were getting quite adventuresome because we had three Land Rovers in attendance and figured the odds of getting all three stuck at the same time were remote. Kerry Oldham couldn't spend the night, so the next day Boyd Hatch and I were a little more conservative in where we went and how we drove for fear of getting stuck and having to do

some serious digging. This was supposed to be a vacation and neither one of us wanted to engage in any serious physical activity.

We are planning to make this an annual spring event for the Mountain States Chapter of LROA. Next year we are going to call it the Camel Trophy Utah and try to drive the entire 18 miles from one end to the other. So if anyone wants to pretend they are in North Africa next April, we would love to have ya! Contact us for directions and info, and bring a whip flag to keep the BLM happy.



North to Alaska, Part 2

by Glen Foster, #19, MA

To re-cap, I now find myself in Walnut Creek, California, somewhat asleep. Having planned to drive to Alaska with my West-Coast friend, Eric McKay, I had just traversed the country via Moab, Utah, and Arches National Park. Travelling across the Utah and Nevada deserts on Route 50 gave me sobering time to dwell on the future, and that immediate future meant a drive up through British Columbia and Yukon to a snowy and mostly-darkened Alaska. It still seemed too strange to be real and too real to be happening. So real, in fact, that I never heard the alarm, only partly awake at 3:45 a.m. I felt the void of sleep and the strangeness of waking in an unfamiliar place, something both of us would be getting used to in the weeks that followed.

The Range Rover had been loaded the night before, oil changed, tires rotated, hopefully everything checked thoroughly inside and out. As well as the spares mentioned before, new tires had been fit nicely on the stock RR wheels sitting a bit taller than the stock tires. The 10-ply rating would be a good help in load carrying as well as taking any punishment on rough surfaces. The thick sidewalls also would help in future desert trips against those frustrating sidewall punctures. As we loaded our last pieces of baggage and climbed aboard in the darkness, we cast longing glances around the familiar territory.

After a quick 7-11 stop for that coffee they are so famous for, we were northbound on Route 5. Good time was made through California and up into Oregon, stopping only for fuel and food. We made the Washington border and our first serious fog bank. Sliding into Seattle at 4:30 p.m., we were greeted with commuter traffic and virtually stood still among the happy motorists. We had planned to make for an early evening ferry from Vancouver, BC, to Vancouver Island and stay (read "mooch") with some friends for the night. This plan didn't look good now, but the best was yet to come. And we thought we had problems now! The traffic soon melted away into the background and we slid up to the border crossing.

All went well until we mentioned that we were headed to Alaska. "Just take this form and park at the red light on the side, please." Had she said PARK? Uh oh. After two very bureaucratic counter sessions, we found ourselves waiting on a cold bench outside as a Customs Ghoul went through the RR. I asked Eric if he had seen Midnight Express and he just smiled. A second Ghoul arrived on the scene and finally we were set free, a scant hour later. So much for our ferry. All we could think of was the many crossings we would have to make in the future and hoped they would not be like this. How much was the air fare? We eventually caught the last ferry and soon were down in the cargo

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Winter Safari VI -- 1990

by John Cranfield, Nova Scotia

Like most of the Northern Hemisphere in February, I was suffering the winter blahs and the Winter Safari seemed to be the ideal solution.

Con Sietl was easily persuaded to join me on the drive down from Nova Scotia, Canada, to West Lebanon, Maine, even though it meant starting out at 2 a.m. After a 3-hour ferry ride, we arrived in St. John, New Brunswick in the middle of the rush hour and a little spice was added to the trip when my 1967 SWB Land Rover broke an axle shaft in the middle of a 5-way intersection. There's nothing like locking your front hubs in with trucks and busses inches away from your rear to put some zip into the morning!

The remaining 400 miles were uneventful, but a little worrying as Land Rovers do not like extended periods of front-wheel drive only.

We arrived to a very warm welcome from Ron and Bernie Mowry and were soon treated to a truly international supper of American jumbo shrimp and Canadian beer consumed by English, Austrian, and American diners.

The after-dinner conversation was naturally about Land Rovers, the off-road run the next day, the weather and how little snow there was for this time of year, and how this would mean that Winter Safari wouldn't be very challenging. The evening progressed warmly and the Land Rover tales got taller as the supply of beer got shorter.

During the night it snowed and by morning Maine and New Hampshire had a 6-inch coating with the white stuff still falling heavily.

After a quick early-morning check over and the replacement of my broken axle, 6 Land Rovers left at 8:30 to meet our trekmaster, Gary Goslin, in Wakefield, New Hampshire, at the start of the off-road run.

There were two trucks with winches. These were placed in the center and at the rear of the line. Also three trucks had CB radios. One of these was placed behind

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A Land Rover in the Old West

by Susan McCasland, #198, CA

(reprinted from *Land Rover Owner*, April 1990)

One three-day weekend last November, my husband and I drove our 1965 Land Rover into the 19th century. Not a long drive, the furthest point only five hours down the freeway from our Los Angeles area home. But the ghosts of the Old West were more real than the hustle and bustle of modern urban civilization.

Our journey to the past began one Thursday evening. My husband, Neil, and I drove our 88" military LR. Neil's college classmate, Stu, piloted a 1976 Jeep Grand Wagoneer that was an off-road virgin. We arrived in Needles, about as far east as you can go and still be in California, in the wee hours of Friday morning while the Germans were tearing down their Wall.

Our destination, after a few hours sleep, was the Mojave Road*. Originally an Indian trade route, about two feet wide and used principally for foot travel, it became an important wagon

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*The Friends of the Mojave Road is an organization dedicated to preserving the Mojave Road for four-wheel-drive vehicle use. They publish a wonderful book, *Mojave Road Guide*, which makes the trail come alive. Most of the history in this article comes from reading their guide while driving the trail.

North Maine Trek '90

by Mark Corner

In preparation for the '92 Trans-Canada Tour, the North Maine Trek was planned to scout and map out the areas of Maine that would be crossed in 1992.

After a somewhat delayed start from Orono, the convoy proceeded north to Portage, Maine, where we planned to spend the first night. With some searching, we found a comfortable farm field that would hold six Rovers and their 12 occupants. We awoke a little earlier than planned when a crop-dusting aircraft decided to buzz our campsite. As we finished our breakfasts, a warden from the Main Fish and game Service came by and picked up a huge beaver caught in a live trap. He told us that the beaver kept damming up a farmer's culvert. The beaver would be "relocated" to an area a little more remote.

We checked in to the North Maine Wilderness Area at Portage. We then checked out from civilization for the next two days.

Using a map and compass and his experience, John O'Day led the pack into areas that at times seemed not to have been travelled upon for a good number of years. With two people walking in front of the vehicles, we made steady progress. We stopped occasionally to break out the chain saws when trees that had fallen thought they could stop our advance.

Coming to an eight-foot-wide, meandering stream, John O'Day crossed only to find that the little stream was about 3 - 4 foot deep and moving quicker than it looked. John made it across, followed by myself and Walter York in his super modified monster. Phil and Lucky Cunningham had a little problem when they had to back up their 1973 88 and try the bank again. Phil found the part of the stream that was four foot deep. Even a Rover will not run if you stop in water that covers the engine.

For readers not familiar with the water-tight integrity of the passenger compartment of the Rover, you're fine if you have your vents closed and keep your doors shut. Wherein lay the problem for poor Phil. When he stalled he had to open his door, which just happened to be on the up-stream side, to crawl out on his hood to attach a tow strap so Walter could pull him out. He got his interior a little "cleaner" than it was before.

Coming to another river marked on the map as having a bridge out, we decided it might be wiser to head back into the woods and find another ford. We determined that the only way we would get across in that area would be to build rafts. A bit much for this trip, but something that has been used by other trekkers before.

After a relaxing lunch beside a stream, Walter and I started out ahead of the pack to scout the area. You must understand that in that area landmarks are few and very far between. During this scouting expedition we found another old bridge that had washed away years ago. No problems here, though: only a little mud. After checking the area for a few miles, we decided that it was the correct trail and rejoined the group. I told them that the way ahead was relatively safe. As I turned around I noticed that Walter had forged ahead back up the trail.

Let me stop for a moment and describe Walter and his "Super Modified Class" of Rover. Walter and his Rover are drawn

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Alaska...

area with numerous tractor trailers, buses, and vehicles of all descriptions.

After disrupting Eric's friend's life in the wee hours of the morning, we gladly slept like babes on the living room floor. We had done about 1000 miles in one day although the Customs stop made it seem like 2000. The next morning, we drove around Victoria, a beautiful city, and did things like exchange US dollars for Canadian. After lunch we headed back to the mainland on the ferry, a fantastic slow ride through rocky islands thick with pine. On to Hope and Route 97 north past such towns as Boston Bar, Cache Creek, and 70 Mile House. It rained lightly as we headed north, turned into a deep fog, and finally began to snow heavily around Williams Lake. The RR was sure-footed on the wet tarmac. As we drove into the night it snowed constantly. Passing no motels for miles around darkened snowy corners, we pulled into a truck turn-out on the side of the road. Making ourselves as comfortable as possible, we slept in the RR. Almost no traffic passed as we slept.

Waking at dawn, we piled out to stretch out the kinks and were treated to a flock of geese honking in the morning mist. All around were beautiful woods and fields in the grip of the fog that chilled us to the bone. Consulting the map, we found we were in Marguerite. Again, there was little traffic as we headed north. The dirt on the road coated the RR, windshield and all, in a dark brown that went on like undercoating spray and was just as tough. Every now and then as a car or truck passed by they would throw a dirty cloud of the goop at us and for a moment we would run blind as the windshield washer did over time to clear it away. We pulled off the road at the first of many cozy cabins for a hearty breakfast. We were soon to find out that one commodity not in short supply in the north country was hospitality. It may have been cold and damp and very empty outside, but as soon as you sat down it was a big mug of hot coffee and a kind word.

And speaking of cold and damp on the outside, let me say that the Royal Canadian Mounted Police certainly are efficient. The warm glow of breakfast hardly worn off, we climbed back into the Rover and off we went. A little too fast for the

RCMP it would seem. Yes, in the middle of nowhere a RCMP did a quick turn around after blasting by in the opposite direction. "Canada says thank you for the revenue," Eric added as I put away my wallet and took out the radar detector. I underestimated the wilderness — it could be cruel. I would like to editorialize about the worth of speed traps in the vast wilds of BC, but I won't. Rules are rules and I guess I broke them. So far we weren't scoring very well with authority on this trip. We hoped that would change. The radar detector became a permanent fixture.

On up we went and in the gathering gloom came upon Dawson Creek, the actual start to our journey: mile zero of the Alaska Highway. Of course we found the famous sign and like good tourists posed for pictures. "Photo-documentation" sounded better to us but to the everyday people passing by we were simply out of our minds. The temperature had now dropped drastically and a steady north wind blew through us in the gathering darkness. It was 5 p.m. Here was not a good place to change a burnt out headlight, but we went to it and learned fast that it was colder than we thought as finger motor coordination failed. It had apparently snowed recently and the snow was blowing around and forming little drifts at our feet and in the lee side of the Rover. From this point on we learned to be like the natives and leave the Rover running almost all the time. It cooled down when shut off so fast that we worried about our beer. Only kidding. I meant the cameras. Besides our 35-mm's, I had been using the video camera and had discovered it did not work well when extremely cold. Obviously it was of higher intellect than us humans.

I made one mistake at Pink Mountain. I asked for decaf coffee. They don't do decaf in Pink Mountain and they get a kick out of someone asking for it. I learned my lesson in front of the entire seismic crew of BC: woolen hats, beards that make ZZ Top seem clean-cut, and enough brown duck fabric to outfit the state of Rhode Island. For the next three weeks I would endure the effects of caffeine overdoses gladly.

The gas attendant had never seen a Range Rover before and enthusiastically peered under the hood as we told him

about it. Of course I was clutching my travel mug of hot coffee — REGULAR coffee! He warned us of moose, elk, and reindeer on the road ahead and I hoped that the animal alert whistles that were on the front bumper really did work. Heading out, we noticed more snow and soon were driving almost entirely on snow-covered roads. The Rover did its best for us and we wound around the curvy roads with no traction loss. Endless snow banks now hemmed us in and if we left the road we were going to go through one heck of a wall of snow. On the outer edges of the headlights flickered evergreens and small open fields with pillows of snow that in the darkness reminded us of waves in an open sea. We might as well have been at sea for in the comfort and safety of the truck, the landscape looked lonely and very cold. Somewhere near Prophet River we pulled in to grab a quick cup of soup and felt that now was the time to not shut the truck down. It idled quietly, the heater on full blast as we dined. We decided that no one would bother with it as other trucks idled nearby as well.

Fort Nelson came into view around 10 p.m., as good a place as any for the night. A low-roofed motel with a parking lot full of pickups looked inviting. Most of them had boxes fitted to them which housed sled dogs or pups. They eyed us quietly as we unpacked and dug out the extension cords to plug in the block heaters.

It was cold. It was very cold. So cold that the workshop-grade extension cords were frozen in neat little loops that I made back in Massachusetts. Everything in the rear of the truck was stiff and brittle and we made a note to pack anything like film and video tapes on the rear seat for warmth. I wrestled the cords into submission, plugged in the heaters, and prayed they worked as well as they did in my New England weather.

Fort Nelson. Mile 300. Diesel trucks. Fights. That's what the log book says. Sleep was parcelled into little bits that night and all I remember was hoping they didn't come in through our door. Out of town the road started to wind up into the mountains. No gas had been available in Fort Nelson. As we neared empty heading up into the hills, we passed several small shops and gas stations. All were either not open yet or closed for the season. Steamboat: no gas. Summit Lake:

no gas. Breakfast was available though at Summit. There we talked to a young family travelling in a Dodge 4WD pulling a camper trailer from Flint, Michigan. Brave souls they were for they were moving to Alaska to live. The Chevy Suburban we had passed a few miles back appeared also, only being towed due to a dead transmission. We shuddered to think of where a tranny was going to come from and what the tow must have cost. Gas was costing us about 70¢ a liter, Canadian. That made roughly \$2.80 per gallon, U.S. Gassing up was now about \$60 with the extra 5-gallon can we carried. The scary part was to come later when as the temps dropped radically, so did our mileage, causing initial wallet panic.

Toad River Cafe yielded gas for us as well as one of the biggest hat collections known to mankind. Hundreds of them hung from the ceiling, an upside-down ocean of reds, blues, yellows, and every combination possible. We sat with the owners a while and had coffee. The great thing we were to learn was that unlike the summer when everywhere is crawling with cars, trucks, and campers, the owners now had lots of time and were curious as to why we were going up to Alaska in the winter. Most told us that we indeed were seeing the real Alaska, the open roads and the wildlife and friendly shopkeepers. We could imagine how that all changes in the dusty crowds of the summer. Still a summer trip would certainly yield things we could not experience in the cold that we now felt. This trip was about the cold and the snow and the Alaska that survived the siege.

Toad River cost us \$47 for gas and \$1 each for coffee. Each roadside stop had a different theory about coffee. Some gave you a cup with a fill-up while others charged. All had a reason too, coffee costs this much per pot, so many pots a day cost this much, etc. Then there were the places that we'd stop in only for coffee and maybe to hear another human voice besides our own and they'd wave away our money, it'd be on the house and they would ask how we were and which way we were headed. They never asked about the road conditions like they would at home. They knew the score.

Up past Muncho Lake we drove. It snowed lightly... the nice dry snow we never seem to get much of in New En-

gland. It was cold enough that it didn't form slush on the windshield and we could drive freely with a dry, clean view. Crossing into Yukon, we topped up the tank at Contact Creek, a tidy little log building with adjacent log buildings serving as repair shops. A fellow working there turned out to be from Florida. We were finding almost everyone was from the lower 48 and was perfectly happy not to be there anymore.

The snow was blowing harder now across the roadway. We trudged on through as sure footed as the Rover could be, a good solid feel on the packed snow-covered roads. At times, the snow reared up in front or behind in the wind as if demons played it like a puppet. An upwards draft would carry a whirlwind of snow up straight in front and blast it against the windshield as if to test the vehicle and hint that we should proceed no further. After a dinner stop in Teslin, we pushed on into the darkness and the gales of snow, arriving at a roadside stop in time to save a motorist from some evil fate. A woman had been camped in a van and had run down the battery. She had stood at the roadside long enough to let an inch of snow gather on her coat and hood. She looked like a statue paying tribute to some god of jumper cables. Very strange thing to come upon in the middle of nowhere.

The miles up to Whitehorse had not been uneventful. We had seen wolves, caribou, moose, rabbits, and even more RCMP. The CB radio crackled to life as we followed some hearty tractor-trailer rigs up through the mountains and the snow blasts. We tactfully let them know we had a CB when they all but cursed us for not passing them when they pulled off to the side. We had neither noticed that they slowed at all nor pulled off in any way and told them we were happy to stay alive by following them in the blinding snow.

Rolling into Whitehorse at 11:30 seemed like a dream come true. We deserved a rest, as did the Rover. We found an affordable motel and plugged in the monster electrical cord and called it a night. The snow fell softly now. A clerk told us it was nearly 30° below zero. It sure felt it. One day away from Alaska, we slept.

To be continued ...

Winter Safari...

the leader; the other two CBs were in the winch trucks.

Snow was still falling as Gary with his daughter, Jody, as passenger used his camouflage-painted Rover as a dozer on the snow bank at the end of the track, and in a cloud of white started up the hills.

Chris Commer and brother Ed were next in line in a well-travelled olive drab 88" equipped with fat sand tires leaving a wide foot print for Bo (Sea Fish) Kinsman and his girlfriend, Chicken, aka Eileen, to follow with the youngest trekkie, Morgan Mowry. This was Bo's first winter off-road trip and he soon found that it is a whole new experience calling for unexpected driving techniques.

Bernie Mowry was hot on Bo's heels in her Rover named Sherman, which was sporting a brand new set of savage-looking 235-16 tires and her dog März with very large teeth. The next truck, which wore a set of Nova Scotia license plates, was mine with Bernie's brother Ed as passenger. Ed had his right ear warmed by a large brown dog called Ben.

It is rumored that the following driver, Phil (Grumpy) Cunningham was actually enjoying himself, but he had a reputation to maintain. Lucky, our resident banner-painter, came along to copilot for Grumpy again this year. At the tail end was fellow Nova Scotian, Con Sietl, also a newcomer to winter trails. His sidekick for the journey was Jeff Welch from Maine.

Over the first mile or so the trail got steeper and steeper until those at the front were halted by the deep old snow and the steepness of the hill. Gary was finally able to break a way to the top where the trail leveled a bit. Chris was finding that the wet snow had little traction to offer his wide, but non-aggressive sand tires, so he strapped chains to all four wheels making an impressive difference in his progress.

As the snow on the hill became packed, most of the Rovers needed a little help from a tow strap to get over the crest. Each driver was cheered on by the others watching as everyone tried to be the first to make it unaided. Only one did so, and modesty prevents me from naming this hero!

Those experienced in driving in snow know that the techniques that work one

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3 Sketches

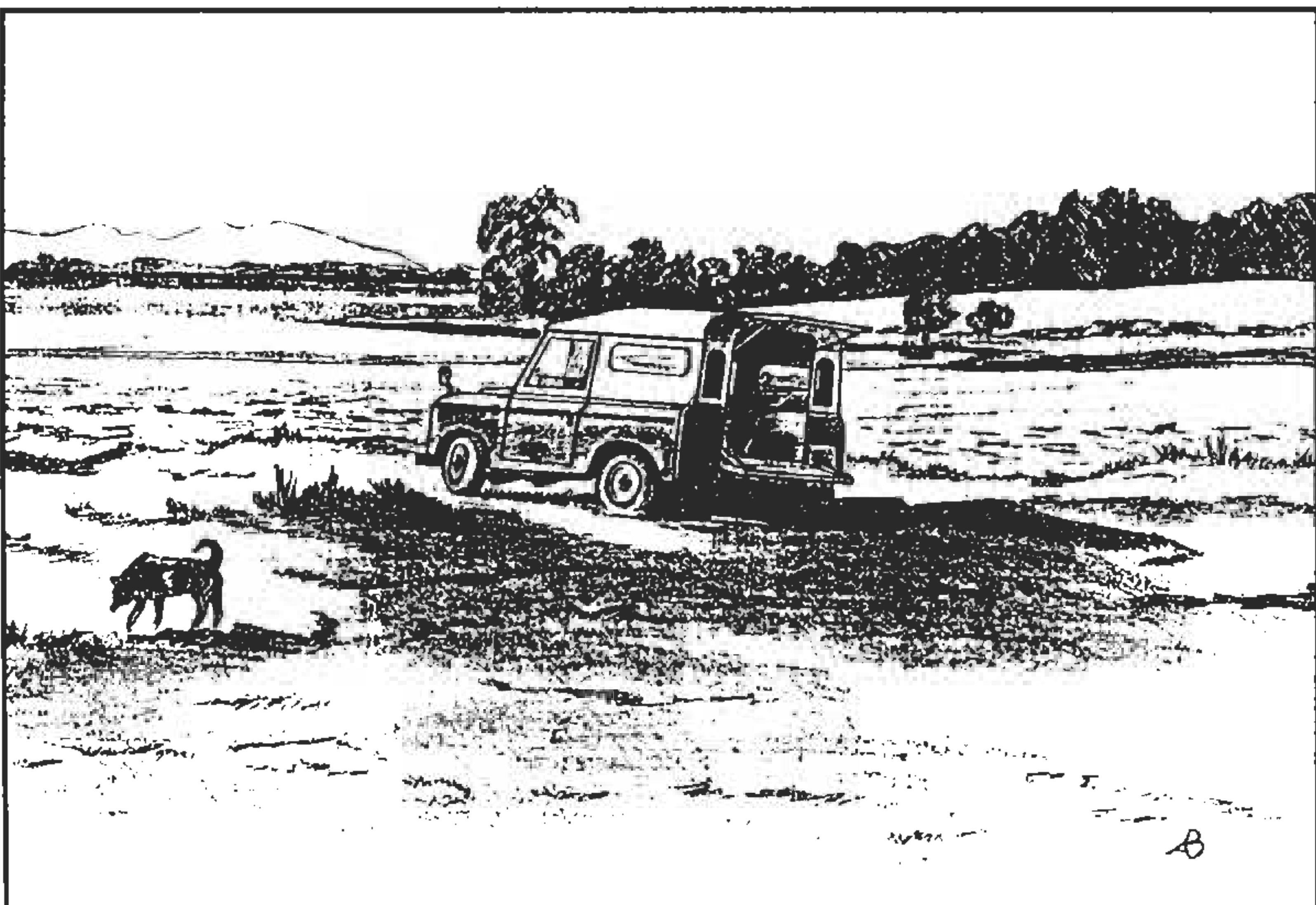
by Pat Brooksbank, Halifax, West Yorkshire



Somewhere in Canada



Sacramento Mountains, New Mexico



Scotland

Winter Safari...

day will be totally wrong the next, so it took a little while to get tuned in, and progress was very slow until each of us realized that first gear, low range with no gas on at all was needed. Bo was having more than his share of problems until Bernie realized that he had forgotten to air down his tires and was carrying 40 psi in mildly-treaded "footwear." With the air down to 15 psi he drove like an old pro.

The convoy of 7 Rovers wound its way up and down the hills through what must be some of the prettiest of New Hampshire's Lakes Region. At times it was difficult to see through the storm, but this only added to the challenge and as the group was carrying plenty of survival gear, including tents and stoves, there was no danger from Mother Nature.

At the start we had all been warned to carry extra gas, warm clothes, shovels, tow ropes, etc. At least once every driver broke through the crusty snow and only with a tow strap or expert driving techniques were they able to recover to easier driving on the top. The most impressive "break through" was Gary Goslin's truck when it dove in up to the headlights and beyond. A steady pull from the rear soon corrected the problem and he was able to lead us through safely around The Hole.

When there was a suitable spot on the trail, we stopped for lunch and very soon the smell of hot coffee was attracting the chilly folks munching on their food. While we were standing there, a group of snowmobilers came through from the opposite end of the road. They were very surprised to meet a bunch of Land Rover owners casually eating lunch in the middle of an "impassable" snowed-in trail. A good old-fashioned snow ball fight broke out when a ball of the white stuff hurled from Brianna Mowry's hand hit her uncle Ed square in the face.

This was not really the sort of day to be lazing around enjoying the sunshine, so the lunch break was a short one and we were soon back in action again.

The road, which to this point had been mostly up, decided to be mostly down and down and then down a bit more and then leveled out a little. Suddenly Chris called back on the CB, "Don't get stuck here. There is running water under five feet of snow." His brother, Ed had fallen through the crust when he stepped out of the truck

for reasons we won't mention. Fortunately no one did get stuck there, so CBs proved useful equipment to have and those without put a radio on their wish list.

Because our progress was very slow due to snow conditions, we were passed by some cross country skiers, who gave us some very dirty looks. I believe they may have been among those who have the selfish attitude that the environment should only be enjoyed in the particular manner

Mojave Road...

road connecting Los Angeles with Prescott, the capital of the Arizona Territory, starting in the late 1850s. The portion of the road that still exists much as it did a hundred years ago runs from the Colorado River to 20 miles east of Barstow — nearly 140 miles — during which it crosses only three paved roads.

Our adventure hit a snag right away. On the two-lane road out of Needles, the highway providing access to the Mojave Road, two 18-wheelers had run together head-on. The road was closed.

A quick check of our map showed something parallel to the highway that could get us past the wreck. A peculiarity of our map is that "something" could be anything from a well-graded dirt road to a hiking trail. "Something" turned out to be an eroded, abandoned track, alternately

that they participate in. Being the sort of people who don't want our fun to interfere with others, we waited for the skiers to get well ahead before starting out again.

We were getting near the end of the trail by this time, but there was a final challenge in the last 100 yards in the form of a short but very steep hill with a thick snow bank from the plow as the trail joined the paved road.

There was a short break while tire

rocky and sandy, that vaguely resembled a roller coaster.

This "warm-up" proved to be the most challenging driving of the weekend. The old Landy handled the wash-outs, side hills, and ravines in its stride. The big Jeep smoothed the road for the next travellers by dragging its tail in the steep dips. In fairness, though, the only vehicle to need a helping hand out of a sandy draw was the Land Rover. Yes, picture the veteran Rover drivers being dragged backwards up the hill by the novice in his now not-so-virgin Jeep. Very humbling.

Soon enough we got to the Mojave Road turn off. Due to the delay we decided to forego the six-mile round trip to the real

chains were removed. Then a quick dash to a little restaurant in Union, NH, where a disgruntled waitress had more customers in one bunch than she had had in the whole winter. As we warmed up with hot drinks and hot dogs (the edible kind), Ron Mowry issued an invitation to join his family for an evening of pizza and beer. This proved too good a deal for anyone to miss and the night was well advanced before the last of the group went home.

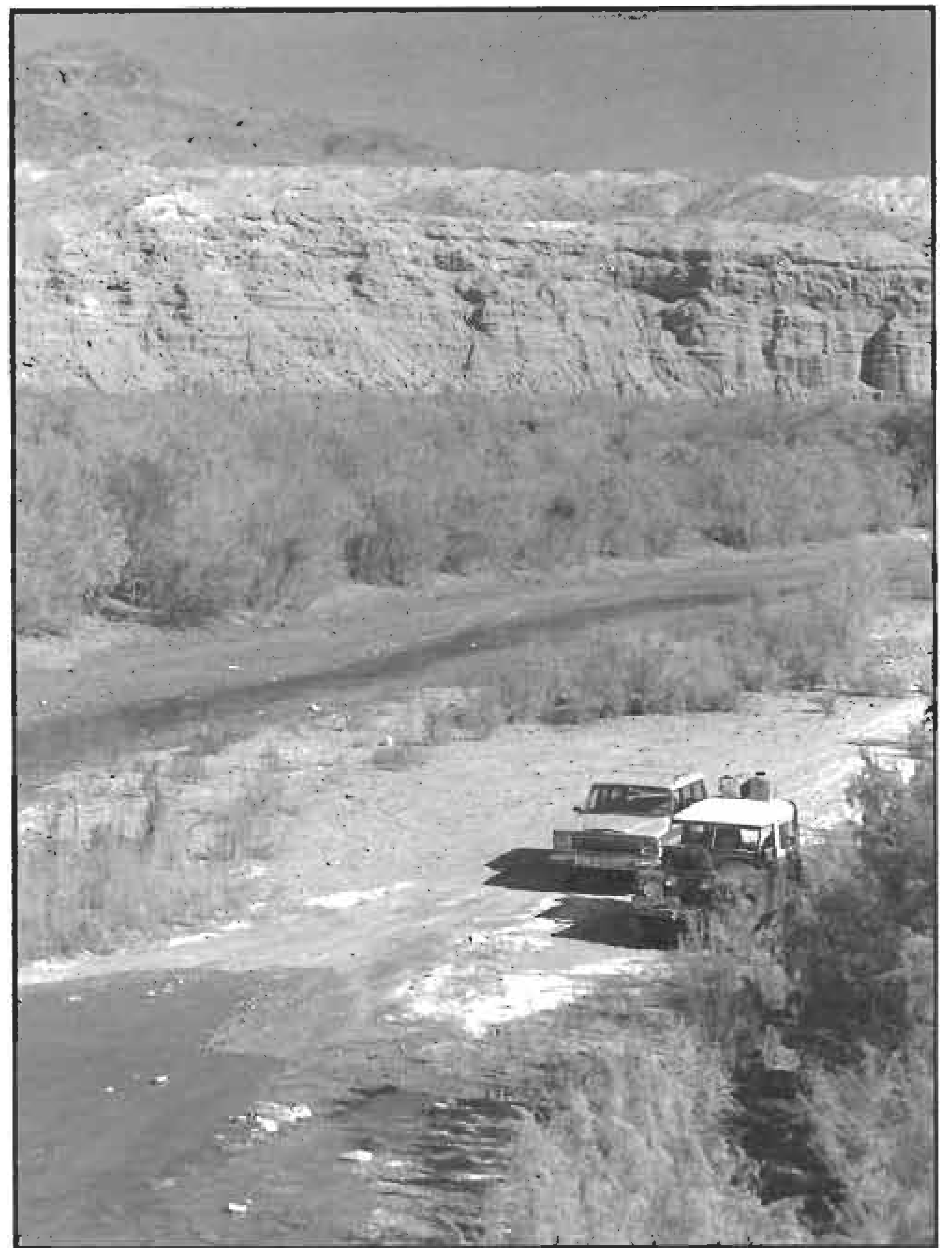
beginning of the Mojave Road Recreation Trail on the Colorado River across from the site of the old Fort Mojave. Our first act once on the trail was to remove both door halves. Even in mid November, at this lowest point on the trail — around 500 feet — the morning temperature was well over 80°F. The Dead Mountains loomed to the south, beckoning us to get on with it.

Our first real stop was Fort Piute, a frontier outpost of 18 soldiers in a pretty

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Lunch Stop In Afton Canyon

Crossing Soda Lake with a Nearly Full Moon



Mojave Road...

canyon with free-flowing water. The post had been manned for not quite a year in 1867-68. To you British who live in or near several-hundred-year-old houses, 120 years must not sound like much. But the harsh desert environment and total neglect have taken their toll. The tallest remaining rough stone wall of Fort Piute is barely four feet high.

As the Mojave Road continued to climb, the vegetation became more dense and varied. The two most prominent plants in the Piute Mountains are Joshua trees and cholla. Joshua trees are surrealistic cacti that look as if they have been guests of the Spanish Inquisition. Cholla are the Spanish Inquisition. The thorns seem to jump out to embed themselves in you. The vehicles, too, must be careful. A tyre can go flat from a cholla thorn it picked up months earlier. One species is called Teddy Bear cholla because of its fuzzy appearance. Believe me, nothing could be further from the truth.

One old Joshua tree has limbs hanging out over the trail. This plant is part of a Mojave Road ritual. From its limbs hangs The Penny Can (or several Penny Cans). Following tradition, we dropped a penny in a Penny Can, actually a slightly sun-drenched Budweiser can.

By the time we drove down into Watson Wash, the steepest pitch on the trail, we were ready to scout out a camp site. We turned off the Mojave Road, driving up the sandy wash looking for a likely spot. We found it in a side channel near a dry waterfall. We were absolutely alone and the 20th century might not have existed.

The Rover was our covered wagon and team of horses. We slept under the stars and the gibbous moon. During the night a pack of coyotes roamed up the main wash, yapping like gabby old women. Bats flicked in and out of view. Satellites drifted overhead (what?). Airplanes flashed as they quietly roared by (huh?). Although the ground seemed part of the pre-industrial West, the sky definitely belonged to the 1990s.

Next morning we drove all of two miles before coming to Rock Springs. On the cliffs around the springs are Indian petroglyphs: ancient labor-intensive graffiti. Thankfully, no modern graffitists have added their marks. One wonder what designs that look like an architect's house plan, a shadow-print M, and a ladder, meant to the person who carved them or to those he intended to see them.

At Government Holes, so called because U.S. soldiers once enlarged the well, we met Matt Burts and Bill Robinson. These two men were professional gunfighters, either currently (Robinson) or formerly (Burts) in the employ of a local cattle company.

Robinson was inside a house that no longer stands. Burts arrived in a Model T with two other people. Burts went in the house, leaving his companions outside. Those outside heard

shouts then a great deal of gunfire. Both men had emptied their guns into one another.

Neither lived to see sunset on 8 November 1925. Although they died 64 years before we arrived, Robinson and Burts still dominate Government Holes like the windmill and cottonwood tree physically there.

The Marl Strings area, our next stop, shows signs of mining. An Army outpost also stood here. Basically, every source of water had some kind of fort to protect it. Human life did not exist in the Mojave Desert but for a few scattered springs and wells. The Mojave Road runs where it does because of water.

If we hadn't been stopping to rubber neck and explore, the Rover could have covered 15 miles in one to three hours. In the heyday of the Mojave Road, 15 miles was a good day's progress. Most of the water holes are 15 to 20 miles apart. However, Marl Springs to Soda Springs, the next water west, is about 34 miles — too far for one day.

Fourteen-mule-team wagons would often leave Soda Springs in the middle of the night and drive all the next day for Marl Springs. If the teams gave out first, the drivers might have to unhitch the wagons, drive the teams to the spring, water and rest them, and come back for their wagons another day — if the desert Indians hadn't picked off the straggling driver or pillaged his untended load.

We left Marl Springs an odd way: by driving over a two-foot-high rock. You know that big spare tyre that sits on the hood? (I know, I'm using all the nekulturny American terms, but this is an American story, after all.) Well, we started up in low-range low. I had my head buried in a map, and that great big tyre was between Neil's eyes and a great big rock. The right front wheel went up, up, up, ... and down! The rock was just the height of the rocker panel — plus a half inch. We built a rock ramp to let us back off, inspected the damage (minimal and purely cosmetic) and were on our way.

West of Marl Springs, the road condition can be described in one word: sandy. Kelso Dunes off to the

A Land Rover can cross the flood plain now, but the railroad is out of business



left are 500 feet deep in places. The Devil's Playground is a foothill region where the alluvial fans are covered deeply in sand. The Mojave Road often runs down washes — you got it: SAND. Although neither vehicle got stuck, the big Jeep with wider tyres often did better than the lighter Rover using more of a mud tyre. How well did narrow, steel-rimmed wooden wheels heavily loaded do in all that sand? No wonder the mule teams often wore out.

We passed the Cowhole Mountains and drove on to Soda Lake, a (mostly) dry lake five miles wide and 20 miles long. In the middle of Soda Lake, with not another rock around, is a rock pile six or seven feet tall and wide, and growing. This is Traveler's Monument and it, like the penny can, is a tradition of the Mojave Road. Each wayfarer should collect a rock before entering the dry lake. At Traveler's Monument, he leaves his rock. There is a small brass plaque affixed to the monument; part of the mystique is that only those who have seen the monument with their own eyes know what the plaque says. And no, I'm not about to tell ...

Soda Springs, on the "shore" of Soda Lake has a split personality. It was one of the wagon road's water stops. It is also a former mineral spa and health resort called Zzyzx. The name "Zzyzx" was invented to be the last word in the English language. Anyone know a better contender?

After spending the night on the west shore of Soda Lake a few miles south of Zzyzx, we headed out once again and soon entered the Mojave Floodplain. The Mojave River does not flow into another river and hence to the sea. If it has enough water to flow at all outside of Afton Canyon, then it spreads out into the floodplain and soaks into the earth.

Need I even mention the major constituent of the floodplain? You guessed it. Sand. Lest one think that the floodplain is always as benign as we found it, there are the scattered remains of an old rail bed. The ties, tressels, spikes and thick steel hardware are twisted and warped. Today's rails skirt the edge of the floodplain.

The Mojave River enters the floodplain from Afton Canyon — a beautiful, steep-sided canyon with multicolored sandstone walls carved into bizarre shapes. Afton Canyon is undoubtedly the prettiest stretch of the Mojave Road. It is also

where one begins to realize that twentieth century civilization is slowly returning.

At the head of Afton Canyon is an established camp ground with roads built for sedans with a hundred horses rather than wagons with fourteen. Here in Afton Canyon we finally got to use our mud tyres in mud. Nothing too spectacular, just that you generally don't expect to find a marshy swamp in the desert.

I was the lucky one behind the wheel for the mud crossing. We made it, but our margin was narrow enough that we radioed back to Stu in the Jeep to find another crossing. Hooking a tow rope to him would have been one slimy job!

Alas, as the Mojave River wash turned from mud back to sand, civilization came ever closer. Cars rushing down I-15 were in view. As we turned out of the wash, broken glass and other litter reminded us that the "pack it in, pack it out" creed no longer applied here. The lonesome sounds of creaking wagon springs faded behind us — back down the old Mojave Road.

North Maine...

towards areas that others look at and say "NO WAY IN H— WILL WE GET THROUGH THAT." So I wasn't surprised when I rounded a corner and saw Walter sitting at an extreme left angle in the deepest part of the muddy bank. It appeared that the only thing keeping him from going over was a fallen tree propping him up on his left and a deep pack of mud beneath. For safety sake, his girlfriend, Jennifer, decided that the better part of valor would be to get on dry land away from the truck, and as quickly as possible. Old Walter decided that he needed to add some weight to the outboard side of his vehicle. He had Neal Fisher hang on to the top and lean out with the door open, like you see sailors on catamarans doing, and then by cutting the tree, he would get himself out.

Understand that no one else really believed this was possible, as the vehicle was sitting at a 45° angle with mud about half way up the driver's door and all four wheels almost covered. Tim Johnson went so far as to ready his newly-installed PTO winch in anticipation of its maiden pull. But after several long moments and much flying mud, Walter got himself free. When we asked Walter why he went into

that mud, he said, "It just seemed like the thing to do." The only damage: Jennifer's open purse filled with mud.

We spent the second night beside Upper Pond in the Maine Public Reserve area in the town of T15R9WELS. Towns in this remote area of Maine have numbers for names. Six Rovers, 11 adults, one child, and one dog packed into a campsite built for one. Improvements were made and everyone got their tents pitched comfortably. There were trout to be had for those with the forethought to bring fly fishing rods. The wilderness area folks were good enough to provide an outhouse on the top of a nearby hill. It was great... a box, a seat, a hole, and no walls. Sure had a great view of the surrounding area. Pictures are available upon request of Ron Mowry, faithful LROA regional coordinator, contemplating the world on The Throne.

Next morning we were off again through a great section of abandoned logging roads with just the right combination of mud, rocks, and hills.

It was Ron's turn to drown out his truck. As he waited for the crossing, he got to talking, as we all know he does so well. Well, it seems that he misjudged the depth by not watching and forgot that you need to maintain some speed to make a water crossing. So, he stalled out with a soaked ignition. Once again it was "Super Walter" to the rescue — he passed a can of WD-40 to Ron. After some acrobatics crawling on to the bonnet and balancing on the bull bars, Ron got the bonnet up and sprayed the WD-40 mist over his wires. After some more acrobatics as he got back in the truck, he got it fired up.

A good long run and we were back on the main logging road. An easy place to make a wrong turn as several corrections attest.

We soon came upon a large machine that was taller, wider, and longer than any vehicle any of us suspected prowled the North Maine woods. This behemoth was capable of driving into almost any area. Once there, it could cut and strip an area of timber and then load its pillage into the attached hopper on the rear. It could carry two to three times what a normal large logging tractor could carry.

Soon we rounded a curve and could see a large river ahead of us. The 100-foot

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span of bridge crossing it was in poor shape. We figured that the bridge wouldn't last through another spring runoff. I decided to weight test it in my truck. I crossed safely with the assistance of people in front telling me how far right or left I could go before I would lose a wheel or my truck. The other vehicles crossed with the assistance of the walkers. Had a real good bank to climb on the other side where the river had washed out around the base of the bridge.

Next we came upon a really deep section of water. Here the beavers had decided the down-stream row of trees along the road would serve them well as a dam. They were right, the water was definitely deep.

Obvious to us all was that the only truck with a chance of crossing this water hazard was Walter's, unless, of course, we fitted snorkels to the rest of them. After a group discussion, we decided to send Walter out on top of the dam in an attempt to crush a section in the middle and allow some run off so the other vehicles could cross. We figured that since beavers enjoy building dams, they wouldn't mind rebuilding a small section. Walter did his thing. Everyone got across safely, precluding the need for any WD-40 treatments.

A few more miles of heavy four wheeling and we came out on an in-use logging road. This road led us across the Allagash River where we stopped and had a leisurely lunch.

We proceeded onward towards our evening's destination: two old logging bunkhouses that John had arranged for us to stay at.

Upon our arrival, Ron, Morgan, and I got a supply of fresh water from a stream we had seen a bit farther back. This hardy group then proceeded down the road another quarter mile to a small pond where we figured we could take a bath and remove a couple of layers of dust. That water was cold. Ron and I will still swear that the ice had melted about five minutes before I jumped in. It seems that when I jumped and started hollering, Ron lost his courage and had to be coaxed in with a foot on his derriere. Our screams, heard back at camp, prevented any other bathers from coming in.

While we were "fetching our pails of water," Jennifer had built a campfire for cooking dinner. Walter discovered a drilled well and pipe leading from the well to a hole where an old bunkhouse once stood. Problem: no pumps.

Even though we had plenty of water, the temptation to get water out of that well was overbearing. Some intense brainstorming provided a solution. We found a tin can and wedged it in the head pipe to the well. We then moved John's truck over by the well and lined up his exhaust pipe with a hole that had been cut in the can. He started the engine and a stream of water shot into the air amidst the hoots, hollers, and laughs of all parties.

Next came the serious task of cooking steaks on our Land Rovers' grilles (Series IIAs, of course). Perhaps next time we'll leave the Land Rover grille badges on and have our steaks branded. After some good food, drink and talk, we all retired knowing that we still had another good day's travel ahead of us.

Next day we headed up another abandoned logging road — one that again was marked on the map as having a bridge out and that showed tight contour intervals. It proved to be a good water crossing, not tremendously long or deep, but requiring some skillful driving. Of course, Walter crossed, picking an area that afforded even greater difficulty.

Onward we rode, onward to Clayton Lake — a beautiful spot in the middle of nowhere, and the beginning of the end to our trip. Not as challenging, but the vistas were plentiful and gorgeous even though dust seemed to permeate everything.

At Ripogenus Dam we took a needed refueling stop. Here we noticed something we had feared would plague us for the entire trip: large, bloodthirsty beasts of prey: MOSQUITOES. We had actually beaten the bug season!

At the dam, we separated into two groups of three trucks. Our North Maine comrades went on towards Millinocket, while our three trucks went towards Greenville and home. This stretch we expected to be relatively easy, but it turned out to be the worst stretch of road, between the Golden Road and Kokadjo, that we had travelled on so far. Ruts, potholes, and dust made the going difficult.

All in all, the event was very successful. We gained a solid plan for the 1992 Trans-Canada Tour, as well as having an enjoyable experience transiting areas most people avoid as evidenced by several areas where we'd been the first ones through in years.

Northwest Challenge '91

by Doug Shipman, OR

Our NWC this year turned into quite an exciting event. This year's event, held in the Oregon Coast Range, had all the right ingredients: mud, water, rocks, hills, and snow. Most of the serious competitors showed up Friday for the difficult course on Saturday. It was good to see all the Rovers come rolling in, considering the distance which some came, from Canada, Washington, and Oregon. Being my year to put the event on, I was nervous to say the least. We alternate sites each year and leave it totally up to the organizer just what is to be involved. This keeps everyone guessing what they're in for that year and allows the rules to vary with the course.

For Saturday's difficult run, a few simple rules were put into effect. Trying to encourage proper driving techniques with minimal damage to the environment, the highlights were -2 points for each back-up, -5 for each winching, and other deductions for mechanical problems, flats, dents, etc. Bonus points were available in various test sections.

We left camp in convoy early Saturday for the difficult loop. Our entrance to the course proved a challenge from the start. Right off the highway is a very steep, short downhill, which canted well to the right but turned left. A touch of the brake here meant sure disaster. Immediately you stop and take a hard right, for another very short hill, which you almost slide down. Here, you must stop quickly, back-up, and turn hard right again for the descent to the river bottom. As you reach the bottom, you must turn hard left and carefully get the right angle and speed for the mud hole. A couple rigs lost it here, taking the corner at a poor approach and speed, they slid into a Rover-size rock. Their bumpers squared up nicely with it, and a quick winching got them on the way. No damage occurred to them or the rock. We had amazingly few deductions through this fun section.

Next we snaked our way along the river bed, crossing it three times before heading up the Idiot Creek drainage. We encountered a nice mud bog en route,

which caught more than one rig. The river was down slightly, so served only to give the convoy a good bath.

Next was a series of washouts, which caught everyone at least once. The first wash through Idiot Creek was a short drop and rise through a narrow slot. This was a good warm-up for the big one a hundred yards up. The big wash had a very steep ten foot drop, followed by an immediate hard left. Driving in the wash, had to stay hard left while lining up for the right hand turn in the wash. Picking our way along the bottom boulders, we proceeded to a rise out. You can only get one tire up, if you're lucky. Here we all winched up over the log and up the embankment. We gave bonus points here for how many wheels a driver got up on the log. Few were able to get one. A few competitors tried improving the exit, and one wanted to fill in the wash, but I quickly put a stop to that. Although we had enough personnel to make a highway out of the whole course, that's not what it's all about. One of the Washington drivers did an impressive nose dive into the wash with an improper approach. He amazingly did very little damage, while standing the Landy on its nose. It took a two line set-up to pull him out of trouble.

The third wash was the smallest, but still managed to catch a good number of rigs. All that didn't make it were snatched out, which counted the same as a winching.

All safely through, we proceeded up the long hill. A few ruts, washes, and narrow sections, made the climb interesting, as we left this wet part of the course.

Our next fun section was a long old road which followed a ridge. This started out with a slide area along a rock face. The area looked much worse than it was, but still required good driving skills. We were on our side for a good distance and had to dodge boulders in and around slides and washes. After a quick lunch break, we continued on to the hill.

This long twisting uphill had a variety of challenges to overcome. The lower part was a twisty turn with loose rock and ruts, next was an angled section with finer loose gravel and a rut, and the final part was more hard rock with alternating steps. We gave bonus points for a clean run from bottom to top. Three clean runs were

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John Parsons of BC Tackles a Hill



The Author Gauging Mud Depth



Mark Marshall Practices Rover Swan Dive

Northwest Challenge...

made, with much winching on most of the rest. The Range Rover made a statement by stopping before the very steepest top part, due to too late of a gear change, but instead of backing up to get momentum, just started right up from there. No bonus points were given, however, because he stopped because of a mistake. Proper gear selection, tires, wheel travel, and a good engine proved essential.

Once all clear, we continued our trek along the ridge until we crested. Now, circling back in the same general direction, we stopped at a very long, steep down hill, well above the lower road we were on earlier. After a few quick words about when not to use your brakes, we sent two radios on down at two key points. We then sent one rig down at a rime. As one cleared the midway, the next was sent. You can't see more than 50 yards ahead and the hill is a good half mile long with a few turns, so it was a good experience for most. At the bottom was a good sized rut with a turn on fairly loose dirt. For those who slipped in on the way down, you could see the whites of their eyes. The exceptions were a few passengers, who I was told had their eyes closed.

Having all made it safely down, it was now back along that rock face and a few tricky washes. Everyone seemed a bit more accustomed to it now, except the slides lean was on the driver's side. This gave the drivers a nervous view of the canyon below.

With all competitors out of the section, we continued our way back to camp. I led them back via part of tomorrow's timed run. There was fresh snow on the upper portion and with the not-as-serious off-roaders joining in on this loop, I wanted a set of ruts to hold them on line for the downhill. This proved a little exciting for the first few through. Zero use of brakes was essential in spots or some trees would have gotten painted. Once back at camp, we all enjoyed a great meal cooked by Tony and Stan. Other Rovers had arrived while we were gone, and a much larger group was expected for Sunday's run.

Sunday morning, the group from Saturday went around to each Rover and determined what type of point deduction to give for each rig's damage. Amazingly few dents were had the previous day. The most points deducted were for the '80 RR, and that was probably because they showed up more. Sunday's run consisted of a marked course with unmarked check points. Challenge competitors had to complete this in a time limit and received points for each check point found. Noncompetitors approached this day as a poker run. Once back at camp, they were dealt a card for each check point found. The best hands won prizes. The Rovers were sent out at two minute intervals, with all rigs out by 10:30. The check points consisted of five gallon buckets placed off the trail. In each was a different stack of items. You had to take one item from each bucket found. I placed one bucket with "decoy" written in the bottom. This got some good laughs from the Challenge drivers. It was great fun for all with only a couple of rigs taking a wrong turn. The Range Rover owners brought out by Rasmussen Range Rover of Portland, got quite an experience.

On return, the Poker Run Rovers drew their cards and were presented with prizes donated by Don Rasmussen Range Rover:

- 1st place — Cliff Johnson, Warrenton OR
- 2nd place — Stan Michalak, Canada
- 3rd place — Greg Hogensen — Portland OR
- 4th place — John Parsons — Canada

For the real off-roaders and what this weekend and annual event is all about, the top three Challenge competitors received prizes donated by Rovers North of Vermont. Owners Mark and Andrea Letorney were venturesome enough to join us for the weekend all the way from Vermont.

- 1st — Jim Gwynn, Gigg Harbor WA ('65 88"), 119 pts
- 2nd — John Rostekus, Redmond WA ('80 RR), 113 pts
- 3rd — Mark Marshal, Tacoma WA ('68 88"), 112 pts

Also given was a special prize for the most impressive move of the weekend. This went to Mark Marshal for the neat-looking Land Rover nose stand.

With 26 Rovers over the two days, it made for a great weekend. I would like to thank Rovers North and Don Rasmussen Range Rover for their support. Thanks also to Tony Starbird and Stan Pintriach, our camp cooks. A special thanks to Jim O'Neill who gave countless hours helping me make these roads passable to this number of rigs.

Return to Mendocino

by Gordon Kallio, #461, CA

[ed. This is a letter from Gordon to his "pen pal" John Kim. We'd like to thank Gordon for permission to print his letter in The Aluminum Workhorse. Many of the places and people mentioned are in northern California.]

April 26, 1991

Dear John,

You were on my mind last Saturday as I cruised through Cloverdale on the way to the Mendocino National Forest. It's a route I've taken at least four times since we all met there nearly two years ago during the memorable Memorial Day Rover Rally.

I left Sonoma about noon and passed through Willits about 2:30 PM. I thought about Granville Pool as I passed Ukiah, and about Dick Hamilton and Don Brittingham when the Redwood Valley sign appeared. Got me thinking about all the great places we've seen and the good times we've had in our Land Rovers since being out with these guys who've allowed cobwebs to clog their carburetors!

Just think of where we've been since we visited places with names like Plaskett Meadows, Hammerhorn Lake, and Little Doe. Why hell, we've been to Moab, Death Valley, Black Rock, the Jackson Mountains, Anza Borrego, and a dozen ghost towns.

The scenery started getting real pretty after turning off onto 162 heading the thirty miles to Covelo. You'll remember that Saturday was warm, so I had the sides on the soft top rolled up to let the breeze blow through.

I thought about my decision to put the hard top back on The Green Machine because in the spring, summer, and fall there is nothing quite like driving along with all that nice air rushing through.

As you know, the first section of fifteen miles on the way to Dos Rios is a scenic drive along the Eel River which has a fair amount of water in it right now. I stopped to peek over the side at one of the many turnouts and caught sight of a kayak school in what was surely a beginners class. It was a splendid location, especially since there are lots of interesting rocks along that stretch. Big massive tall rocks that look like they would be worth

climbing. Naturally, I started to shoot pictures.

Now, while there was a fair amount of water in the river it was running kinda gently along and there weren't any terrifying rapids like you might see on the Wide World of Sports. But judging from the expressions on some of the peoples' faces, which I could see through long focal length lenses, they were taking the whole thing very seriously. I shadowed this group for a couple of miles down the river, stopping to get different angles and use different lenses. Their experience level was irrelevant from a distance because the reds and yellows of their plastic boats and the purples and greens of their high tech outfits really popped out against the jagged rocks and the clean water of the Eel.

Kayaking along a beautiful river on a sunny Saturday afternoon looked like good fun to me. Nevertheless, some of the students managed to lose control of their little craft and disappear under the rapids as several instructors rushed to the rescue. The expressions on the student's faces as they lunged for the outstretched paddles of the instructors was not one of having fun...

This all felt strangely like someone had created the scene just for me. There I was high above the river, safe and dry with my motor drive waiting for just the right action shots. There they were, wet, cold, and scared, terrified that they would turn upside down in the rapids and not be able to right themselves again!

The road from Dos Rios to Covelo is crooked and steep. It was slow going and I discovered that I was out of beer by the time I pulled into a grocery store in the middle of town where I met a nice guy named William B. Cook. He runs Cook's Air Taxi and the rates are listed on his business card just in case you're interested. We talked about airplanes for about fifteen minutes, but he was fascinated by the Rover so the conversation turned to his background as a U.S. Geological Survey employee and all the remote areas he had seen.

We compared notes on The Black Rock before I headed down the road. I stopped in to take a picture of the white 109 pickup we all visited a couple of years ago and talked to three kids, one of whom now owns the thing. He showed me your

business card! The 1988 Rovers North catalog I left there was sitting on the front seat. (When were you in Covelo last?)

When I asked them where the best camping spot was they said Howard Lake, so I knew I was on the right track.

There's still some snow on the road from Eel River Campground to Little Doe. But it's no big deal and easy to get through. After crossing the creek on the last stretch to the lake I cruised easily into the south end of the general area where a guy named Ron with a bright yellow "Jap trap" had set up an organized operation. He had an equipment tent, targets, a proper camp fire with the right cooking apparatus stretched across it. He even had a bird dog. In fact, he had all the required things except a Land Rover. But he admired mine, especially its aluminum body because he was from Fort Bragg, land of body rust. I noticed he also had a wrinkled old Marine Corps cover (cap) on so we exchanged secret passwords, traded reports on enemy positions in the area and drank a couple of brews. Then I scouted out the old camp spot where we all spent the night since the view of the lake from there is hard to beat. But there was too much mud due to the snow melt to get up to the overlook. After one flying failure at climbing the small incline, I returned to Ron's encampment and he invited me to spend the night there.

Funny thing, he told me to pull up a chair and when I said I didn't have one he simply grabbed his chain saw and cut a huge log for me to use as a seat.

Ron was all about guns and he immediately asked me to inspect the small arsenal he had neatly hidden away behind his seats. The rifles had expensive telescopic sights which I was also required to look through. And of course he had both .357 and .44 magnum pistols. He was a hunter and knew the area like the back of his hand. This was simply his base camp and he was spending three days hiking the mountains around the lake scouting animal trails and mapping his routes for next hunting season. He told me about a high lake with enormous trout requiring a three-hour hike. And he had other stories about big bears in the region. I had a load of wood in the Rover and Ron had buzzed through all the dead trees in sight, so we had one hell of a fire Saturday night. The conversation turned to war and Ron told

me that he still carried around a lot of shrapnel from Vietnam. But after we got through the physical suffering part of the story, Ron grinned and said, "You know, that was one hell of a fire fight!" Yep, Ron liked guns a lot.

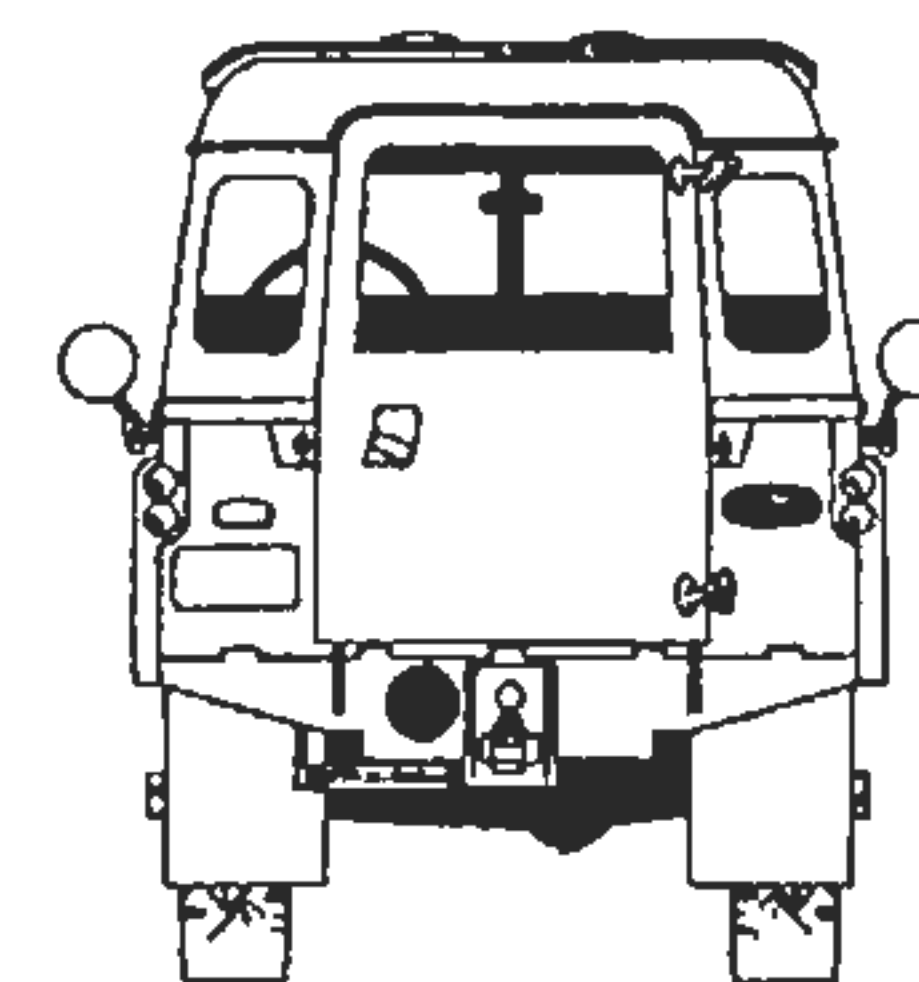
Sunday morning I headed out, stopping here and there to pop off a snapshot of this or that, arriving back in Covelo about noon. I saw Bill Cook and a buddy heading for a local burger joint. They told me to drive around the little airport to see the lupines in bloom. As I circled the airport I heard what sounded like an announcer's voice and saw a rodeo grounds in the distance. There was a rodeo happening. And it was a cute one with entrants from as far away as Windsor and Willits. Most of the several hundred spectators were parents and relatives of the competing cowboys and cowgirls, but there were also a fair number of Indians and other locals hanging off the corrals. Hot dogs were only a buck!

People seemed suspicious of me for some reason. I'm just guessing, but maybe the military Land Rover, my camouflage stuff, three cameras with whirring motor drives, and the fact that I darted from one position to another was unsettling to them. I know that there are people in places like Covelo who do not want to be seen, and who especially do not want to be photographed. Realizing that I was not going to weave myself into the fabric of the community that Sunday afternoon, I headed back to Sonoma and arrived home about 6:30 PM

So, that was it. I enjoyed the weekend very much and will probably do it again sometime in the coming months. There are 4-wheel trails that we should explore and Granville and I have discussed the idea of making a base camp at Howard Lake and running some of these roads. It's an easy weekender.

That's it for now old buddy. I look forward to hearing from you soon!

Gordon



Ah! Rumors, Rumors, Rumors and More Rumors

by Myles Murphy, ME

As of October 1991, rumor has it that in the not-too-distant future, Range-Rover of North America (RRNA) just might undergo a bit of a reshuffle and a name change. With the pending introduction of new products to the US market, RRNA may become LRNA, or Land-Rover of North America. When asked to comment on this, RRNA officials issued the standard, forty year old "Company" reply. You guessed it... nothing.

The name change will probably come about with the introduction of the Land-Rover "Defender" 110 to the US market in the Spring of 1992. As you probably know, the Land-Rover SWB 90, LWB 110, and the xtra-long wheel-base 130 were named "Defender" a year or so ago.

From what I have heard, the 110 will be introduced in limited quantities. The first lot of 500 vehicles will be known as a "Special Edition". A number of "Special Edition" Range-Rovers were sold not too long ago. They had a special paint job, special trim, special bumper, and a special little plaque to make the owner feel... well... special.

The first 110s will probably get the same treatment. Oversized spot lights mounted on a wrap-around bush bar among other things. And maybe even a little, strategically placed, plaque to make you feel... you know! Expect the 110 to have a V-8, air conditioning, 5-speed stick shift, sunroof and lots of other odds & ends we Series II, IIA, and III owners have absolutely no use for.

Another good reason to change the company's name would be the arrival of the Land-Rover "Discovery". A friend of mine in England with close ties to the factory said that a US Spec. "Disco" is in the works. Neither he nor anyone else would say when it would be available. My guess is by the Spring of '93.

Like the 110 and Range-Rover, the Discovery will most likely have a V-8 engine and

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If the "Clunker Bill" were to go into effect, would this working example of early British Engineering be allowed to survive?

The Clunker Bill

by Susan McCasland, CA

FLASH!! — No More Land Rovers?

There is legislation pending before the U.S. Senate (Senate Bill 2237) that would outlaw operating any vehicle built before 1980! That's all Land Rovers in the U.S. folks. And with grey-market importation virtually impossible anymore, there would be NO Land Rovers / Defenders anywhere in the United States of America. Write to Sen. William V. Roth of Delaware. Write to both of your state's senators. Write to them now. Let them know how you feel before it's too late.

The following article is reprinted from United's Voice, newsletter of the United Four Wheel Drive Associations, which, in turn, reprinted it from Custom Power News.

Senate Bill 2237 — All Old Cars Must Die.

by David A. Boles

Did you arrive at a cruise location recently and pick up this paper? Or, perhaps, did you receive this issue in the mail and took it and your favorite restoration to a nearby eatery to enjoy a day's outing? Well, enjoy it while you can, because if Senator William V. Roth of Delaware has his way, you'll soon be enjoying this paper and memories of your restoration in a 1980 or newer car.

That's right. Senator Roth's bill, officially known as S2237, unofficially as the "Clunker Bill", seeks to eliminate ALL cars that were manufactured prior to 1980. The reasoning is quite simple; cars of yesterday need to meet the stringent emission requirements of today. And, truly, there is no middle ground. Senator Roth and his band of unmerry men would like to see all of the major auto manufacturers participate in giving you and me the whopping sum of \$2,000 for our pre-1980 car. Actually, it is worded as a \$2,000 credit, so I guess we can all see where this is headed: trade in the old car for a brand new one and receive a \$2,000 credit towards the new car's purchase.

As of this writing, the big three auto manufacturers are behind this bill. Big surprise there, since the average age of

registered vehicles in America has risen from 2.5 years to 7.5 years since 1980. That is money right out of the big auto manufacturers' mouths. With new car sales in a shambles, a Federal program to take old cars off the road would do nothing but fatten the auto manufacturers' lately reduced larder. It would increase the sales of new cars; substantially, if not totally, reduce the used car market, and it would look good politically: they are doing it to save the environment.

Another big surprise is that The American Institute of Scrap Recyclers has given S2237 it's blessing too. Now, these are by no means small potatoes in the lobbying market. There are some heavy figures taking this bill as a very serious item. Add to these characters the environmentalists who always mean well, but tell that to a lumberjack or a fisherman, and you have a great cast for a very serious drama: the end of the living history of the car.

Sure, there will be exceptions for museums, or show-only cars, but for the average Joe Citizen out there in the wilds of America, his '74 El Camino will become but yet another flower pot in the yard. Right alongside it will be the 1918 Dodge, '57 Chevy, or 1969 Malibu. Clas-

sic. Not classic. Restored. Tricked out. Customized. It doesn't matter. If S2237 passes and becomes a law, your favorite ride will either be supporting daisies, or will become the down payment for a new 1992 Ford. Oh, what a joy.

Now, I'm sure there are those of you who are saying that this would never happen. It is way too big of a thing to undertake. Don't underestimate either the Government or the lame-brained idiots that run it. Remember, they've successfully taxed the Free Press. And they want more out of your property taxes, too.

But, besides this point, the practical point would be that all the classic cars would be owned by those people who are wealthy enough to retrofit them with new emission standards. But it would not be the same car! And only a handful of us would ever get to see them. We'd be straining our necks every time we thought we had a glimpse of one while we were driving to our favorite burger joint in our brand new Hyundai!

It is going to take a public outcry to nip this idiocy in the bud. And we cannot let the environmentalists cloud the issue by bringing up the fact that we will kill the planet with our deadly fumes if we don't get our older cars off the road. Number one, we don't know that old cars are killing the planet all by themselves. I'm sure there are lots of other nasty things out there that are helping as well. Number two, are we to commit automotive genocide in a panic in order to placate a few people who believe they have all the answers? Number three, pick any year in the last ten and list what the Federal Government declared was bad and dangerous to our health. Now list what they have declared to be mistakes in previous listings. Frightening, isn't it? Remember the leaded-gas issue? That was supposed to solve all the emission problems. I guess they must have been wrong about that, too.

I don't know about you, but I'd sure be upset if I had to watch my car be crushed because of an idiotic bill like S2237 and then two years later find out that the emissions standards tests have been off for years and a terrible mistake had been made. What are they going to do then? Offer us \$3,000 for our pain and suffering and perhaps give us a Dash Plaque stating that "We were there for the Big Mistake"?

It is going to take a large public outcry, meaning you, to stop this bad craziness. If

continued on page 26

Badger

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we, people who drive "old" cars, don't take the time to stop an effort like this, who do you think will?

I suggest that we all write Senator William V. Roth and tell him how we feel. I also suggest writing to your local Senators and let them know what we think about this bill. It can make a difference. But you do have to take the time to do it. So, here's an address and phone number for you:

The Honorable William Roth
U.S. Senate
Washington, DC 20510
(205) 224-3121

Write to this person and your state legislators and voice your opinion. Remember, they are there because we have elected them to be there. They are supposed to be there for US! I can guarantee you that if they hear nothing about this, they truly will continue establishing this lunacy as law. There are some powerful lobbies at work on the side of S2237. Write or call your Senator today. The Car of Yesterday deserves it.

Rumors...

an automatic transmission. The Disco is available in other countries with 3 or 5 door bodies. In the US, it'll definitely be the 5-door version with electric everything-you-never-wanted.

What would we be expected to pay, you ask? Well, a mid-November price comparison came up with the following figures. In the UK a RR, similar to the US model sold for £35,000. The US equivalent model sold for \$45,000. The V-8 Discovery (not yet available with automatic in UK) sold for £21,000. Add £1,000 for the automatic transmission. And a V-8 Defender sold for £17,500. Now £35,000 doesn't convert to \$45,000. So the price of the Discovery should follow the same trend. But the 110 falls into a different tax category in the UK. When you convert the UK cost to dollars, you shouldn't be too far off from what it will cost here. In fact the 110 and the Discovery should be pretty much in the same price range. If you are totally confused by all this, you might as well face the fact that you can't afford one.

Finally (and about time, too!) the US military brass have come to their senses and placed an order for Land-Rovers. Mind you, it's not a big order... but it's a start. The Diesel 110 seems to be the vehicle of choice. I have heard that some 90s will also be part of the order. The 110s are expected to leave the production line partially complete. Final fitting will be done by a specialist UK or US company... Marshalls of Cambridge, UK most likely. The few "experts" I have talked to reckon the 110 was chosen because no US vehicle would fit the requirements of the US Army Rangers - the first of, hopefully, many units to get the Rover.

What role the 110 will play is unknown. Some say it was chosen due to the



Ex -NATO Lightweight 88" with Ex-NATO trailer just sitting around with an A-10 Thunderbolt II at the '89 "Down East" Rally in Maine.

disappointing performance of US vehicles in the recent Gulf War. Others say it's air-transportability is a major factor. I say it's because the US Military felt the "odd ones out" in the recent war, since everyone else (including the Iraqis) used Land-Rovers.

Remember now, none of this information is official. It's all rumor. The 110 is a definite though, so I suggest you check out the trade-in value of your old Rover and start counting the pennies in your piggy bank.

News from the East

by MJM, ME

Earlier this year most of the staff of Atlantic British Parts of Mechanicville, NY resigned, quit, or were fired and headed to Rutland, VT to work for British Rovers. Mike Wilkes, who many of you will remember from his time at ABP is one of the founders of British Rovers along with Walter Janney. Their new facility is near the junction of routes 4 and 7 at the southern end of Rutland, opposite the Holiday Inn. They intend to supply all your needs from parts to service and restoration and vehicle sales. Steve Zeigler, a veteran Land-Rover mechanic (formerly of ABP) is also on hand to help solve all your mechanical problems. In addition to this experienced group, your very own LROA North East Regional Coordinator, Ron Mowry is also involved with the company. The British Rovers phone number is 1-800- 32 ROVERS. Cool, eh?

ABP is still in business although they had nothing to say when asked to comment about recent events. See the Parts and Service page for the phone numbers and addresses of both companies.

Further North on Route 7, a little east on 15 and north once again on 128 we come to Rovers North and a "new" Rover product they are promoting. 10% of the sales are to benefit the Westford Elementary School. Well known to many of you who have attended a Rovers North rally. So if you have a mutt called "Rover" or just a plain ordinary mutt see the enclosed advert from their Holiday Specials Brochure. If you are not on the mailing list give 'em a call at 1-802-879-0032. Don't forget to mention the LROA.



RANGE ROVER

News & Information

RANGE ROVER of NORTH AMERICA, INC. • 4390 Parliament Place, P.O. Box 1503, Lanham, Maryland 20706 • (301) 731-9041 • Fax (301) 731-9054

Here's where you'll find the latest press releases from Range-Rover North America

Nov. '91

RANGE-ROVER TREK FUELS DRIVE TO ADD PONY EXPRESS TRAIL TO NATIONAL REGISTRY

Called Great Adventure Trip For Recreationalists

LANHAM, MD. -- Two California enthusiasts helped promote Congressional action to place the storied Pony Express route on the National Registry of Historical Trails recently by retracing the frontier mail route from California to Missouri in a Range-Rover.

It was the first time a four-wheeled vehicle has traversed the complete route prompting Willie Worthy of Crestline and his cousin Larry Worthy of Camarillo to declare the trip "a great American outdoor adventure for four-wheelers. It should be on the National Registry to preserve an exciting memory of the Old West and to promote it's responsible use by recreationalists."

The National Pony Express Association has caused bills to be entered in both houses of Congress calling for addition of the trail to the National Registry. The Association sanctioned the trip by the Worthys and assisted their efforts to authenticate the route while "Treading Lightly" as encouraged by a coalition, which Range-Rover helped found, of corporations and government agencies concerned about the environment.

The trail itself is close to 2,000 miles long but circling around obstacles, private property and "horse only" portions of the 1860s mail route from California to the Mississippi River increased the Worthy's total mileage to 3,890.

They estimate that little more than 60 miles of the original trail is "horse only". However, the number of accessible miles for four-wheeling recreationalists is further reduced by private property or other obstacles along the route.

WHERE THE DEER AND THE ANTELOPE PLAY

Approximately 1,080 miles of the trail are off-pavement and a good portion of these are in remote areas where the only accommodations are the sky, ground and a bedroll. The pair said it definitely goes "where the deer and the antelope play." They counted 1,000 antelope and two dozen deer during their trip. They camped out all but three of the 26 nights they were on the road.

Nevada presented the only serious challenge to the British-built sport utility vehicle according to Willie Worthy, an expert four-wheeler. "We picked our way through a pine forest on a horse trail I didn't think any vehicle could follow. Another time we thought we'd need to use the vehicle's winch to haul us out of a bog but with the Range-Rover's extra long spring and full-time four-wheel drive, we were able to 'walk' it out. Just before we got to Utah, we had to turn on the windshield wipers to see through a windstorm of billowing dust and silt that poured over the vehicle in waves."

In Nebraska and Kansas, roads and highways are laid out north-south and east-west, while the Pony Express trail angled across those states, following river beds, creeks and valleys in the most direct line to and from Colorado.

To stay as close as possible to the original trail in those states, the pair had to "stair-step" across them, repeatedly driving south one mile, then east one mile, along available roads. Because they chose to travel west to east they had to read existing guide books "backwards" as all trace the trail east to west. Also, the actual trail varied as snows, floods or Indian activities prompted detours during the brief 18-month history of the service that sped mail on horseback from St. Joseph, Missouri to Sacramento, California in 10 days and nights. Willie Worthy said new, accurate maps of the trail are scheduled for Spring publication and that advance copies helped them authenticate their journey. His account of the trip and photos he took en route will be published end next year in *Four-Wheeler Magazine*.

Around the New World in 80 Days - 1993

25 Land-Rovers, 25,000 miles, and 80 days to enjoy the best that North America has to offer. This little adventure will not be an endurance test, pushing man or woman and machine to the limit. It will be more akin to a Sunday drive in the country. Daily driving times will be comfortable and manageable. Most of the trip will be spent avoiding major towns and cities... particular attention will be paid to avoiding major highways. Places of a major historic and/or cultural nature, native and otherwise, will be a priority. Of course, Mother Nature and all she has to offer is really what it is all about.

There will be a fully qualified Land-Rover mechanic along for the duration. Rovers North of Vermont will be providing full spare part support.

As an example of what you're getting yourself into, the Rover in the illustration below is ideally outfitted for this excursion. Land-Rovers must be in excellent condition and have undergone recent total rebuild or major service. Participating vehicles will be checked out for serviceability. Final fitting of equipment can be done just prior to departure.

The Land-Rovers must be 1958 to 1984 series 2, 2a, and 3 short (88") or long (109") wheelbase civilian or military models. Later Santana or Morattabi Rovers also qualify. The engine of choice will be the good ol' 2 1/4 liter petrol - no other will do. Even though there will be at least one qualified mechanic, you will be required to carry a full tool kit and a basic spares kit. Larger components will be spread throughout the group.

You don't have to be an ardent off-roader. You will have the opportunity to learn the basics prior to departure and then, hone your skills on (off) the road. The expedition is open to all nationalities and age groups. You just have to be reasonably fit and financially secure (for at least 90 days).

The expedition will be filmed by a professional film crew for world wide television showing and a two hour video will be available at a later date.

LROA members are being given the opportunity to get in on this adventure at the beginning. The choice of vehicle, year and model was purposely chosen to cater to U.S. Rover owners. But don't wait too long. This invitation will soon be in the hands of Rover owners around the world.

Future expeditions will include Central and South America, Australia & New Zealand, Europe (west of the Urals), and Africa.

The Great North American Range-Rover Expedition will take place in 1994. This will be a slightly different route using Range-Rovers (suitably equipped, of course).

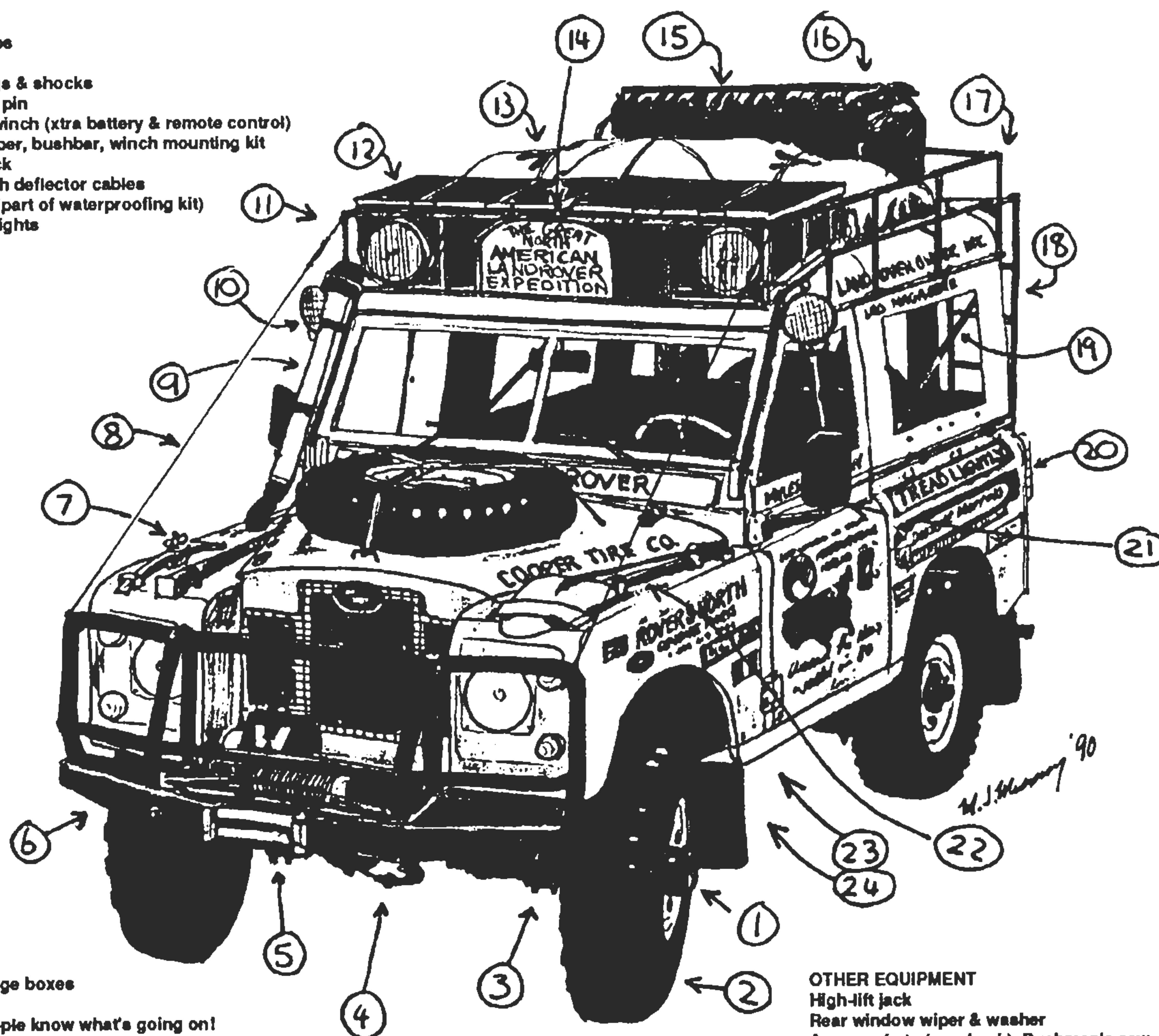
There will be a fee charged to take part. It will be reasonable and will cover the cost of maps, etc.

For prospectus, write to M.J.Murphy,

25 Congress St., Belfast, ME or call at 207-338-5919.

KEY TO DRAWING

1. Free wheeling hubs
2. 7:50 x 16 Radials
3. Heavy duty springs & shocks
4. Tow hook, ring or pin
5. 8,000 lb. electric winch (xtra battery & remote control)
6. ARB Combo bumper, bushbar, winch mounting kit
7. Wing mounted pick
8. Tree limb & branch deflector cables
9. Raised air intake (part of waterproofing kit)
10. Adjustable floodlights
11. Spotlight



12. Waterproof storage boxes
13. Misc. storage
14. You gotta let people know what's going on!
15. 2, 5 gallon Jerry cans (gas)
16. 2, 5 gallon Jerry cans (water)
17. Full roof rack
18. Ladder
19. Interior roof bracing (a very good idea)
20. Light cages
21. Large folding rear-view mirror
22. Wing mounted shovel
23. Extra internal fuel capacity under driver's seat
24. Overdrive

OTHER EQUIPMENT

- High-lift jack
- Rear window wiper & washer
- Axe, machete (saw back), Bushman's saw
- Engine & gear oil storage
- Tool kit
- Spare parts storage
- Internal storage for food & clothing
- Comfortable cloth seats
- Complete camping gear & cooking equipment
- Electric engine cooling fan
- Interior cooling fans for driver & passenger
- Map light & good interior light



Tech Tips

Rap...It's Not Music to Me

by Doug Boothby

Early last summer I had the unfortunate experience of watching my oil pressure suddenly drop to near zero and hear that slight tap in the lower end become a much louder RAP, RAP, RAP. As luck would have it, I'd just passed the Sact exit of the Maine Turnpike. Being the optimist I sometimes foolishly am, I tried to make it to a turnabout just up the road. I knew this was a mistake when the number one piston got sucked down into the oilpan, with resultant holes suddenly appearing where holes shouldn't be. So much for a trip to Owl's Head with my 2.6 liter 109.

With the help of my friend, I managed to get the truck home and back in the barn. Next came the dilemma of how to get back on the road. I sometimes think I've got one of everything stacked somewhere in the barn, but a 2.6 wasn't in the pile. Nor, it turned out, was it in anyone else's. Fortunately, I live just a couple of miles down the road from Ron and Bernie Mowry, Northeast Regional Coordinators for the Land Rover Owner's Association, USA. Better friends and neighbors are hard to find. Ron couldn't help with a 2.6 liter engine. However, with a sparkle in his eye, he mentioned that he did have a couple of 3.0 liter sedans in the back barn, and he was sure I could get one to work. There was a condition though. That's why I'm writing this piece.

While I don't have a manual on 3.0 liter engines, my understanding is that the main difference between the 2.6 and 3.0 is the larger stroke of the 3.0 liter. Bill Vallerand, of Greene, Maine, made this conversion over 10 years ago and offered much needed advice. He also mentioned that the oil seals on some 3.0 engines differ from the 2.6, so beware on ordering parts. Much of the conversion is simply a matter of swapping parts from the 2.6 to the 3.0. Here's a list of 2.6 parts that need to replace the 3.0 ones:

1. Front engine mounts
2. Flywheel housing
3. Carburetor linkage
4. Oil pressure line (to use gauge rather than idiot light)
5. Exhaust manifold
6. Heater hose (steel line from waterpump)
7. Top rocker cover

In addition to the above changes, several other parts need rearranging. The water outlet pipe (thermostat housing) needs to be rotated to the right. The flywheel from the 2.6 won't bolt up to the 3.0 crankshaft. I panicked when I first realized this, until Mr. Vallerand told me to use the flywheel from a 2 1/4 liter, 4 cylinder engine. It bolts right on. one other caution that he mentioned is that there is not much clearance between the flywheel and the pinion gear on the starter, which could cause the starter to fail to disengage. To avoid this problem, I removed the pinion gear and had 1/8" ground off of each tooth. A friend with a belt grinder in his sharpening shop managed this in about 10 minutes without altering the angles of the teeth. The 3.0 liter I used was coupled to an automatic transmission, and I was initially baffled on how to remove the torque converter. I finally removed the starter which revealed the mystery bolts. The starter from the 3.0 is also slightly larger in diameter than the one from the 2.6. In my truck, this difference means not being able to move the starter once it's unbolted without taking half the truck apart. Beware. As I mentioned previously, most parts are interchangeable between the two engines. If you need something that isn't readily available in the States, I've had good luck with Roverland, 103 water Lane, Leeds, England LS115QN. They specialize in Rover sedans.

The truck is now up and running. It has much more power than before and easily cruises at highway speeds. It also made a very impressive showing recently at the Mowry's Winter Safari, going places where snowmobiles feared to tread. And it's still Rover powered!



The one that didn't sell at auction! This little fire engine was photographed at John Craddock's shop in England.

Understanding Corrosion

From information published by ITT Harper

Corrosion is the wearing away or alteration of a metal by galvanic (electrochemical) reaction or by direct chemical attack. An example is the rusting of steel or iron.

DIRECT ATTACK CORROSION

Atmospheric corrosion is an example of direct chemical attack. Present in the atmosphere are oxygen, carbon dioxide, water vapor, sulphur and chlorine compounds. The severity of attack is directly related to the amount of water vapor, sulphur and chlorine compounds present.

On contact of steel and copper in moisture, atoms of iron divide.

1. Positive particles of metal dissolve in the moisture, absorbing oxygen and hydrogen, becoming ferrous ions.
2. Negative charged electrons flow through steel to copper into the moisture where they combine with oxygen and water, becoming hydroxyl ions.
3. Hydroxyl ions combine with ferrous ions, producing iron oxide (rust), the corrosion product.

GALVANIC CORROSION (ELECTROCHEMICAL)

All metals have a specific relative electrical potential. When metals of different electrical potential, such as steel and copper (or steel and aluminum), are in contact in the presence of moisture (electrolyte), a low energy electric current flows from the metal having the higher position in the galvanic series to the one having the lower position.

This is called "Galvanic" action. One result is that corrosion of the metal having the higher position (steel in our example) is accelerated. Corrosion may be thought of as a by-product, something akin to the forming of ash when wood burns.

Actually, the mechanism is an anode reaction, a cathode reaction, the conduction of electrons through the metal from anode to cathode, and the conduction of ions through the electrolyte solution. Corrosion occurs in the anode area, while the cathode area is protected.

It is important to know from which of two metals current will flow. A guide is provided by the arrangement of metals and alloys set forth in the galvanic series chart shown.

Many different types of corrosion have been identified. Most are electrochemical in nature. Thus, crevice or cell corrosion, stress or fatigue corrosion, deposit and impingement attack and intergranular corrosion are all forms of galvanic corrosion caused by localized galvanic cells of different potentials.

HOW TO MINIMIZE CORROSION PROBLEMS

DIRECT ATTACK

Select the material most likely to resist the corrosion environment.

GALVANIC ATTACK

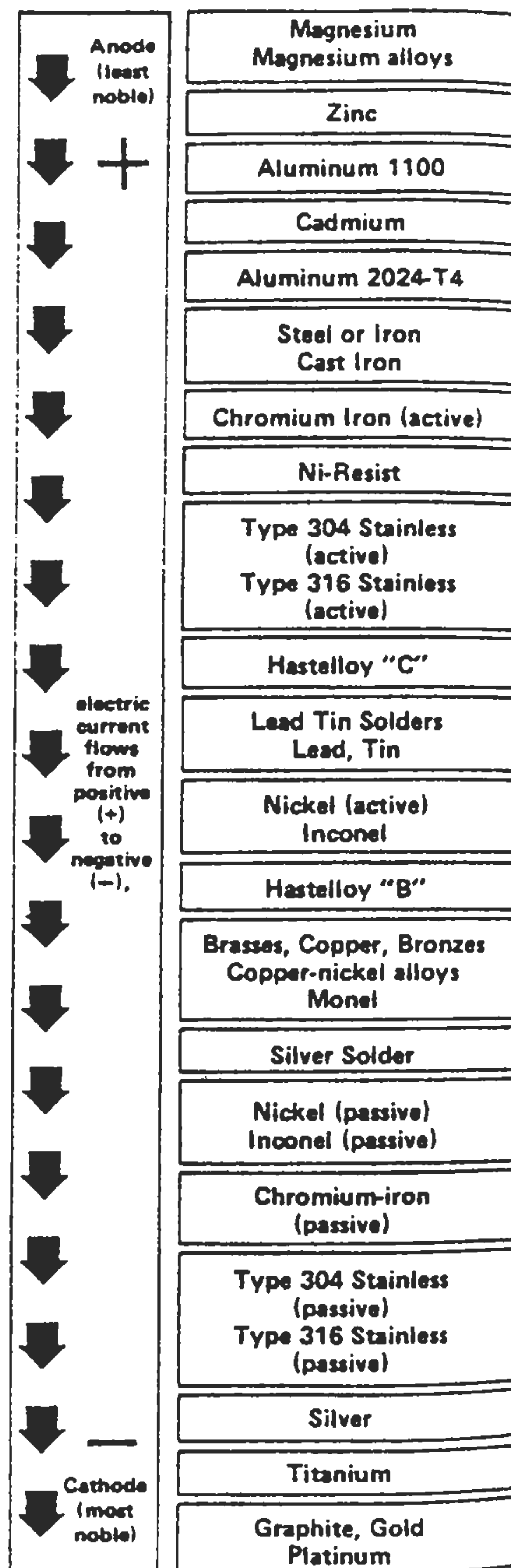
1. If possible, use the same or similar metals in an assembly, especially where an electrolyte may be present.
2. When dissimilar metals are used together in the presence of an electrolyte, separate them with a dielectric material such as insulation, paint or coating.
3. Avoid combinations where the area of the less noble material is relatively small. The current density is greater when the current flows from the small area to the large than in the reverse situation. Typically, the fastener will be small compared to the rest of the assembly. The fastener alloy, if not the same material as the material being joined, should be lower in the galvanic series.
4. The galvanic process can be used to advantage by coupling the part to be protected to pieces of less noble metal which are not functional and can thus corrode sacrificially.

GALVANIC SERIES CHART

This representative sample of dissimilar metals indicates relative potential for galvanic corrosion. Coupling metals widely separated on the chart is most likely to cause corrosion. Under ordinary circumstances, no serious galvanic action will result from the coupling of metals within the same group (such as brass & copper).

AVOID IRREGULAR STRESSES

As a general rule in using mechanical fasteners, avoid irregular stresses in design. Even high stresses in bolted assemblies do not necessarily impair corrosion-resistance as long as they are uniform.



Timing

by Fred Sisson

Timing an old car seems like a dark art. Sometimes it's easy and some cars just don't seem right one day and are fine another. I never was sure that my car was spot on and from what I read, it had to be or my engine would self destruct! While that's not always true, it came closer to being law, when I started turbocharging engines. I learned quite a bit from that game but not having a dyno at home, I still take a real layman's approach to timing my rides. Basically, a gas engine is a "knock limited" device. That is, you want maximum spark advance—advanced just to the point where the engine knocks...and then back it off a degree so that the engine doesn't knock. In the real world there are a jillion factors in determining the knock point, including load, octane rating, carb setting, altitude, humidity, ambient temperature, compression ration, engine condition, etc. Too many variables to formulate a "perfect" timing procedure at home. Following the procedures in the many engine manuals is a start and works most of the time.

It's really simple, in theory. Maximum advance should be around 30-31 degrees (slightly less with higher CR). This usually comes in around 3000 RPM or so. Many racers lock their advance, as they are always above that RPM in a race. In the real world, we usually drive low to mid range. Now the wicket gets sticky. What modern cars do with solid state, we try to do mechanically. Hence the centrifugal, vacuum advance mechanisms.

Soo...the first thing is to check the distributor advance curve! You can do this at home but by far the best way is to find someone with a sun machine and have it checked out. Take the specs from your manual with you so that the tech can set it properly. One spec that you want to be sure of is the total distributor advance. Ask the tech what it measured.

Most old distributors are worn out! They are really made on the cheap. If the shaft has any play side-to-side, you'll never have proper timing. Set your points with a feeler and then push sideways on the shaft and watch the gap (timing) change!

You can solve this problem several ways. One is to disassemble the distributor entirely, and take it to a machine shop and have "OILITE" bushings installed. This is a fairly common practice and costs somewhere around \$20.00.

When you re-assemble the distributor, lube the advance weights. Use distributor cam grease only, on the cam before installing new points. Now when you set the points (dwell) they will stay set. However, the rubbing block wears quite a bit for the first couple of hundred miles. Re-check the dwell and re-time after this period. As the block wears, the timing retards. Any point system starts de-tuning itself immediately.

If your shaft isn't too bad, install an electronic ign. The units with the led and interrupter wheel are more consistent than the units that use a magnet (hall effect) to trigger the spark. I did this as a new distributor is out of sight in price and the shaft wasn't bad enough to warrant a rebuild at the time. I'm not sorry that I did. I use an allison unit. My car starts so well that you don't hear the starter motor! So far it's been trouble free, and the only de-tuning is the plugs.

My approach to setting the timing is to start with 30 degrees total advance at 3500 RPM (vacuum connected). Then I try the

car on the street. It should just ping a moment when pulling a long hill. At that point, decreased manifold vacuum should retard the spark and detonation should cease. It is sometimes necessary to retard timing slightly because of bad gas or cold weather (leaner mixture).

This is a really simple approach and I'll probably get lots of dissenting opinions, but it takes into account most of the factors. Ambient temp, humidity, and gas being the remaining variables. I have a cold air scoop so that under hood temps don't alter the mixture so much. (That is a big factor! Hot air = rich = power/economy loss.) By using H₂O injection I can keep maximum advance without detonation when pulling hard. Hence best mileage and proper power—but that's another article.

After the first hundred miles, check the plugs. Black specks on the ceramic indicate slight detonation. Buy better gas or retard the spark a degree or so. Tiny, silver covered balls indicate severe detonation and the spark should be retarded immediately!

Total advance (dist + static) should not exceed 30-31 degrees, assuming stock C.R. If you raise the compression ratio, you must run less total advance. The long hill and plug check will let you know.

A Problem of Surging

by Lea Magee

Diesel owners, perhaps you have noticed that your truck will surge when off-road but not when on the straight and level. And after having the injector pump and injectors checked out ok, the truck still surges. You have checked the S.I timing and it is correct. The filters were changed and the fuel pump is working well. The truck still surges off-road.

The problem may be in the throttle linkage. The throttle linkage is a series of rods from the foot pedal to the injector pump. It is a strong, durable set-up but Rover did not take into consideration the flexing of the frame and the torque flexing the engine mounts and the transfer case mounts. Generally, when the truck is driven on the pavement, there is not enough flexing of components to cause erratic fuel metering. However, when off-road, the last rod from the bulkhead to the injector pump remains rigid (fixed position) while the engine, frame, transfer case flex. The engine actually moves forward, side to side, backward; thus, the erratic fuel metering which shows up as "engine surge". The engine moves but the rod stays in the same position and causes the metering in the pump to change more fuel, less fuel, depending on the terrain and general condition of the truck.

To correct the problem, replace the last rod with a light clutch cable. The cable housing will need to be fixed at the injector pump and bulk head. The advantage to the cable is that the engine will not be able to get any leverage off the bulk head.

Special Tools

by Fred Sisson

I like good tools! They are your contact with the car while tinkering. Would you put a mog seat in your rolls? Wear sandals to play tennis? Play golf with a baseball bat (wellll.....). Ok, then why use junky/wrong tools to work on your car? Of course, reality creeps in here somewhere, but still, we've all experienced the pleasure of using just the right tool to do a weird job, or maybe felt like a genius when we've figured how to modify a tool to do a specific task.

What's the best tool? Well look to the pro for advise, not the guy behind the counter. The amateur buys lots and looks for the cheapest. The pro buys only what he needs, and buys the best that he can afford. Good tools are a lifetime investment and can pay for themselves many times over, both in \$\$\$ and in pleasure.

I have rebuilt several exotics with the tools in my little red box. Over the years I've added just the right stuff so that I can get most things done. It's a weird, eclectic collection. Then—I bought ten grand worth of snap-on from a retired mechanic—for a fraction of ten grand. Socket sets to 1" drive, all kinds of special drivers, pullers, and weird stuff, plus all the standard stuff—in complete sets! Hog heaven! I had to search the snap-on catalog to figure out what some of the tools were designed for.

My point is, that you can do a lot with minimal tools. However, having the right tool for a particular job is wonderful. There are ways, and there are ways. Share with us the solutions that you have come up with, jury rigged or snap-on, makes no difference. It's a learning process. Here are a couple of examples:

Try a "go-no go" feeler gauge next time you set your valves/points. They are usually ground to 002 difference on the ends. Makes quick work of the valve procedure. I would prefer 001 difference though. Anyone know if and where they can be purchased?

Setting points with feelers is standard procedure, but a dwell meter does a better job. Not expensive either. You might be surprised at the dwell reading after setting the points with feelers. One of the new

digital vom-tach-dwell meters is the hot set-up. Only about \$50.00.

For my VW trans and a friend's 4+4 differential and the overdrive on the land rover, I use an enema bag! Hang it high, insert one of the little plastic goodies in the filler plug, put in the 90wt, open the clip and go have a cup of coffee. (May want to do this late at night!). No muss, no fuss. Write the capacities of the various things that you wish to fill on the bag. Pour in the required amount, no more. Very little spillage this way and you don't have to watch for the overflow.

Snap-on phillips screwdrivers are wonderful! I have hated phillips heads forever. Then I bought snap-on drivers—three will do just about everything, big, medium, and short. No matter what kind of tools you use, at the least buy these three snap-ons. Now I replace every slot-head with a phillips. The difference is incredible.

Another tool that I've been without and never needed is a pair of curved-nose needle-nose pliers. Now I use them all the time. Buy a pair—I'll bet you will say the same after a week.

**The one tool that will probably do more to insure a good job, no matter what you are working on, is a part's cleaner. "Clean" is good and necessary. Don't know why it took me so long to notice that professional mechanics didn't use a VW hubcap like I did.

**Good—the Eastwood Co, 147 Pennsylvania Ave, Malvern PA 19355. 11-800-345-1178. Their catalog says "auto restoration tools and techniques". If the title sounds interesting, then call them—free, and get a catalog. Too much neat stuff to describe. It only takes a minute. Go... Now.... You're gonna enjoy it.

Bullet Connector Source

Geoff Tobin of CA wrote in some time ago with a piece of information which he thought would be of interest to those of you who have ever worked on the wiring of your Rover (and who hasn't!) only to discover that the bullet connectors are of an odd size, compared to the standard sizes found in most auto parts stores here in the U.S. There is a compatible connector that may be found in some electronics supply stores. Ask for Waldron T-2647. This part number is for a box of 100 and costs \$12 to \$15.



Tracked Range-Rover from Jaguar-Rover, Australla. Similar concept to early 60s Cuthbertson Conversion for 88s and 109s. Printed courtesy of LRO Magazine.

1962 R.A.F. 109" Right Hand Drive offered for sale.

Engine: 250 cu. in. Chevy in - line 6 - cylinder with approximately 15k on it since rebuild.

Transmission: Fully synchronized military with approximately 8k on it since rebuild.

Differentials: Ratio 3.9:1. This different ratio gives better freeway performance without loosing off - roading abilities.

Attributes:

- 3-Door body type
- Five 7.50 x 16 H. D. Rims with Dunlop Triple Trac tires.
- Two saddle tanks (12 gal. ea.) and one tail tank (16 gal.)
- 18 gallon Water tank with outside line to side table.
- Bed fold - up with cabinets.
- Two side storage compartments.
- Two batteries with isolation switch.
- Special bumper with low profile winch (8000 lbs.).
- Tropical roof.
- Full length roof rack.
- Hood and rear door tyre mount.
- Full one - piece tinted windshield.
- Diamond plate reinforcement on fenders and rear door.
- Warn manually locking hubs.
- Kodiak Arctic heater.
- Unbreakable rear half - shafts.
- Recent brake job, rear differential over haul and swivel kit installation.
- Full gauge instrumentation.
- Dual remote oil filters.
- Dual belt fan addition.
- 80 amp. Marine alternator.

**Contact: Jim (Scotty) Howat
680 Garcia Ave. #A
Pittsburg, Ca. 94565.
(510) 432 - 2221
(510) 676 - 4874**

this is a paid-for advertisement

'61 LAND ROVER 88", trop.
locking hubs, dual tank
shocks, YM cassette. M

LAND ROVER 88", 4 cyl
cellant mechanically-ne
metics, driven daily - \$

MARKET PLACE

'66 LAND ROVER 88", Trop. r
w headers & exhaust sys.
terior redone, recent re
00 or trade for 109"PU.

LAND ROVER 109", 4 cyl
w pastei green paint, in
mechanical condition - \$320

*Marketplace ads are free to members selling or in search of
vehicles or parts for themselves.*

VEHICLES

73 Series III 88. Excellent body, frame, paint, mechanicals, and interior. 45,000 on engine. 10,000 on transmission/trans-fer. Has overdrive and many new parts. \$6,495 obo. 1-508-295-7292, David, MA.

67 Ser IIA 109" Rblt 6, new brakes, exhaust, rear axle, rear springs, tires. Original light green, very straight body, fair int. \$7,500. 1-207-799-7614, Bill, ME

72 Series III 88" LHD. Series IIA box with internal throwout bearing. Overdrive. Kodiak heater. Full back door with spare mounted. 16" rims. Std top with sliding rear windows. No rust. Bumper straight with boxes in front of fenders. New driver's seat. New battery. Turn signals, battery gauge. This vehicle was completely re-built less than 1,5000 miles ago. Call Brenden Tu, 1-303-493-5636, CO.

61 109" Pick-up. Frame-up restora-tion. All genuine parts. 3/4 canvas top. RHD. Many xtras. Chevy 250 engine with low mileage. CA registration. Last of fleet. \$9,550. Steve 916-393-3767, CA.

61 88" series IIA RHD Diesel. Over-drive, lockout hubs, Koenig 8,000 lb. PTO winch. Tropical roof station wagon top plus original truck top (no windows). Tailgate. Lots of spare parts and some new body panels. 10 15" rims. \$5,000. Gerry, 716-223-8016, NY.

68 88" with tailgate and door. 30,000 on engine/transmission. Body straight, no rust. \$5,000. 415-921-2897, Simon, CA.

69 88". 43,000 original miles. Very nice. Very, very original. \$6,500 or offer.

Doug Shipman, 503-661-5123, OR.

*66 I09 Dormobile camper. 4 Cylinder gas engine. Owned since 69. Only 79K miles Optional equipment includes un-dercoating, folding side and rear steps, hood mounted spare with locking pillar, free wheeling hubs, exterior sun visor, front lifting and towing rings, jerry cans on front bumper (factory type), hand throttle, radio, recirculatory heater, lock-ing hasps for bonnet and fuel filler, gaiters for front swivel housings, second spare wheel and tire. Misc parts manuals, Jeep trailer included. Asking \$15000. Call Ray 619- 239-0191. San Diego, CA.

*67 109" 5 door 10 passenger Stationwagon. 250 GMC engine. This Rover is in mint cond. Too many things to mention . Contact John Mills 133 Clifton Ave, Brockton, Mass. 02401. Ph, 508-588-3036.

*70 Rover 3500 Sedan. NO rust, origi-nal paint (not perfect). Rebuilt; engine, brakes, front suspension. New; Holley 4 barrel carb, Buick distributor, electronic ignition, tires. Excellent interior. Arden Green, tan interior. Nice solid car. \$4800 or trade for rust free 109". Rick & Mari Harrison. 206-742-1450. WA.

*1961 Series 2A. Frame up restora-tion, everything done. RHD. Has 4 cyl Chevy installed. 109 front and rear brakes. New 109 springs, fr.& r.. New twin tanks. Rebuilt diffs, engine, gear box. steering box. New 750x16 tires, shocks, exhaust. New 110/90 lights. New upholstery and paint. For sale due to owner joining the navy. \$10,000. Also, 60 Series 2, runs,

\$1000. Dave Kerr 916-587-3129.

*66 109" 2 door. Diesel with cab top. Rough but ready!. \$4500. Ted, 207-273-2370.

*73 88. Blue/white. Rebuilt engine, overdrive. New tires. Kodiak heater. 16" wheels. Excellent chassis, new seats. Full top. \$7,000 obo. Brendan, 303-493-5636, CO.

*78-83 Lightweights \$3500. 79- 82 109 2-doors, \$4500. 83 109 2-door ??? Ron Mowry, 207-658-9064.

*61 88. Disassembled. 2 engines. Gotta go. 303-453-1190, CO

*65 109 s/w. 4 cyl. deisel. New all terrain radials, 110 style mirrors, new upholstery and seats, new floor mats. Newly rebuilt brake, clutch hydraulic sys-tems. Light green paint... original color. Clean. Runs/drives good. 48,500 miles. \$7,450. Randy Morris, 512-631-2036, TX.

*66 109 military. Rebuilt engine, trans and swivel pin housings. Completely re-painted with aircraft urethane paint... Bronze green. 70 amp alternator, elec-tronic ignition. Overdrive, free wheeling hubs. 5 new Cooper radials on new rims. Hard & soft tops. Spare engine and more. \$11,900. John Palmer, 916-938-3392, CA.

*74 88 series 3. Rebuilt engine, hy-draulic brakes, framework. Stored 8 yrs. Much recent work including dist., carb, starter, brakes.

Also have 67 109. 5-door, 6 cyl GMC engine. Frame excellent condition. Sale or trade for Range-Rover. John ,508-588-3036, MA.

68 109 3-door, 1 ton. Factory installed Carawagon interior. Galvanized roof rack. New doors, tires, speedo, defrosters. New ser 3 H/D trans with 5000 mi. New brakes, prop shafts, axle straps, twin tanks. Over-drive. 292 cid inline chevy 6 cyl with 5000 mi. Vehicle is CA smog legal. \$8,500. Domingo Dias, 415-569-8879, CA.

69 88. 43,000 original miles. Very nice, very original. \$6,500 or offer. Doug Shipman, 503-661-5123, OR.

WANTED

*Fenders for 80" or 86" Series One. Also pre 1954 steering wheel and wheel centre with horn button and high beam switch, and Series One front bumper. Also Series One capstan winch. Also interested in 109" NADA 6cyl 2a Capstan. Nigel Clark 304-983-2408. W Va. Eves and wknds.

*Good, clean series 1 80" or 86". Paint and RHD not a problem but must be straight and original. Gordon Edwards, 415-896-0822, CA.

*Jump seats for S.W. Center facing, individual style. Need 4, any cond. John Stallings, 1-800-356-1137 days, or 812-476-5095 eves, IN.

*2 1/4 diesel mtrs, complete or parts. 2.6 liter 6 cyl motors, complete or pts. Koenig winch, cmplt. or pts. Richard Dudek, 201-694-9014, NJ.

*Solid frame for '71 series 2a (has new type hinges). Also Used canvas top and hoops. Didier Dornt, 914-761-1227, NY.

*Need rear body or LT side assy for 109 2-dr. Ted, 415 787-1966, CA.

15" rims wanted for 61-74 Land-Rover. Call Tony, 1-408-284-0796 (h) or 1-408-353-4342 (w). CA.

PARTS

*Rust free Series 3 Ex Military 109" chassis. \$1200. Ron Mowry, 207-658-9064.ME

*Series 2,2a and 3 used parts for sale. Totally rust free and waxoyled 88" frames& bulkheads. Ser 2 radiator supports. Also lots of misc parts . Call or write for info & prices. Bill Davis. 360 North 10th West, Salt Lake City. Utah, 84116. 801-363-2390.

*Weber 2 barrel carb with air filter and manifold for L/R 4 cyl. Still in box. \$325. Also 2 bench seats for 88. Also series 2 windshield frame & misc. other parts. Pedro, 415-668-5072, CA.

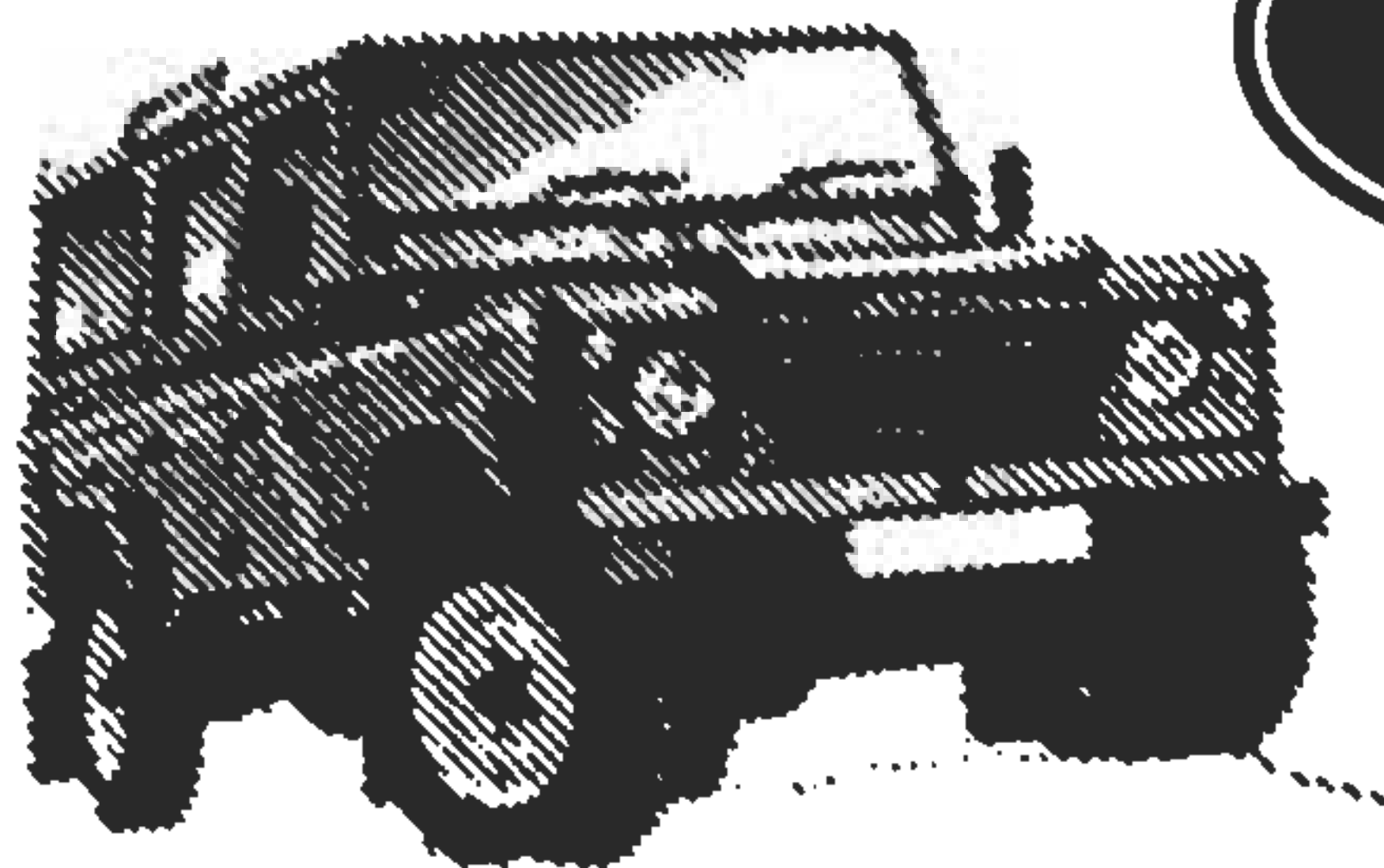
*Parting out '60 109 2-door. No top or lower rear body. Ted, 415-787-1966, CA

Deluxe hood-blank for 88 & 109 models, all series. \$150. 1-916-393-3767, Steve, CA.

X-PAND-A-CAB for 88". Convert your Land-Rover into a fully self-contained camper. See the Spring, '91 issue of the Aluminum Workhorse, page 22. Make offer. Call or write Bill Davis, 360 N. 10th. W., SaltLake City, UT 84116. Phone 1-801-363-2390.

Roof Rack \$400 1-415-641-9444, Peter. CA

Complete Chevy 6 conversion kit including radiator, adapter, and rebuilt chevy 6 cyl. engine. \$1,500. Call Bill at 1-207-799-7614, ME.



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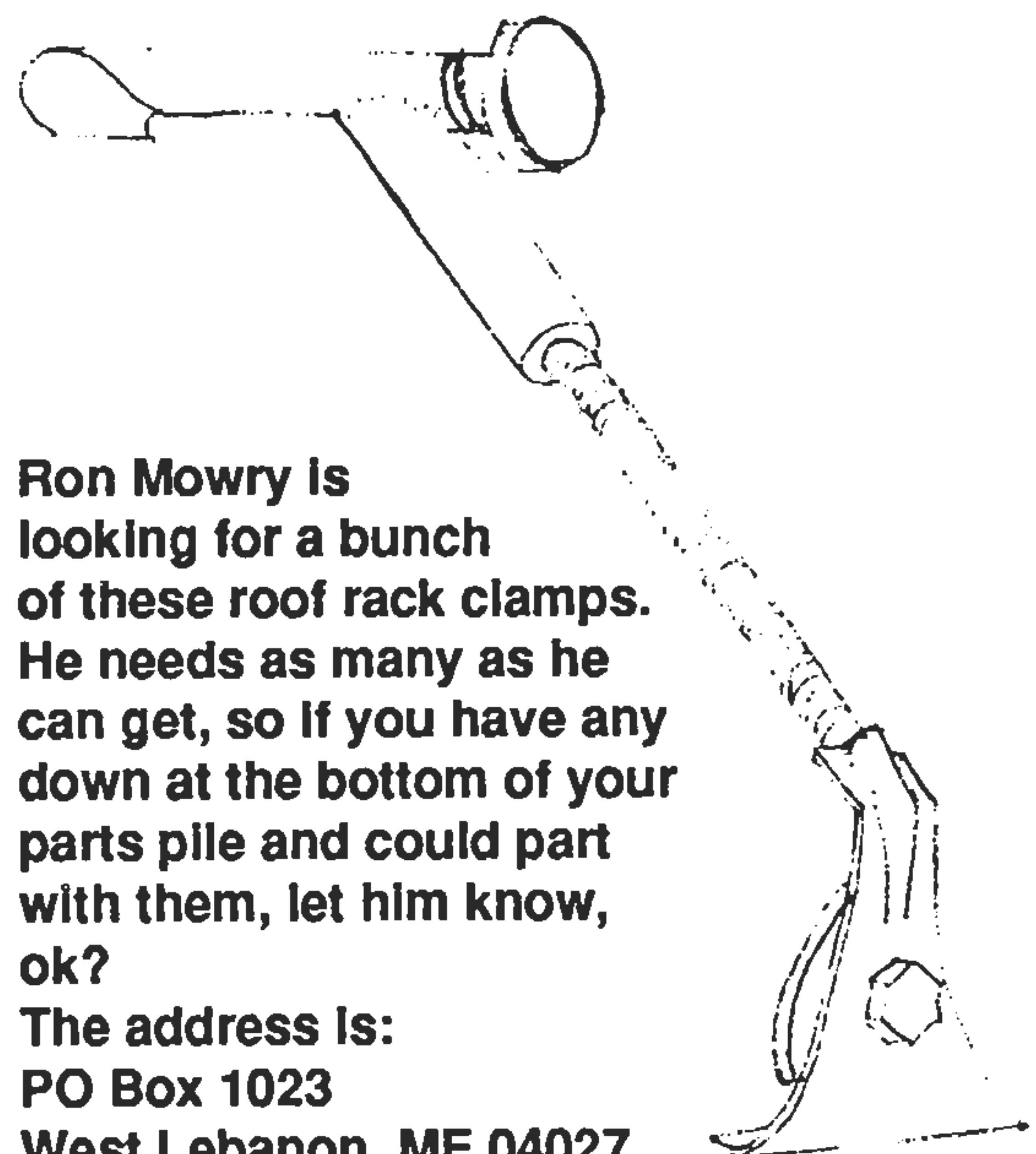
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Ron Mowry is looking for a bunch of these roof rack clamps. He needs as many as he can get, so if you have any down at the bottom of your parts pile and could part with them, let him know, ok?

The address is:
PO Box 1023
West Lebanon, ME 04027

Rover Parts and Service

This list is printed for your benefit.
 Shop names which are also in the LROA membership list are in bold.
 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 109, Rovernidge Dr.
Mechanicville, NY 12118
518-664-6169 *P *UP *R

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

Atlantic British Parts
 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
 15 John Sebastian Wy.
 Sandwich, MA 02563
 508-833-1394 *F

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
 206-866-2254 *P *UP *SV *S *F *R

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

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

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

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

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

The St. George Rover Company
 Vaughn's Neck Rd.
 Warren, ME 04864
 207-273-2370 *SV *P *UP *R *S

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

Scotty's Foreign Car Service
 680, "A" Garcia St.
 Pittsburg, CA 94565
 415-432-2221 *P *UP *SV *S *F *R

Ship's Mechanical Services, Inc.
 12755 N.E. Whitaker Wy.
 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 Dougherty 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

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

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 OLD PHONE # _____ NEW PHONE # _____

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 OAKLAND, CA 94603

BUSINESS ADVERTISEMENT INFORMATION

Ads will run for 2 issues. Payment in advance.

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.

RATES

FULL PAGE.....	\$40
HALF PAGE.....	\$25
1/4 PAGE OR LESS....	\$15

MEMBERSHIP INFORMATION

Memberships are \$15 per year (Feb. 1 to Feb. 1). As a member, you are entitled to our quarterly newsletter, THE ALUMINUM WORKHORSE, 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 :

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

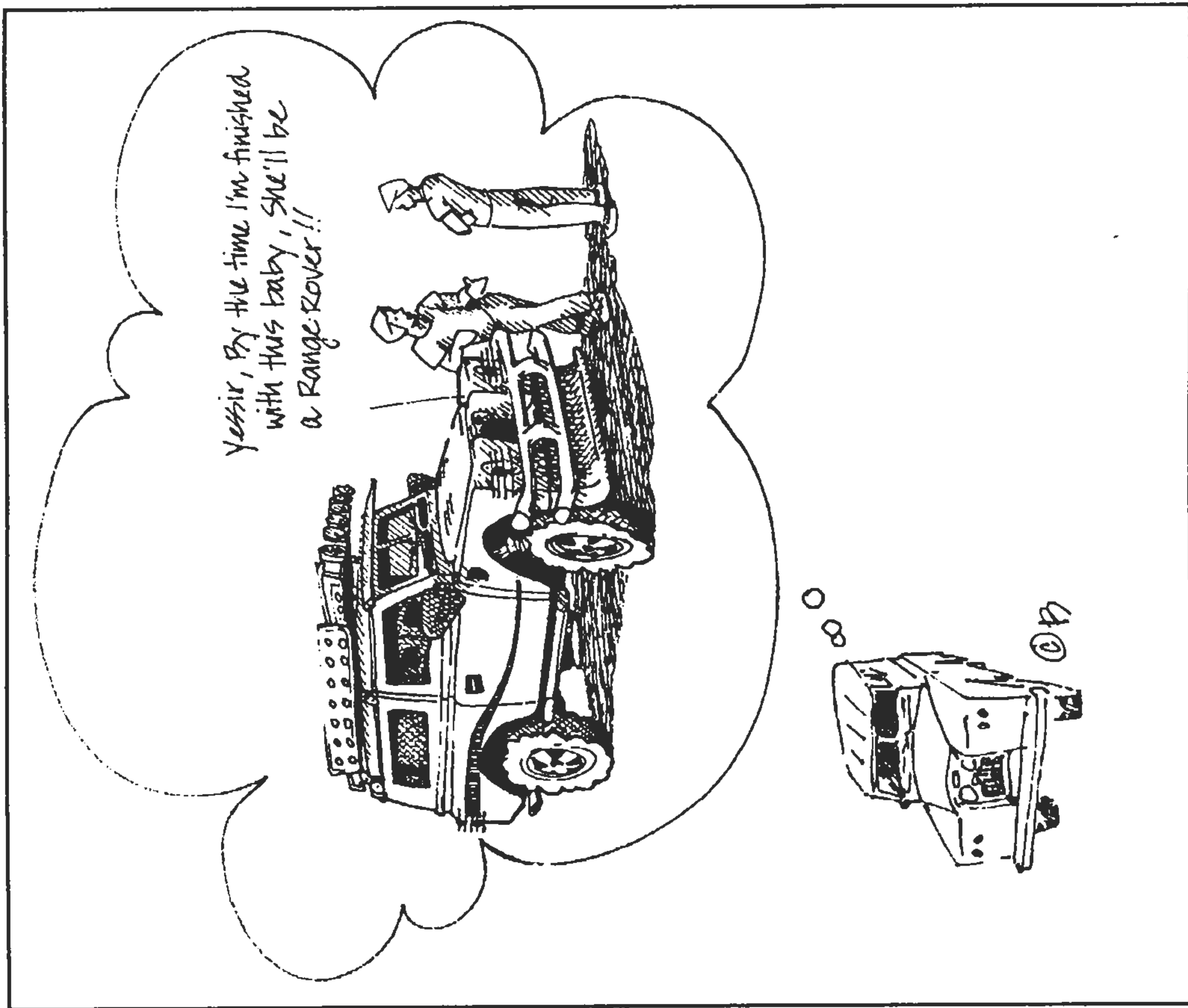
 ACTIVITIES/INTERESTS _____

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

 OTHER _____

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by Brad Blevins



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