



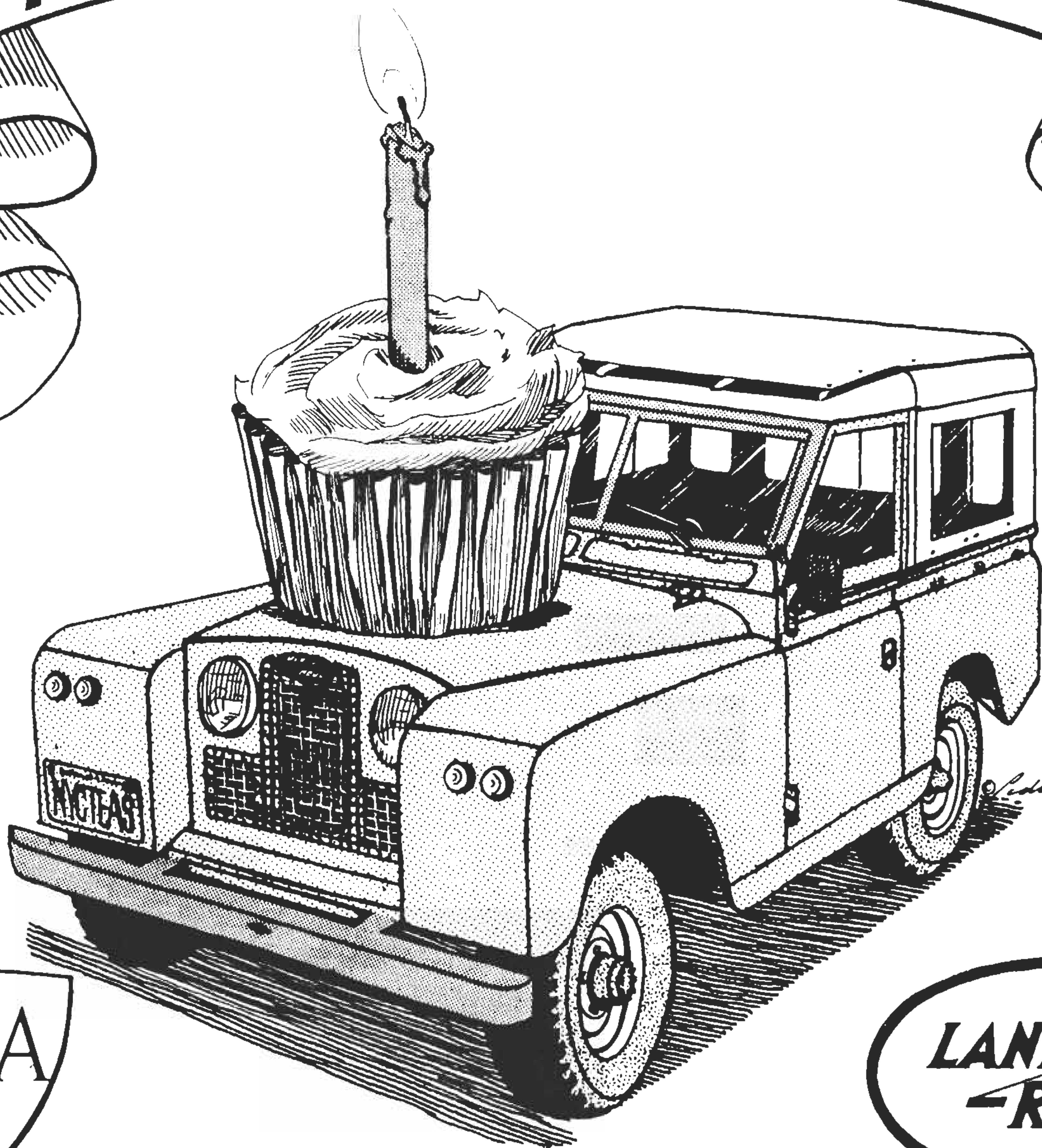
the  
**ALUMINUM  
WORKHORSE**



THE OFFICIAL PUBLICATION OF THE LAND-ROVER OWNERS ASSOCIATION

VOLUME II, NUMBER III, JUNE/JULY, 1985 - COPYRIGHT 1985 - ALL RIGHTS RESERVED

*Happy 1 Year Anniversary*



*John Gonzalez 1985*





# LROA news ...

JUNE/JULY, 1985 - - LROA, P.O. Box 162201, Sacramento, CA 95816

## WORKHORSE STAFF

Let's welcome three valuable additions to the Workhorse staff. Our two new Associate Editors, Athole Lennie and Marvin Mattson, will each handle special projects and generally help make our newsletter an even better publication. Pedro Gonzales will take the reins as Art Director, so look for new, eye-catching graphics in future issues. These men will be giving up some of their free time for Workhorse projects and deserve a "thanks guys" from all of us!

## OFFICE CHANGES

Secretary/Treasurer Steve Zedekar has moved to the Portland, Oregon Area and has relinquished his post because of the distance from our "home port", Sacramento. Steve Hill will take on this post for the time being, in addition to the Activities Coordinator post. Steve Zedekar has wanted to move up north for some time and when the opportunity presented itself, he transferred there. Steve hasn't forgotten the club he helped found, he will be Regional Coordinator in his area.

## FROM THE EDITOR

You'll notice a few things missing from this newsletter. Worry not, they'll return next issue. We needed extra space for our first anniversary and Black Rock coverage.

## NEWS FROM DENMARK

We are exchanging newsletters with the SCANDANAVIAN OFF-ROADERS, and recently your editor recieved their latest copy. A fantastic publication, though a bit of a slow read when you have to look up every word in an English/Danish dictionary. Among the articles in this issue is an in depth study of the Rover V8 and ways to improve performance, another Range Rover article covering the diesel version, plus more about "other" four wheel drives. While only a percentage of the SORD membership have Land Rovers, it is a good example of a well organized, vital club and, in many ways, the model that was used to set up our club.

Kris Guldborg, the SORD secretary, was kind enough to send the address of an all Land Rover club in Denmark, the DANSK LAND ROVER KLUB. Alan Anov, the DLRK secretary, has yet to respond to my letter, but we're looking forward to it.

Here are the addresses of both clubs in case any of you would care to correspond. English is well spoken in Denmark!

Kris Guldborg, SORD  
Postbox 523  
DK - 2200 Kbh. N.  
DENMARK

Alan Anov, DLRK  
Godsbol Skovvej 16  
DK - 7371 Gadbjerg  
DENMARK

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NEW MEMBERS

- #105 - Cody Bassett & Pat Werner, Reno, NV  
'73 88", '67 109"
- #106 - Ray Schroeder, San Diego, CA  
'66 Doormobile
- #107 - David W. Allen, Gilmanton, NH  
'66 109"
- #108 - David & Gail MacLean, Sandwich, MA  
'73 88"
- #109 - Chip & Sue Marvin, Lewsiton, CA  
'72 88"
- #110 - Don McCormick, Millsbrae, CA  
'69 88"
- #111 - Jake Stout, Seattle, WA  
'66 109'
- #112 - Scott Richert, Soquel, CA  
'65 109"
- #113 - Bob & Maggie Evans, Sacramento, CA  
'64 88"
- #114 - Ross Merrow, Biddeford, ME  
'73 88"
- #115 - Domingos Dias, San Leandro, CA  
'66 109"
- #116 - John Fenlon, Mill Valley, CA  
'74 88"
- #117 - Mike McCoy, Mill Vally, CA  
Let us know what you drive, Mike.

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WORKHORSE STAFF

EDITOR: JIM ALLEN

ASSOCIATE EDITORS: MARVIN MATTSON, ATHOLE LENNIE

ART DIRECTOR: PEDRO GONZALES

PRINTING: CAPITOL DISCOUNT PRINTING

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# ★ OUR FIRST B-DAY ★

ONE YEAR OLD

This issue marks the first anniversary of this association. Looking back on our humble beginnings and our early faltering steps, there is a great sense of accomplishment in seeing what we have now. The best part is, this is still the beginning! There are more and better experiences ahead of all of us.

The idea of starting this association started as a kernel in the minds of three men who were essentially strangers, but shared a desire for a new and better way to share the Land Rover experience. Steve Hill, Steve Zedaker and Jim Allen all really did not know how to get and keep a club going, but bad experiences with another club had taught them how not to.

The original idea was for a Northern California club devoted mainly to enjoying outings with other LR owners close by. Discussions with Land Rover owners and people in the Land Rover parts and repair business, illustrated the need nationwide for new blood. Encouraged and armed with good advice, the trio began working in earnest. Together, based on the wants and needs of Rover owners they had met, the concepts and boundries of the organization were formulated. They decided that a minumum of hierarchy and burdonsome regulations were necessary to a group of mature adults and so the guidelines for safety and good taste were kept simple. They also decided that a good newsletter was the key to bring people together; informing and entertaining them with their favorite topic, Land Rovers. Each took several tasks to work on independantly. Steve Hill worked on setting up the guidelines for outings and set up the first trips. He also used many resources at his disposal to find names and addresses of Land Rover owners wherever he could. Steve Zedekar set up the financial end of the club, organizing the new members as they came in and scaring up much needed cash for operating expenses. Jim Allen took on the newsletter end. He wrote what he hoped were entertaining and informative stories, organized a system to get the newsletter printed and compiled membership information and mailing lists.

It all came together in July of '84; two hundred newsletters were printed up and sent to every address they had, new or old. When it was all said and done, 86 cents was left in the club account, there were six members, and there was at least three sets of chewed fingernails.

In a week, membership applications were rolling in by the score and the club bank account soaked up the checks. In a month, there were over 40 excited members. The three breathed a sigh of relief, rolled up their sleeves and began working in earnest.

While the initial spark began with the two Steves and Jim, there were people along the way who gave of their time or money or both. While these gallant folks ask nothing in return for their services, let's recognize them here as at least a partial repayment for services rendered. Here they are!

TOM GANNON

For coughing up the dough to send out the first issue and for the good counsel.

JIM "SCOTTY" HOWAT

For the good advice, the names and addresses, and the copy machine.

PAUL MASSENGALE

For his tireless efforts on behalf of the club and it's members.

MIKE GREEN

For bringing the two Steves and Jim together and giving them the spark they needed to start this club.

RON CAIN

For donating the old Land Rover and giving the club much needed capitol for special projects.

CARRIE ALLEN

JEAN ZEDEKAR

JANET HILL

For understanding and sharing their husband's love of a piece of aluminum and steel and giving them time, without complaint, to work on club projects.

BILL McCLINTOCK

CHARLES KELLOGG

KERRY OLDHAM

MARVIN MATTSON

JAY FINKLESTEIN

For being our first members and putting up money before there really was a club, for the valuable advice, and for sticking with us.

THANKS GANG

A special thanks to the many who have helped with details for which there is no room to list names but whose deeds are much appreciated!

### ATLANTIC BRITISH PARTS



largest parts supplier in North America

P. O. Box 109, S. Main St  
Mechanicville, NY 12118  
(518) 684-8188

P. O. Box 322, Henrietta Rd.  
Lewiston, CA 96052  
(916) 778-3922

P. O. Box 1088, Main St  
Watertoo, Quebec  
Canada, JOE-2N0  
(514) 538-2669

quality parts at affordable prices

distributors of the Fairey Overdrive

## RANGE ROVER

### PHONE DIRECTORY

EDITOR - Jim Allen  
(916) 722-0401

### ACTIVITIES

COORDINATOR STEVE HILL  
(916) 393-3767  
SECRETARY/  
TREASURER



### ROVERS NORTH

Land Rover/Range Rover Specialists

Westford, VT 05494  
(802) 879-0032

SALES, SERVICE & SPARES

Now Available  
New 90 & 110 Land Rovers and Range Rovers—plus a good selection of used military and civilian Land Rovers.  
CALL FOR INFORMATION



## IT PAYS TO SHOP

by Dan Anderson

Obtaining parts can be a problem for the Landy lover. The most commonly asked question between newly acquainted Land Rover owners is, "Where do you get your parts?" The second most common question is, "How are the prices?" In the third issue of volume one, this newsletter answered the first question with a list of twelve parts and service establishments. What follows is a partial answer to the second.

I recently rebuilt a four cylinder petrol engine for my '72 88". It is now installed and running great! To find the best prices, I decided to mail a parts list to the suppliers I knew in the U.S.A. With each list was a note asking the current prices and if a catalog was available. All the inquiries were mailed on March 6, 1985 with a self-addressed, stamped envelope enclosed. Please note that the prices for Atlantic British Parts were taken from their current price list.

Of the twelve suppliers contacted, ten responses were received. Nine sent price lists or catalogs and Scotty's wife sent a nice note telling me that he was in Australia (lucky devil!). The first response arrived in two days, though most took about two weeks. The Great American Land Rover Company, in Olympia Washington, later told me that I should phone for information. I received no word at all from Island Rovers in New York.

Of the 23 items on the original list, ten representative items appear in the chart on the following page. It includes the range from high to low and the average (excluding the high and low values). The table gives the quoted prices for each item available for immediate delivery from the supplier. The most striking feature of this data is the wide range of prices. The average difference between the high and low prices for each item is well over 100%. Also of interest is that the average price clearly lies towards the low end of the range of prices quoted.

Looking at the individual suppliers, it is seen that each offers competitive prices for some of the items. There are suppliers, however, who are consistently higher or lower than the average. In comparing suppliers, note that while a given supplier may offer a lower price for one item compared to a second supplier, often the price relationship will be reversed for another item. Each of the general trends in prices noted in the table was also found for the other items on my list. My past experience with some of these suppliers also follows these trends in prices.

The results speak for themselves, however the limitations of this comparison should be made clear. One problem is the Rover versus aftermarket question, or the fact that the same item from different sources may vary in quality. Since these suppliers live on their reputation, I can't imagine one of them offering substandard parts. Another weakness in the data is that it covers only a fraction of the parts needed to maintain a Land Rover. Price relationships for other groups of parts may be completely different. Also, a given part may not be available when you need it.

To sum it all up, shop around and consider all the factors involved; price, availability, service, shipping costs and quality. Happy Roving!

	valve rocker shaft	valve rocker bushing	tappet slide	vib. damper timing chain	rear oil seal kit	piston rings std.	main bearings std.	rod bearings std.	thrust washer std.	weather strip roof to side of HT
McKanes Rover Imports	66.75	2.85	23.90	10.70	27.50	64.20	59.95	62.50	3.90	48.95
Rovers North	36.95	1.00	16.95	9.50	12.95	42.50	39.50	27.50	3.50	10.00 used or B/O
West Coast British	71.70	2.37	NR	12.95	16.80	75.00	47.95	53.40	9.10	17.95
Rovers West	30.81	1.49	8.46	3.15	8.42	34.00	23.96	24.75	2.95	22.00
British Motor S.F.	117.37	NIS	NIS	4.16	12.00	24.48	30.36	44.00	7.80	NIS
Atlantic British	36.25	1.75	9.95	6.50	11.50	32.00	29.95	36.95	1.95	28.00
D.A.P.	32.80	1.10	10.06	4.95	10.92	75.00	33.80	32.50	NR	B/O
British Pacific	NR	2.63	19.72	4.97	26.67	61.20	61.94	59.79	5.57	NR
North Jersey Rover	31.50	NR	14,54	4.20	8.10	29.95	22.50	22.50	0.36	NR
Average (excludes high and low)	45.92	1.87	14.24	6.43	14.18	48.41	37.92	39.84	4.28	not valid
Range (low to high)	30.81-117.37	1.00-2.85	8.46-23.90	3.15-12.95	8.10-27.50	24.48-75.00	22.50-61.94	22.50-62.50	0.36-9.10	too little data

NR= no reply NIS= no longer in stock B/O= back order



# Land Rover Spares

Here is a list of parts and service establishments to aid your quest for parts. This list is published on a non-partisan basis. If you know of any others, let us know!

ATLANTIC BRITISH PARTS  
P.O. BOX 109, S. MAIN STREET  
MECHANICSVILLE, NY 12118  
(518) 664-6169 P,UP,R

ATLANTIC BRITISH PARTS  
P.O. BOX 322, HENRIETTA ROAD  
LEWISTON, CA 96052  
(916) 778-3922 P,UP,R

ATLANTIC BRITISH PARTS  
P.O. BOX 1068, MAIN STREET  
WATERLOO, QUEBEC  
CANADA, JOE-2NO  
(514) 539-2669 P,UP,R

BRITISH PACIFIC  
101 WEST GREEN STREET  
PASADENA, CA 91101  
(213) 681-9783 P,S

D.A.P. ENTEPRISES  
36 BEACH STREET  
WEST WAREHAM, MA 02576  
(617) 866-2342 P,UP,R,SV,S

THE GREAT AMERICAN LR CO.  
7240 COOPER POINT ROAD N.W.  
OLYMPIA, WA 98502  
(206) 866-1232 P,UP,R,SV,S

ISLAND ROVERS  
351 MOONEY POND ROAD  
SELDON, NY 11784  
(516) 698-7667 (EVES & WKND) P,UP,S

NORTH JERSEY LAND ROVER SUPPLIES  
12 WILLS AVENUE R.D. #1  
STANHOPE, NJ 07874  
(201) 398-5715 P,S

PAUL SAFARI COMPONENTS  
OLDE COACH HOUSE  
P.O. BOX 39, QUEENSTON STREET  
HISTORIC QUEENSTON VILLAGE  
ONTARIO, CANADA LOS-1L0  
(416) 262-4446 P,UP,F,SV

ROVERS NORTH  
BOX 71  
WESTFORD, VT 05494  
(802) 879-0032 P,UP,F,SV

ROVERS WEST  
2832 NORTH FIRST AVENUE  
TUCSON, AZ 85719  
(602) 792-0295 P,UP,SV

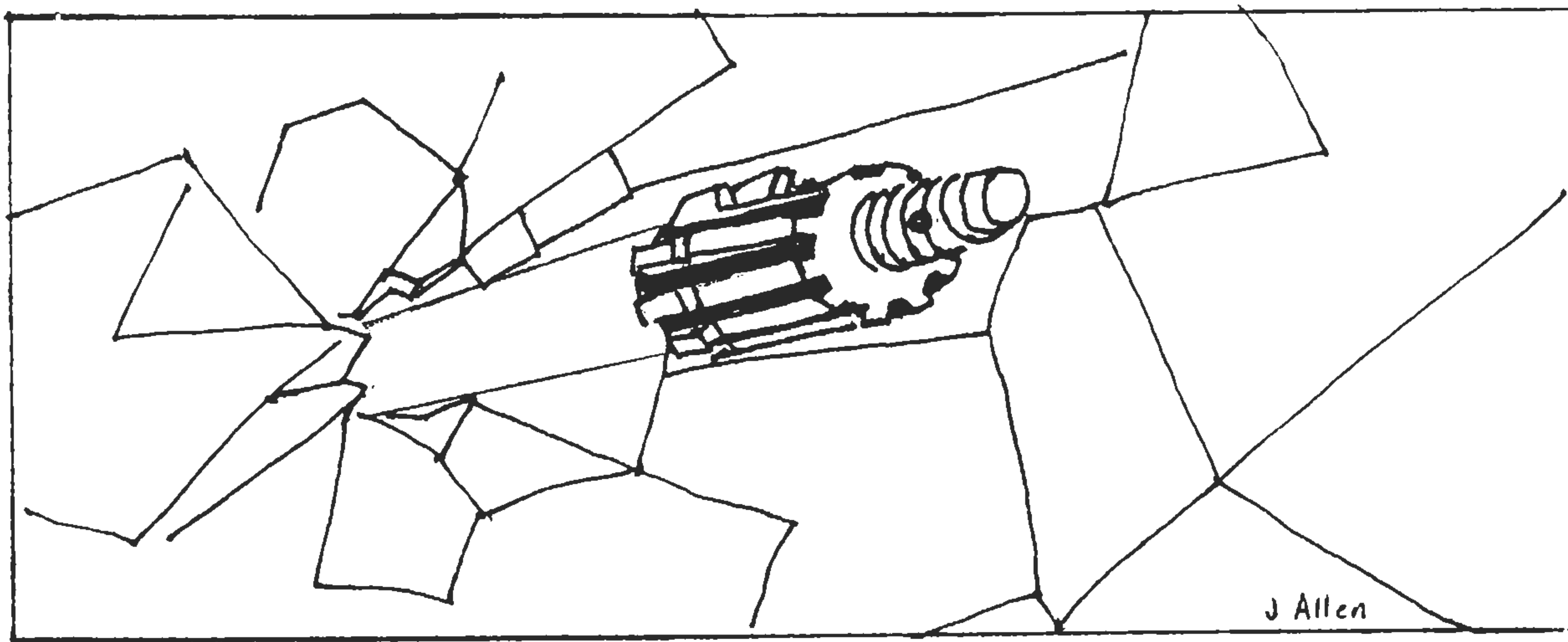
SCOTTY'S LAND ROVER SERVICE  
45 RIDGE PARK DRIVE  
CONCORD, CA 94518  
(415) 686-2255 P,UP,R,SV,S

SCOTLAND YARD  
3101 E. 52 AVENUE  
DENVER, CO 80210  
(303) 297-9237 UP,R,P,SV

UNION JACK ROVER SPECIALISTS  
P.O. BOX 30318  
TUCSON, AZ 87551  
(602) 721-0361 ?

KEY: P= NEW PARTS SUPPLY  
UP= USED PARTS SUPPLY  
SV= SERVICE AND REPAIR  
S= LR SALES  
F= FABRICATOR OF CUSTOM PARTS  
R= COMPONENT REBUILDER





PEOPLE WHO LIVE IN GLASS HOUSES SHOULDN'T BREAK AXLE SHAFTS

by Andrew McKane and Richard Gabatino

Picture yourself at a stop light waiting for the light to change. The light turns green, you slowly let out the clutch, the engine speeds up but you don't move forward. You double check to see that the shift lever is in first gear, which of course it is, and you try all over again as the horns begin to honk behind you.

You're on your way to work, running a few minutes late, and while backing out of the driveway, you hear a loud snap. You give the car more gas, the engine speeds up and nothing happens. You start using all of the words that your parents never taught you.

What do these two unfortunate situations have in common? Have they ever happened to you? Do you drive a Land Rover? If you are one of the more fortunate Land Rover owners who has not experienced a broken axle shaft and all of the attendant frustrations, hang on to your Pith helmet because you probably will. You've known for years that Land Rovers are reliable vehicles, that they are closest to perfection this side of heaven. Could someone have been pulling your leg? It is a well known fact that the rear axle shafts are not as perfect as the rest of the vehicle and your Land Rover axle shafts will continue breaking as assuredly as the San Andreas fault.

Why then, do Land Rovers break axle shafts so readily? Could it be to protect the remainder of the drivetrain, to make a profit selling new shafts, or a fact of life for yesterday's four wheel drive vehicle. The fact of the matter is that in its role as a heavy duty workhorse, the Land Rover is frequently subjected to grueling and arduous tasks beyond the sphere of most other four wheel drive vehicles. Axle shafts don't just break, they fatigue in time. Using the vehicle on high tractive surfaces will accelerate this fatigue. The problem arises from what is known as transmission windup.

Transmission windup is a term used to describe excessive torque buildup in the drivetrain of a motor vehicle. When the vehicle is used in four wheel drive in anything other than a

straight line, the rear wheels travel a greater distance than the front. Because the early Land Rover were not fitted with gearbox differentials, the rear wheels, going a greater distance, make the rear axles take most of the strain. If a vehicle is fitted with different diameter tires front and rear, the problem is compounded. The same is true for vehicles fitted with larger, more tractive tires. The heavier the wheel and tire combination, the greater the inertial forces which prompt the fatiguing of the axles. An out of balance or out of round wheel can also have a damaging effect.

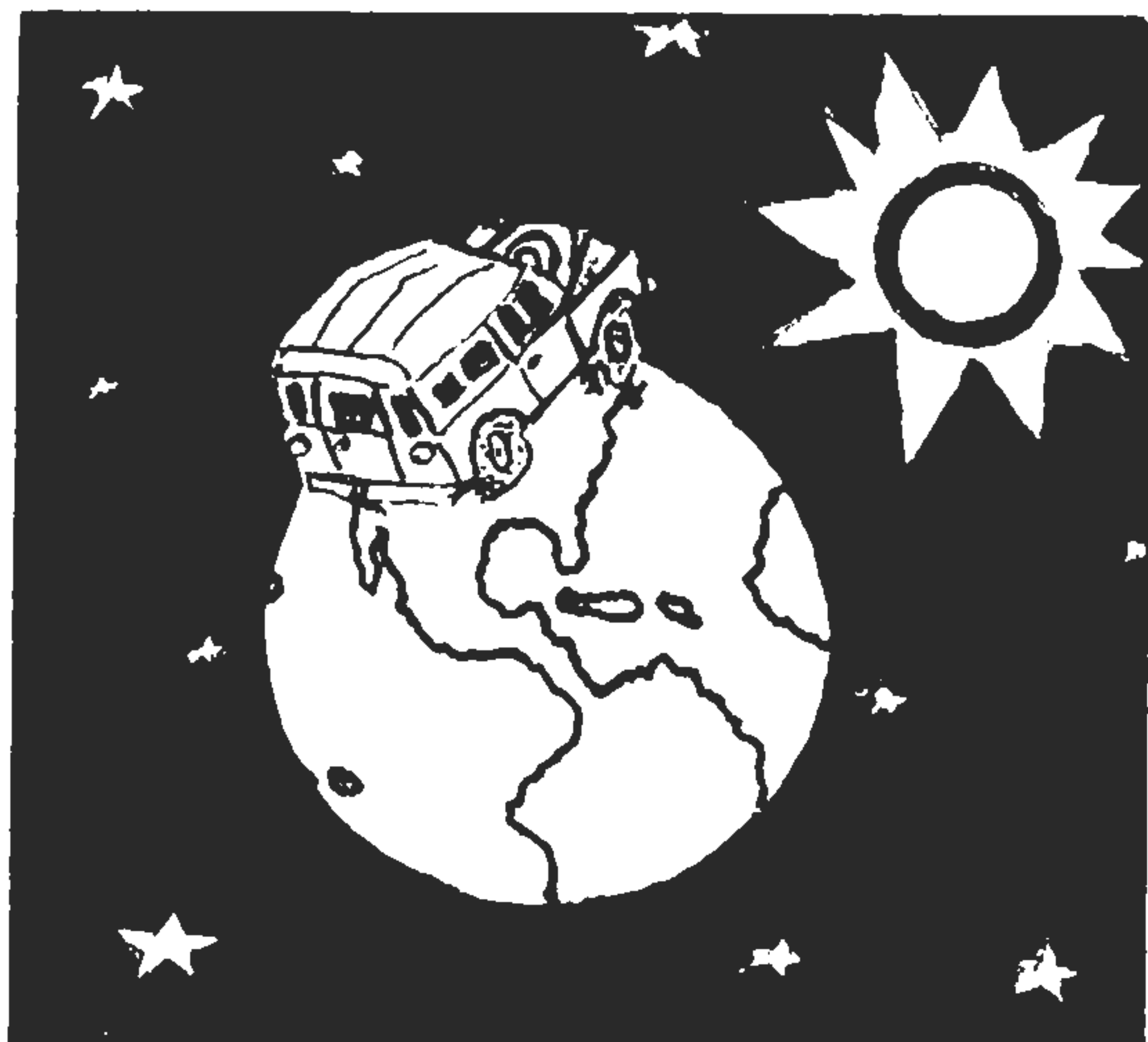
Even the best Land Rover driver has been known to break an axle shaft but is there anything you can do to help the situation? Yes, and here are a few suggestions: first, don't use four wheel drive on high tractive surfaces; don't take on too much rough stuff in two wheel drive and don't lend your Land Rover to inexperienced drivers. Also, you might consider replacing your axles every 3 years or 36,000 miles as a precaution.

It can be a tribute to your sense of humor as to how you handle a broken axle shaft. Of course, the responsible person doesn't want to be late for work, but better on the way to work than in the outback. A Land Rover will always take you where you want to go, when you want to go there. The quality of the vehicle is such that broken axles will probably be the only problem you will encounter in a lifetime. Your lifetime! Sure, your Land Rover may leak a little oil now and then, but it keeps the undercarriage from rusting. After all, nothing really is perfect this side of heaven.

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## THE SUN NEVER SETS

by R.P. Allen



J. Allen

Once upon a time it was true; "The sun never sets on the British Empire." Alas, Anglophiles, this is no longer true. In 1946 when Maurice Wilks and his brother Spencer decided to improve on the wartime Jeep, the Land Rover was born. Since that time, over 1.3 million have been built and exported to 150 countries. Though it may be sad (to Anglophiles) that the sun does set on the British Empire, all Roverites may rejoice in knowing for certain that; "The sun never sets on Land Rover!"

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# Black Rock Primer

\*\* ALL YOU NEED TO KNOW ABOUT THE LABOR DAY TREK \*\*

written and compiled by Marvin & Nancy Mattson  
with Jim Allen



\* SCHEDULE OF EVENTS \*

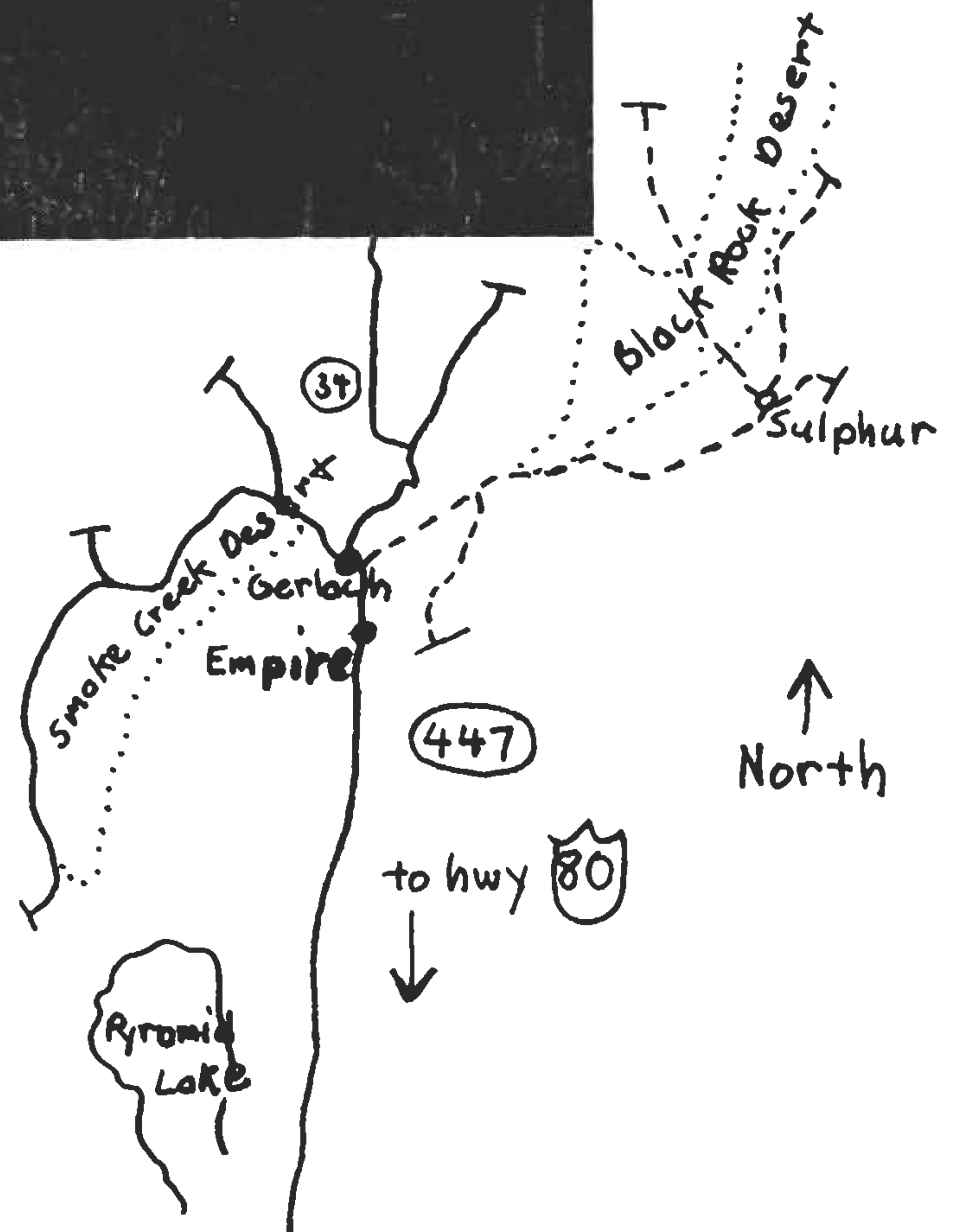
\* ARMCHAIR PRE-TOUR OF ROUTE \*

\* AREA HISTORY \*

\* NICETIES AND NECESSITIES \*

\* GETTING YOUR LAND ROVER READY \*

\* ROUTE MAPS \*



## AT A GLANCE

### APPROXIMATE SCHEDULE OF EVENTS

August 31 - 9:30AM - Meet at Gerlach Park  
10:00PM - Depart Gerlach Park for Black Rock  
1:30PM - Lunch at ghost town Sulphur  
2:30PM - Depart Sulphur  
5:30PM - Make camp at High Dry Lakes

September 1 - 9:00AM - Depart High Dry Lakes  
12:00PM - Lunch at Hardin City ghost town  
1:00PM - Depart Hardin City  
6:00PM - Make camp at "Dan-the-Pack-Rat's cabin

September 2 - 9:00AM - Depart Dan's  
1:00PM - Lunch at Steven's Ranch  
3:00PM - Reach Hwy 34 \*

\* At this time, some may wish to depart. Depending on circumstances, some (or all) might want to visit a petrified forest followed by another sprint across the Playa back to Gerlach (it is actually faster that way).

#### Note on the Weather:

It is unlikely it will rain, but in the event it does, an alternate route has been selected. This alternate route eliminates only a few of the attractions. The Playa becomes impassable after rain and so the route would be changed to avoid this area.

#### Note on CB radios:

We will be using channel 7 and ask that if your Land Rover is so equipped, to keep your radio on and tuned to this channel. We will be counting on you to relay information to those who do not have CBs.

#### Note on extra fuel:

Considering the distances involved, at least ten gallons of extra fuel will be needed for the trip. While you will have the opportunity to top-off at Gerlach, there are no petrol dumps on our route.



# An Armchair Tour

## of the **Black Rock**

By now you will be getting your Land Rover in shape for the Labor Day weekend Black Rock Desert Run. This article will inform you as to the schedule, route, and points of interest along the way. Bring this newsletter with you as a reference and feel free to ask questions anywhere along the route.

We will be meeting at Gerlach Park on August 31 and ask that everyone arrive by 9:30AM. You are welcome to come the night before, camp, and be well rested for the days drive. We will depart Gerlach Park by 10:00AM sharp and proceed north on HWY 34 to our desert turn off. Lea MaGee will take the point in his camouflaged 88" as we drive across the Playa. Keep a good look out for "gotchas". These are ruts up to eight inches deep and two feet wide that can rattle your brains and "adjust" your front suspension. We will be heading northeast towards Rabbit Hole Springs, which was the emigrant's last watering hole before crossing the dreaded Black Rock Desert.



Someones final resting place near Rabbit Hole Springs.

Black Rock Run (continued)

From Rabbit Hole Springs, we will be heading up to the ghost town of Sulphur. We'll stop here for lunch and take a look around. Our destination from Sulphur will be a river crossing at the Quinn River. It is difficult to know how much, if any, water will be flowing, but without a doubt, some of us will be getting stuck here. Fear not, there will be vehicles with winches to help if anyone needs it. A word of warning: a banzai charge at 40 miles an hour is not the way to cross this river! There are unseen obstacles and you could end up with your front axle jammed against your rear axle and a passenger ejected thru the right side of your windscreen.

With all safely across the Quinn, we will continue following Lea, in the camo-88", to the Alluvial Fan. From here, the Landys will have to crawl up a hillside to the High Dry Lakes, where we will make camp. Reville will come early enough next morning so that we can hit the trail by 9:00AM. Our first point of interest will be at Black Rock Point. Black Rock Point was the emigrant's next watering spot after Rabbit Hole Springs. The pioneers also used this huge black monolith to navigate across the desert. The next stop will be at Double Hot Springs, a dual cauldren of bubbling, hot water. It is also a good spot to take pictures and examine the Emigrant Trail in close detail. We can hang around here for 30 minutes or so, but with lots more to see and miles of long, dusty trails ahead, we shouldn't dawdle.

About five miles north of the springs, lies Hardin City. We will stop here for lunch and some exploring. Hardin City has a colorful past and interesting ruins to inspect. After Hardin City, the trail will get long and dusty. About two hours of driving will be required to get to our next stop, Mud Meadows. This was the best water and grass for the pioneer livestock as they travelled the area.



Two dusty Land Rovers on the High Dry Lakes.





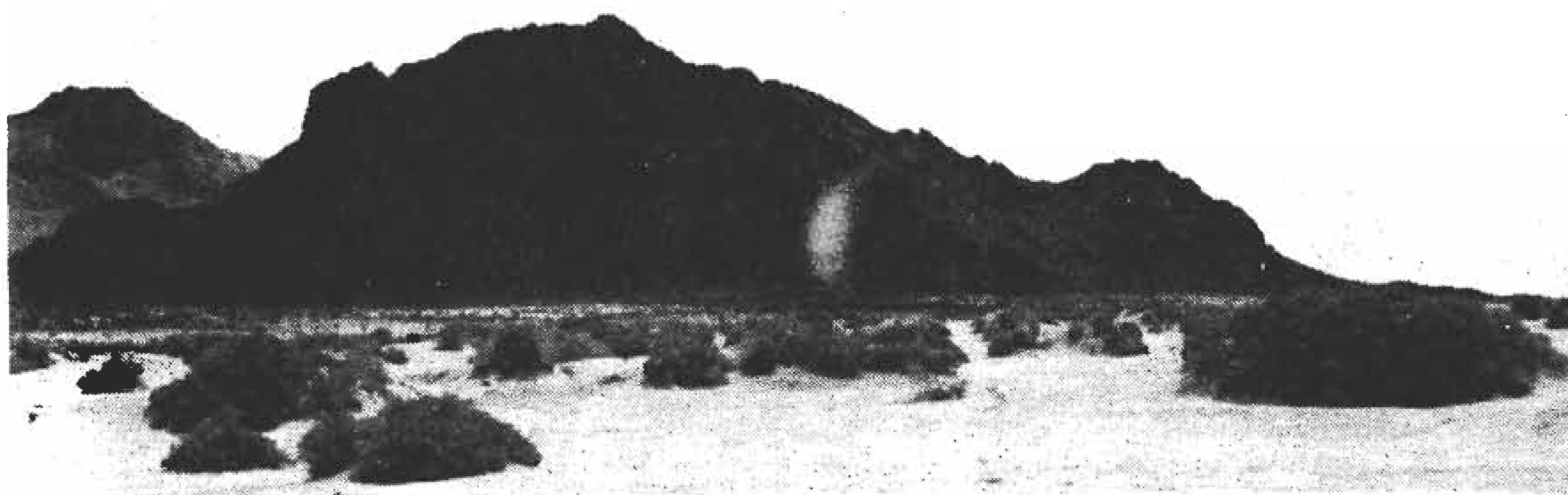
Campsite at the High Dry Lakes; disregard the non-Land Rovers.

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The Double Hot Springs.

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The Black Rock can be seen for miles.

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Now we come to one of the most interesting parts of the trip, Fly Canyon. Here the pioneers lowered their wagons by rope to the canyon floor. We will take an easier route! Also we will see where Indians built a sagebrush fence to trap rabbits. As we descend towards High Rock Lake, we will stop at a large canyon pool and an Indian cave. Good places to park are difficult to find here, but the sights are well worth the extra effort. Our second campsite is close so we can take our time. About five miles before we reach our second campsite, we will encounter an abandoned ranch which we can explore, or not, as we wish.



The entrance to High Rock Canyon.

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Black Rock Run (continued)

Our second nights lodging will be at "Dan the Pack Rat's" cabin. The area is called Mahogany Canyon and is a good site for finding arrowheads and such. Be prepared for mosquitos here. It's not a certainty that these little "needle heads" will appear but forwarned is forarmed! Let's try and be on the trail by around 9:00AM again next morning and head up to Wagon Wheel Pass. You will notice the many paralle ruts hewn into the rock by wagon wheels. There are two obstacles in the area worth mentioning and both are off camber, "tippy" areas. People with roof racks and carrying supplies on the roof should be especially careful. There will be plenty of help (maybe some human outriggers!) and guidance available for everyone. From here, enjoy the scenery! We will be about 8 miles from our lunch break at Stevens Ranch. It's only about fifteen miles from Stevens Ranch to Highway 34. From here much of our itinerary is optional. Close by is the Petrified Forest and Petrified Log Jam and the ghost town of Leadville. Those who have long distances to travel may wish to leave, but those who want to stay longer can be treated to a look at these two natural and one man-made wonders and be escorted back across the Playa to Gerlach.



Dan the Pack Rat's Cabin.



Some of the items that can be found on our trek. The stone arrowheads are of Indian origins, of course. The machine gun casings are definitely of paleface manufacture. During World War II, the Black Rock area was strafed by Air Corps planes for practice.

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Blasting across the Playa can be fun, but look out for the "gotchas."

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## DESERT TRAVEL

### Niceties and Necessities

Camping in the desert is a fascinating experience. If you have never camped in the desert, you will find upon doing so that the problems encountered can be entirely different than those you may be used to. Here is a list to help prepare your equipment and make your desert experience a comfortable one.

\* WATER - Water is scarce so bring plenty. Figure about one gallon per person per day as a minimum. Add a little extra in case the Land Rover gets thirsty and for washing.

\* CLOTHING - Next to water, proper clothing will go the farthest towards ensuring your comfort in the hostile desert environment. During the day, the temperatures will be upwards of 90 degrees. At night, the temperature can drop as low as 40 degrees. Daytime clothes should be light, comfortable and not leave much exposed skin. A good hat is a must. The wider the brim, the better. The back of the neck is a vulnerable spot that should be covered and the wide brimmed hat takes care of this. Night brings the opposite temperature extreme, so sweaters, coats and warm sleeping bags are a must. Since you may want to do some hiking, suitable footgear should be on hand. A wet bandana around your neck on a hot day goes a long way towards a cool attitude!

\* DUST - There is no way around it, the desert is a dusty place! While it is nearly impossible to keep all the dust out of your equipment, it is possible to reduce it to a civilized, bearable level. Put your clothes, sleeping bags, pillows, etc. in sealed trash bags. Ziploc food storage bags will keep dust out of your chow and your toothbrush. Handywipe type wet towels can be considered your portable "bath" and go a long way towards keeping you cool and clean while travelling in the desert.

\* NO PLACE TO SIT - You will find that places to sit, i.e. logs or rocks, are scarce in the desert, so bring along a folding chair or two and avoid sitting in the dirt.

\* SHOILET - Your small folding shovel may be considered your desert toilet (or vice versa) and don't forget the Charmin. 'Nuff said!

\* FOOD & EATING UTENSILS - Since water is at a premium, paper plates are a good idea. Unless you really like to cook, keep your meals simple and easy to prepare. SOS pads are good for cleaning, since they require only a little water to work. For drinks, the box or bag variety are easy to handle when underway and take up less space in the trash than cans.

\* FIREWOOD - There's none in the desert, so bring your own if you want a fire.

\* HIKES - Should you wish to do any exploring independant of the rest of us, please let someone know where you are going. As a minimum, take along a canteen of water, a whistle, a compass, a snake bite kit (if you know how to use it), and a knife.

---

## PREPARING YOUR LAND ROVER FOR THE TRIP

A major breakdown in the desert can be, at the least, an annoyance to you and your fellow travellers and, at the worst, a life threatening situation. If you have serious doubts about some major part of your Rover and can't get it fixed, see you next year. Don't spoil the fun for the rest; sit this one out, hard as it might be.

Some breakdowns are hard or impossible to foresee and must be handled as they occur. Here is a checklist to aid you in preparing your Land Rover for this (or any other) trip in the desert.

- Cooling system:
- \* clean?
  - \* coolant installed? (do you have extra?)
  - \* fan belt OK? (do you have a spare?)
  - \* temp. gauge OK?
  - \* hoses OK? (do you have spares?)
- Tires:
- \* do they have good tread?
  - \* air pressure OK? (do you have a tire pump?)
  - \* spare OK? (is your jack servicable?)
- Fluids:
- \* engine oil level? (do you have extra oil?)
  - \* gearbox level? (do you have extra oil?)
  - \* diff levels?
  - \* brake fluid? (do you have extra?)
- Overall:
- \* brakes OK?
  - \* steering & suspension OK?
  - \* engine performance OK?  
(do you have a spare tune up kit)
  - \* air & fuel filters OK? (spare fuel filter?)
  - \* wipers, lights, horn OK?
  - \* exhaust system leak free?
- Spares & tools:
- \* tool kit?
  - \* shovel(s)?
  - \* jack(s)?
  - \* spare axles?
  - \* tire pump & patch kit?
  - \* nuts & bolts & clamps?
  - \* gasket sealer & paper?
  - \* wire ends, wire & crimping tool?



# Black Rock History

## RABBIT HOLE SPRINGS

Here is the first watering stop for pioneers as they crossed the desert. When wagon trains stopped there in 1849 expecting usable wells, they were disappointed to find straw sized streaks of water bubbling slowly out of the ground. They were able to slake their thirst somewhat, but the flow wasn't sufficient to water the livestock. Later, another wagon train was horrified to find dead cattle, horses and mules littering the area. Broken and cast off equipment everywhere and the rotting carcasses had rendered more than half of the already inadequate well unusable.

## SULPHUR

The beginnings of the town of Sulphur can be traced back to 1869 when a solitary Paiute Indian came across sulphur deposits at the base of the Kamma Mountains. He took news of his find to prospectors and bargained for a horse, saddle and blankets in exchange for directions to the site of the deposits. Unfortunately for the Paiute, he never received what he bargained for, but sulphur mining was begun in 1874. By the 1880s, some six tons were mined daily.

When the Nevada Sulphur Company took over the site in 1899 and began extensive operations there, it didn't take long for the railroad to lay tracks into the area. By 1909, the Western Pacific Railway had laid tracks and established a station named, appropriately enough, Sulphur. A small settlement then formed around this station which included a post office and a general store. By the 1920s, 12 tons of sulphur a day were being mined and sent to Sulphur for shipment by rail. As the use of automobiles increased, the need for a general store was diminished and it was closed. By 1953 the post office was closed and the settlement was largely abandoned, though sulphur mining continues to this day.

## BLACK ROCK POINT

Here lies the first water after Rabbit Hole Springs and it lies at the base of the great "Black Rock". This huge mass of volcanic rock was used as a reference point to navigate across the desert. Black Rock Springs became an important watering stop although the water from the springs was heavy with brimstone.

Gushing boiling water and steam, Black Rock Springs was described by pioneer Andrew Soule in 1854; "It is no wonder that this is desert country, destitute of any vegetation with this mighty engine of fire so close to the surface it's life is burned out."

Tragedy was commonplace on the trails, and this account of a stop at Black Rock Springs illustrates the point.

"I shall never forget that camp. Mother had some medicine along. She hung the bag containing the medicine from a nail on the sideboard of the wagon. My playmate, the Currier girl, who was of my own age, and I discovered the bag, and so I decided to taste the medicine. I put a little on my tongue, but it didn't taste good, so I took no more. The Currier girl tasted it, made a wry face and handed the bottle back. My little sister, Salita Jane, wanted to taste it, but I told her she couldn't have it. She didn't say anything, but as soon as we had gone she got the bottle and drank it all. Presently she came to the campfire where mother was cooking supper and said she felt awfully sleepy. Mother told her to run away and not bother her, so she went to where the beds were spread and lay down. When Mother called for supper she didn't come. Mother said she was asleep so didn't disturb her. When Mother tried to wake her later she couldn't arouse her. Lettie had drunk the whole bottle of Laudanum. It was too late to save her life.

Before we had started, father had made some boards of black walnut that fitted along the side of the wagon. They were grooved so they would fit together, and we used them for a table all the way across the plains. Father took these walnut boards and made a coffin for Salita and we buried her by the roadside in the desert. Three days later, at Black Rock, my sister, Olive, was born."

#### DOUBLE HOT SPRINGS

In 1849, pioneer Middleton described the area in his journal when he arrived on September 27.

"Started last night after sunset and travelled ten miles, where the grass is better than where we were last. 5 or 6 miles from Black Rock hot spring we crossed a hot stream large enough to drive 2 pair of millstones, if it had proper fall; the steam was rising from it. I went up a short way to the fountain head where I found 5 springs - two large ones and three small. Two of them were like the large round sinks which is common in some of the limestone regions in Kentucky. One was circular, about 25 feet in diameter, with abrupt sloping brims of 3 to 6 feet above the water all except the place where the water escaped. The other large spring was oval of 25 by 30 feet in diameter, with high steep brim like the first - you could see the water simmering and about to begin to boil by moonlight, and the steam rising. I could see deep into the green water in one, but not in the other."

#### HARDIN CITY



Lying about five miles north of the Double Hot Springs is Hardin City. Hardin City was established around 1866, but the story goes back farther still to 1849 when James Hardin passed through the area with a wagon train. While out on a hunting expedition, Hardin found what he believed to be a huge silver deposit in the black volcanic rock. The find caused an uproar throughout the 14 wagons in the train but with California almost in sight and hostile Indians in the area, it was decided to return at a later date.

It wasn't until 1858 that Hardin was able to organize an expedition and retrace his steps of almost ten years earlier. Though they thoroughly searched, they could not find the deposits he had seen a decade earlier. In 1859, James Hardin returned and again searched in vain. All they managed to accomplish is to fuel rumors about the rich silver deposits in the black, ashen rocks and create a legend.

By 1862, men had begun working the black rocks in an effort to extract the silver they believed inside. It wasn't until a few years later that Charles Isenbeck was able to isolate a process to extract silver from the black rocks. So, in 1866 a settlement was established and named Hardin City. Another settlement was built at the Double Hot Springs. In 1867, around 14 tons of ore was laborously carried to a mill in Franktown, almost 140 miles away. The ore processed was reputed to yield \$70 to \$565 a ton and a rush had begun! Large sums of money were pooled to build a stamp mill at Hardin City and Isenbeck was to be manager. Excitement over the rich ore deposits caused a flurry of activity and planning.

Before long Hardin discovered that his system for extracting the silver was too elaborate and expensive to be used on a large scale. He disappeared, quietly, and left the Hardin City investors in the lurch. The boom died out and rumors spread that the whole thing had been a hoax. By 1868, Hardin City was abandoned and only ruins remain to mark the folly of this endeavor.

#### MUD MEADOWS

Mud meadows was considered the best grazing and watering spot in the area and contained several hundred acres of grass and several springs, both warm and cold. The area had a peculiar "mushy" feel when walked upon and the pioneers found this unusual. The Indians troubled several of the wagon trains camped there in 1849 and managed to steal several head of cattle and kill a horse and a mule in the process. Not wasted, the horse was eaten by the hungry settlers.

#### FLY CANYON

In this area, the pioneer wagons were lowered by block and

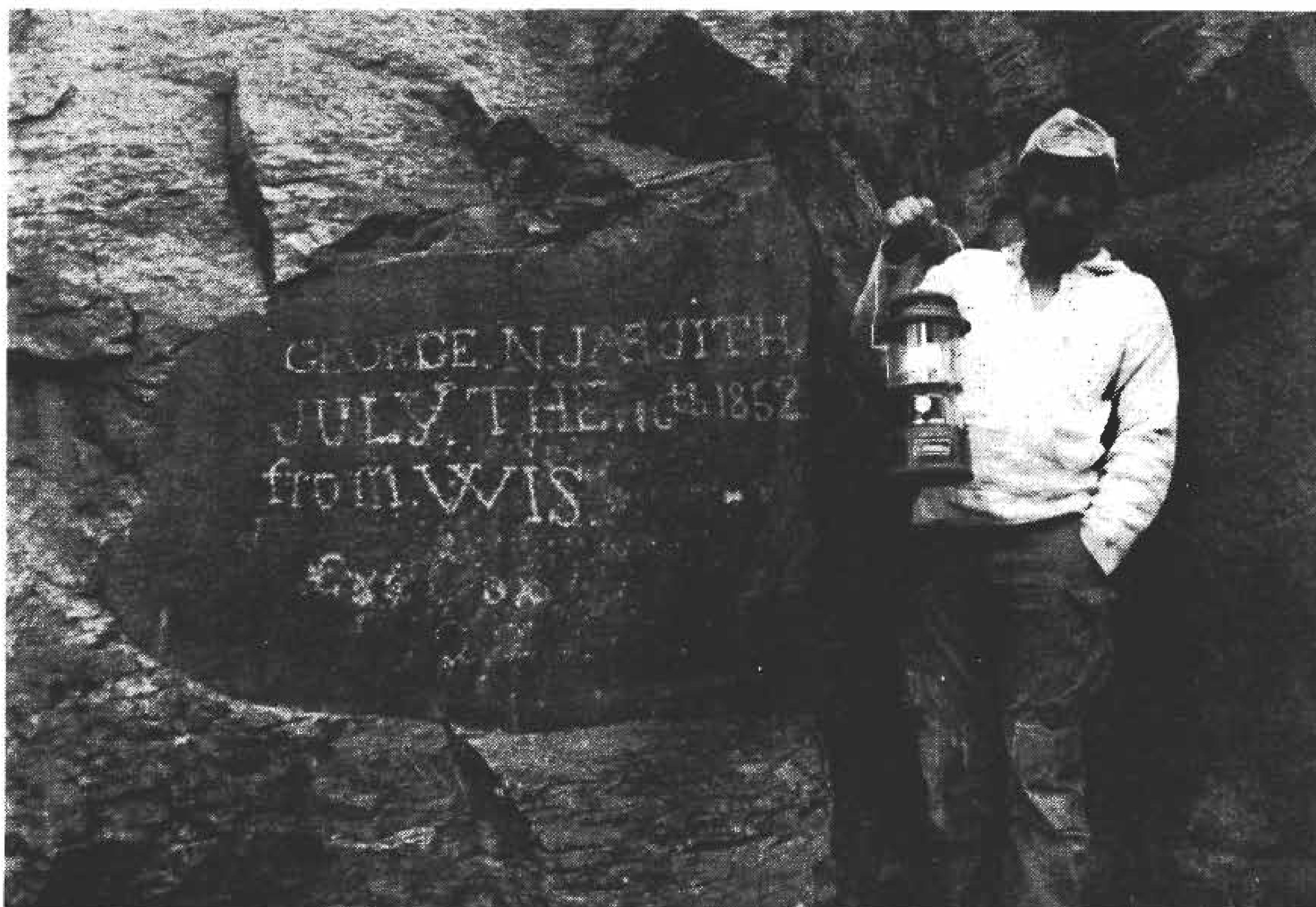
tackle to the canyon floor. The trail literally ended at almost a sheer drop then continued at the bottom. Traveller J. Goldsborough Bruff wrote in 1849, "The road terminated, as it were, at the edge of the very apex of this hill, and from a big rock on the left of trail, at crest, I looked down, and for awhile thought it must be "the jumping off place." Noted soldier, explorer and politician, John C. Fremont spent New Years Eve in Fly Canyon in 1843 on a trip to California.

#### LEADVILLE

Located about a mile west of HWY 34 and 37 miles north of Gerlach, Leadville became a town sometime after 1909 when lead and silver deposits were discovered. Though the peak years were 1924 and 1925, as late as 1941 the area was still producing ore.

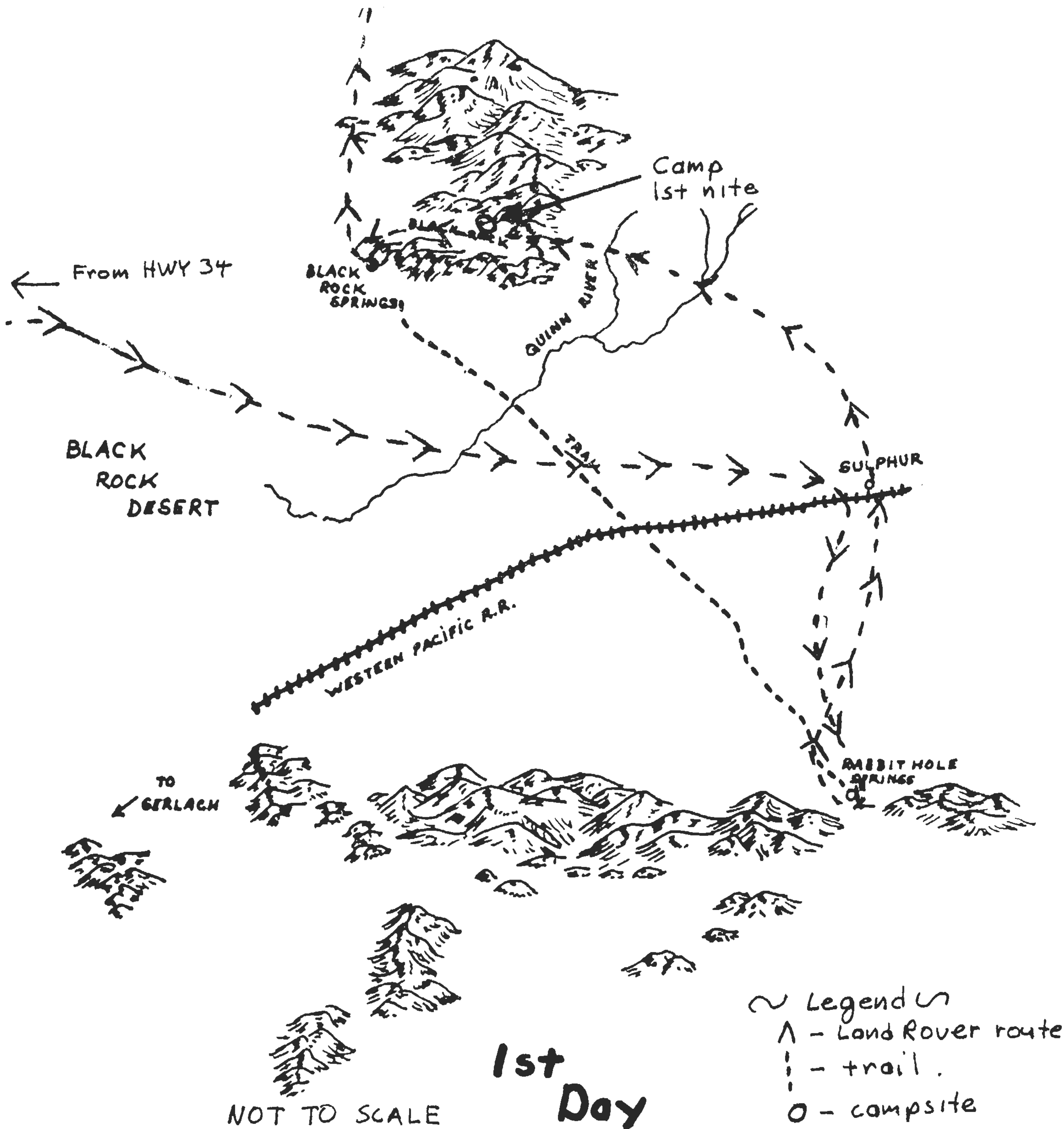
#### SIGNATURE ROCK

In this area, pioneers left tangible evidence of their passing by writing on the rocks and inside a cave. The cave was used by Indians for years as a winter retreat and in this cave names and dates written with axle grease are still perfectly preserved.

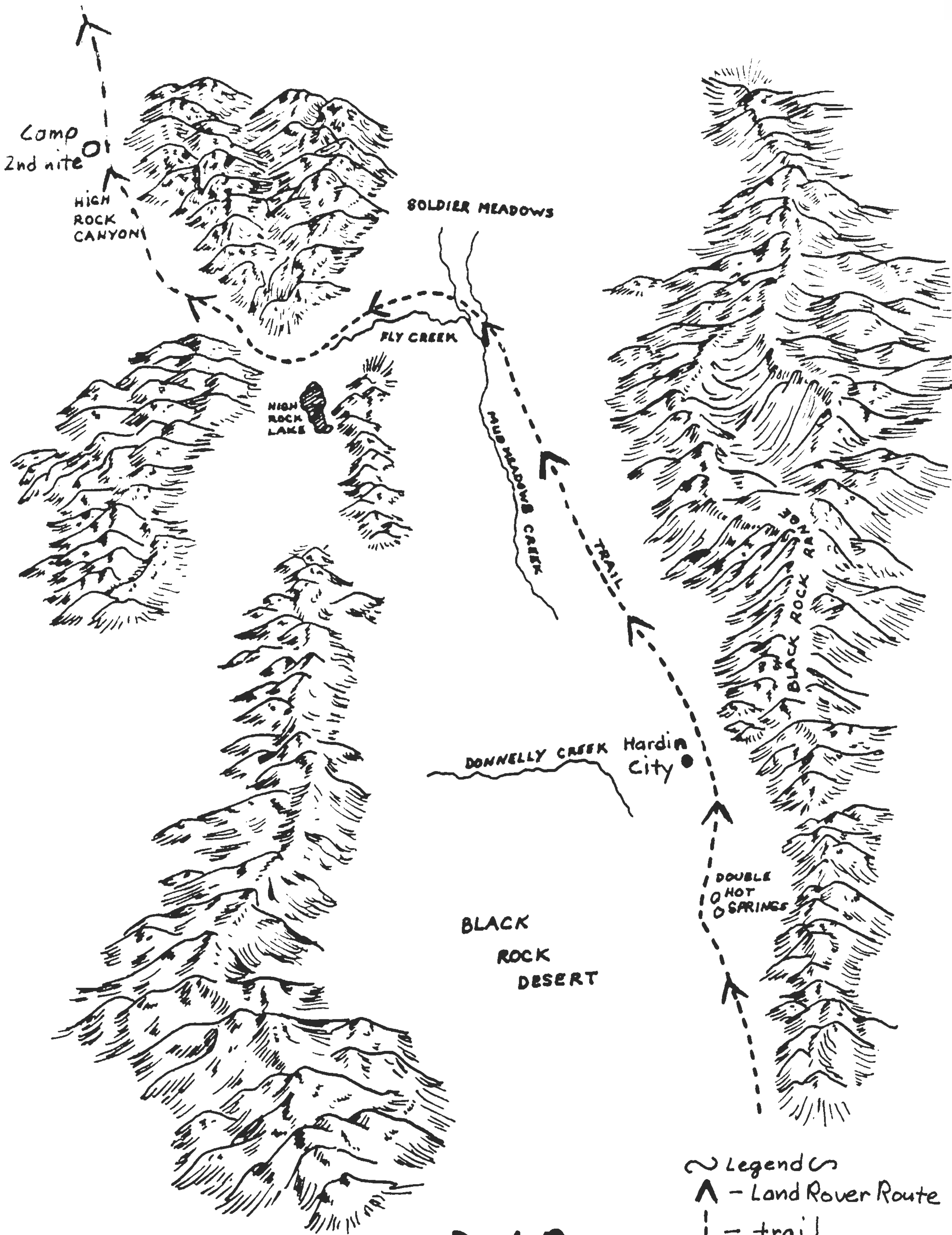


Hello! My name is Marvin and I'll be lighting up your life on the Black Rock Desert Run.





These two rough maps show the first two days of travel. Note that on the cover of this section there is another map showing the Gerlach area. If you happen to miss us at the meeting place at Gerlach Park, there is a gravel road leading to Sulphur, where you may be able to catch up. Please purchase a local map at Gerlach for more detailed information.



NOT TO SCALE

## 2nd Day

- Legend
- ~ Legend ~
  - Λ - Land Rover Route
  - - - - - trail
  - - campsite



# SAFETY & GOOD TASTE

This outing has been planned as a safe and fun event and we are relying on your good sense and help to make it so. Our guides will be available for questions or help at any time during the trip. Here is a short list of "don'ts" to keep in mind.

\* Please, no unannounced or unauthorized shooting of firearms. We will have time set aside for some target practice but don't want people blazing away at each stop for obvious reasons.

\* Please do not leave the convoy or the camp without letting someone in charge know where you have gone. It would be most unnerving to turn up with someone lost in the desert.

\* It sounds redundant, but if you haul it in - haul it out. In fact, you may want to haul out more trash than you brought in just to earn a few points with Ma Nature.

\* Snakes! Yes, there are rattlesnakes in the area and you should be aware of this fact. These snakes only strike when cornered or surprised and will leave the vicinity of humans if given the chance. Make noise when you trudge thru brushy areas and you might want a walking stick to use as a deterrent if the need arises.



PLEASE, don't let this happen to you!!

---

## AN INVITATION TO DINNER

by Jack Stewart

The outback country of Australia has always been indifferent to wayfarers, but never so inhospitable as on my last sojourn through the grasslands.

It was late October when the native (kanga) roos were beginning to roost that I decided to launch my extended two week trek through the outback of the infamous "Land Down Under." Then, commandeering my ever-trusty Series III 88" safari outfitted Land Rover, little did I know the trials that lay before me.

After spending the first week in the bushlands, I unexpectedly came upon a tribe of Flat-nosed Pygmies - Aboriginies, I believe - who were scantily clad in tussels of homosapien manes and wore primitive necklaces beaded with what appeared to be elephant ivory, but upon closer inspection turned out to be human teeth. I initially drove upon the herd of tribesmen while traversing the plains late one dusty evening without the benefit of lights - either natural or mechanical - due to some forlorn failure in the vehicles' electrical system. I suppose that it was the drone of the engine that first caught the attention of the miniature flesheaters, but it was surely the sight of a desert caravan, so noble and yet so awesome as a Land Rover, that seemingly stirred their passions into an animal frenzy.

Attempting to beat a hasty retreat from their cannibal picnic, I slammed the vehicle into reverse, which proved but a futile effort at backing up inasmuch as an enormous tree stump blocked my exit. When faced with the prospect of getting away with my hide intact, I quickly surmised that the only route was not around but through the tribe of swarming maneaters. Consequently, as the the hungry horde descended on my Rover like a vulture upon its prey, I jammed the shifter into first gear low and suddenly felt the Dunlops dig in as the vehicle lurched forward. As sure as the charge of a bull rhinoceros, the Rover crept onward through the seething mass of savages, while repelling their vicious onslaught of crude but effective spear thrusts intended for my demise.

Then, almost as I thought I would surely survive this terrible ordeal, I heard the crashing sound of a rock ... perhaps a spear head ... collide with the exterior of my door panel, causing the driver's door to swing ajar and throwing my body out with it. Suddenly, I could smell the putrid stench of devoured flesh and feel the angry, groping hands of the tribesmen as they strained through the narrow doorway to tug at my shoulders, arms and legs. At first I fought gallantly to defeat their bloodthirsty grips while barely managing to steer the Rover, but I quickly learned that their overwhelming number and hunger was too great to prevent their success. And, as the brutal savages swarmed over my faltering Rover, the natives tore, and pushed, and pulled - especially on my legs - just like this writer is now pulling yours!





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# ◎ Rover Revue ◎



(above)  
Unknown late model 109", as seen in Paris by Jim Allen's brother, Ken, earlier this year. It appears to be outfitted as an expedition vehicle. Anyone have any ideas?



(above)  
Ross Merrow's bright red '73 88". Ross (#114) hails from Biddeford, Maine.



(above)  
Ray Schroeder's (#106) pristine '66 Doormobile. Ray lives in San Diego, California.



(above)  
Domingos Dias' '66 109" SW. Domingos (#115) is from San Leandro, California.

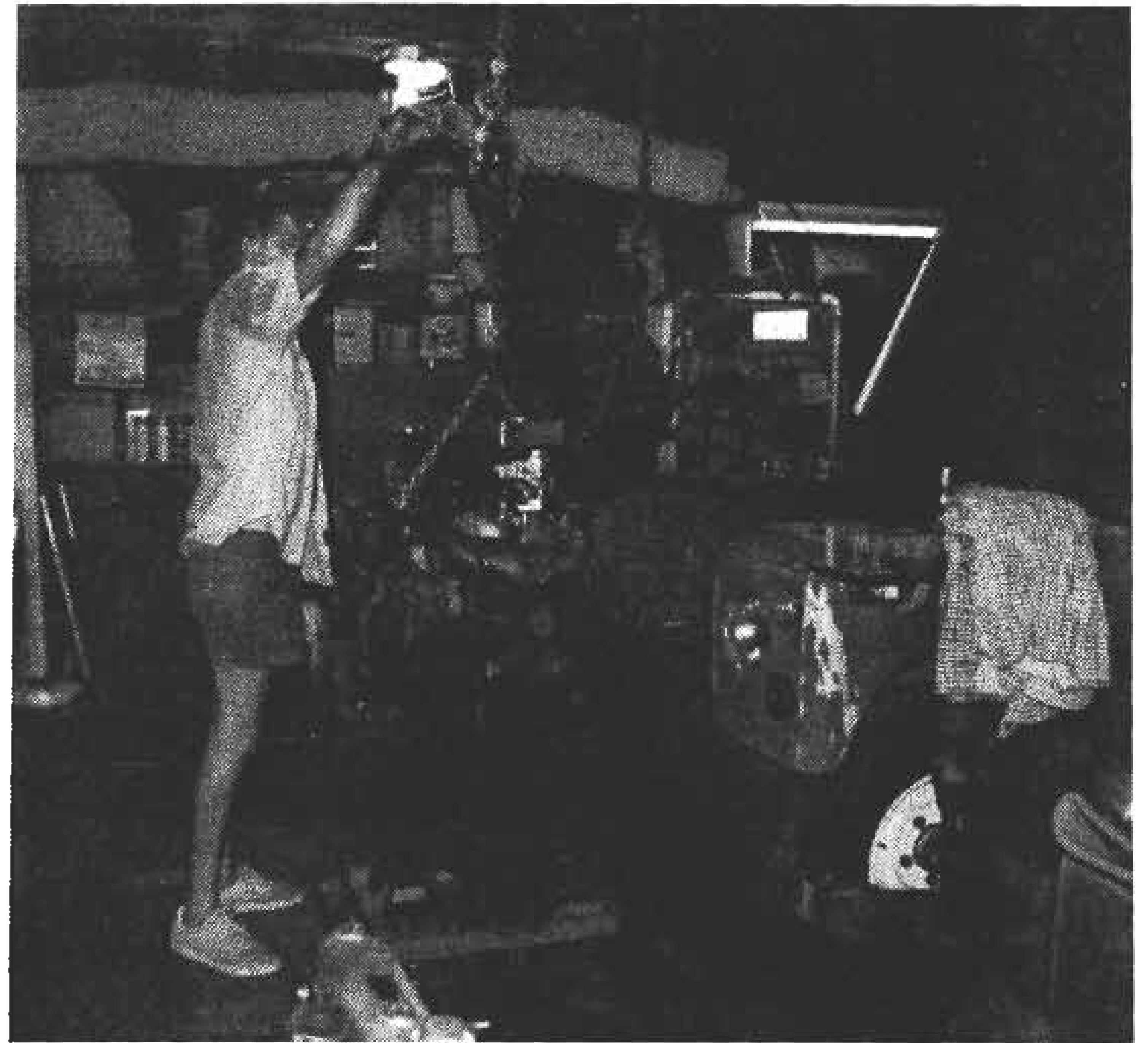




(left)  
This nice '71 88" belongs  
to Clifford Johnson (#72)  
of Lemont, Illinois.



(above)  
Dale Bennett (#90) calls his  
'56 88" "The Goat". Dale lives  
in San Leandro.



(above)  
Dan Anderson (#30) removing the old  
engine from his '72 88". The new one  
is in the foreground. Dan lives in  
Davis, California.



(left)  
Unknown 6X6 Land Rover conversion  
found in London by Clifford Johnson  
(#72). Anyone know anything about  
these rigs?

# NEW BRAKE - THRU

THIS NEW AMERICAN MASTER CYLINDER WILL REPLACE YOUR WORN OUT SERIES IIA ('68 ON) AND SERIES III MASTER CYLINDER.

IT HAS BEEN CAREFULLY MODIFIED TO REPLACE THE DUAL LAND ROVER CYLINDER WITH THE PLASTIC RESERVOIR.

THIS KIT FEATURES:

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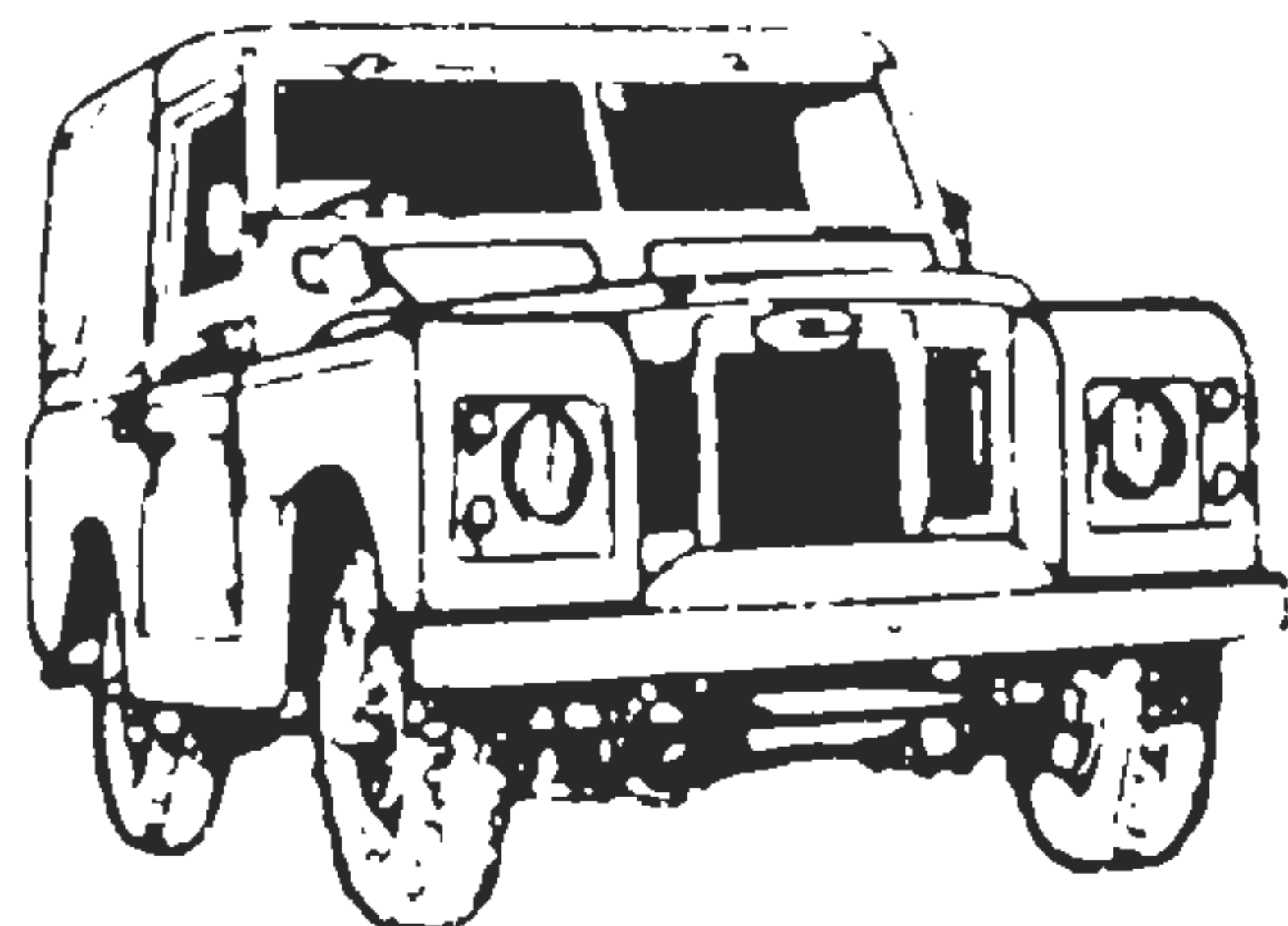
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# MARKET PLACE

## VEHICLES FOR SALE

'61 LAND ROVER 88", trop. roof, 78K, 8K lb. Warn PTO, locking hubs, dual tanks, new battery, manifold, axles & shocks, FM cassette. Mike Irwin (916) 444-8597

'65 LAND ROVER 109", 4 cyl gas new pastel green paint, in good mechanical condition - \$3200.  
Ron Mowry, (207) 658-9064

'56 LAND ROVER 88", minus gearbox & d/shafts, rebuildable Series 2 engine, good body & hdt. Dale Bennett (415) 481-8160 - leave message

'71 LAND ROVER 88", 4 cyl gas excellant mechanically-needs cosmetics, driven daily - \$1800.  
Ron Mowry, (207) 658-9064

'66 LAND ROVER 88", Trop. roof, rbld. eng, new headers & exhaust sys., rochester carb., interior redone, recent repaint, KYB shocks, \$3000 or trade for 109"PU. James Rowley (915) 687-6048

## PARTS FOR SALE

HARD TOP SIDE PANELS, w/sliding glass \$125 or b/o. Will consider trades.  
Ted Harwood (318) 988-5241

LAND ROVER SIX CYLINDER ENGINE, Running fine when removed three years ago, sitting outside since. You pick up in Southern Indiana. \$100.  
Fred Sisson, (404) 564-2788 leave name & #

BILSTEIN SHOCKS, Club member can supply other club members with shocks below list price. LR-\$60/shock, RR-\$70/shock, shipping incl. Bill Davis #44, (801) 363-2390

## WANTED

WANTED 109" Mike Irwin (916) 444-8597

WANTED: TAILGATE & REAR HATCH  
Ted Harwood (818) 988-5241

WANTED, 88" or 109" LR in very sound condition. Rebecca, (415) 342-9070

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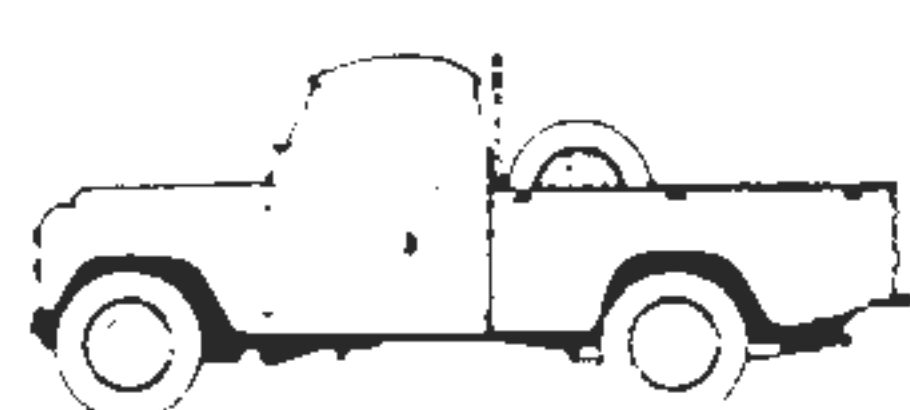
CLASSIFIED AD RATES: LROA MEMBERS- ABSOLUTELY FREE!  
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ALL CLASSIFIED ADS WILL RUN FOR THREE ISSUES UNLESS OTHERWISE NOTIFIED BY SELLER. NO PICTURES, PLEASE.

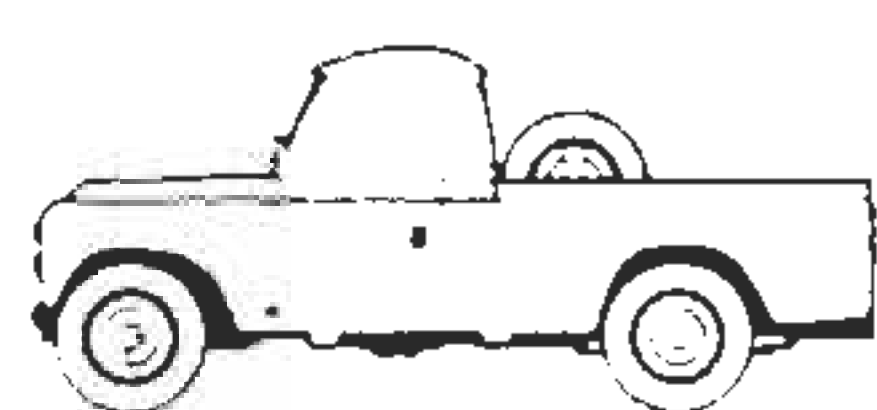
Since Land Rovers were introduced, we have constantly enlarged the range of variations available direct from the factory. Today, whatever job you need your Land Rover to do, and wherever in the world it will have to do it, there is a Land Rover available to suit your needs. So wide is the range of variations within our specifications that there are hardly two vehicles produced precisely the same in every detail.

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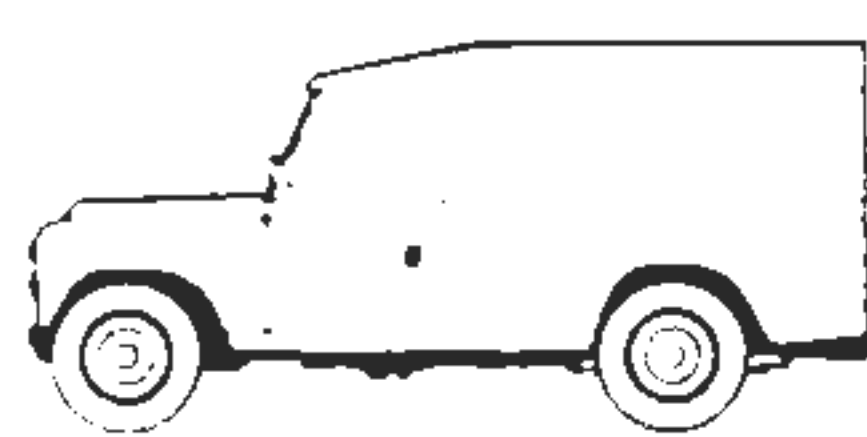
## VERSATILE RANGE



1) 109" High Capacity Pick-Up



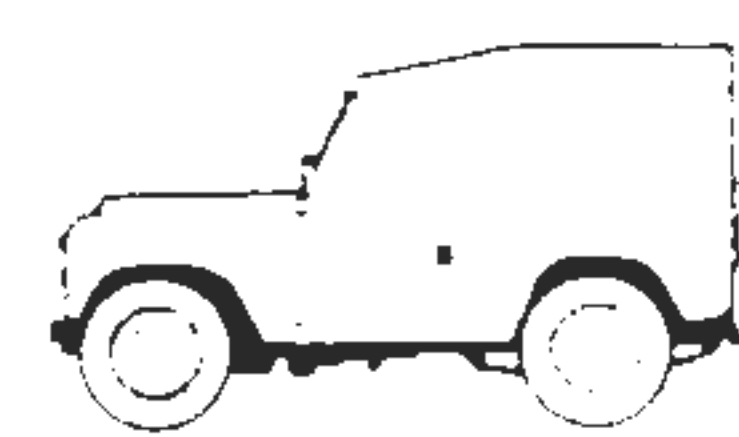
6) 109" Pick-Up



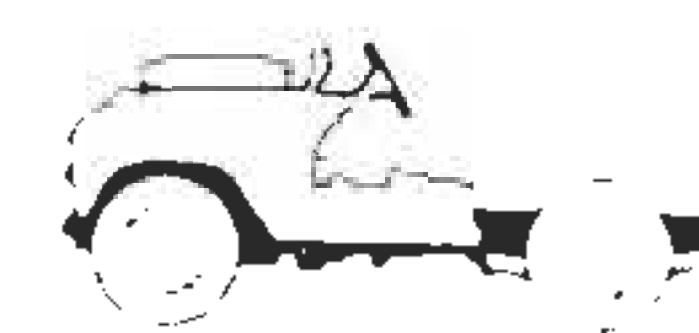
11) 109" Hard Top



16) 109" Station Wagon (11/12 seater)



21) 88" Hard Top with side-hinged rear door



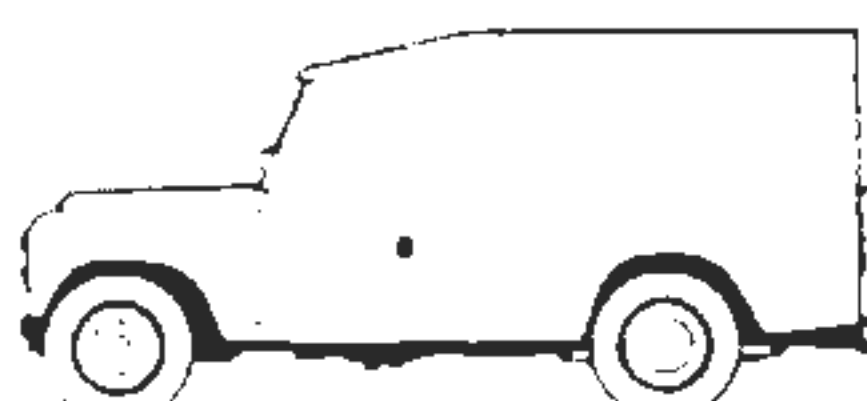
26) 88" Chassis



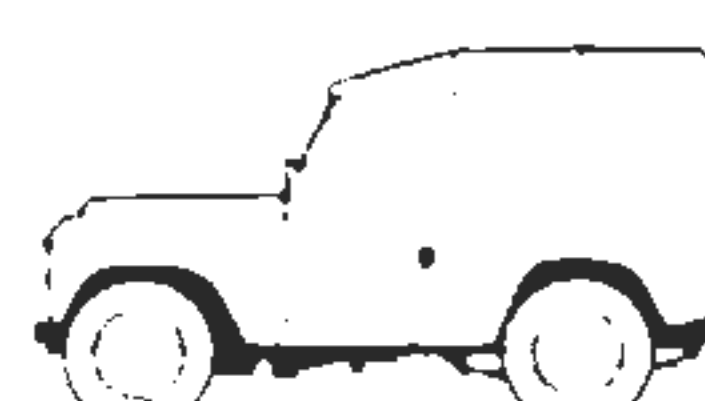
2) 109" High Capacity Pick-Up & 1/4 Hood



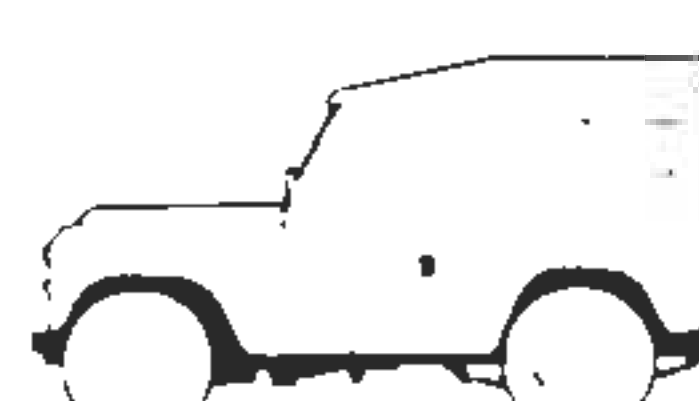
7) 109" Pick-Up & 1/4 Hood



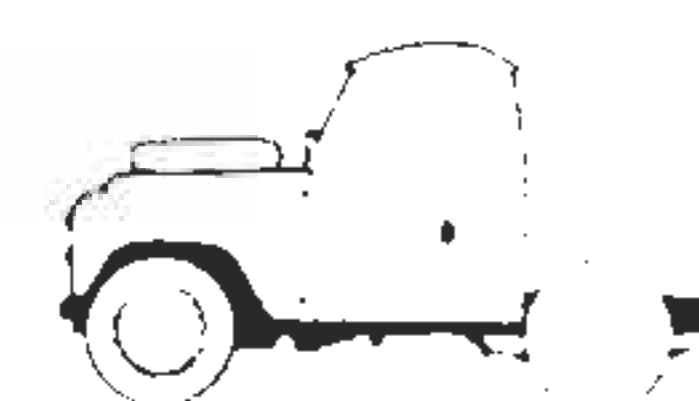
12) 109" Hard Top with side-hinged rear door



17) 88" Soft Top



22) 88" Hard Top with sliding side windows



27) 88" Chassis Cab



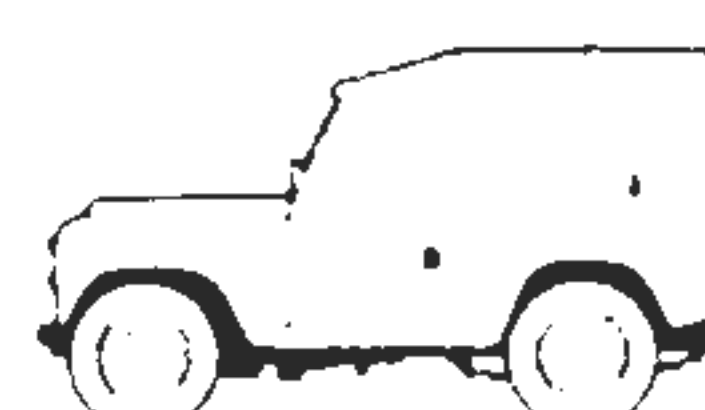
3) 109" High Capacity Pick-Up & 1/4 Hood with side windows



8) 109" Pick-Up & 1/4 Hood with side windows



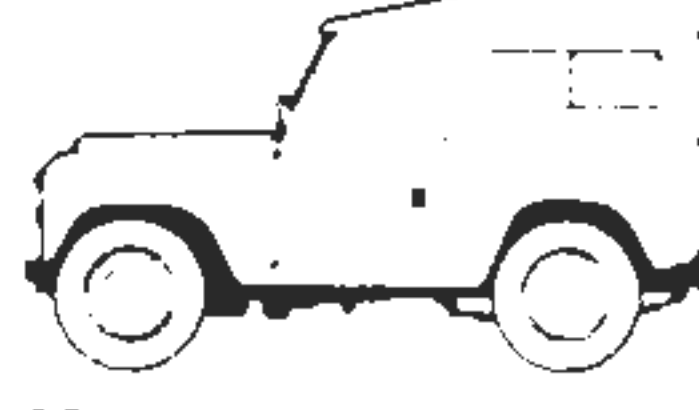
13) 109" Chassis Cab



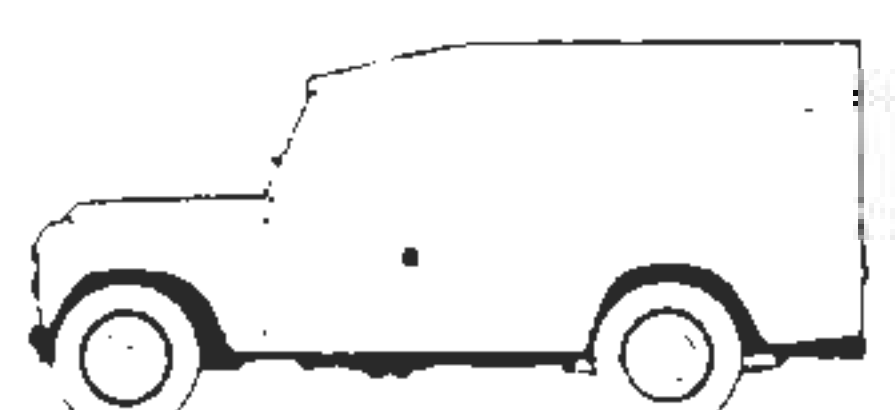
18) 88" Soft Top with side windows



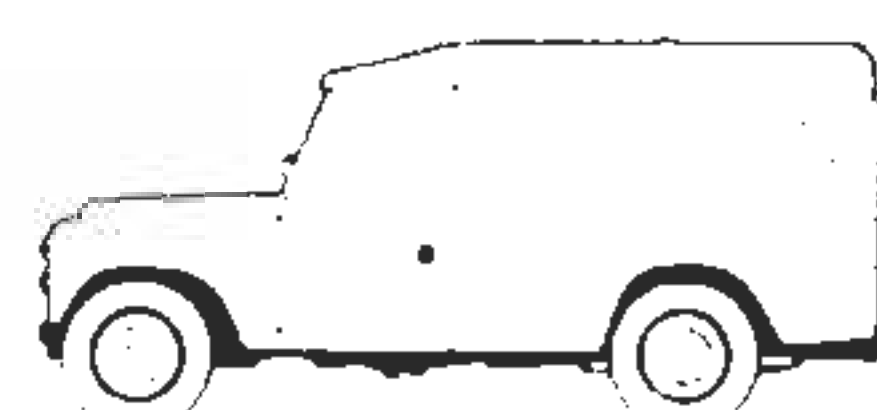
23) 88" Pick-Up & 1/4 Hood and side windows



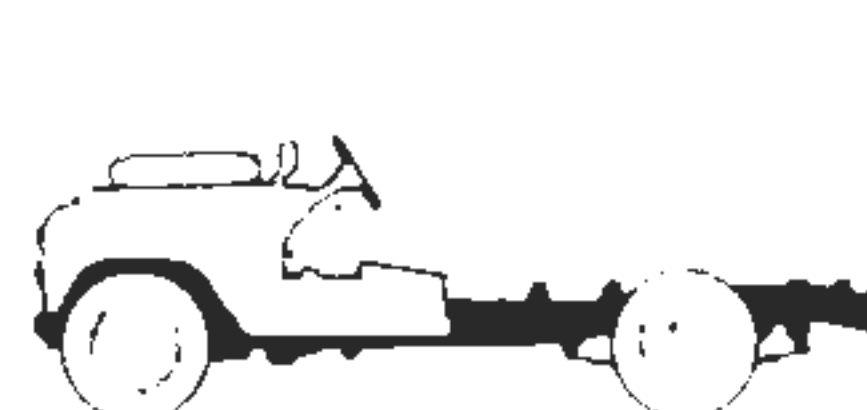
28) 88" Hard Top with sliding side windows and side-hinged rear door



4) 109" Hard Top with fixed side windows



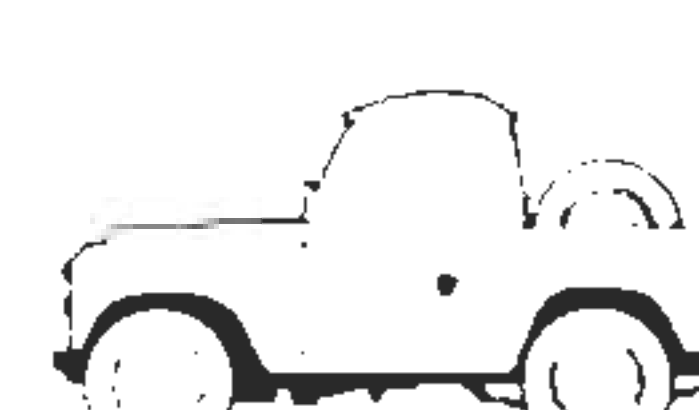
9) 109" Soft Top with side windows



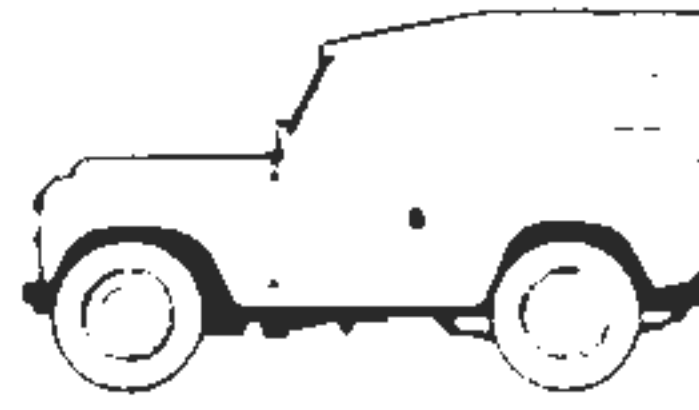
14) 109" Chassis



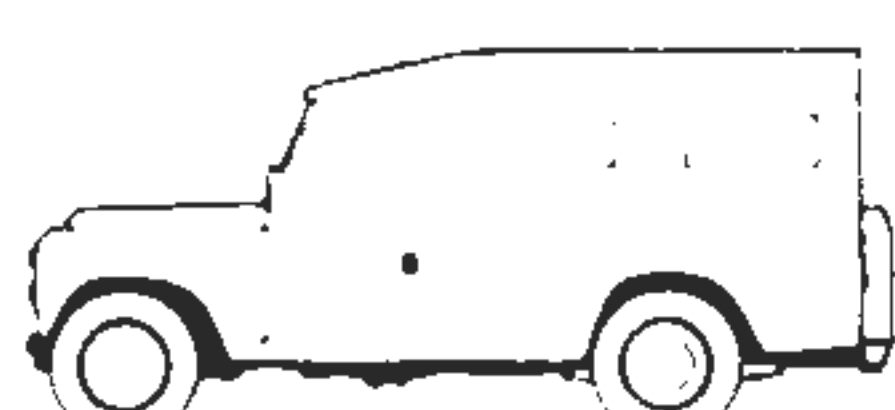
19) 88" Station Wagon



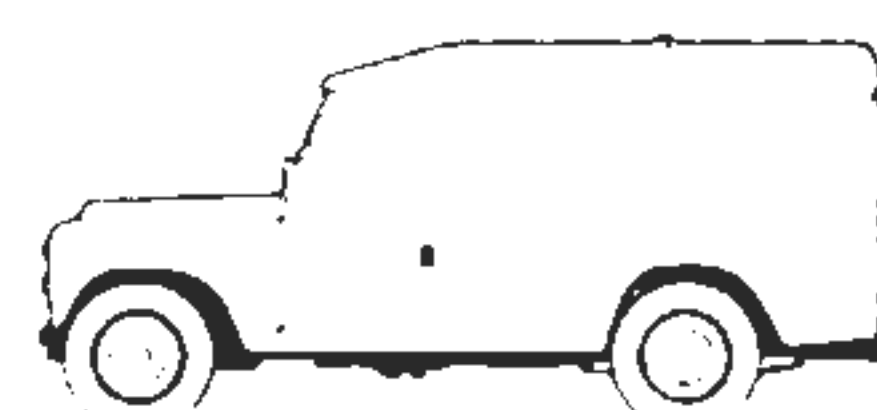
24) 88" Pick-Up



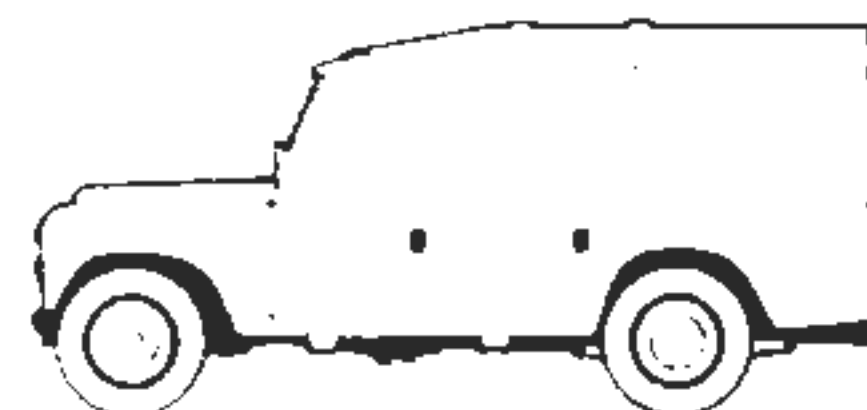
29) 88" Hard Top with fixed side windows



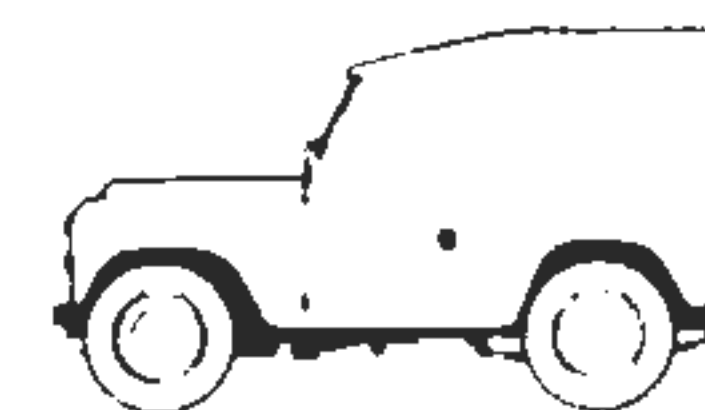
5) 109" Hard Top with fixed side windows and side-hinged rear door



10) 109" Soft Top



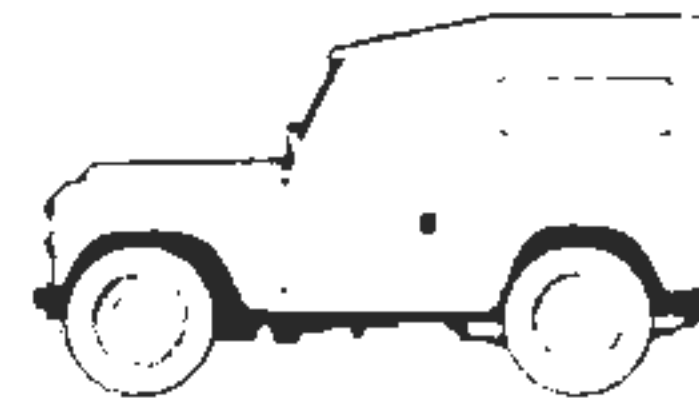
15) 109" Station Wagon (9/10 seater)



20) 88" Hard Top



25) 88" Pick-Up & 1/4 Hood



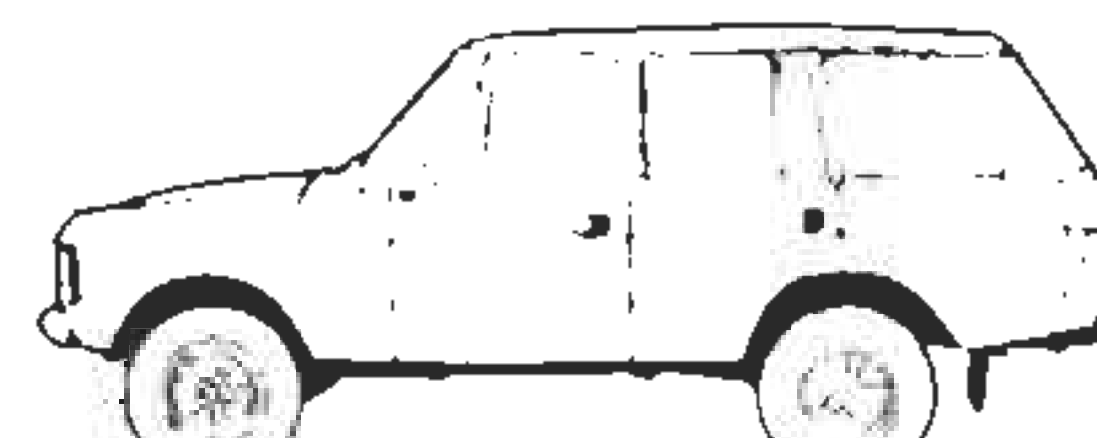
30) 88" Hard Top with fixed side windows and side-hinged rear door



31) Military 88" 1/2 ton



32) Range Rover 2 door



33) Range Rover 4 door

Land Rovers and Range Rovers are in constant work in military applications throughout the world. The major benefits in military applications are: —

### Vehicle flexibility and reliability

- Broad range of body styles.
- Customised variations from bolt on extras, and extensive conversion availability. Vehicles are tailored to your exact requirements.
- Non operational vehicle time is kept to a minimum with the Land Rover's vehicles proven reliability.

### Durability/Strength

- The products working life and inherent strength reduces replacement costs and allows the vehicle to be used under the most arduous conditions.
- Commonality of parts means minimisation of parts stocking and minimal investment in special tools
- High-strength aluminium alloy panels are separately bolted onto the independent steel chassis. This makes replacement of panels very fast and easy.



**Land Rover Ltd**

**Lode Lane, Solihull,  
West Midlands B92 8NW,  
England**

**Telephone: 021-743 4242  
Telex: Lan Rov G338641  
Cables Rover Solihull**

### Note:

This publication is for international usage and while Land Rover Ltd. take the utmost care in ensuring that all details in the publication are correct at the time of going to press, we are constantly striving for improvement and therefore reserve the right to alter model specifications and equipment without notice. Details of specifications and equipment are also subject to change to suit local conditions and requirements and not all models are available in every market.



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Save this change of address form and send it to us if you move.

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OLD ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ZIP \_\_\_\_\_  
NEW ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ZIP \_\_\_\_\_  
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SEND TO: LAND ROVER OWNERS ASSOCIATION  
P.O. BOX 162201  
SACRAMENTO, CA 95816

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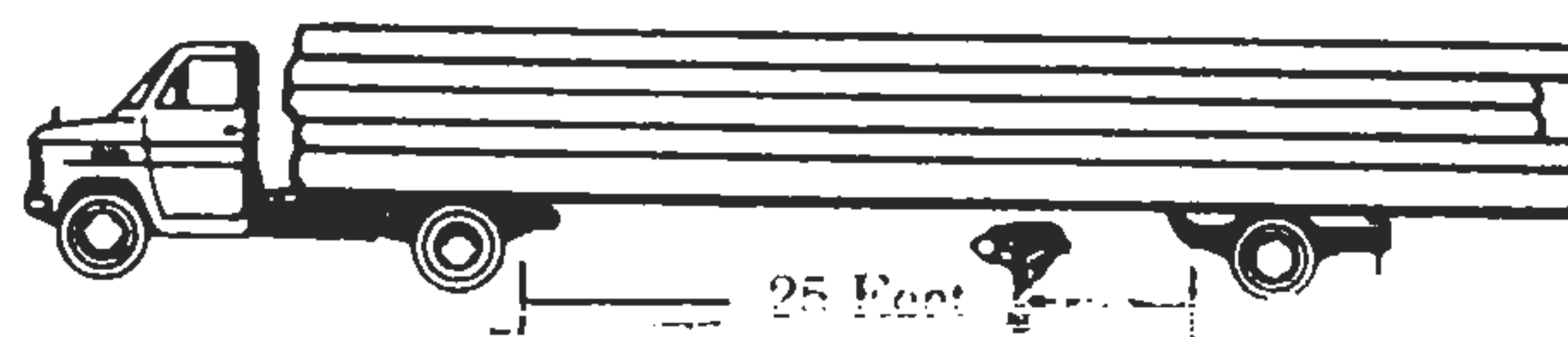
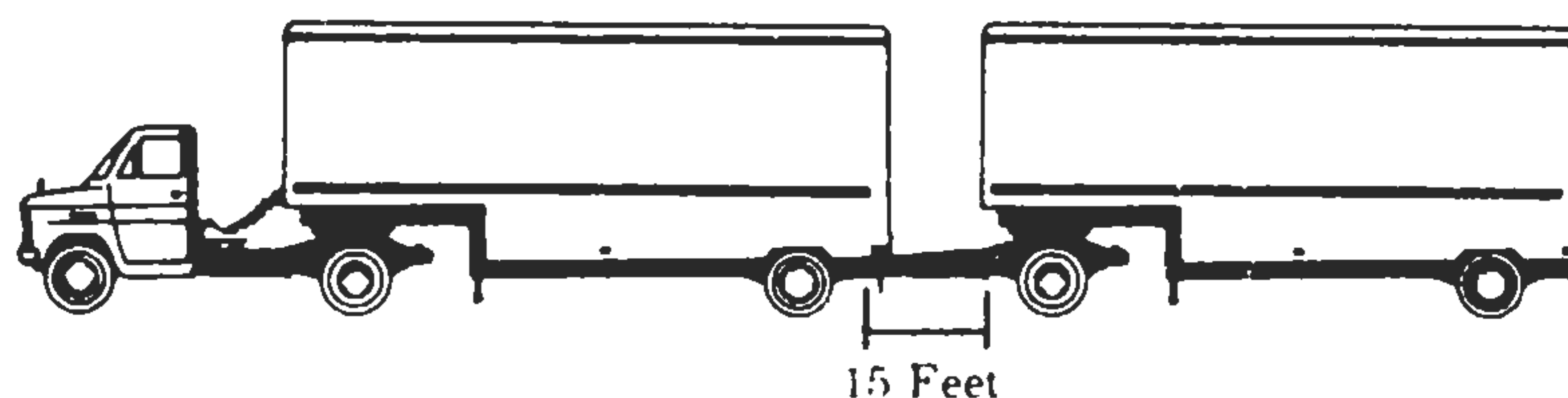
## POSTSCRIPTS & MISCELLANY

Kerry Oldham (#6) sent this copy of page 21 of the Utah chauffeurs' manual. Looking at the pictures, one wonders whether this is fiction or non-fiction!

## Towing Vehicles

On occasion, you may be called on to tow another vehicle. In this situation there are only three rules to remember.

1. The draw bar or other connections between any two vehicles may not exceed fifteen feet in length from one vehicle to the other. The only exception to this rule is that the connection between any two vehicles transporting poles may be no more than 25 feet.



2. When a connection consists of a chain, rope or cable, there shall be a red flag or other signal attached to the connecting device. This flag shall be no smaller than twelve inches square (one square foot).