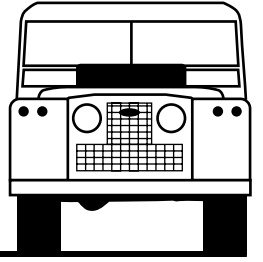


OTTAWA VALLEY LAND ROVERS



June 15, 2013

www.ovlr.ca

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Kevin Newell crossing Bolton Creek on a pre-Birthday Party run.

P.O. Box 478
Carp, Ontario, Canada K0A 1L0

General Information

Ottawa Valley Land Rovers is the oldest and largest Land Rover club in Canada and the second oldest in North America. Membership is open to all Land Rover enthusiasts. Executive meetings are held on the first Monday of every month. Social meetings are held on the third Monday of every month, generally at the Prescott Hotel on Preston Street.

OVL R offers a monthly newsletter and a variety of activities throughout the year, from mechanical seminars and off-road rallies to social events and family oriented outings. Members receive discounts on parts from a number of North American suppliers. Off-road activities come in several categories. The light version, which is usually entertainment during a rally or at one of our family summer events, consists of a little "mud bogging" or tours along country lanes. The heavy stuff, which is usually several days across public lands navigating by compass, topographical maps and aerial photos, involves bridge building, river barging, and driving conditions raging from cedar swamp to rocky hill winching.

Membership: Canadians joining throughout the year pay \$50 CDN per year, Americans and others pay \$50 US per year (discounts available if you receive the newsletter by email). Membership is valid for one year.

Radio Frequencies

VHF 146.520
CB channel 1
FRS channel 1 sub 5
SW 14.160 MHz
OVL R/Land Rover HAM:
14.160 MHz @ 01:00GMT Tuesdays

Online

<http://www.ovlr.ca>

<http://www.facebook.com/OttawaValleyLandRovers>

Land Rover FAQ: <http://www.lrfaq.org>

OVL R Forum

<http://www.ovlr.ca/phpBB3/index.php>

Newsletter Archive

<http://www.ovlr.ca/nl/OVL R.nl.freq.html>

OVL R Executive and General Hangers-On

President

Andrew Jones
andrew.jones@explornet.ca

Secretary-Treasurer

Dave Pell
djpells3@yahoo.ca

Events Coordinator

Frank Ashworth
fashworth@gmail.com

Off-road Coordinator

Kevin Newell
newellandscott@rogers.com

Executive Member-at-Large

Roy Parsons
royparsons@sympatico.ca

Past-President

Bruce Ricker
b.p.ricker@rogers.com

Club Equipment Officer

Andrew Finlayson
andrewf@explornet.com

Marshall Emitterus

vacant

Archivist

Benjamin Smith
bens101fc@gmail.com

Auditor

Christian Szpilfogel
christian@szpilfogel.com

Returning Officer

Dixon Kenner
dkenner@gmail.com

Merchandising Coordinator

Gabrielle Pell
designergabe@gmail.com

Webmasters

Dixon Kenner
dkenner@gmail.com

Benjamin Smith
bens101fc@gmail.com



OVL R Newsletter

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

Submissions: Articles and photographs may be submitted to the Editors, Terry King (terrycking@rogers.com) or Dixon Kenner (dkenner@gmail.com) or via post to the club address. Please include photographer's name, captions, identifications of people and vehicles, and a return address if you want the photos back. For the best reproduction of photos, use the highest resolution possible. Do not include photos in the text files.

Advertising Information: \$35 CDN for 1/4 page ad. Must run for minimum of three months. Free ad space is provided to members.

Deadlines: Submissions to the OVL R Newsletter must be received by the 5th of every month for inclusion in the next month's newsletter. All items submitted for publication should be legible and attributable. Names may be withheld at the request of the writer. This is your newsletter. If you wish to write anything, we welcome your input of any kind.

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Newsletter Editor:

Terry King
This issue: Dixon Kenner

Newsletter Production Editor

This issue: Benjamin Smith (γδβγ)

Production Assistance:

Bruce Ricker

"Capt'n, we took a rust torpedo in the forward bulkhead and the air is pouring in!" Dixon Kenner

Greetings,

June has arrived and with the warm weather thoughts turn to the thirtieth annual birthday party. Hard to believe that this is only the third location that has ever hosted the event, and given development challenges in the area may be one of the last to take advantage of this area. I would also observe that I do receive questions about other opportunities for some green-laning. I would note that there are lots of members going around, driving on various trails that lie about the periphery of the City or farther afield towards Calabogie or elsewhere. Use the Social, or the OVL Facebook page and enquire what others might be doing. With the Internet today, only the larger events will make it into the newsletter

This is a bit of a thin issue as distractions galore exist for some of our usual Winter contributors. May saw the Tune-Up and Opeongo Ghost Town Tour, but nothing The warmer weather brings all sorts of renewed enthusiasm for many, though I must admit I seem to get more done in the middle of the Winter. Vehicles are coming out of slumber and being prepared to roll again after a long Winter sojourn.

Within these pages you will find a wealth of information on the Birthday Party. I hope you are all making plans to come out for the event

The Summer will bring more Land Rover events. Looking at the Events page, you will find many events,

especially in the United States. There are essential an event a month where you can drive to for either some off-roading or RTV-like activities, or for an opportunity for a few pints and some general discussion, bragging, or tall tales in general.

It is interesting to see that history is repeating itself. Back in the days of the Wilkes Brothers Land-Rover was the cash cow that propped of production of Rover cars. Then came the abomination known as British Leyland. Everything was loosing money, except Land Rover. Now under Indian mangemenet of Tata we read that the same thing is happening. Tata had a net profit of £466 million, which includes a JLR profit of £1.7 billion. Hence Tata would have had a loss of £1.34 without JLR. History repeats. When will they realize that owning Land Rover is a curse worse than that of Nigel's disease? British Aerospace, BWM and Ford saw the light and sold off the cursed company. When will Tata see this light?

And finally, some may have been a bit confused last month when they read that there would be a crossword puzzle in the last issue to help get people thinking in different ways for the Birthday Party and then could not find it. Well, it was for the June issue and can be found within.

News From Land Rover

London (from the Guardian) A near-50% increase in sales to China helped Jaguar Land Rover produce record profits of £1.7bn last year, the Midlands-based, Indian-owned carmaker revealed on Wednesday.

There was even 20% sales growth in austerity-hit Britain, helped by the launch of new luxury Range Rover and Jaguar models, that drove up revenues to £15.8bn - another record.

"The positive result for the financial year demonstrates that we have strong demand for our great, solid product portfolio all around the world," said chief executive Ralf Speth. "During this period, Jaguar Land Rover unveiled major new products: the all-new all aluminium Range Rover and the Jaguar Sportbrake, the AWD XF and AWD XJ, and the stunning F-Type."

The strong results - also aided by lower raw material costs and a depreciation of the pound against some key currencies - was a boost to its parent group, Tata

Motors, at a difficult time for the wider business. Tata recorded a 37% slump in net income to 39.45bn rupees (£466m) in the last quarter of the company's financial year to 31 March.

Jaguar Land Rover sold more than 77,000 vehicles in China - up 48% - over the 12-month period, with 72,000 staying in Britain, while 80,000 (up 18%) went to Europe, making the group one of Britain's largest exporters by value.

The company has now started to build a manufacturing plant in the east of China in combination with local carmaker, Chery Automobile, to serve what is already Jaguar Land Rover's biggest single market and avoid a 25% import tax. JLR is also looking at building a factory in Saudi Arabia.

The Warwickshire-based business, bought for £1.5bn in 2008, now accounts for more than three quarters of Tata Motors' group revenues at a time when the parent has been hit in its domestic market, India, by high interest rates and slowing economic growth.

President's Message

Musing From the Throne Room, Part 16

by Andrew Jones

Hi folks

As I write this its BP30 T= minus 7

Your faithful exec committee are toiling away making final preparations to make sure the event is tee'd up properly and ready to go: We could still use some more trail leaders please - so far we have only had a single response to the call issued by Terry K last week-- Thank you JL Morin for stepping up once again.

One of our newbie members (Paul Davids) who is another expat Brit who crossed the Atlantic looking for (and finding) the Good Life, has volunteered to drag the "Albatross" (sorry) Club Trailer to the event --using his very nice indeed D90: Thank you Paul. At a recent exec meeting Terry K and Kevin presented their ideas for a new feature on Friday and Saturday evening --OVL R Film Night--which subject to their efforts to secure a (quiet) generator, projector, screen and sound system bearing fruit, should add a new dimension to the after-hours general debauchery at the event site.

Another event feature--back by popular demand--will be what I heard as a wenching demonstration--again by Terry K and Kevin N--I may have heard incorrectly--the pub was noisy. But whatever it is, it'll be done twice during the weekend and will involve cables, strops, winches and hard / soft recovery techniques--intriguing...

Our LR3 saga has not yet come to a happy ending. We've been without it for some 5 weeks now, and although it has been repaired--there are a number of stubborn SRS fault codes that are proving difficult to clear--the collision repair firm sent it to the LR Ottawa dealership on Monday, and it's still there....hopefully it'll be back with us before next weekend--wouldn't want to show up at BP30 in a rental Dodge Journey...

I've made some progress on the 101 rebuild. My new best friends at West Carleton Automotive have done a fabulous job of reworking the cylinder heads and engine front cover, including fitting a high-pressure / high-volume oil pump kit. Engine reassembly is ongoing and so far I have the heads back on, with new cam, and followers. Front cover is dressed and ready to go along with a new (and I mean new) OEM distribu-



tor, plus electronic ignition.

I took a road trip to Howe Island to meet with Robin Craig, and came home with the canvas tilt, and a host of other Luxembourg specific 101 fittings. So it's beginning to look like a proper 101. As mentioned last month--it won't be at BP30 but should be at ABCD in July, and thereafter will become a regular feature at other OVL R events--I honestly can't wait to hear what it sounds like--been surfing You Tube for clips of 101's in motion--there are a lot out there-- and boy do they

ever sound good.

Well--must sign off now and go check that the Albatross




propane tanks are full--2 cooked breakfasts this year (Saturday and Sunday)--and Chef Gaby (bit like Chef Ramsey, but with a larger vocabulary of profanities) and his posse have been scouring the back lanes for ingredients for their "road-kill wraps" for a couple of weeks now...

See you at the BP.




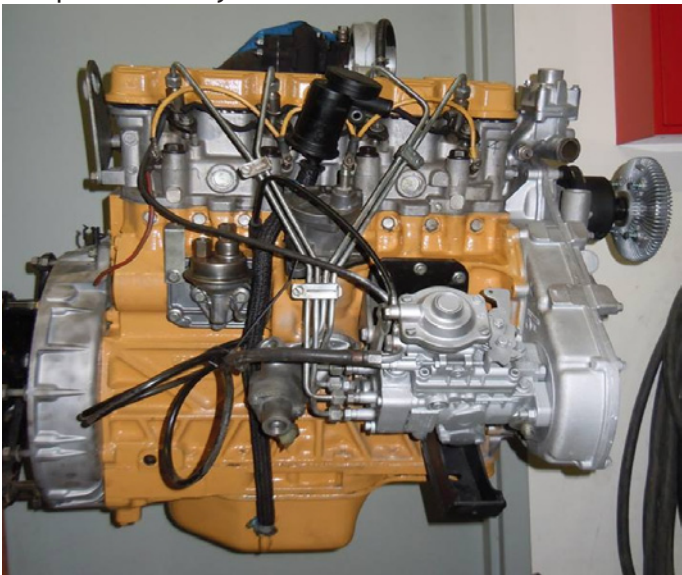
Andrew's swamp-crossing, hover 101FC


Other News, Rebuilds/Projects, Lies, Rumours, Trivia

 Bill Fishell posts that he is working on his bulkhead rot. If you look at the photo there was a previous repair by encasing the lower foot well with a bolt on repair. Now the upper side has rotted. That hole must have made operating the clutch a bit on the interesting side. As a note this must be another case of Nigel's disease as Dixon is fixing the same thing (see the article later in this issue).




 Russel Wilson also writes about progress with his Series IIA Dormobile named Gambrinus. The current engine is gutless and leaks oil like the Exxon Valdez. He is working on getting a new engine together for the swap. Nice and yellow 200 Tdi.




 Ben Smith has been reading the book "Land-Rover -- the formative years, 1947-1967" by John Smith (owner of prepro L11) and wrote into Newsletter central. I'm a number guy and one quote stuck out and caught my attention, "Engine, gearbox, and axles had their own numbers, which rarely coincides with the VIN, but usually ran ahead. This was due to parts being out aside for replacement purposes." Rarely coincides,


with Rover I am not surprised.

 Lori Kennedy writes that she has found a pre-historic Land-Rover in her back 40. It seems that Neanderthals would sit on the frame and push with their feet to move forward like the Flintstones. That sounds so much more interesting that the plebian story about falling off oil drums and axle stands.




 Geoff writes on the forum, nothing like an impending OVL Birthday Party to get repairs done. Finally replaced Lenny's cracked Exhaust Manifold and rusty pipes this weekend. He is much quieter now!



 Brett Storey posts on the forum, "Just finished an oil change and checked/topped up everything else, so good to go." Which makes us hope that Team Daphne will be gracing us with their presence at the Birthday Party this year. Everything ready days early means that they will have an uneventful trip up from Toronto, right? We await the story of their mis-adventures enroute.

Some Non-OVLR News & Rumours

 (COLORADO SPRINGS, CO) - June 7, 2013 - The all-new Range Rover Sport yesterday established the record for a production-standard Sport Utility Vehicle and broke the long standing record for any kind of production-standard vehicle on the Pikes Pike International Hill Climb course, venue of the spectacular annual competition known as 'The Race To the Clouds'.

The Range Rover Sport rose to the challenge of the 12.42-mile asphalt course, through 156 corners from an altitude of 9,390 feet (2,860 metres) above sea level up 4,720 feet (1,440 metres) to 14,110 feet (4,300 metres). Powering its way from a standing start, in just 12 minutes 35.61 seconds--an average speed of 59.17 mph (95.23 kph)--on a snaking road that clings to the edge of the mountain with precipitous drops on one side and unyielding rock faces on the other. The record was independently timed and sanctioned by PPIHC (Pikes Peak International Hill Climb), organizers of the annual competition at the Colorado venue.

The Pikes Peak course goes through 156 corners as it ascends beyond the treeline from 9,390 feet (2,860m) above sea level to 14,110 feet (4,300m). At that altitude the air contains only 58% of the oxygen it does at sea level, diminishing engine performance and blunting human physical and mental performance.

The new record was set by a Range Rover Sport with a 510HP 5.0-litre supercharged V8 engine, the vehicle altered from production specification only in the fitment of a roll cage and harness seatbelts to meet racing safety requirements.

The Range Rover Sport was driven on the record run by American competition and stunt driver Paul Dalenbach. Best known as a Pikes Peak specialist, Dalenbach, 45 years old, from Basalt in Colorado, has won his division at the Hill Climb six times and won the event outright three times.

The Pikes Peak car and motorcycle hill climb competition is held annually and runs up to the summit of Pikes Peak mountain, 14 miles north-west of the town of Colorado Springs. First run in 1916, Pikes Peak is the USA's second-oldest motorsport event. The current outright course record is 9 minutes 46.164 seconds, set by Rhys Millen last year in the Time Attack division in a production-based but radically modified Hyundai Genesis Coupe.

 The new sources are all abuzz that JLR will introduce a diesel-electric hybrid Range Rover and Range Rover Sport in at the Frankfurt Autoshow in September. Then models may appear in North America in a few years. The new Euro 6 emissions standards which come into effect in September 2014 are very close to that of Canadian and US standards. Therefore it is possible for

JLR to have a global engine that is used in both European and North American markets.

 Automotive News reports, LOS ANGELES -- Jaguar Land Rover is targeting global sales of 750,000 units by the end of the decade, with an eventual target of 1 million units, a top executive said.

"Reaching 1 million sales will place us with the world's other leading automotive luxury brands," Lindsay Duffield, president of Jaguar Land Rover Canada, said at the TLS Automotive Customer Centricity Summit in Marina del Rey, Calif. "It is ambitious, but rightfully so."

In 2012, Jaguar Land Rover global sales totaled 357,773 vehicles, a 30 percent increase.

Although Jaguar Land Rover has concentrated on high-priced, low-volume vehicles, its move into relatively lower-priced vehicles such as the Range Rover Evoque has broadened its sales prospects. Also, the introduction of Jaguar all-wheel-drive variants has increased that brand's allure in foul-weather climates.

The automaker has teased that a revival of the X-Type -- although based on a bespoke Jaguar platform rather than borrowing a Ford Mondeo -- could be on the way. Duffield said that parent Tata Motors has invested heavily in product development, with 40 new or redesigned products or variants debuting over the next five years.

However, Duffield said Jaguar Land Rover would resist falling into the near-luxury segment -- vehicles priced below \$30,000 such as the BMW i front-wheel-drive cars and the Mercedes-Benz CLA.

Much of Jaguar Land Rover's global growth is happening in emerging markets. From zero sales 10 years ago, China has become Jaguar Land Rover's largest market. Duffield believes that India's gross domestic product will soon eclipse that of China, although how that translates into new-car sales has yet to be determined. Russia and Canada also are experiencing strong growth.

To keep up with the sales pace, Jaguar Land Rover has hired 8,000 people in the past two years and now employs 25,000 people globally.

"We could sell more volume in many markets, but our plants are running 24-7," Duffield said. "We are supply constrained."

Poison Ivy and Camping

by Anonymous

A locally growing salve for poison ivy.

One thing that many city dwelling members are not familiar with, and is in relative abundance at the main site for the Birthday Party¹ is poison ivy. To recite the traditional description, poison ivy and poison oak all have “leaves of three”. The leaves of poison ivy are usually smooth and almond shaped, while the leaves of poison oak have fine hairs. Poison ivy leaves do not have any lobes, but may have a toothed edge, while the leaves of poison oak are lobed. The picture below is of poison ivy, taken in Ottawa.



Note the long middle stem for the middle leaf, vice the short stems for the two side leaves. Poison ivy around the main site is a vine, and the stalk has hairy filaments. The shrub variety has not been spotted. Fifteen (15%) to thirty (30%) percent of people have no reaction to poison ivy. Immediate washing with soap and water or rubbing alcohol may help prevent a reaction. During a reaction, Calamine lotion or may help mitigate symptoms.

But, if you do not have soap and water, calamine lotion, there is a local remedy. Jewelweed. Jewel-



© Mike Cowbrough

weed is a common plant that grows in wet shady areas across eastern North America. You will often find it in ditches and along creek beds. It also grows in shallow water. It is described as usually growing near poison ivy and nettles. It is an invasive annual that grows from two to eight feet tall and bears hundreds of seeds per plant over the growing season. It is actually a form of an orchid (impatiens). The stem is hollow, usually reddish at the joints and have very shallow roots with stringy tan rootlets. The leaves are egg shaped with rounded teeth. They have a waxy surface coating that repels water. The flowers are fairly unique, the closest resembling them are those of a trumpet vine, but that climbs trees and has pointed leaves.

When you are out in the field and find you have been exposed to poison ivy, oak, or stinging nettle you can reach for the jewelweed plant and slice the stem, then rub its juicy inside on exposed skin or area that is irritated. This will promptly ease irritation and usually prevents breakout for most people.

You can harvest the plant and make a remedy from it to bring with you, and information on that is available on the internet. Basically, you chop the plant up, boil it for a while, strain the resulting liquid, pour into ice cube trays and freeze for later use.

'If you want to see it in person and real close, the opposite side of the “road” where the tentage and club kitchen trailer are traditionally set up has had a lot of poison ivy there for the past fifteen or so years. I assume that it will still be there this year. (Images: from Wikipedia)



Upcoming Events

June 17th, 2013
231st Monthly Social
Prescott Hotel (Beach & Preston Streets in Ottawa)

June 20-23, 2013
30th OVL R Birthday Party
Silver Lake, ON

July 15th, 2013
23rd Monthly Social
Prescott Hotel (Beach & Preston Streets in Ottawa)

August 4-5, 2013 (Bank Holiday Weekend)
12th Blacker than Night
Readington, New Jersey
Organizer: Benjamin Smith

August 17th, 2013
OVL R International Rover Polo Tournament
Pakenham, ON
Organizer: Andrew Jones

August 19th, 2013
232nd Monthly Social
Prescott Hotel (Beach & Preston Streets in Ottawa)

All British Car Day

When: Mid July
Website <http://www.britishcarday.ca/>
An annual event run by the Ottawa Valley Triumph Club. The club participates and brings the trailer to help the Ottawa Valley Triumph Club run the event. This is NOT an OVL R event, but does attract a number of Land-Rovers as well as other marques of British cars.

30th Picnic and Family Camping

When: August 9-11
Where: Crooked Lake Resort, Finland, MN
Sponsor: Minnesota Land Rover Club
Website: <http://www.mnlandrovers.org/2013cal.shtml>
This low key event is tied with the Birthday Party with being the longest-running Land-Rover event in North America.



24th National Rally

When: August 13-17
Where: Ouray, CO
Sponsor: Solihull Society
Website: <http://landrovernationalrally.org>
Size: 150 to 250 trucks
The National alternates between Moab, UT and Colorado. Based out of a fixed location, trail rides vary from easy to very hard. Spectacular views. Vendor day. Dinners. Land Rover enthusiasts come from all over the continent.



Blacker Than Night

For the past decade plus, Ben Smith has been hosting a small Land Rover event at his house. It all started as a housewarming party. That became an annual. We even had a sighting of the TRSS society that first year. People had so much fun that it became an annual event.

The format is fairly straight forward. Through out the day on Friday people start drifting in and setting up tents on the lawn between the house and the Barn. The first people tap the keg. Dinner is of the kind that is easily re-heated. The drift-in starts around noon and continues past midnight. People have been known to attend from Ohio to Maine, Ottawa to Washington, DC. Friday night has some off-roading on Ben's trail, and usually work on whatever Land Rover project is on hand. Plus a seelie-meelie competition.

Saturday morning features a group breakfast, more Land Rover work, and swapping of tall tales. Pretty soon lunch is upon us. The afternoon is a full ALRC RTV, usually using the Scottish version of the rules (fewer gates and farther apart). Generally it is 3 sections of trial.

Dinner is again on site. The last few years we have smoked some sides of brisket. Setting them on fire is sometimes added to the entertainment (or is that adrenaline). The evening usually consists of more Rover projects along with night runs through the woods. One year a Jeep got stuck...going downhill.

Sunday morning, once people are convinced to crawl out of their tents we head off to a local restaurant for breakfast. Upon return is a rowing Rover Polo match for the mid-morning and afternoon. Until people need to pack their Land-Rovers and start dragging themselves home. For some it is a long trip. Others are more local.

Generally this event is a good cross section of OVL R members plus locals from the NJLR group. Contact Ben Smith for more details.



General Servicing: Repairs, Humour, Tales & Trivia

Replacing Valve Seals in the Rover Diesel Engine -- A Tutorial

by Alan J. Richer

Replacing Valve Seals In The Rover Diesel Engine - A Tutorial

2.5D

When you have a 2.5 Diesel or a 200/300TDi that breathes great clouds of smoke on overrun but runs otherwise normally, it's more than likely that the original valve seals have perished. That being said, many owners' minds start to see dollar bills parading away into the wallet of a mechanic for the renewal of these seals.

Fear not - if you have even a modest source of compressed air available in your workshop (about 50 PSI) replacing the seals is a simple task with the assistance of air pressure and a modest tool kit. You will however need a few specialized tools, which can be purchased for not a lot of money or borrowed from the local auto store with a loaner tools program (or your Rover buddy down the street with application of beer).

These additional tools are:

- Torque wrench good to 100 foot-pounds minimum
- Valve spring compressor of the clip type - one that attaches to the spring and compresses it.
- Source of compressed air or CO2 of 50 PSI or so at a few CFM.
- Heater plug air chuck - see text/photographs

All of these tools are relatively self-explanatory, and can either be bought or borrowed if one has friends who also tinker. The glow plug air chuck, however, is a specialized item that one can make easily in a half-hour of time - it's nothing too complex. Bribing someone with a lathe to make it for you is the best bet, but one can be cobbled together by hand if need be.

First off, start out with a defunct glow plug that is the same type as that used in your engine. Cut off the terminal post at the top and the heating element below, making very sure not to damage the sealing angle on the bottom end. Run a drill through it, or clamp the body in a vise and punch out the insulating material and center conductor - clearing the material out of the body of the glow plug.



The 2.5D glow plug body is considerably larger, so drilling the top of the body and tapping it to 1/8 NPT is just as easy if you have taps (I did), so made mine that way. Then an air-line hose barb can be screwed in with a bit of sealer to complete the adapter body. If you do not have taps, epoxy in a tube as in the 200TDi adapter.

200TDi

Drill the top of the plug to a standard size for brass tubing from the hardware store - preferably 1/4" or larger. If the tubing fits the drilled hole snugly, high-strength loctite or epoxy can be used to hold a 1-inch piece in the hole in the injector. If looser, use epoxy - Loctite does not gap-fill well. In any case, the opening through should be clear as air has to pass through to keep the valves in place.

To finish the adapter, fit the back of the adapter with a piece of hose to couple to the air source. I fitted mine with a 3-foot whip with an air-chuck fitting on the end - this way the coupling/uncoupling when in use was trivial. If you prefer, you can just fit the hose end to the adapter when it is installed in the engine and secure it with a hose clamp. This is a very temporary connection - as long as it is secure it does not need to be fancy or pretty.

Installation Procedure

First off, for the uninitiated, the valve seals in question are under the valve cover. To access them the rocker arm assembly must be removed, then a valve spring compressor used to remove the valve spring while air pressure supports the valve from below. The old seal is then lifted off the valve stem/valve guide and a new one pushed down into place on the valve guide. To get the air in, though, the glow plugs need to go. Pull all four, disconnecting them from the bus wire. Set them aside for cleaning and reinstallation.

Next, remove the valve cover by removing the three nuts along the top. As it's likely leaking, let's take the time to scrape the old gasket off the cover and replace it - cleaning the oil goop out of the inside. Glue the seal to the cover and set it aside to dry while you do the rest of your work.

The rocker shaft needs to be removed. It is held down by 10 bolts - 5 of which are also holding down the cylinder head. This is where the torque wrench needs to come in - these will need to be tightened accurately when reinstalled.

Remove the 5 small bolts first starting at the center and working outward alternately, then do the same with the large head bolts. Have a board ready to hold the rocker arm - you do not need to drop this and spend an hour reassembling it. Set this aside someplace clean and cover it to keep the dust off.

Wipe off the tops of the valve springs to remove excess oil - you need to be able to see what you are doing. Now, set #1 cylinder to TDC (you can tell by holding your finger over the glowplug hole), screw in the glow plug air adapter snugly (does not need to be tight) and apply air pressure.

Yes, it will hiss. Don't worry about it. There is now about 50 pounds shoving up on the valves, so you can work with no worry.

Put a socket on the top of the first spring and tap it sharply with a hammer to loosen the valve stem collars. Then, attach the valve spring compressor as far down on the spring as it will go, and crank it down to compress the spring. Wind it all the way down - the extra clearance makes it much easier to remove the valve collars.



When the valve collars unseat you will see an angled part that was seated in the top of the valve spring holder. Those are the collars - it's 2 pieces. BEING CAREFUL NOT TO DROP THEM!!! remove them and the spring will come right off. The seal is at the bottom of the valve stem, set over the valve guide top. Clean off the oil and you will see it.

Pull it off, get the proper one from your parts (intake and exhaust are different - install the right one in the right place!) and slide it on over the valve stem to click it in place on top of the valve guide. Put the valve spring back in place, and reset the collars (they sit in the grooves on the valve stem - consult the manual for a diagram if needed). Remove the spring compressor, and give the valve stem a sharp tap with a hammer to seat the collars. If you hear a loud THOONK when you do this don't panic - that's a bit of air pressure escaping into the intake - it makes a really odd noise.

Move on to the next valve, then the next cylinder, remembering to first set the piston at TDC and insert the air chuck and apply air pressure before removing the valve springs.

Continue through Valve #8.

Reassembly

With the new seals in place, the valve gear needs to go back on and the valves need to be adjusted. For de-

tails, check the manual, but I will present it in broader strokes here.

First off, clean the threads of the large bolts holding the rocker shaft in place. The threads need to be clean so that the proper torque can be set when reinstalling. Also ensure that the holes they will insert into are clear of oil and debris - which could cause a hydraulic lock and damage the block on installation.

Reseat the rocker assembly on the cylinder head, starting the large cylinder bolts several turns. Then start the smaller bolts, pulling down the pedestals holding the rocker shaft to the engine. As you do this, ensure that the rocker adjusters seat properly on the push-rod tops. Torque the smaller bolts to the appropriate torque from the manual.

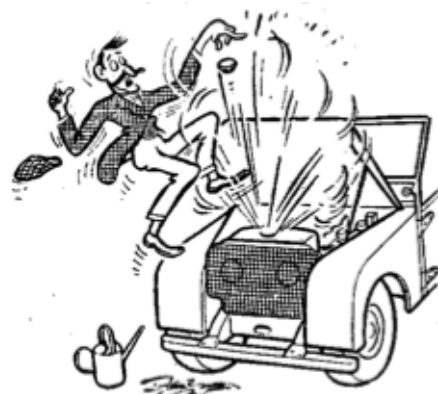
NOTE: Some of the pedestals have fittings to allow oil to flow into the rocker assembly and on out onto the valves from there. Ensure these seat properly over the tapered hollow fittings when reseating the rocker gear.

With the pedestals pulled down into place hand spin the large bolts down till they contact the pedestals. Now, using the torque wrench turn the bolts up to proper torque using the settings and procedures from the manual appropriate for your engine. Start at the centre and work out to the ends of the row torquing in steps alternately. There is no need to torque or disturb any of the other bolts on the cylinder head - just do these.

As they have been disturbed, it is now time to do the valve adjustments. Valves are adjusted using the rule of 9. This is simple. If one is adjusting valve #1, then Valve #8 should be fully open. For #2, valve 7 and so on until Valve 8, which needs - surprise! Valve #1 fully open. Set them to .010 - tight is not better as things will expand in operation - and an overtight valve will burn.

Finally, refit the valve cover and any disconnected hoses or wires and the job is done!

To conclude - this is not a difficult job for even the most average mechanic - and can save you considerable peace of mind on the road from not belching clouds on the unsuspecting Opel behind you.



"Avoid steam which may be blown out with considerable force"



Ottawa Valley Land Rovers 30th Annual Birthday Party 2013



| TIME | Thursday June 20 th 2013 Activities | Location (See Map on page 2) |
|--|---|--|
| 14:00 | OVLRL Expedition Trailer set up and site is prepared | OVLRL Headquarters Site (Deacons's Farm) |
| 15:00:00 | Early registration (You cannot off road unless you are registered) | OVLRL Expedition Trailer |
| All day | Trail grooming of various off road sites | Meet at Event HQ Site (Off Road Site) Local area Take your pick! |
| 19:00-00:00 | Gathering of the faithful, social time | Campsite at Silver Lake Park & HQ Site |
| FRIDAY June 21 st 2013 Activities | | Location (See Map on page 2) |
| 09:00 | REGISTRATION (You cannot off road unless you are registered) | OVLRL Expedition Trailer |
| 10:00 | Tail runs begins (led by experienced members) | Local area Take your pick! |
| 12:00 | More trail driving and off road fun (led by experienced members) | Local area Take your pick! |
| 13:00 | Lunch You're on your own (if it is hot drink lots of water) | OVLRL HQ site (or where ever you are) |
| 14:00 | More trail driving and off road fun (led by experienced members) | Local area Take your pick! |
| 16:00 | Off Road recovery and winching demonstration. How to safely use your Land Rover for recovery and fun! | OVLRL Main Site near the Expedition Trailer |
| 17:00-18:30 | Tailgate Social hosted by the OVLRL President and club executive members. A gathering to get to know other Land Rover enthusiasts | OVLRL Expedition Trailer |
| 18:30 | Dinner (You are on your own) | Gathering at OVLRL Expedition Trailer |
| 21:00 (or so) | OVLRL MOVIE NIGHT under the big top! <i>"It's like a drive in but without the cars" says President Jones!</i> | OVLRL big top (at the expedition trailer) |
| SATURDAY June 22 st 2013 Activities | | Location (See Map on page 2) |
| 09:00 | REGISTRATION (You cannot off road unless you are registered) | OVLRL Expedition Trailer |
| 09:00 | Breakfast provided | OVLRL Expedition Trailer |
| 10:00 | Tail runs begins (led by experienced members) | Local area Take your pick! |
| 12:00 | More trail driving and off road fun (led by experienced members) | Local area Take your pick! |
| 13:00 | Lunch You're on your own (if it is hot drink lots of water) | OVLRL HQ site (or where ever you are) |
| 14:00 | RTV (Road Taxed Vehicle) trials | OVLRL HQ site |
| 16:00 | Off Road recovery and winching demonstration. How to safely use your Land Rover for recovery and fun! | OVLRL Main Site near the Expedition Trailer |
| 17:00-18:30 | Tailgate Social hosted by the OVLRL President and club executive members. A gathering to get to know other Land Rover enthusiasts | OVLRL Expedition Trailer |
| 18:30 | Catered dinner provided | OVLRL Expedition Trailer at the big tent! |
| 21:00-22:00 | For the hearty ones... Light to medium Night Off road | OVLRL Off Road Site & Local area |
| 21:00 (or so) | OVLRL MOVIE NIGHT under the big top! <i>"It's like a drive in but without the cars" says President Jones!</i> | OVLRL big top (at the expedition trailer) |
| SUNDAY June 23 rd 2013 Activities | | Location (See Map on page 2) |
| 09:00 | Breakfast provided (Sponsored by Tim Horton's with Coffee) | OVLRL Expedition Trailer (HQ Site) |
| 11:00 | OVLRL Swap Meet and Auction | OVLRL Expedition Trailer (HQ Site) |
| 13:00 | Clean-up begins, trailer stowed and site begins shut down | Everywhere |
| 14:00 | Time to say Good bye | Safe travels, we'll see you next year. |

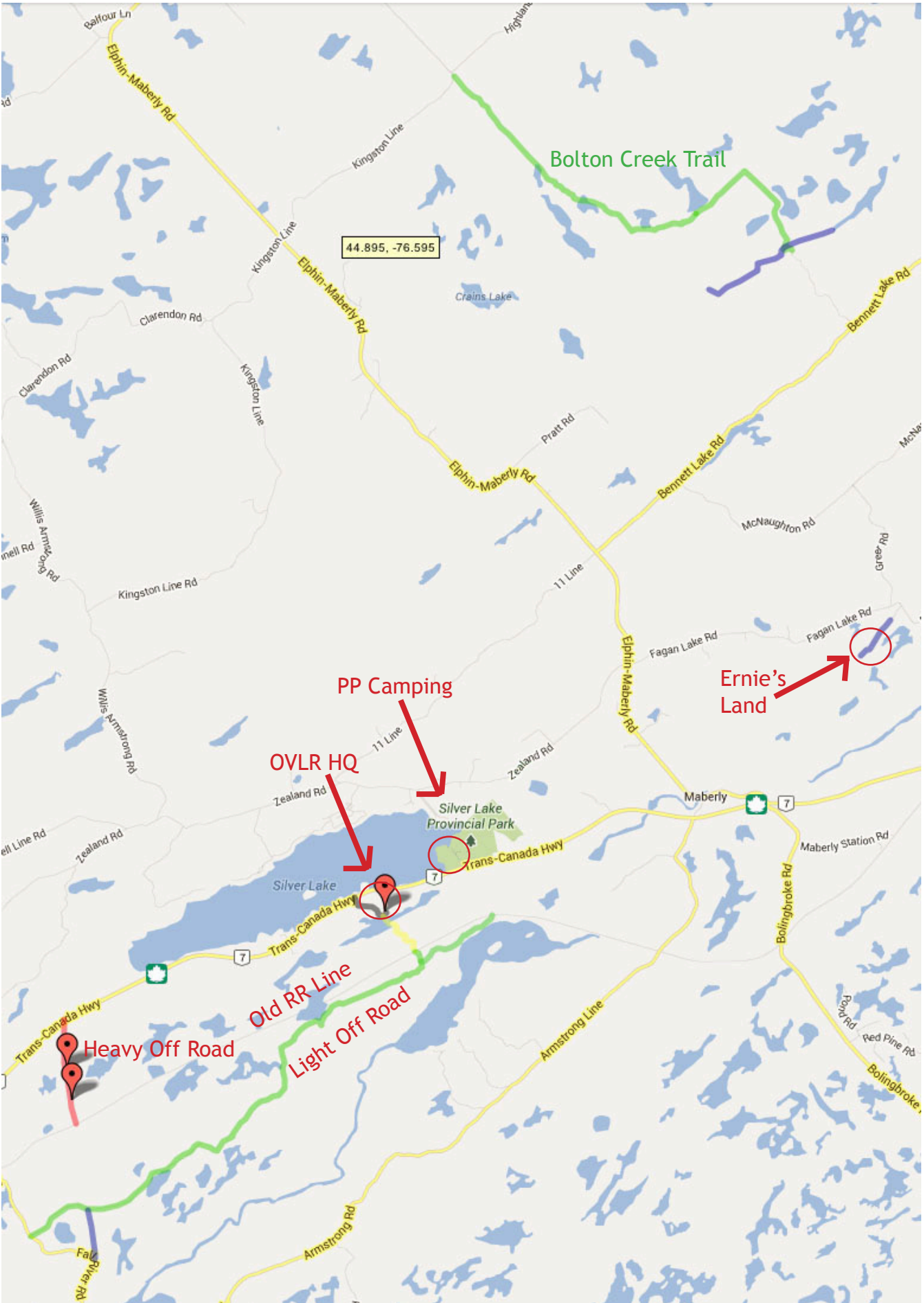
Important points to remember:

1. Due to insurance issues, if you wish to be at this OVLRL event you MUST be a member and must have your membership paid in full NO EXCEPTIONS.
2. Your Land Rover must be street legal, licensed, insured and in sound mechanical condition. It must not have loose steering, bald tires or faulty brakes. (*Scrutineering may apply to vehicles and you may be excluded from off road driving in your vehicle if it is deemed unfit*).
3. Your Land Rover should also have a first aid kit, a fire extinguisher and tires with reasonable tread depth. (If you are uncertain if you should go off roading ask a veteran or an OVLRL executive member, they are usually around the trailer). Children should wear a helmet.
4. If you get stuck and can't get out or have an emergency and you have a CB radio use channel 11 to call for assistance. If you are using a FRS radio also use channel 11.

Medical Emergencies:

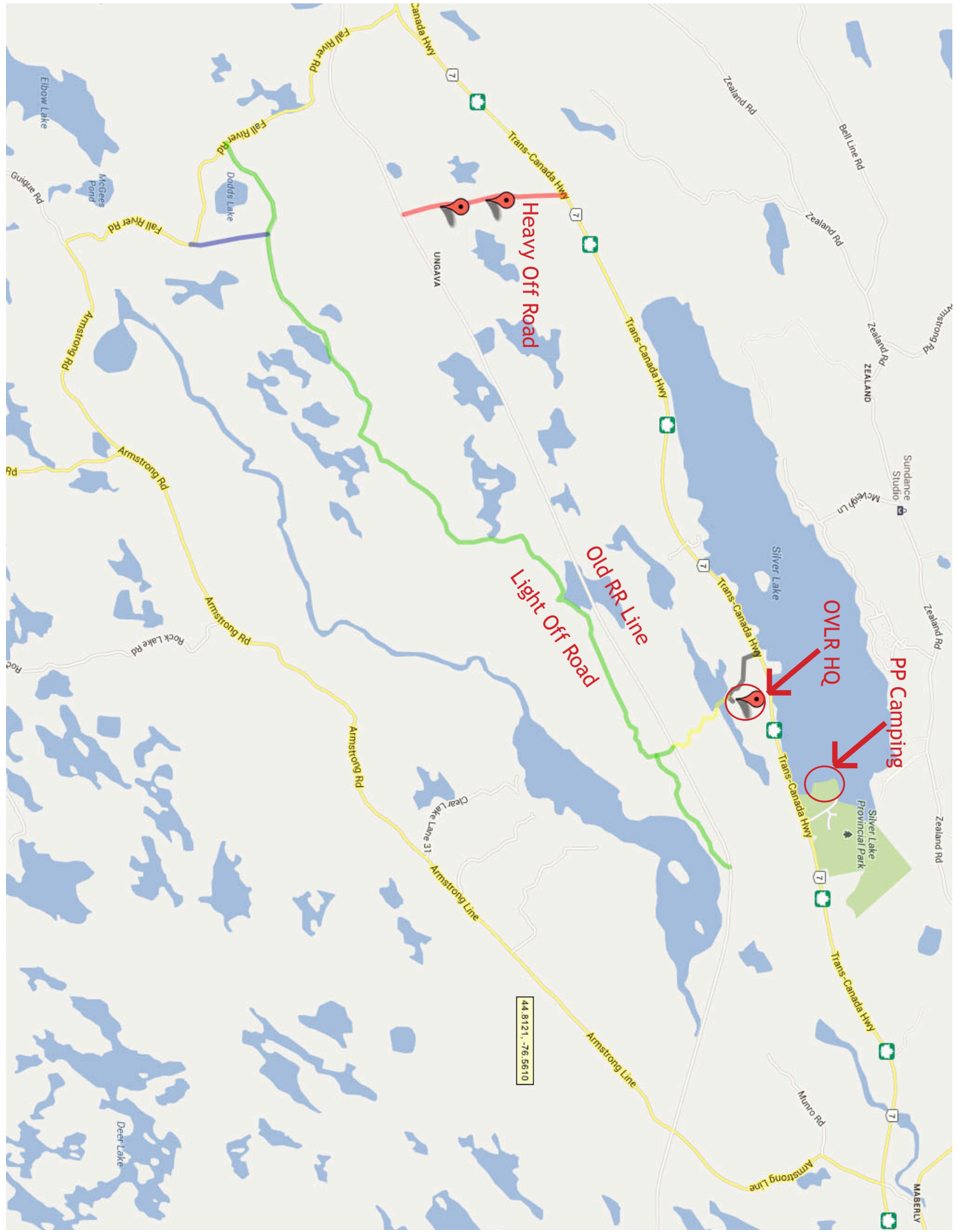
1. The expedition trailer has a first aid kit, defibrillator and a fire extinguisher. If there is a medical emergency call on channel 11 for HELP.
2. The closest local hospital is in Perth (Great War Memorial Hospital) follow the blue "H" signs leading into town.
3. 911 works from your cell phone (when you have service). **The OVLRL HEADQUARTERS SITE municipal address is 22985 Hwy 7 (near Silver Lake Ontario).**

Ernie's Land: Right out at the HQ site onto Highway 7 to Maberly, left on Elphine-Maberly Rd, right on Fagon Lake Rd, 2 miles. Right past a right hand turn is the entrance on the right to Ernie's. Follow the road to the trails.



Bolton Creek Trail: right from the HQ entrance onto Highway 7 to Maberly, left on Elphine-Maberly Rd, right on Bennett Lake Rd, Then 2.4 miles to the trail on your left.

Light Off-road, left at the bottom of the HQ field onto a trail, cross RR grade, enter trail.
Heavy Off-road, find the entrance, cross stream, swamp 1, swamp 2 winchfest, don't start Sunday morning just before the auction.

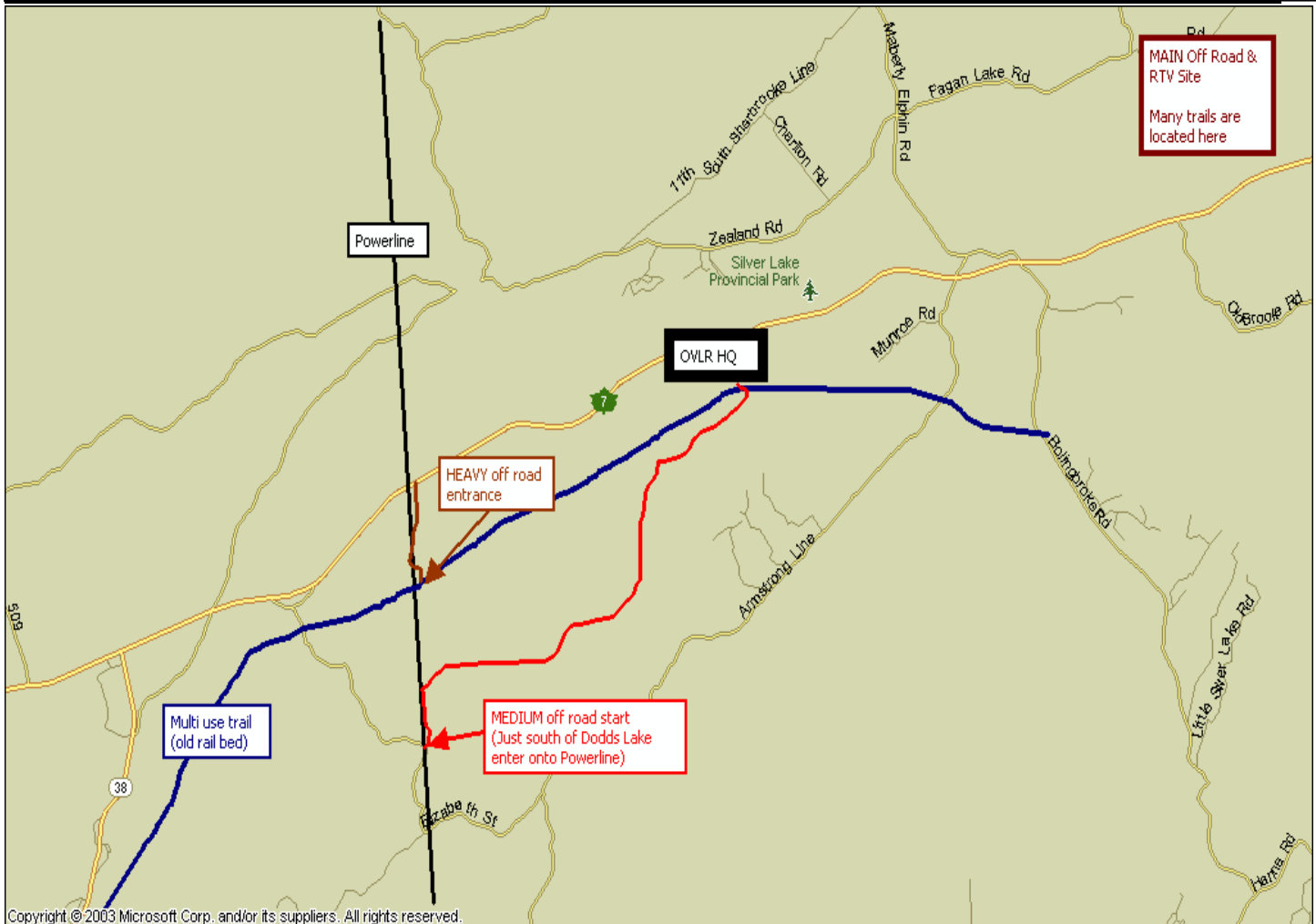




Ottawa Valley Land Rovers 30th Annual Birthday Party 2013



Off road map and key points



Important points to remember:

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6. Your Land Rover must be street legal, licensed, insured and in sound mechanical condition. It must not have loose steering, bald tires or faulty brakes. (*Scrutineering may apply to vehicles and you may be excluded from off road driving in your vehicle if it is deemed unfit*).
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Finding the Path

By Terry King

As a boy in B.C. with only a one-speed bike and two legs to drive me, I spent countless hours exploring the deer trails in the woods near our house. They didn't always go far, and they often ended up at the seashore or a swamp, but I explored them and mapped out the island in my mind. After five years, there wasn't a track or trail that I didn't know.

A little later, while sitting in the back seat of the family sedan on those endless Sunday drives, I would keep my eye on the shoulder and look for trails or tracks that either followed the main road or headed off in another direction, trying to imagine what lay along that path.

In my twenties, I often went camping around Algonquin Park, and also made three trips from Eastern Canada to the Rockies; once to the West Coast, where I had started my musings. On that occasion, my co-pilot knew of some logging roads so we took them when we could, and really got off the beaten path. Incidentally, he also was the first person I knew who knew someone with a Land Rover, and indeed, on that trip I got a ride in a 60's Series through a muddy track near Prince George. But I digress. It is around this time that I started thinking that maybe one day I would also have a Land Rover and explore unknown trails.

Some 20 odd years and 10 cars later in life and after moving to Ottawa I found myself with a 1995 Discovery (not new) and knew I still had a hankering for those byways. I kept my eyes open, looking for trails for a year or two but didn't really know the area or the local people, and didn't ever venture off-road by myself. I had not heard of OVLRL and had never belonged to a car club, so I had to wait.

One day, while cruising the pavement in Bell's Corners, windows down, thoughts on overtime/soccer fields or some such thing, I heard a voice from the car beside me.

It said: "Come out and get her muddy!". When I looked down, it was the smiling face of a leprechaun like person, whom was much later identified as Roy Baillie. He must have also said "check out Ottawa Valley Land Rovers" before we zoomed off, because shortly after I had found a phone number and joined the club.

For a year or so, I attended the events and tried to mentally log every reference to local trails made by other members. Some would mention Marlborough Forest, Larose Forest, Carp Ridge, or Flower Station. Or just Calabogie or Silver Lake. This is not really enough information to actually find a trail, believe me.

So, over a couple of years I went on runs with the club, joined OVO and EOTB as well, and went out with like minded enthusiasts from the Ottawa area, on runs planned and led by others.

It wasn't long before Larose was closed to full sized vehicles, and Marlborough was restricted to certain

months of the year, and other local trails were fenced in where they had previously been open.

Sometime after the 20th BP, and having a few years experience off-roading, I started checking a local map titled Land of Lakes which encompasses Silver Lake and Myer's Cave which is near the family cottage. I have a tattered map with the Bolton Creek trail highlighted, as well as Kingston Line Rd. which I believe Kevin Newell and I first explored on the club's behalf at that time. Kevin Willey was also part of that scouting trip if I remember correctly. It was really amazing to drive that trail when we didn't know where it went or if we could do it. But we did.

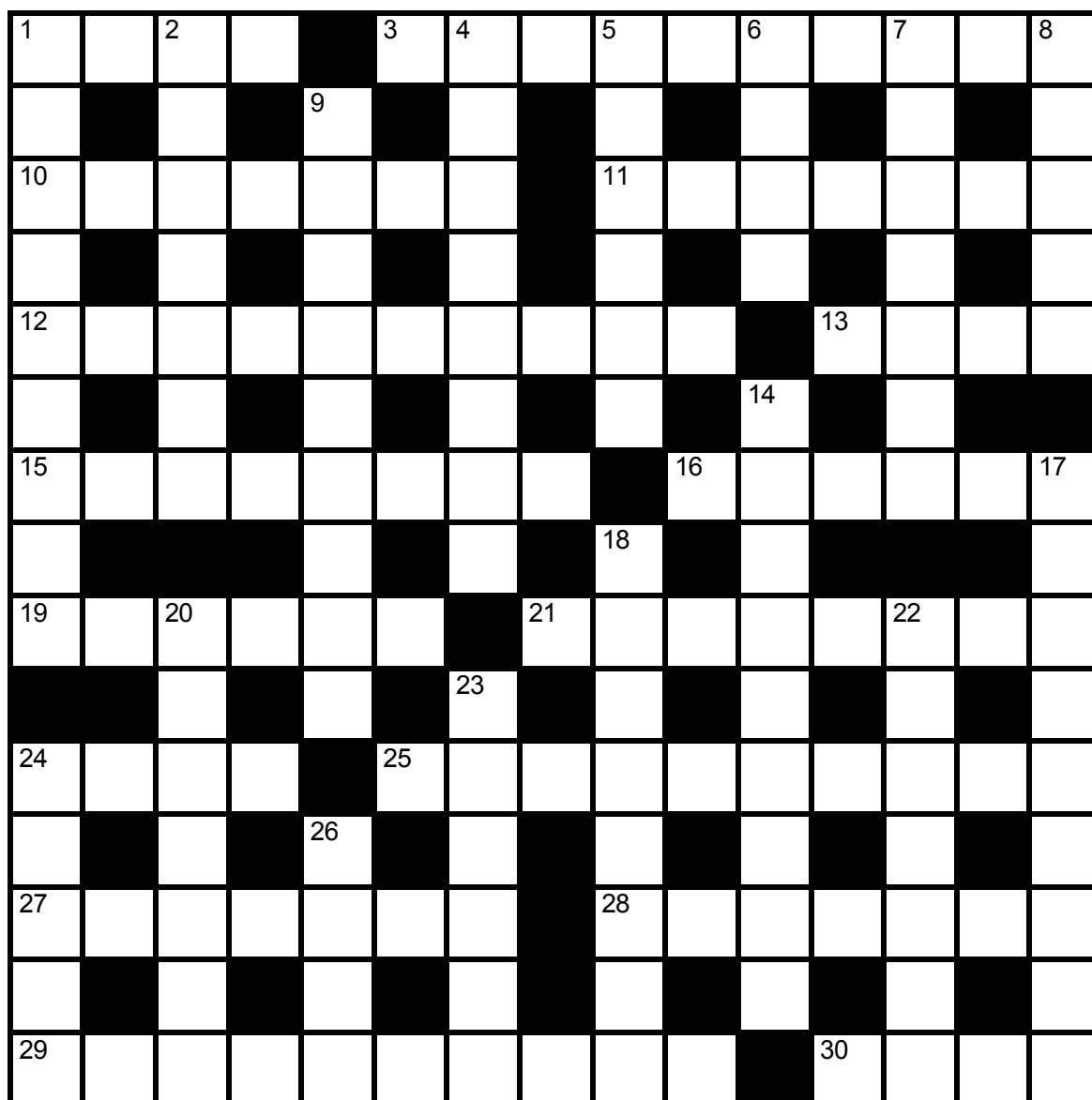
One thing I learned about that trail was that the trail head was at a county line, which was made because of survey trips or other government initiatives. Indeed, the entrance to the Deacon's is at the border of Frontenac and Lanark counties, and continues down to the old rail line and beyond. This pattern is repeated over and over.

In recent years, examination of the Eastern Ontario trail book that identifies snowmobile trails and bike paths and old railroad rights of way, we've located other runs in the area north of Silver Lake (the Tulip Chart Run), the K&P trail to Calabogie. A few years back we found another old rail bed north of Madoc that we took back to Marmora and beyond, again using the trail map to identify an entry point. While we didn't have the vehicles or the time to investigate, there was at least one trail heading north through a few feet of swampy water that begs another visit.

In recent years, I have made several runs with Roy Parsons to check out a few trails south and west of Ottawa that he has identified. Roy often uses satellite images on Google Maps to scout both ends of a trail that he has spotted from one end or the other. You never know until you try if you will get through, get stuck, or get turned around, but when you find a trail that gets you to destination, it is always satisfying.



Birthday Party Crossword Puzzle



Across

1. OVL R sub-group, Ted ____ Sighting Society
3. Series I engine description (6,4)
10. L-R owners' favourite domain (3,4)
11. L-R passenger-restraint, sometimes
12. DIY paint containers, slangily (6,4)
13. Birthday Party cooler contents, commonly
15. Auto-stereo feature, frequently (1,1,6)
16. Engine-oil classifications
19. L-R balls do it
21. Radio noise, to some (3,5)
24. Transfer ____, L-R drivetrain component
25. One-lane road, you might say (5,5)
27. Birthday Party event
28. Series L-R items, once steel then plastic
29. Compression or oil-control device (6,4)
30. One of many around Birthday Party campfire

Down

1. L-R cargo-carrying accessories (4,5)
2. Canvas-roof Series vehicle (4,3)
4. Firm price, a.k.a ____ sticker (2,6)
5. Fuel-wasting activity
6. Std. ____, non-optional features briefly
7. Combination-wrench section (4,3)
8. Palindromic distributor item
9. Serious 4x4s' safety structures (4,5)
14. L-R chassis section (5,4)
17. L-R owner's tool-box item (6,3)
18. Traffic cop's weapon (5,3)
20. Summer windshield coating
22. CB-radio button
23. Non ____, fixer-upper for-sale-ad words
24. '50s Austin-built L-R competitor
26. Word preceding metre or pascal

Solution in next month's Newsletter

Created by OVL R member Murray Jackson © 2013

The Wrong Cast Iron

by Andrew Watkins

Having convinced myself that there is little connection between mathematical reasoning and the pursuit of old Land-Rovers, and as mathematics is a fundamental of nature, a consequence of the above, is that there is no link between the survival instinct and the Series IIA long wheel base project, that I have been considering for too long. So, with logic left firmly behind at the dock, the project has launched off to a slightly unstable start into a fog of uncertainty.

It began with a recent birthday present, which set me to thinking about cast iron. It was cast iron cooking vessel made by very well remunerated, and perhaps underutilized Frenchmen, working their 35 hour weeks. I don't know if we have very many things we buy today that are cast iron. The material brings back all the hallmarks of tradition and hand craftsmanship. The guys who make the pots probably text each other when it is time for lunch, but it seems like it is from a bygone age.

When we design and build production machinery these days, it is all aluminum and steel weld-ments. There is a machine tool industry, where weight and stability, and intricate large shapes make cast iron a good choice,

but the patternmakers of old are getting to be a rarer breed. In spite of being the backbone of the car engine for the best part of a century, and driving development from the industrial revolution, cast iron is too heavy for most things we make, and it is overlooked these days. So, in spite of being very happy with my birthday present, it was the wrong sort of cast iron. The right sort has four holes in it and things that go round and round. 2.25 litres is the correct volume to consider in a cast iron article, not 3.8 quarts of stew. The right colour is light grey with oil seeping out, not hunter green with casserole spilling over the side.

The desire to acquire the right sort of cast iron resulted in a 4 cylinder Series IIA engine arriving in my garage a few weeks ago. A bunch of other priorities has gotten in the way, but today, I began the engine strip down. The clutch, flywheel, bell-housing, manifolds and water pump are off so far. It has all gone very well to date. The rest of the peripherals are next, and then the head and crank. So, it could end up powering the project vehicle one day, perhaps not, if there is an irreparable issue. As a minimum, it is an education, and a beginning.

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Under the Dome with the BGB, part 2

by Dixon Kenner

This past March I started on the sad saga of the BGB. Replacing the Dormobile under the long standing, since 2009, "portable, or "gatineau" garage. Who says Rovers, or for that matter any older vehicle, do not take time. Ask Dave Pell about Fergie, his garage queen! In fact, I could fill pages with some of the assorted, sordid tales of woe about various vehicles that went under cover for a "short time only", displacing the wife's car for "just the weekend", and still remain there! Since wives also read this tome from time to time, it is best not reveal too much, or the secrets required to enable this kind of heroic work.¹

So, the BGB entered that hallowed hall of Roverdom, the garage, and as we read, it was not long before the wings needed to fly off, it was discovered that no matter how tempting Rivnuts look and work, if the bolts don't move for a decade or more, they spin very well and maybe a nut may have been a better idea because at least there is something hexagonal on the other side to grab onto, rather than using Vice Grips² in a space. Yes, Mr. Grinder made an appearance and the remains of the rivnuts will vanish.

By the end of February, as you read, the engine was out, the wings away and we could see what other things may have transpired since the last time this was all apart in the mid 1990's. So, March. Well, there was a bit of a thaw in March. One so efficient at dropping the snow pack around the Dome that the space inside the dome was a lake several inches deep. This aborted the first RoverNight there in favour of Alastair's until the weather normalised and froze that lake, which indeed it did shortly there after. Hint, fireplace ash turns the surface of ice into something more resembling a sidewalk. Very nice.

Frozen again, effort was expended at first locating the future engine for the BGB. From Washington DC, this was a running example, first brought north to Bensfold, then to Canada. The head was in such excellent shape when we took it apart to check it that it went onto the Dormobile. But, in the intervening time it migrated deeper and deeper into the garage. Extraction was quite a challenge.

The next joy was looking at the poor bulkhead. It looked a little rusty in a spot, so maybe some wire brushing and attention might be in order. As well as addressing some rust on the Kodiak. So, out came the kodiak and it was discovered that maybe the condition of the bulkhead was a little worse than expected. In fact, there were two layers of footwell there. The original, and some patching done in the early 1970's. Possibly this should be explored. So, out came the upright for the passenger side which allowed us to poke and prod.

Note to the gentle reader. Dont' do these kinds of things unless you have access to either the underground Rover parts network (URPN), or have the phone number of Rovers North or Eric Riston at Atlantic British handy.

¹One of the legendary secrets of the TRSS is that unanswered question. After nearly two decades, has Christine ever managed to park in the garage? The Master remains a beacon of hope for us mere mortals.

²Yes, the real ones. I do not know about your experiences, but mine with knock-offs have never been the happiest. The original are by far the best, and they are always on sale at Canadian Tire or Princess Auto on a regular basis. Collect all of the different types. Alastair wishes that he had the one with the inbuilt chain for his oil filter...



Poking and prodding revealed that the poor BGB bulkhead has taken a direct hit by a rust torpedo and the air was pour in. The more we played around, the larger and larger the gaping hole became. The extra layer from the 1970's came out and the full extent of the damage was apparent. Not something for the faint of heart.

Thankfully, a quick email to one of the nodes of the URPN revealed an idle pair of footwells kicking about, so the next trip down to Bensfold to work on the 80 inch (different series of stories) resulted in a pair of footwells. Both right hand side as it turned out. Oops...

At this point, several things became important. One was that a large hole needed to be filled. That was solved with a trip to New Jersey. Second, once filled, that new footwell needs to be fettled into place, and one into place needs to be fixed there. So, someone who can weld was needed. Warning, this step is not as easy as it seems, and efforts to find those skills, when the object to we welded is not in the most convenient place, EG under the DormieDome and not in their shop, makes for some interesting challenges. This aspect alone, making arrangements, the inevitable delays, and then having those plans fall apart, are a bit frustrating and time consuming. Word of advice, before you poke and prod too much, have someone who can weld lined up first. At this point, RoverNight's moved to Alastair's, with his flakey propane heater <cough> until June.

June arrived, the Dome was swept out of the winter debris, it was dry, the time has come to roll up the side to allow light and air to flow through, reducing that long cave-like affect (the Dome is twenty feet long and affixed to the garage, which is another twenty plus feet into a darkened cave like setting filled with parts and other things, like every other garage really.

We finished chopping out the passenger footwell on the BGB with the grinder and cutting wheel. New footwells are made to cover the worst possible situation and can

be simply too big. So, the new footwell was trimmed down in size. While probably not done according to the factory manual, the new footwell was fitted from the inside as there was still the rest of the bulkhead paraphernalia to be taken into account. Actually, more of the doorpost end inside, the centre portion on the outside. The footwell is installed with the ratcheting clamps. Next step will to be to drill some holes and bolt it into place.

I must observe, welding aside, it was a lot easier than I expected. One cutting disc did decide to shatter, pieces flying everywhere. None hit me as a primary, but got some of the secondary and tertiary hits which were annoying. Wear goggles, a full face shield, cheap at Princess Auto, isn't a bad idea either.

So, the BGB sits, awaiting some TLW, and sadly won't make the Birthday Party this year.



Bensfold Backlog

by Benjamin Smith

Why do we drive these old cars? Pain, suffering, four letter words. As you can guess I've been spending a bunch of time out in the barn. In the last installment I mentioned replacing the shocks on my Disco 1. That did not fix the wobble between 45 and 75 mph. So onto the next possible item. Bushings.

My first gripe is that for eons I've had a box of poly bushings in my Disco spares pile. It even has a picture of a Disco 1 on the box. But does it have Disco 1 bushings? No. Series bushings. Who the heck puts Series parts into a box with a Disco on it?

It was a weekend and I had ordered parts. First up was to take off the passenger side front radius arm. That one because it was closer to my tools. Air tools make taking some things easy--like that big nut off the end of the radius arm. Off in a jiffy. Then it is just two bolts holding the arm to the axle case, right? Number one came off easily. Number two was spinning the bushing. This is the side with the differential closest, so nothing can get lever in there to pull it out. And the hub is in the way to use a hammer and nailset. I fiddled with it for a long time. And then came out Mr. Angle Grinder. With the bolt out does the arm drop out? Of course not, you need to remove the drag link tie rod end from the arm. Then it relented and let me have the part.

The next adventure is getting the actual bushings out. With out a press you are up a creek. But with one it is a matter of setting it up. I find that using the correct size socket *just smaller than the hole) works best. I did have to load up the 10 ton press and wait for the minor "BANG" as the bushing moved for the first time in 17 years. Putting them back in is the reverse procedure, right? Nope. I find that I like to tape the socket to the part that I'm pressing back in. Just a wrap along the edges. This removes a degree of freedom in the

setup which usually spits the socket out when it gets "cocked." With some trouble I got them in.

I go to install the radius arm and find that the new bolts don't fit when the diff has a protector cover on it. So that had to come off to get the bolt in...

And then it was time for the driver's side. All ready to do battle, but it went like cakework! Well the radius arm was easy. But when I unhooked

the track rod from the swivel flopped under its own weight. Not good. The swivel needs a pre-load of something like 10 ft-lbs. But I had found my problem. To get down to adjusting, you need to remove the brake pads, unbolt the caliper and wire it to the side. Then I could remove the top pin and remove shims. 0.030" was removed on that side. And it was all bolted back together.

Of course the other side was bad as well and I had to pull that side apart again to pull shims. 0.045" this time--all of the shims in the diff. Plus replacing the panhard arm bushings.

But at this point the vibration was gone. If in doubt check your swivels.

This freed up time to work on other cars. I have my sister's 1999 Subaru Brighton that blew an engine. She and Dad bought a used one and installed it. But failed to get it running. A bad ground was the error. And easily fixed once spotting. But now she had moved on. Dad had asked me to get it running. But now her SO's Blazer dropped a wheel assembly due to rust and was done. Now they need the Subaru back. I had already replaced the downstream O2 sensor plus that muffler. It was throwing codes for O2 upstream sensors. I ordered the relevant rover parts. The Subaru was in the barn over the pit.

Last Friday I was heading from NJ down to Delaware for work. 70 mph middle lane. Suggendly there is a lout twapping from the front corner. I pull over. I check it out and all looks good in that area. Nothing looking broken or dripping. I get back in and try to start it to lip off the highway. But it won't start. Joy. I call my lifeline. Christina borrowed Cristina's RR L322 to come for the rescue. The trip phone was easy, but I had to take the day off from work.



That Subaru was still on the pit. I pulled the upstream O2 sensor. Though I needed to add a 4 foot pipe to the wrench to get it to budge. I got to put in the new one and realize that this is a Calif car (4 pin) and hence I don't have an O2 sensor wire 3 pin wire) A new one was orded from the FLAPS and came the next day. Quckly installed. Codes cleared and it ran nice. I still have an idle speed surging problem to takcke.

Now with the Subaru out, Dora could pull the Disco into the barn.

Dora was moved to the pit for later work. I did a compression check. Good news is that all had compression. Bad news is that I really didn't want to know about the one at 130 psi (others at 210 psi). But the cam is working. No fuel pressure though. I went looking under it to find other issues. And found the missing wires wrapped around the front propshaft. That was my thumping sound. It had pulled out the gearbox leg of the engine harness. Oh joy.



Sunday I got the spark plugs back in and MAS hooked up so that the Disco could be pushed outside. Now for Dora which had been my weekend plan. Getting ready for the birthday party before the night before, how quaint. The front bolts were about 1/8" loose. Under breaking there would be a clunk when the axle shifted so I knew something was amiss. The bolt nuts would not turn with a 4 foot pipe on the breaker bar. I had bought some new Ubolts for this job. Though I had gotten 3.25" radius ones not 3" ones. Mr angle grinder nicely cut off the old ones one at a time. New were fitted. I had to use a C-clamp to pull the ends the 1/4" in to install them. While over the pit I did the fluids part of the 3000 maintenance. New engine oil and filter. Topped off gear oil. Front diff was water contaminated so replaced. The OD oil replaced. I find the dip stick was AWOL. So it is in there somewhere. Ughh. One from a spare let me check the level. I still haven't started fixing the Disco.

But what is nice is that a few days before the BP the mt Series III 88" is essentially ready. Once I get the Disco running I am looking forward to getting back to other projects. Like Dixon's 80". Or my 80" Or my 101FC. One can hope, right?

Land Rover Stamps from Africa

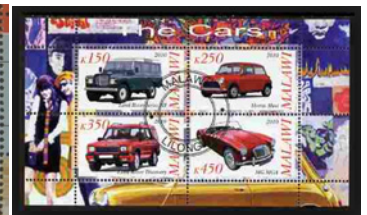
Below is a selection of stamps from Africa that features Land Rovers.



Republic of Niger, 100f (rural automobile post)
 Republic of Niger, 65f (Rural automobile post)



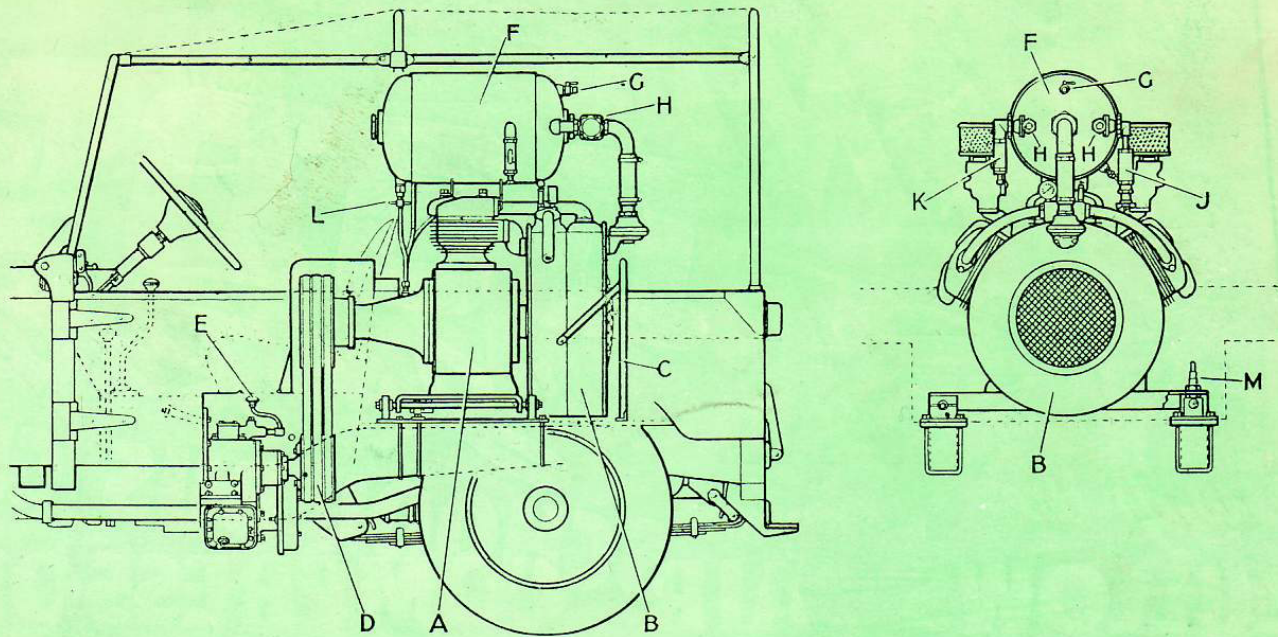
Republic of the Congo (1961) Stamp tax, 1f
 Liberia, 25c, (United Nations, 50 years UN Land Rovers)



Nukufetau-Tuvalu, \$1.50 (100 years of automobiles, 1950 Land Rover)
 Malawi, \$1.50 (Land Rover)



Tristan da Cunha, 60p, (local transport)
 Tristan da Cunha, 50p, (fire engine)



- A—Compressor unit.
- B—Cooler
- C—Cooler guard.
- D—"V" belt drive.
- E—Power take-off control lever.
- F—Air receiver.
- G—One $\frac{3}{8}$ " B.S.P. outlet.
- H—Two $\frac{3}{8}$ " B.S.P. outlet valves.
- J—Automatic unloader.
- K—Safety valve.
- L—Drain cock.
- M—Drive belt adjuster.

SPECIFICATION OF AIR COMPRESSOR

TYPE : Bullows 2A5000 3-cylinder 120° broad arrow air-cooled; two low-pressure cylinders $4\frac{1}{2}$ in. (114,3 mm.) bore by 3 in. (76,2 mm.) stroke; high-pressure cylinder $3\frac{3}{8}$ in. (85,7 mm.) bore by 3 in. (76,2 mm.) stroke. Inter- and after-coolers; automatic unloading gear; air intake filters. Displacement 72 cu. ft./min. (2m.³/min.) Free air delivery 60 cu. ft./min. (1,7m.³/min.) at 1300 R.P.M. Air delivery temperature within 15° of ambient air temperature.

NORMAL OPERATING PRESSURE : 100 lb./sq. in. (7kg./cm.²)

FUEL CONSUMPTION : Approximately 6 pints/hr. (3,4 litre/hr.) (under average working conditions).

DRIVE : Driven at governed speed from power take-off at vehicle gearbox by means of three "V" belts. Guard over drive belts with hinged cover for access to power take-off control lever.

MOUNTING : Fabricated steel bedplate bolted to chassis frame on anti-vibration rubber bushes. Screw adjustment in mounting for adjustment of drive belt tension. Tubular guard across rear of compressor to protect cooler from accidental damage (removed for clarity in illustration overleaf).

AIR RECEIVER : Mounted on brackets above high-pressure cylinder. Parallel length 20in. (508mm.); internal diameter 12 in. (305 mm.) Safety valve and drain cock.

OUTLET VALVES : Two $\frac{3}{8}$ in. B.S.P. and one $\frac{3}{8}$ in. B.S.P. outlet valves.

GOVERNOR CONTROL : Pneumatic control unit in engine governor linkage reduces engine speed under off-load conditions.

PRESSURE GAUGE : Air pressure gauge mounted on dash panel.

SUNDRIES : Copper and rubber piping with end fittings, brackets, clips, etc.

The Bullows Air Compressor is mounted in the standard Land-Rover equipped with an engine governor and centre power take-off unit. For hot climates an engine oil cooler is also fitted.

Subject to alteration without notice.

PRICE ON APPLICATION

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The name Land-Rover is a registered trade mark of The Rover Company Limited

Rovers & Parts for Sale

For Sale: 1991 Defender xMoD--Sheffield

For Sale: Well, not strictly a simple transaction, but some British Defender 110's have appeared on the Federal government Crown Assets Disposal Corporation's website for Canadian Forces Base Suffield. At time of writing, there are two 110's. Both 1991 Defenders, both with starting prices of a thousand dollars. They have 2.5l engines, are right-hand drive with a five speed gearbox. They are also 24 volt and have the military heavy duty chassis. Michelin 750R16C tires with steel (not alloy) rims. They are dented, and missing pieces. Neither vehicle runs or drives and will need to be towed away. These vehicles have never been registered in Canada, therefore a provincial safety inspection will be required. (They are older than fifteen years). Photos of the chassis do not show more than surface rust. Goto www.gcsurplus.ca for further details.



For Sale: 1974 SIII 88"

About 20K miles on the odometer. It still has the original tires, the 2.25 L engine, and the original green paint. It has been barn stored or garaged, oil sprayed the underside every fall, so the body and frame are in excellent shape. The engine however, has not been started in a few years. An attempt to jump start it, but reversing the cables killed the alternator. The starter has been rebuilt, but it is out of the car. The engine coolant has been maintained (anti freeze). A good project. Larry and Audry Renton RR#1 Kars, ON (613) 489-3224. *[Larry and Audry are both home bound in their 80s and look forward to calls especially regarding old English cars from the 1960's. -ed]*

Discovery 2 Steel Wheels with Tires and Wheel Nuts

Greetings, I have for sale a very clean set of 4 16" Genuine Steel Wheels for a Discovery 2 and I have the proper wheel nuts as well. They have snow tires on them right now that you could probably get a season out of. These would be an excellent set of wheels to mount some offroading tires onto or use as is. \$300.00 Please let me know and I can take some pictures if you require them. Can be picked up here or I could deliver them to the Birthday Party.

Andrew Finlayson (aka orly on the forum)

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FREE ad space to members

Send information and/or photo to the editors

Ads run for one month--please notify the editors each month to extend

The **LAND** **ROVER**



with the
BULLOWS AIR COMPRESSOR



CARRIES COMPRESSOR AND CREW!

Second page of advert is on page 22