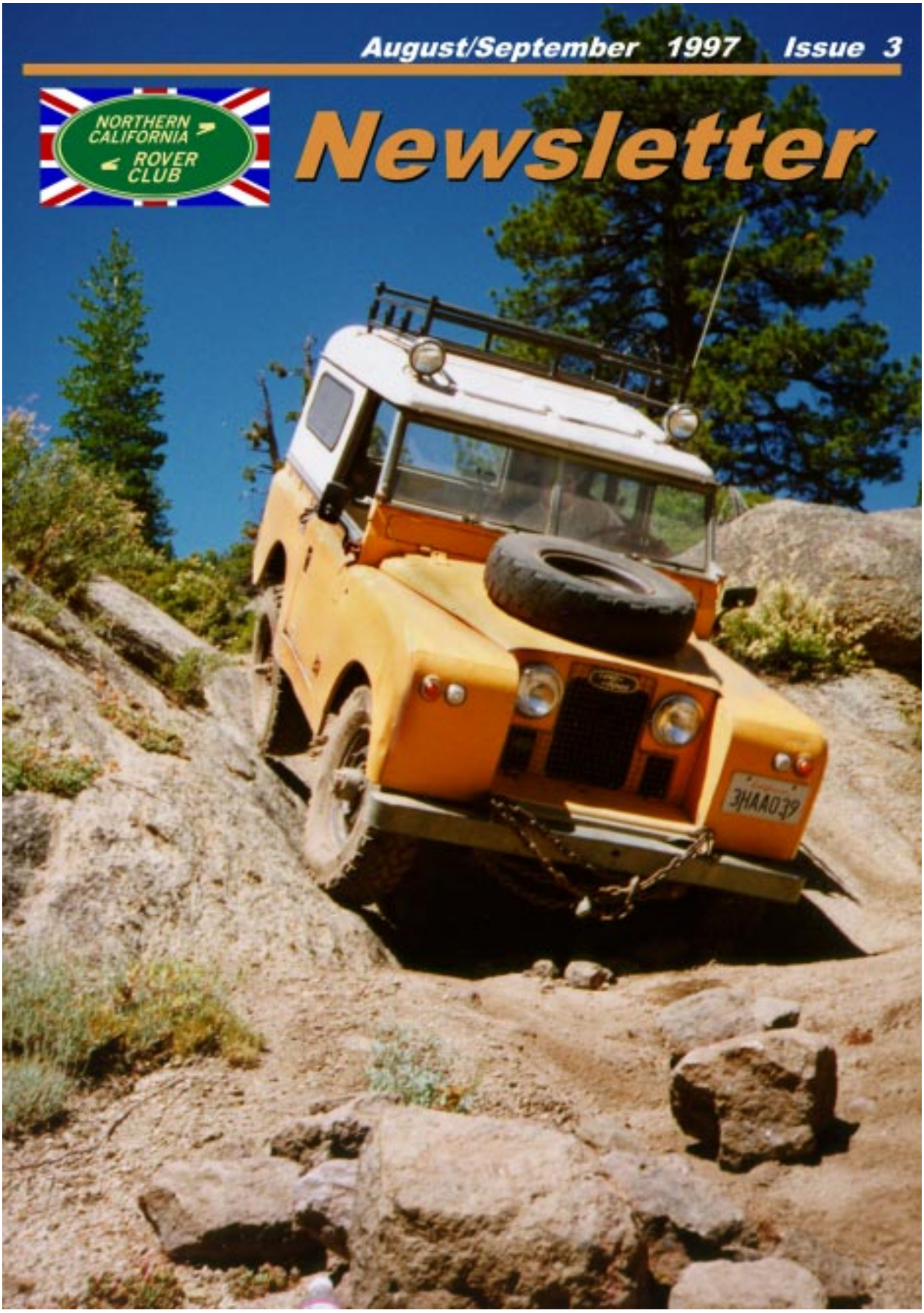
August/September 1997 Issue 3

NORTHERN CALIFORNIA ROVER CLUB

Newsletter



Club Information

Contacting NCRC

Any correspondence should be addressed to:

Northern California Rover Club
P.O. Box 14961
Berkeley, CA, 94712-5961

Members are strongly encourage to submit articles, notes or letters for publication.

Club Decals

Additional club decals are currently available for $4 each. The decals are approximately 2 inches by 4 inches and bear the club logo as it appears on the newsletter cover. To obtain additional decals please forward a letter with a mailing address, number of decals desired and a check for the appropriate sum to the club address.

Newsletter Back Issues

Newsletter back issues may be obtained on an as available basis for $1.50 each. The $1.50 includes postage.

Membership Application

A membership application form is located on the rear page of each newsletter. Please feel free to copy this form for anyone you may know who is interested in joining the Northern California Rover Club. Application for membership need not be made using the application form. Membership application should include: Name, Mailing Address (inc. zip code), Telephone Number, Type of Rover owned

Officers

Current club officers are:

President: Bruce Bonar
Vice President: Eric Cope
Secretary: Jeremy Bartlett (510.540.8630)
Treasurer: Morgan Hannaford
Club Jester: Jim Russell

Next Meeting and Lecture

The next meeting of the Northern California Rover Club will be held at

8:00 p.m. October 24th
Comtech Wireless
3928 Point Eden Way
Hayward, CA
tel. 1-800-745-9991 ext. 1103 (after 5:00 p.m.)

This should be a relatively quick meeting. If you can not make the meeting and want something discussed contact one of the club officers or send a note to the PO Box.

Directions:

From 880 take 92 toward the San Mateo Bridge. Take the Clawiter Road exit. (**WARNING:** if you miss this exit you will end up on the bridge - its the last exit). At the stop sign turn left, go over the freeway. At the next stop sign go straight. At the first street turn right. This should be Pt. Eden Way. Take the first driveway then left. There are no parking restrictions. Call the 1-800 number after 5 if you are lost. The club will probably adjourn to Buffalo Bill in Hayward.

Cover Photo:

Don Morton on the Niagara trail in his SIIa, “Tangerine”

Club Meeting Minutes

Minutes of the Club Meeting, 8/22

New members at the meeting introduced themselves (Phil and Malcom)

There was a brief discussion of the club's Blue Lakes/ Slick Rock trip of the prior week. The next scheduled club event will be the Celina Ridge trip which is an easy trail and described in the last newsletter. The Portland field meet was briefly mentioned and club attendance at the Palo Alto meet was discussed. Jeremy Bartlett was to serve as a formal club presence.

Adopt-A-Trail Bruce Bonar provided an update on the Adopt-a-Trail program. He has talked to the Mendocino National Forest Upper Lake OHV Officer who is very interested and enthusiastic. They have no formal trail program and are currently limited, due to executive orders, to primarily documenting current trail status. Bruce is on their mailing list for their newsletter. The OHV officer wants to meet us next time we're up in the area. There is some possibility of developing a trail. Some trails have been lost because they're on private land. Bruce has also been trying to contact the Stonyford side officer but hasn't reached him yet. Bruce will contact the Cal4WD rep for the area and Dan Clausman (sp?) who is the lobbyist for Cal4WD. Bruce has discovered that there is an OHV map for the Upper Lake district. Erickson Ridge and Powderhouse in the Upper Lake District are reportedly good trails. Also the Discovery Trail (Ed. Note: not the vehicle) has been opened in the Mendocino Forest. In the Modoc area to the north there are apparently some 350 miles of trails.

50th Anniversary People are encouraged to submit ideas for club activities in recognition of the 50th anniversary of LandRover which is coming up next year.

Banner Jeremy Bartlett will check into the costs of having a large club banner made up for display at lawn meets and other larger gatherings.

Financial Status The treasurer gave a brief summation of the clubs finances. After clearing debts for production of decals the club had $448 in the bank. Membership at the time of the meeting stood at 56 members.

Newsletter There was a brief discussion of the costs of the newsletter. Currently these costs are within our budget at approximately $40 per newsletter. The cost varies on the number of pages and the quantity of color used if we have to supply our own material. Most material is donated (for example photograph printing) so the primary costs at this point are postage. There was a general note that Mehdi Saghafi had done an excellent job in laying out the newsletter.

T-Shirts and Patches There was a discussion of T-Shirt designs and sales. It was decided by a vote of 11 to 0 the design would be a large logo on the front in 4 colors with the background being an off white. Morgan Hannaford and Phil Figueoroa will check the costs and find a shop to produce approximately 50 to be 5 medium, 20 large and 25 extra large. Morgan will coordinate the production. It is likely that T-shirts can be made for $10 to $15 each and sold for $15 to $20. There is typically a $150 to $200 setup fee for a printing job that doesn't change if the design stays fixed. It was decided to go ahead and produce the shirts using the current club balance of funds in the expectation that the costs would be relatively rapidly recovered. Sales of the T-shirts would not be restricted to members. Eric Cope will check into the cost of having embroidered patches made; the production costs on these are expected to run approximately $4 to $5 each.

Business Cards Jeff Rogers was going to look into business card printing and will contact Jeremy Bartlett or Mehdi Saghafi for the club logo if he can locate a cheap printing operation.

Courtesy Newsletter Copies Jeremy Bartlett will forward courtesy copies of the club newsletter to LROI, LRW, RN, and OVLR. The concept of sending a single complimentary copy of the newsletter with application form to non-'net' LR owners whom the club is aware of was discussed and approved. This will be undertaken in an effort to contact people who are not on the internet and hence less aware of the club.

Waiver The club waiver was discussed and it was decided that the waiver will be signed at each trip. Those present were informed that David Bonar (a lawyer) had been provided with free club membership in exchange for preparation of the waiver.

GPS Course Bruce Bonar discussed holding a GPS course possibly combined with a club picnic/ social gathering. This is tentatively planned for the 24th of October but will depend on flexibility.

Club Member Information It was mentioned that it would be useful to have the work location (city) provided in the membership information since many people head from work to meetings or events.

Next Meeting The next NCRC meeting will be held in the same location (ComTech Wireless, Hayward) on October 24 at 8:00 PM.

The club adjourned to Buffalo Bill's in downtown Hayward.

BEGINNER'S BATTERY BASICS...

OR EVERYTHING YOU WANTED TO KNOW ABOUT ELECTRONS BUT WERE AFRAID TO ASK

By: Eric Cope.... Serious Series owner and laugh able shade-tree mechanic

So I'm standing in front of a huge display rack of batteries at Kragens Auto parts, eyes glazed, slack-jawed trying to figure out exactly which of those critters will be the perfect match for my Series IIA 88" . Labels shout at me... Group 24, Group 27, Deep Cycle, Marine, Gel-Cell... the choices seem endless. It occurs to me that my addled brain needs more data in order to make a semi-intelligent purchase decision. Time to do some research! Here's what I learned... I hope you'll find it useful or at least entertaining. Note: much of this information comes from an excellent article in Motorhome magazine by Joel Donaldson.

BATTERY CATEGORIES:

A) DEEP-CYCLE batteries are designed to deliver moderate amperage over long periods of time between recharges. They are designed to be cycled (discharged and charged) hundreds of times, with plates that are more robust than engine starting batteries to withstand the frequent deep discharging they must endure. Think in terms here of auxiliary batteries for RVs / campers that power interior lights, refrigerators etc.

B) ENGINE-STARTING batteries on the other hand, must deliver high amperage for relatively short bursts during cranking. Their design includes more numerous but thinner and more porous plates (compared to deep-cycle units) to present more surface area for higher current output over short periods Note: starting batteries used in deep-cycle service will typically last only 50 or fewer cycles.

BATTERY DISCHARGE AND CHARGE CHEMISTRY During discharging of a lead-acid battery, lead from the plates combines with sulfate from the sulfuric acid electrolyte to form lead sulfate in the plates. Water is given off during discharge and this lowers the specific gravity "*density*" of the electrolyte "*the battery fluid*." During charging, the reactions are basically the reverse of discharging. Sulfate in both plates splits into hydrogen and oxygen. As the sulfate leaves the plates, it combines with hydrogen and becomes sulfuric acid again. Meanwhile, the oxygen combines with the lead of the positive plates to form lead dioxide. The specific gravity of the electrolyte increases during charging because sulfuric acid is being formed and is replacing water in the electrolyte. A battery will give off gas as it's being charged. Excessive water use occurs when the battery is charged at a higher rate than it can accept.

BATTERY TYPES

FLOODED-CELL or WET-CELL batteries contain blends of lead-antimony plates with liquid sulfuric acid as an electrolyte. Flooded-type batteries are the least expensive for a given storage capacity, but require regular addition of water, and they give off corrosive and potentially explosive vapors. *THERMOIL "LOW-MAINTENANCE"* batteries might be considered a subgroup of flooded-cell batteries. They contain an oil that floats on the electrolyte which reduces acid mist and outgassing that corrodes battery terminals. This design makes them better suited to withstand overcharging and also decreases the need for adding water. Thermoils solve some of the problems of conventional flooded cells without the cost penalty of more exotic batteries.

SEALED NON-GEL "MAINTENANCE-FREE" batteries contain a special lead-calcium plate material with liquid acid electrolyte. These batteries can be sealed because they don't offgass as much and use less water. They typically don't withstand deep-cycling quite as well and don't recharge as easily as conventional wet-cell batteries.

GEL-CELL batteries also use lead-calcium plates, but the electrolyte is a thick, pasty gel-type acid that doesn't splash and flow like conventional electrolytes. Gel-cells are more expensive than conventional cells, but offer several advantages. They're maintenance free, can be tipped over without leakage, cause very little corrosion, self-discharge more slowly during storage, and are less susceptible to deterioration from sulfonation if deeply discharged or left discharged for a while. However, their reserve capacity ratings are usually slightly lower than those of equivalent-sized flooded batteries.

BATTERY AMP RATINGS

COLD-CRANKING AMPS (CCA) describes how many amps the battery will deliver for 30 seconds at 0 degrees F. The higher the number, the better the cold weather engine spinning performance.

AMP-HOUR (AH) describes how much current a battery can continuously deliver over a specific time period (usually 20 hours) before the voltage drops to 10.5, which is considered to be fully discharged. The AH rating is determined by multiplying the load current by the length of time it lasts. For example, a battery capable of delivering 11 amps for 20 hours would earn a 220 AH rating.

RESERVE CAPACITY describes how long the battery will deliver 25 amps before going dead. The idea behind reserve capacity is to provide an indication of how long a vehicle could be driven with a dead alternator. To convert 25-amp reserve capacity to a roughly equivalent AH rating, multiply it by 0.6.

Well, my fingers are going numb so I'll close now with the hope that at least some of the foregoing trivia will aid my fellow "electron-challenged" LROs.

Happy Rovering and please, keep the oily side down!

Defender 90/110 Shock Removal and Replacement

By: **Jeremy Bartlett**

Replacing shock absorbers and steering dampers is generally considered an operation well within the capabilities of do-it-yourself mechanics. Shock absorbers may be replaced due to a desire to change the handling characteristics of the vehicle or because the old shock absorbers are worn out (*Ed. Note: or have had their heads broken off due to irresponsible off road driving*) Replacing the Defender shock absorbers is no exception to this although there are some catches that aren't immediately obvious or mentioned in the shop manual.

Safety

Removing the shock absorbers involves working on the vehicle in a jacked up position. This has some inherent danger so be sure that the vehicle is secure (wheel chocks, brakes on) at all times and is on a level surface. Use only high quality stands to support the vehicle. Some of the techniques also use spring compressors; be careful working with these since they inherently store potentially destructive energy in the springs.

Tools:

Hydraulic Jack
Jack Stands
1 1/16" Lug Nut wrench or equivalent
¾" Wrench
Wheel Chocks
(If you're replacing the shock absorbers with non-OEM units make sure you have the appropriate wrenches for their nuts.)
19 mm wrench
13 mm socket or wrench
Depending on the optional approaches you take to the front shock absorber removal you'll also need some of the following
Philips screwdriver
7 mm wrench
8 mm wrench
coil spring compressor

Rear Shock Absorber Replacement

The replacement of the rear shock absorbers on Defenders is a relatively straightforward job. The shock absorber sits outside the coil so there's nothing complex to get in the way of its removal. Basically just follow the shop manual instructions and plan on about an hour per side:

- Chock the front wheels.
- Slacken the road wheel nuts (1 1/16" lug nuts) (If you don't do this before you raise the wheel, turning on the nuts will only turn the raised wheel - don't ask me how I know this).
- Raise the rear axle of the vehicle and support it on axle on stands.
- Remove the lug nuts and road wheels.
- Remove the shock absorber upper and lower retaining nuts and rubbers (3/4" nuts). ***What the manual doesn't tell you is that as you try to do this for the lower mount, the shock absorber will start to rotate***. Grasp it with a pipe wrench to secure it. (Alternatively use a small wrench, 7 or 8 mm to grab the lower part of the shock absorber stem.)
- Remove the shock absorber from the top locating shaft and withdraw it from the vehicle.

Photograph 1 shows a comparison of a completely "dead" shock and a new replacement. The dark lower portion of the shock absorber is a typical sign of a failed unit; the seals have failed and the internal oil has leaked out staining the unit. Note the lack of extension on the "dead" shock despite the lack of a retaining clip; a healthy gas charged shock absorber will extend on its own.

Steering Damper Replacement

Replacing the front steering damper is very straightforward; give yourself a half hour. Unbolt the damper from each end and remove it. Installing the replacement is the simple reverse. As an aside, the Old Man Emu bushings for the passenger side mount are too large to allow the nut to go on. If you're installing an OME damper plan on reusing the old bushings and washer components or replacing them with Land-Rover parts.

Front Shock Absorber Replacement

The replacement of the front shock absorbers on Defend

Defender 90/110 Shock Removal and Replacement

ers is a little harder than the rear. There are some tricks to the replacement that the shop manual doesn't mention. The initial operation is similar to that for the rear shock absorbers and follows the shop manual instructions. Plan on about 2 to 3 hours per shock absorber.

- Chock the rear wheels.
- Loosen the front lug nuts (1 1/16" lug nuts)
- Jack up the frame of the vehicle toward the front and support it on sturdy axle stands. Supporting the frame near the radius arm attachment works well. The frame is

supported to help take the load off the coil springs.
- When the frame is well supported, jack up the axle keeping the jack in place to support the axle. Photograph 2 shows a jack supporting the axle with frame stands in the background.
- Remove the lug nuts and road wheels.
- Remove the lower nut and bushing of the shock absorber (19 mm). Insert a pipe wrench between the coils to grasp the shock absorber as shown in Photograph 3 (or alternatively use an 8 mm wrench to grab the stem of the mount).
- Remove the rubber bushings and locating washers. Note that the cupped or indented washers are located adjacent to the chassis/frame mount and the flatter washers toward the shock absorber body and end of the stem.
- Use a 13 mm wrench or socket to remove the nuts and lock washers of the shock absorber bracket (the tower above the coil that extends up to the top of the fender/wing.

This is the point at which reality and the shop manual part ways. The shop manual instructs you to remove the shock absorber and bracket complete as a unit. Unfortunately this is not possible for several reasons. 1) The top of the bracket (tower) with the shock absorber in it will NOT clear the wing because of the shock absorber stem and nut. 2) The bracket (tower) cannot be tilted easily because of interference with the bracket's mounting bolts which are held up against the chassis mount by the coil spring. 3) The inner portion of the wing/fender sits right on top of the bracket which prevents it from being lifted up.

There are two possible solutions to this dilemma. The first requires more expensive, specialized tools, but is quicker. The second makes use of standard tools but is more involved in both time and manipulation.

First Alternative Trick.

This approach requires the use of a coil spring compressor. Coil spring compressor are available from any worthwhile auto parts supply store and will cost around $50 to $70.
- Lift the axle using the hydraulic jack to compress the coil spring (this step can be performed after loosening the shock absorber but the loose shock absorber could get in the way). This step saves you the trouble of attaching the compressor to an uncompressed spring and then having to hand compress it (time and hassle).
- Attach the coil spring compressor to the compressed spring. Photograph 4 shows an example.
- Lower the axle on the hydraulic jack; be sure to lower it a large amount. The compressed and secured coil spring will now come loose from mount. And the bracket retaining bolt plate will come free; if it doesn't tap it down. The freed bracket retaining bolt plate can be seen resting on top of the compressed coil spring in Photograph 4.

- Remove the nut from the top shock absorber mount at the top of the bracket. This will require a bit of fiddling in the wheel well (*Ed. Note: aren't you glad you removed the wheel?*). As for the lower nut removal either secure the shock absorber with a pipe wrench or use an 8 mm wrench on the extension of the mount stem.
- Drop the freed shock absorber from the tower. This may take a bit of "tapping" on the stem. There should be enough space due to the lowered axle for the free shock absorber to drop almost clear of the tower. If your "unlucky" the shock absorber isn't "dead" and you might have to manu-

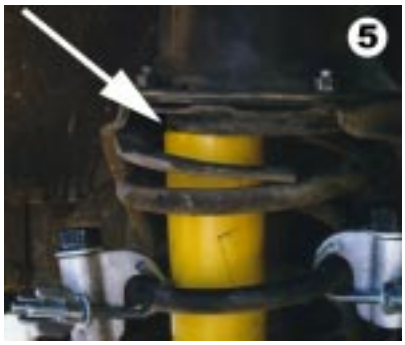
Defender 90/110 Shock Removal and Replacement

ally compress it to remove the bracket/tower.
- Slide and tilt the tower off the chassis/frame mount and remove it from the wheel well.
- Remove the old shock absorber from the coil and up out of the wheel well.

Installation of the new shock absorber is almost but not entirely the reverse of disassembly. There's one particularly tricky bit to this operation. Your good new shock absorber is going to want to inflate to its maximum extension as soon as you take it's retainer off which doesn't make your job of installing it very easy. There are a variety of ways of dealing with this.

Either:

- Place the appropriate bushings and washers on the shock absorber stems before you start securing the new shock absorber in place! (This will be easier for the lower pieces after the shock absorber has been put in place - but don't forget).
- Insert the new shock absorber into the coil after tying it into a compressed form and untie it later (tricky and difficult)



or:

- Insert the uncompressed shock absorber into the coil spring and then manually compress it (brute strength) until it catches on the underside lip of the bracket/tower mount. A good way to compress the unit is to use something like a spark plug socket and ratchet and push down on it using that. This is the approach shown in Photograph 5 where the upper body of the shock absorber is shown snagged below the bracket mount. This position is relatively stable but there is a risk that the shock absorber may slip out of position while you're working so be careful.
- Replace the bracket/tower over the shock absorber.
- Raise the axle and release the coil spring compressor.
- Bolt the bracket into place.
- Knock the shock absorber free and bolt the stem to the top of the bracket (remembering the bushings)
- Bolt the base of the shock absorber in place.

Second Alternate Trick

If you don't have or wish to buy a spring compressor (*Ed. Note: or know someone who accepts assorted liquids for tool rental*) there is an alternative method. The trick in this alternative is to remove the "bubbles" in the top of the inner wing that lie immediately above the shock mounting bracket/tower. This approach may take a little longer by about an hour.

- Unscrew the 6 Philips screws holding the "bubbles" in place as shown in photograph 6. On the driver's side you will have to detach the electrical line running across the bubble top and possible shift the location of the coil. On the passenger's side you will have to disconnect the radiator reservoir. This involves undoing three 10 mm nuts and bolts. One at the rear against the wing/fender, and two below at the sides.
- Swing or move the "bubble" free of the wing/fender.
- Use a screwdriver or similar instrument to pry the inside portion of the wing/fender away from the bracket/tower so it can be lifted off the mounting bolts.
- Remove the combined shock absorber and bracket/tower by poking it partly up through the top of the wing as shown in Photograph 7. The assembly should the clear the bracket mount and can be withdrawn through the wheel well. Note that now might be a good time to bend the inner portion of the wing enough to avoid having to lever it out of the way in the future.

- Remove the shock absorber from the bracket/tower using a pipe wrench and 19 mm wrench.
- Reinstall the new shock (remember to place the bushings in the right order) into the tower - again using the pipe wrench if necessary and drop it into place in the reverse of the removal.

Reassembly, as the manuals say, is the reverse of disassembly.

End

Trip Report

Land Rover Heaven in the Pacific

By: Morgan Hannaford


Defender 110s used by a local "Safari Tours"

When people think of Tahiti and the South Seas Islands exotic scenery and cultures come to mind. When I realized that I would be spending 4 months on Mo'orea, the sister island to Tahiti, I thought of a third thing: Land Rovers. I had heard that Land Rovers were all over the Society Islands from a friend who had been there. Apparently being a former French colony European 4-wheel drive vehicles were preferred over Japanese makes *[ed.: and we all know there's really only one European 4x4 :)*]. The Land Rover is the vehicle of choice because the salt air quickly kills steel body panels and most of the islands in the society chain do not have paved roads.

So, after getting off the plane at Papeete airport, and getting on the funky Le Truck into town I was not surprsied when I began to see lots of Defenders, mostly 90 and 110 pick-ups, but also some station wagons. On the island of Mo'orea the only vehicles over 15 years old were Series IIA and III Land Rovers, 88s and 109s. An occasional rotted out Toyota Land Cruiser would stagger by, but the old Land Rovers were all in great condition. Some would be considered in mint condition by California owners. The great part of it all was these Land Rovers were out and out work trucks, not mall wagons. I can't count how many 109 pickups I saw loaded down with a mountain of pineapples or coconuts. 88s were used to tow fishing boats twice their size. Tourists were carted around in the back of 110 pickups to archaeological sites. The biological station where I was working had a nice Defender 130 Crew-cab pickup. The 300 Tdi (turbo diesel injected) 2.5 liter 4-cylinder engines are plenty powerful for the flat island roads or the steep windy inland dirt roads.


Defender 110 SW, modified to soft top, loading onto an inter-island ferry.

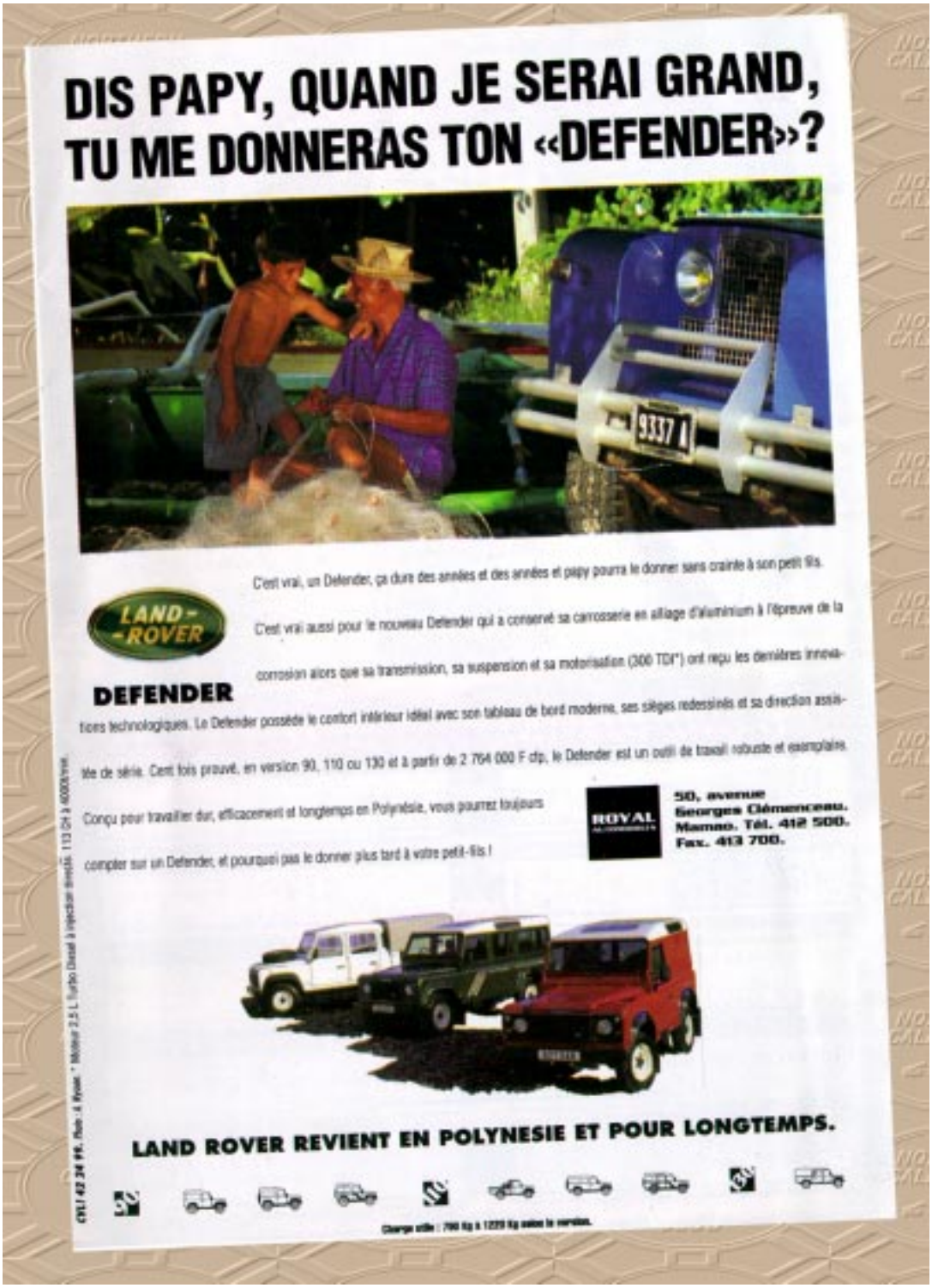
Although French Polynesia is considered an extrememely expensive place, the price of Land Rovers was surprising. A D90 pickup is around the equivalent of $30,000. A D110 station wagon is more like $45,000 and the D130 crew-cab is $50,000. Consider that a Toyota pick-up (they get the Land Cruiser II model, which is the new version of the FJ55) is about $50,000, or a Mitsubishi Montero is about $70,000. The reason for the huge price difference is that while Japanese makes are hit with a 50% import duty, cars from EC countries only get a 14% duty. So Land Rovers are cheaper than all their competitors and tend to last longer because of their aluminum body panels. The Tdi is the only engine available there, and at $4/gallon for petrol you wouldn't want a V8 either.


Morgan Hannaford poses in the Defender 130 crew-cab owned by the University of California Gump Research Station.

So next time you're thinking about that Hawaiian vacation, maybe you should let your thoughts wander a little further east. You might even have a chance to get tugged out of a Mo'orean river.... but that's another story with minimal Land Rover content and large tires.

Trip Report

Land Rover Heaven in the Pacific



Translation: "Say grandpa, will you give me your Defender when I grow up."

Trip Report

Jim's Wild Ride - The Niagara Slide

By: **Jim Holmes**


Club Members Lined-up on the Trail

It was my 1959 SII 88 Rover's inaugural trip, and I thought I had her (yes - her, no name yet but at least I've picked a gender) running pretty well. Up to this point, I'd spent a lot more time under the vehicle than in it, but I felt reasonably confident that she was trip-ready.

I took Friday off so that I could drive to Niagara from the Bay Area in the daylight hours. The trip up went without a hitch. Coming across 120 in Manteca I noticed a white D90 coming up fast on my bumper. Was it Bruce Bonar in Spot? Nope, turned out to be Jeff Rodgers in his '95 white D90. Jeff was kind enough to slow down to Series speed (55 mph - I don't have an overdrive) and we caravaned up to Sonora where we met his Dad and then continued up 108 to the Niagara area. Bruce's GPS coordinates came in handy, and we were soon homing in on the proposed camp site. By the time we set up camp and had a beer or two, others had started to arrive. Surprisingly, most everyone pulled in before dark!

Saturday morning dawned, and everyone was anxious to hit the trail, myself included. I'd driven all of these trails in a D90, but this was to be my first real off-road experience in a Series. The second half of the Niagara Rim Trail is a bit easier than the first and we decided to run it first to give everyone a chance to get familiar with this style of trail. We arrived at the first major obstacle, a lava chute that you had to climb steeply up while avoiding the sill-grabbing rocks on both sides, and everyone hopped out of their vehicles to take a look. As I slid down out of my Series, I abruptly found out why Series IIs are supposed to have tall side sills (I had taken mine off to avoid bashing them on the rocks). My left calf came down onto the muffler (my Series II has the exhaust that exits up through the wheel well, the muffler is located directly below the driver on the outside of the frame rail). Ouch - instant second degree burn. It really did look worse than it felt - Stephanie told me later that evening I was never going to get a date with a leg looking like mine:-)

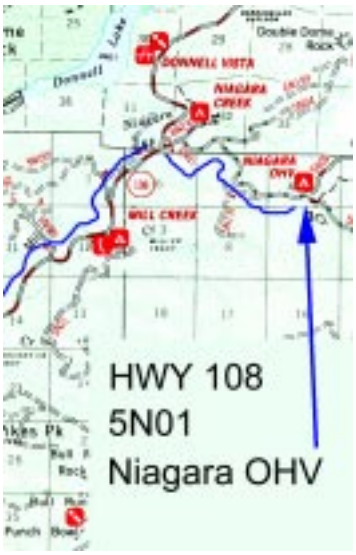
We continued along the trail with everyone doing really well, cleanly negotiating all the tough obstacles the trail offered up. We stopped briefly for a quick field fix (its not a Rover trip without one), John B.'s Disco flatted the right rear tyre, but he had in changed in short order. By 2 or 3 pm we had finished the Rim Trail. Everyone was having a great time and feeling pretty confident, so we decided to run the first half of the trail. This is the same section of trail that took 7 hours for 12 Rovers to go about 1.5 miles last Fall. Well, we proceeded up the first couple hundred yards of trail and the convoy came to an abrupt halt. A J##p was having MAJOR difficulties on the trail, primarily due to driver inexperience. He was hung up on a rock and in danger of sliding off the trail on the left side. Rovers to the rescue! Out comes the recovery equipment - highlifts, winch cables, come-alongs- this is one well prepared crew! It took awhile, but we finally go him straightened out and headed up the trail. I sure that Ben's winch was a lot happier once the J##p driver finally remember to release his parking brake - duh!


Typical Trail View

The J##p driver pulled aside and let the Rovers by and we continued up the trail. It took some maneuvering, but we got everyone through the Hummer trap. Then it was on to the final "real" obstacle - the Niagara Slide. I'd driven this before in a D90, and it scared the sh*t out of me. The Niagara Slide is an extremely steep, loose, rutted downhill about 100 yards long with a rock ledge that you drop off about a third of the way down. There is definitely some pucker-factor involved in negotiating this section of trail but the first D90s, a Disco, and Series made their way down the hill without too much drama. Then it was my turn. I was REALLY nervous. My Rover had been performing really well for the most part, but the one problem I noticed throughout the day was that it didn't seem to

want to creep down the hills like it should in low-low. I inched my Rover down to the ledge as best as I could, but once I dropped off it, it was all over. It picked up speed and the gearing didn't seem to be helping. Braking is a bad idea on a hill this steep and loose, but I tried anyway - it didn't have any effect! It felt like I was a passenger in my own vehicle. The Rover bucked, slid, swayed, probably got air, and threatened to roll. Did I mention that at the bottom of the Slide there's a sharp 90 degree left turn? Well, somehow I managed to make the turn and bring her to a halt. From the looks on the faces of the spectators at the bottom, I had just put on quite a show!

In hindsight, I now know what most of the problem had been. My Zenith carb didn't want to idle at the high altitude of Niagara (~8000 feet) so I had it cranked up to 1500 rpm idle speed. When I tried to



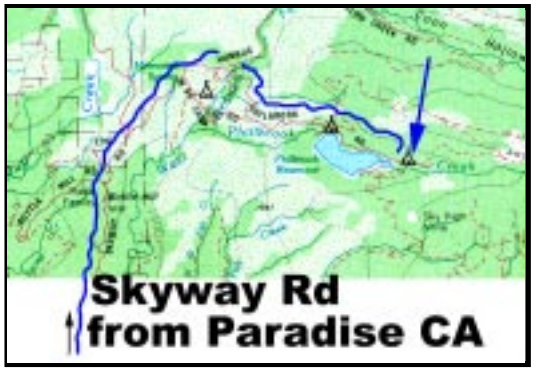
creep down the hill, the high idle speed had the same effect as me using the accelerator pedal -probably a bad idea when you're trying to go as slowly as possible. In addition, I found that my left front hub seal was leaking 90wt onto the brake shoe. As a result, the only braking I had was from the right front brake!

After all of this we made it back to camp for a well deserved beer or two. Sunday we explored some scenic, but mostly tame trails. By early afternoon everyone was on their way home. Ben and I caravaned back to the Bay Area at Series speed. All-in-all an excellent trip! I can't wait to do it again (with all four brakes working and a more normal idle speed set).

Trip Report

Paradise Lost (a.k.a. Pair-O-Dice Lost) Gathering

By: **Granville Pool**



For the past three years Rover owners from throughout Northern California have been gathering in the High Lakes area, near Paradise, on the last weekend of July. This year we were 15 Rovers and some 32 people mostly drawn together via the internet. Some arrived on Friday evening, with late arrivals occurring into the wee hours of Saturday morning. Very late arrivals at least made it to the informal (but always yummy) potluck on Saturday night. This gathering was the inspired tradition started by Bob and Sue Bernard who are lucky to live in Paradise. The campsite is near Lake Philbrook and the four-wheel drive trails are higher up on old logging roads that connect beautiful Sierra lakes.

My daughter Shannon and I have attended together for the last two years (I went alone the first year). We made the memorable ride up in the Snark, my '73 Series III 88 hardtop. We managed to take about eight hours to travel what should only have taken about four. Best part was a stop for "vapour lock" (really, the Snark was not running well through downtown Chico) at the Sierra Nevada brewery. Our impeccable timing brought us into camp just in time to set up in the dark. Consequently, we didn't exactly have the greatest campsite. But we had good neighbors. Next to us were Steve and Robin Hutchins, in their own Series III 88 hardtop. Nearby were Bob and Sue (SIIA hardtop "Sherman" sporting new paint), Bob Peterson and his son Mark (Discovery "Algernon"), Bob Frey (in a new Discovery that he'd just picked up that day!), John and Katherine Hess and son Alex (SIIA 109 Dormobile "Elvis" and SII 88 topless "Stubby"), Eric and Brigid Cope in their Rover, Daniel and Julia Oppenheim and son Nate in perhaps the nicest 88 in Northern California ("Kermit"), and Rob Kerner (Series III, topless, sporting a new full roll cage and a new Ramsey RE10000 winch which was to be smoking before heading home). Two ordinary sedans arrived late in the evening, bearing Roger Sinasohn and Rachel (who had to leave their SIII 88 and SII 109 at home) along with Roger's sister Rita and father Herman. Now, I thought Shannon and I had arrived late last year but a new record might have been made this year. The indefatigable Ben Smith in his well-publicized SIII 88 "Dora," along with Scott Bronson in his '90 Range Rover County "Spike," and Dave "Dr. D" DeHaven in his big, new Dodge Ram "Ramzilla," along with passengers James Bronson and Eric (Scott and Ben's house mate), showed up about 4:30 A.M. <big yawn!> for a very short sleep! After the morning light found us, so did Ben Mitchell arrive in his Defender 90 soft top, with passenger Kevin Kelly (whom we might talk into bringing his '89 Range Rover next year) .

True to tradition, no-one hit the trail before about 10:00 A.M., when the "gonzo group" headed, lickety-split, for the High Lakes, bound for the challenging Bear Lake trail. We eventually found our way to the lovely Spring Valley Lake, the beginning of the chain of High Lakes. Just past that, the trail forked, where Shannon and I took the Bear Lake trail, to try to catch up with the gonzo group. We stopped just before the intersection to try to see who else would follow. The Snark started down the Bear Lake trail and waited to see if any others were coming. Low and behold, Scott (who'd vowed not to do any gonzo trails this year) and Dr. D pulled in behind us. Apparently that was all so we started down the trail. We hadn't gone far before we met Bob Free coming towards us! He got a gander of some of the rocky trail stuff and although not squeamish about a challenge had, after all, just taken delivery of his Disco the day before! He backed up a turnout and the rest of us went on. Eventually, we got to a very narrow passage carved into the side of a rocky ledge; just about the right width for a Series Land-Rover, tight for a Range Rover, and a nightmare for Ramzilla! After the Snark and Spike got through, we went back to spot for Dr. D. Well, he got into trouble as any who've looked at his web-site will know. He was mere inches from sliding sideways in his brand new (but now properly brush-striped) Ram, right off that ledge, to a creek, far below .

Any attempt to move ahead or back made it worse. I had

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a cheesy come-along and a short tow strap. Scott had a nice long tow strap. With these, we secured the rear bumper to a large rock above the trail and Dr. D inched ahead. Tedious and time-consuming but it worked. A horrifying though was that we'd have to return by the same route (but we didn't know that yet!). Slowly, we made our way down to Bear Lake with lots of spotting but no more hairy bits. Before we got to Bear Lake, "Spike" reaffirmed his name by getting his left front tire impaled by a 3" diameter branch! I'd not seen such side wall damage in all my time four-wheeling. I made Scott leave the chunk of wood sticking out the side wall to show those who were not with us so it rode back to camp on my roof rack.


Scott displays some impressive side wall damage

On the return trip we had difficulty on the sluice, which we hardly noticed on the way down. Eric, who had the best break over angle and supposedly front and rear air-lockers (which were not working) had the most trouble due to his very stiff suspension. Dave in Ramzilla simply motored up as easily as we'd all gone down. Others filled out the spectrum. Shannon, who, by the way, had not ever before driven any gonzo off-road challenges, drove the narrow ledge going down and the sluice going up and proved her herself a very good off-road driver! Ben Smith was the most spectacular in the sluice, getting airborne, looking as if he were headed for the clouds!

Unfortunately, we got on a bad line coming out of a creek, tearing up the Shark's gearbox-mount cross-member and shearing off two transfer box bottom plate studs on a large, peaked rock outcropping. I also left my Hi-lift jack, which was used to extract the Snark, there by the trail. I suppose it belongs to some other four-wheeler now! Eventually we headed out, returning to camp.

Much great food appeared at the potluck and everyone was thoroughly stuffed by the time they settled down around the fire for "seegars" and single-malt. If you haven't ever seen this group quaff single-malt, you haven't seen the Lazy-Buggers at their finest. The real die-hards have limited edition genuine parts shot glasses (which bear a striking resemblance to fuel-pump sediment bowls) which have been custom engraved with the "Lazy-Bugger" emblem which is a close facsimile to the early Land-Rover logo (quite by accident, of course). Sometime in the wee hours, the last of these crawled into their bedrolls .

Sunday morning started slowly. Only a small number would hit the trail this day as most left for home or other destinations. We were a bit behind as usual. But we knew where the gonzo group was headed so hastened to catch up. The select group of trail troopers this day consisted of Eric & Brigid, Bruce & Stephanie, Rob, Ben M. & Kevin, Ben S., Scott, James, Dave, & Eric, and Shannon & moi. We headed down the trail which begins the "Tensen Trophy Trail" (so named for the Snark's winch antics in the mud pit two years ago). A short run down a wooded trail leads to the famous mud bog pit that must be negotiated before a gnarly creek crossing. Eric tried this first. Even with his lockers now working, it was no cakewalk. But with patience, skill, lockers, 255/85R16 BFG Mud-Terrains, and high clearance, Eric got through the mud and into the creek. Two years before, he had made that creek crossing without scratching his freshly restored 109. This time he received some slight damage and had a very tough time getting up the far bank. The combination of a large immovable rock in midstream, a deep hole next to the steep bank, and another, larger rock on the right at the exit made this a more formidable obstacle this year. Bruce was not seeing Eric's efforts as particularly promising so went around via another, easier but longer route, to make himself available to winch Eric up the other side, if needed. But the winch was not needed! Thanks to some helpers who placed rocks in the deep hole, Eric eventually conquered the crossing. Now Ben Smith could not resist trying the mud (and trying out his new set of 265/75R16 BFG MTs). Numerous tries just got him increasingly mired in the goo (which reminded me of the peat bogs in the UK). Rob pulled him out from behind several times. Eventually he got in far enough that going ahead appeared feasible, with winching. Bruce was on hand with Spot's winch cable for a pull. Not that easily!! Eric C. and Rob spent

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a lot of heroic effort in digging out a "small" rock (turned out to be pretty large) and got themselves totally covered in mud, smiling all the while!. Eventually Dora was into the creek and now much more work would be required for the exit. With all that effort, eventually Dora was across. Rob hemmed and hawed`but eventually decided that he, too, would tackle it. I positioned the Snark behind to pull him out backwards, if needed. Just to be sure, I tested the remote for my Tensen winch (which had worked perfectly ever since it failed there two years before). It did... Nothing! Boy, it just doesn't like that mud hole! My winch, however, was not needed. Rob got far enough around the corner to use his own winch to pull him forward, albeit in two riggings. Once again, the going was tough and Rob's new Ramsey RE10000 was smokin' with all this effort. A snatch-block was added to double-rig the line for an easier pull. Rob got through the creek eventually but then had some engine trouble, probably the water on the ignition. By now, it was too late to seriously consider the trail as its potential obstacles were completely unknown. With snow and several large fallen trees, it took us many hours to finish it two years before.

headed out to the T-Line Road where most headed for home. Shannon and I parted company with the rest and headed back to the Bear Lake trail in a fruitless search for my Hi-lift jack. On the way back the transfer case started to sound rather loud. We took it kind of easy back to camp, where I crawled underneath and found the previously mentioned sheared-off studs and a very leaky transfer case. I just decided to top up the case (took about 3/4 quart) and head for home rather than do a major field repair. An end to another excellent trip to Pair-o-Dice Lost.

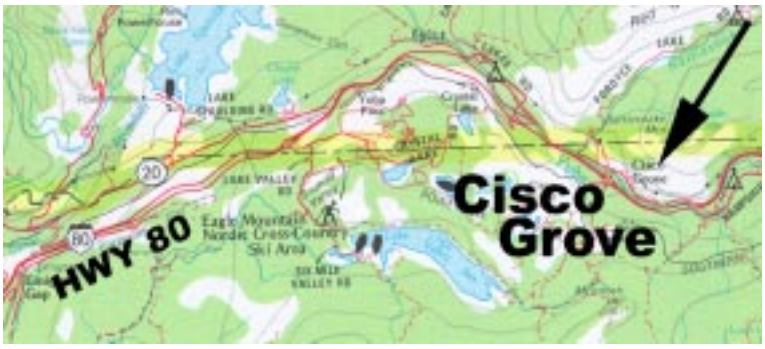
END

I understand that the next year it was done fairly quickly. The group decided to take an easy way out via a rough but non-challenging road. Those who did not do the mud pit had, meanwhile, gone around via the easy route that Bruce had taken. We all headed out and about half-way to the rendezvous with those who'd gone around, Rob had problems again. This time it was a fan belt. Prepared for this, he had a spare and changed it in some sort of record time. We met up with the others and

Club Calendar

Northern California Rover Club Trip

Oct. 18 - 19. Eagle Lakes and Celina Ridge.



An opportunity to explore a beautiful & often by-passed part of the Sierra, with pretty mountain lakes, great views, and lots of carnivorous plants. On Saturday, we'll visit Eagle Lakes & Grouse Ridge lookout. We'll camp on Celina Ridge and drive out Sunday through the canyon of the Middle Yuba. There'll be some rocky trails on Saturday, but suitable for all Rovers. Nothing technical. Pinstriping, however, is a real possibility. We'll drive out on graded FS roads, some of which are very steep & very narrow.

Meet 9:45 am Saturday at the Cisco Grove exit off I-80. We will gather at the Chevron station on the south side of the highway. We plan to leave at 10 am, so be fueled up and aired down to 20-25 psi by then. Allow 2-3 hours driving time from the Bay Area. Monitor CB channel 7. There are no facilities at our intended campsite, so bring water, etc. Elevation is 5,000-6,000 ft so be prepared for cold. Snow cancels the trip.
Maps: Tahoe National Forest; USGS Topos Cisco Grove, Blue Canyon, Graniteville, Alleghany.
Contact Bruce Bonar if you need more info. 415.459.5458 or brbonar@wenet.net. Be prepared for a possible safety inspection and signing a waiver.

October 24. 8:00 PM GPS Lecture

At next club meeting (see page 2 for direction and map) Bruce Bonar will be reviewing GPS basics. Lecture will include some simple practice exercises and discussion ion GPS capabilities. *This is the first of what we hope will be a series of regular "Lectures" at club meetings.*

January 3-4. (Tentative) Sherwood Road Mud Run

Bring in the new year with mud up to your door sills! Sherwood Rd. is a count road connecting Willits and Fort Bragg. It is "Closed" during wet weather. (See Issue 1 trip report.) In wet condition, this road is definitely challenging. Bring recovery equipment and be prepared to spend an 'unplanned' day on the trail. There will be a SAFETY CHECK to pass and a waiver to sign. More details including safety check criteria will be posted in the next newsletter. Be prepared for chainsawing and body panel damage.
Contact Jeremy @ 510.540.8630

Mechanics & Parts & Service

The following list contains parts suppliers and mechanics who support and work on Land Rover and Range Rover vehicles. **This is not an endorsements list**. Before using particular vendors or mechanics we suggest you talk to fellow Land Rover and Range Rover owners regarding their experience and recommendations. Please contact us with any businesses or updates you would like to see added to this list.

P	Parts
S	Service
D	Dealer
NV	Newer Vehicle
OV	Older Vehicle
AA	After-market Accessory
ABA	After-market Body Armor

Atlantic British *[P, OV]*
Box110. Rover Ridge Drive
Mechanicville, N Y 12118
tel. 800-533-2210

Badger Interior Coachworks
[soft tops and interiors for Series and Defender]
Christopher Laws
259 Great Western Road
South Dennis, MA 02660
tel. 501-364-2680, fax 508-760-2281

British Motor Car Distributors *[D, S, P]*
901 Van Ness Ave.
San Francisco, CA
tel. 415-776-7700
dealer, service and parts for newer vehicles

Britalia *[S, P]*
2210 San Pablo Avenue
Berkeley, CA
tel. 510-548-0240
service and parts

British Northwest Land Rover Co.
[S, P, OV]
1043 Kaiser Rd. S.W.
Olympia, WA
tel. 206-866 2254

British Pacific *[P]*
3317 Burbank Ave.
Burbank, CA
tel. 800-554-4133

Cole European *[D, S, P]*
2103 N. Main St.
Walnut Creek, CA
tel. 510-935-2653

DAP Enterprises, Inc.
86 Clinton St.
Springfield, VT, 05156
tel. 802-885-6660

Euro Parts, Ltd *[P]*
1910 Prospect Ave.
East Meadow, NY 11554
tel. 800-274-4830

Great Basin Rovers *[P, AA]*
342 West 1700 South
Salt Lake City, UT
tel. 801-486-5049

RAB Motors *[D, S, P]*
540 Fancisco Boulevard West
San Rafael, CA
tel. 415-454-0582

Roverland *[S, P]*
San Francisco, CA
tel. 415-648-0885
service and parts for newer vehicles

Roverland Parts *[P, NV]*
2038 Village Point Way
Salt Lake City, UT 840093
tel. 801-942 7533

Rovers North *[P]*
1319 VT Rt. 128
Westford, VT
tel. 802-879-0032

Safari Gard *[ABA, NV]*
41095 Fig St.
Murrieta, CA 92562
tel. 909-698-6114

San Jose British Motors *[D, S, P]*
4040 Stevens Creek Boulevard
San Jose, CA
tel. 408-246-7600

Scotty's *[S, OV]*
(Chevy conversions)
tel. 510-686-2255

Shamrock Services *[S, NV, OV]*
Robert Davison
15195 Arnold Drive
Glen Ellen, CA 95442
tel. 707 935-3605

West Coast British *[S]*
190 Airway Blvd.
Livermore, CA 94550
tel. 510-606-8301

Northern California Rover Club

Membership Application Form

The Northern California Rover Club is a new club dedicated to providing communication between owners of Land Rover and Range Rover vehicles. We aim to provide a venue for the enjoyment of the vehicles including off road activities and their maintenance by focussing on providing a means of connecting fellow owners. The Club will be holding meetings on alternating months and aiming at producing a newsletter covering issues of interest and providing a forum for communication.

If you are interested in becoming a member of the Northern California Rover Club send this form and a check for $20 made out to Northern California Rover Club to the following address:

Northern California Rover Club
P.O. Box 14961
Berkeley, CA 94712-5961

The $20 covers membership dues for one year with all the rights of membership outlined in the club bylaws; members will receive an initial membership card and club decal, all newsletters mailed in that period, and an annual directory of club members.

Please provide the following information and indicate if any of it should not be included in the club directory which will be distributed only to other members. The NCRC will assume that all information provided is to be distributed unless indicated otherwise. Please note that members must be over 18 years of age and have a valid driver's licence.

Name:

Street Address:

City, State and ZIP:

Tel. number (day):

Tel. number (eve):

Types of Land Rover/Range Rover owned:

Rover related interests: