



# BARTREAD



**WARTIME VEHICLE CONSERVATION GROUP**  
SOUTH AUSTRALIA



## AUSTRALIAN ARMY BUSHMASTER



Issue 30 — September 2018



# WARTIME VEHICLE CONSERVATION GROUP OFFICE BEARERS 2017 – 2018

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P/3. Registration Day.

P/5. Peter Hoadley Jeep Project.

P/7. Vickers Light Tank Restoration.

P/24. Special Deals.

P/25. WVCG Club Outings.

P/25. WVCG AGM Details.

P/26. Items For Sale.

P/28. WVCG Notices.

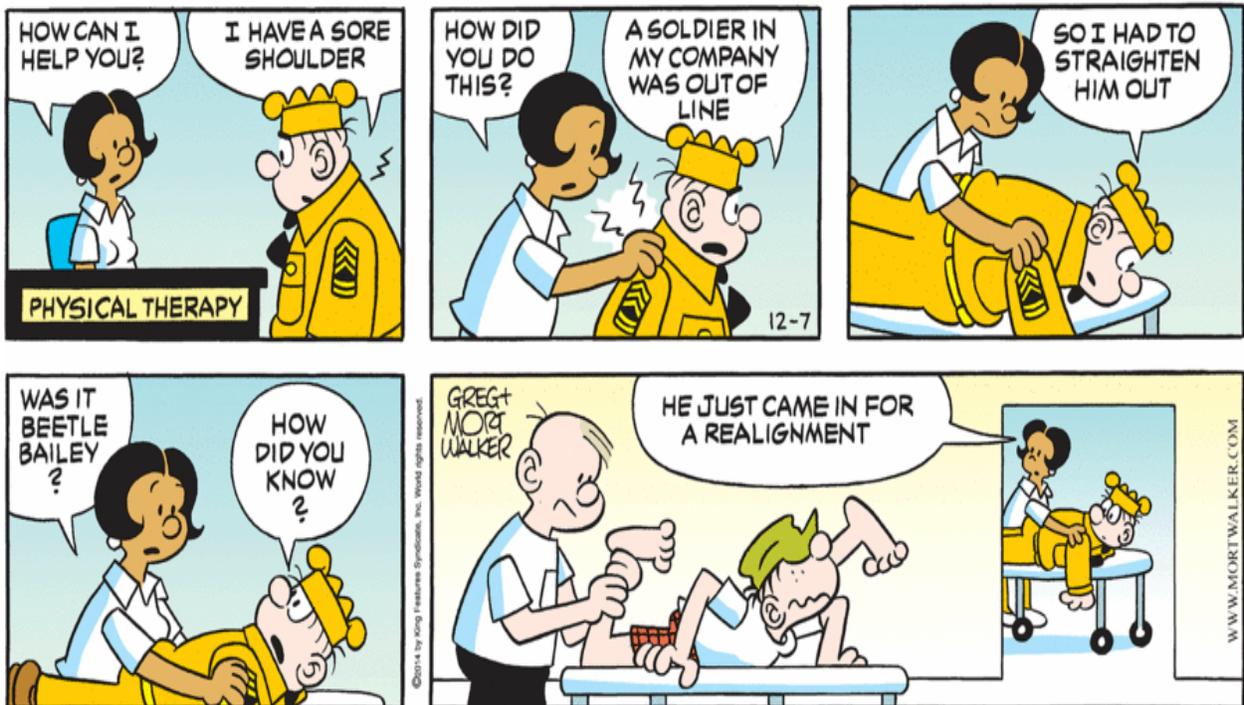
# WVCG REGISTRATION DAY 2018

The WVCG Registration Day on Sunday 24 June 2018 was again held at the Stanley Bridge Hotel Verdun, starting at 1200 Hours. Again members and their partners meals were subsidised by \$10 by the club. We could not use our regular room and were moved into the main restaurant. It turned out OK as we had a long table along the back wall and we had a good view of the goings on in the restaurant. Photos of some of the attendees are shown below.





A good afternoon was had by attending members. Treasurer Mick Jenner collected annual subscriptions from members and attended to the registration of historical vehicles. Some members still have outstanding annual fees and their historical vehicles are not legally registered or insured until outstanding fees are paid. *Treasurer: Mick Jenner*



# PHIL HOADLEY JEEP PROJECT

Quite a bit has happened since my last update. We now have a new alloy radiator and stainless-steel fuel tank! I have 3d printed an accurate representation of the original 0.30 calibre pistol grip and am now struggling with the aesthetics compared to the spade grip I made. The new tail shaft has been made, here's a picture of the original Mustang tail shaft and the new 300mm long one. I've also made a new shifter handle using a replica KBAR USMC knife.





# Vickers Light Tank Restoration

I would like to thank Colin Jones for his kind permission to publish the restoration of his two Vickers Light Tanks, including photographs in the WVCG Magazine to share with our club members.

Tony VAN RHODA. Editor/Publisher.

THE RESTORATION CONTINUES: I will do a video when I make the two traversing gearboxes and show how easy they rotate. At the moment Bowerbird rotates 360deg easily, Quiet and no obstructions but on Wombat there is one spot that is a bit sticky so I will lift it and powder chalk it to see where the problem is and grind some clearance for full rotation but apart from that they are good. The tanks certainly do have a very busy front on them and I think they still would have had the odd problem with a few empty shells inside getting caught in the wrong place and there would not be much room inside for two blokes having to bend down to keep it clean. The last operational base close to me that had these tanks is about 9 hours away so I probably won't do a trip there but I will endeavour to get them both in a formal display when they are both running. I guess you could say they are formally back from the dead now that I have put their names back on them.



I will have to start looking at the mechanicals pretty soon as most of the look at parts are done. That's going to be interesting. I still have lots of internal parts to make and fitting the turret baskets with supports will be a bit of a pain but they all have to be done.



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From the information I have, Bowerbird was found in a dump and had been buried for quite a long time. The story I heard was the person I bought it from was told there was a tank buried in a dump a long time ago and he then proceeded to dig around with a backhoe and eventually found it. it was in very poor condition and stripped out with no suspension but the hull was uncut as you can

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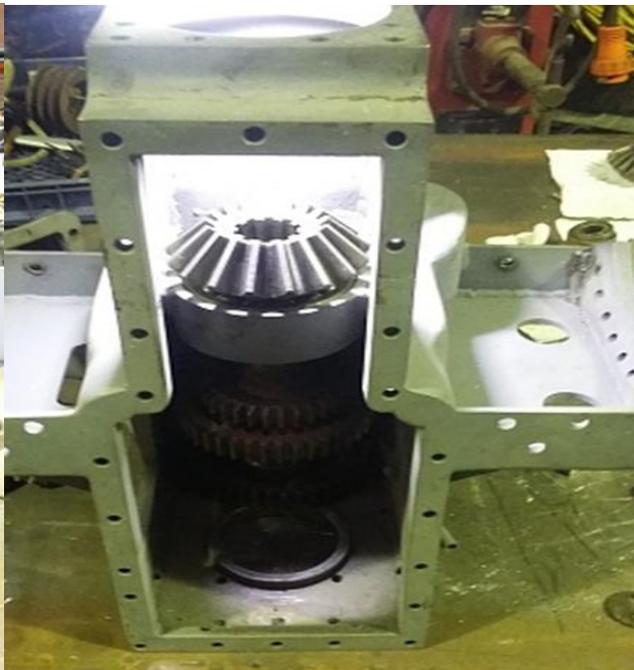
see by my earlier pictures. As far as Wombat is concerned, pure luck. I don't know its history but I will contact the previous owner and get some more history about how and exactly where he acquired them. I do know they were found in different locations so the sequential numbers are pure luck. When traversed 90 deg the tray does sit over the edge of the tank for ease of emptying Here's a couple of pictures of the splash guard with a bullet in there. I would have thought they would have bolted it level with the top so they don't sit behind and put pressure on the plate when elevated. As I lifted the gun port it did jamb the casing above the hinge but I guess they never thought it would cause a problem.

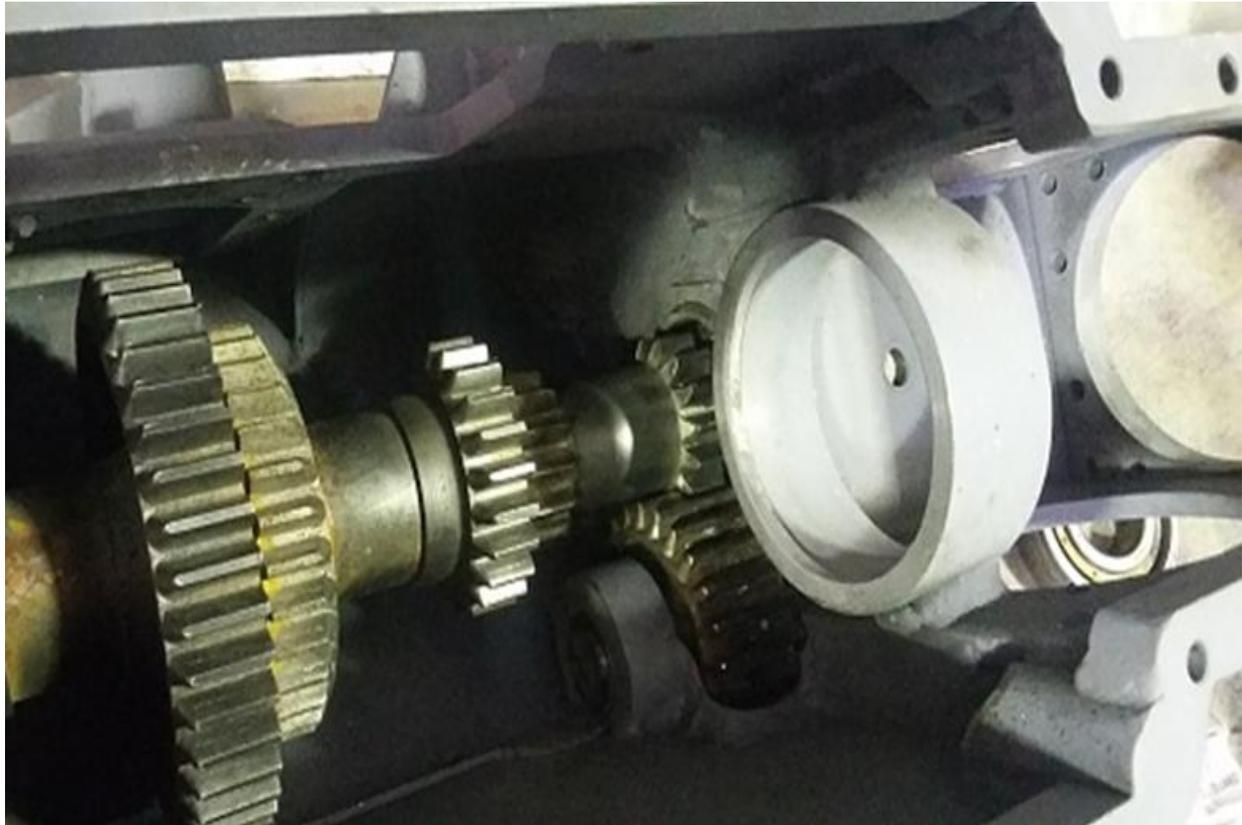


I am progressing on my transmission components and need to get some new seals and a bearing. As soon as I get my parts together I will do the assembly .Unfortunately, I have come across a problem with the Meadows and instead of a possible long or worse hold up, I have decided to marry my trans with a Chev 216. As much as it is disappointing to me and no doubt a lot of other interested followers I think it is not all lost if the two are running and not to say that the Meadows could be fitted at a later date. The Meadows is 88HP whereas the Chev is 85hp and I am also fortunate, that some time ago I bought a partly restored Chev Blitz with a close to restored engine. This has not been a light decision but I think necessary a one at this point in time. The reason I have chosen the Chev is they are both almost identical in length, height and HP and the Exhaust outlet is on the same side as the Meadows and also important is the similar age albeit a bit more later but still a military engine. The problem with the Meadows is the cam followers are seized solid and are in two parts the bottom part cannot come out unless the cam is taken out first and the cam won't come out without the followers moving up and down to let the cam come out. It has been sitting for a very long time and almost bonded as one and of course it is alloy and not very thick. The last thing I want to do at this stage is to destroy the block. I have tried numerous things to get them to move but not even one has budged. I think it is a project on its own and I am just looking at the big picture as they are getting so close to running. The trans is good and all the gears, shafts, linkage etc, are excellent so the operation of Bower Bird will still be the same as it was back in 1936 so I am sorry to disappoint all Meadows engine fans. I am still heading in the same direction but just on a different road.



I was doing an inspection yesterday of another sump I have to determine if I have enough space to make a larger squat type reservoir under the oil system and I am pretty sure I do so the existing system will be able to remain. As far as a blue flame engine in concerned, as much as more HP would be nice, I don't think it is of major importance. As long as the specifications are as close to the original as I can get it and it works well, I will be a happy vegemite. I have inspected the clutch set up and know that I need to change the spigot/pilot bearing and either find a clutch plate with the correct spline centre, get one made or change the centre myself. Just as a general observation I don't foresee any big problems in marrying the two together. I will post photos of my progress as usual and hopefully should not take too long. I still have to get some drive parts made that is way beyond my abilities. I feel for the poor buggers inside those tanks. Not much protection I'm afraid. should, turns as it should and to get a final distance to the engine spigot/pilot bearing as I need to make an adapter plate between the trans and the bell housing.





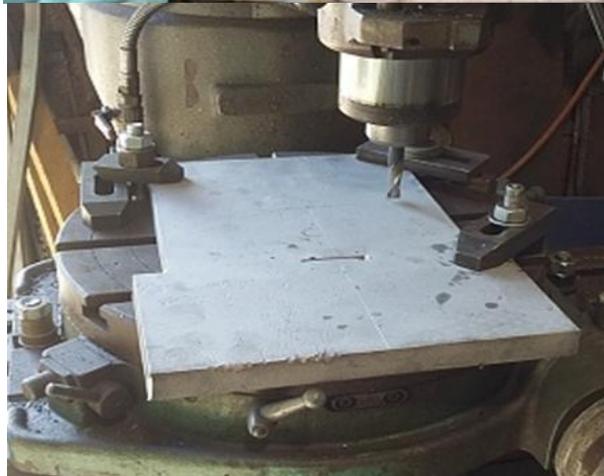
I am really happy that it fits great and everything turns without hitting so the clearances are good. The brass speedo turns with the gears and the bevel gears mesh with little to no play.



What a wonderful compact design these are. You have to hand it to the designers 80-90 years ago. As I am using the Chev Clutch and the Wilson gear box, I didn't think the clutch plate would be a perfect match as it's a different diameter and the spline centre also different but I was ever so lucky to find a brand-new replacement and a replacement spigot as well.



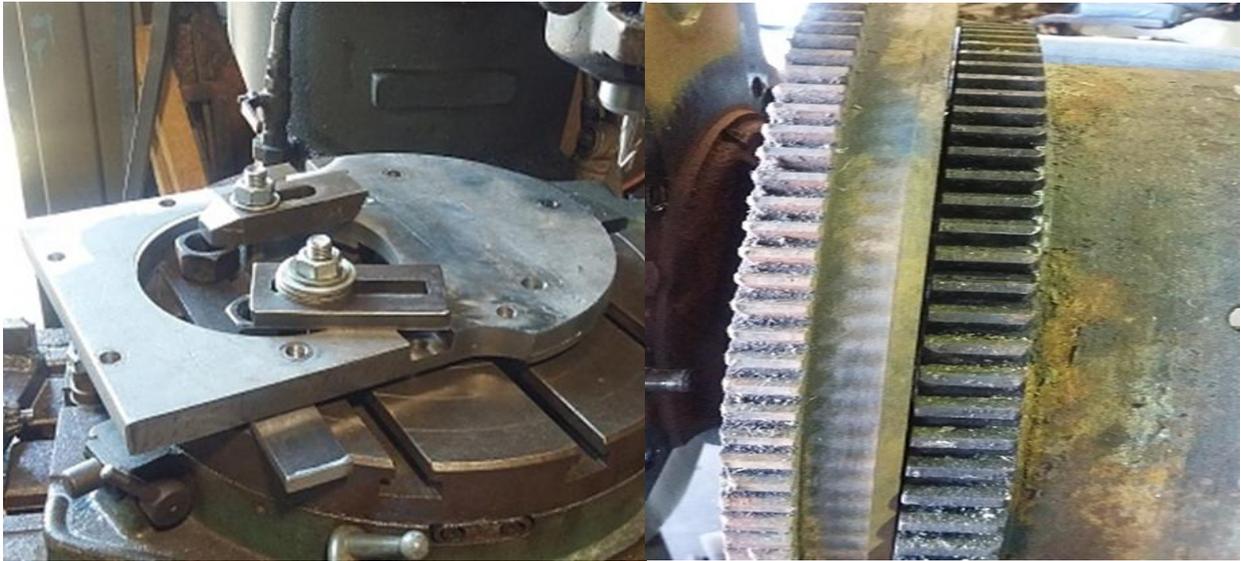
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Fortunately, the main pieces are round which does make it a lot easier making blanks. I turned up a bearing and hole plug to align the bell housing and the trans box which in theory should be a fool proof method and from what I have measured, it is good to go.





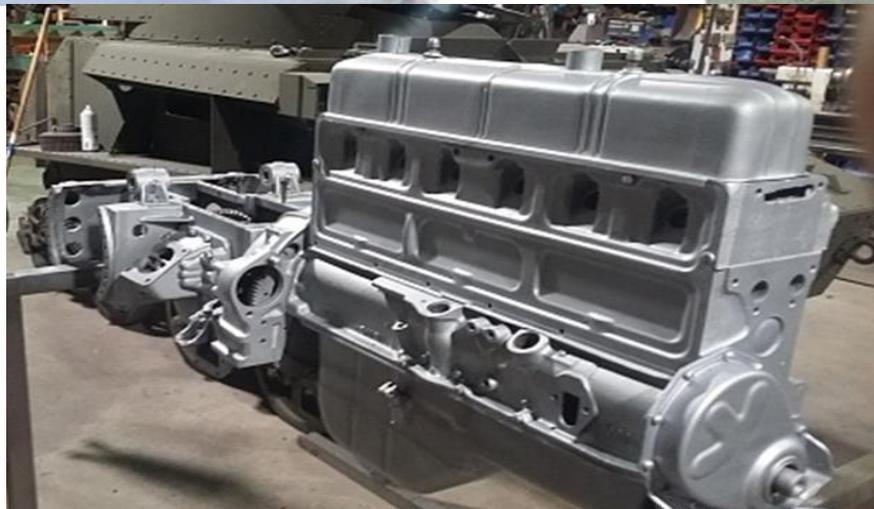
Most certainly an interesting factor I'm surprised that the direction of travel isn't a general standard. Anyway, I put the Meadows ring gear alongside the Chev and they appear to head in the same direction which looking from the front to the rear is anti-clockwise. Interesting point is the Chev starter pushes to the ring gear and the Meadows pulls into the ring gear but the starter is on the same side on both engines.

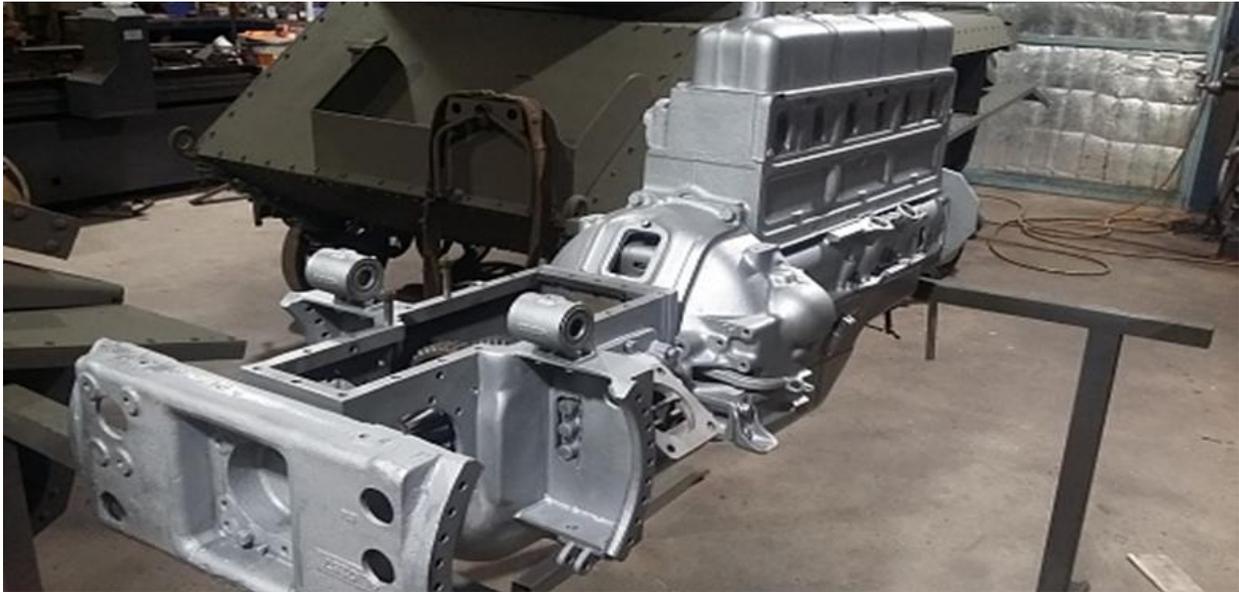


The engine is running the correct way I have been working on the drive the last few days including making gaskets and bits and pieces

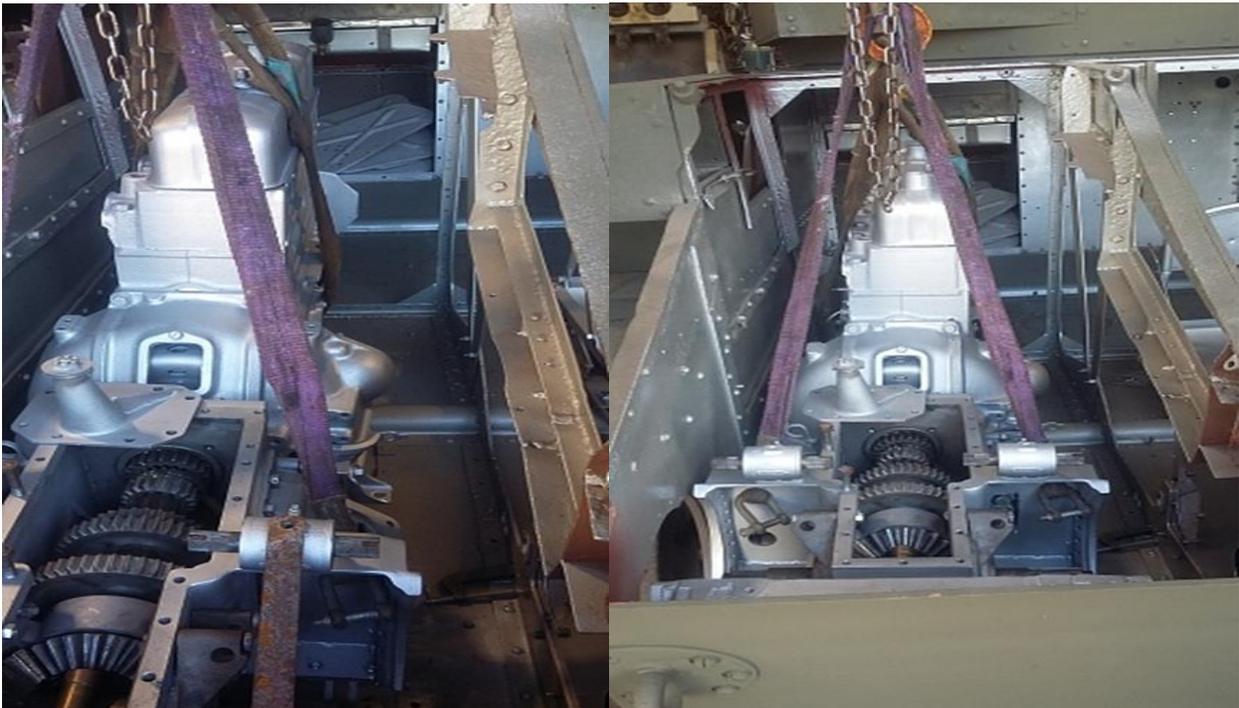


I know it's not the right colour for the Chev engine but it would be right for the Meadows so I made a corporate decision. I will be doing a test fit in the next day or two to work out what type of mounts I will make without modifying the hull at all. Whatever I make will be bolt on.





I put the drive train in today for a test but it failed I just wasn't paying attention. The cross-tube cover is in the way so some modification is in order. Lucky it's not a big job but I should have measured it before. Once I modify the sump I can then make the engine mounts.



I am fortunate that all the parts that need accessing are on the right side and the carb won't be a problem for access either. I certainly had a plan to increase the area of the sump and therefore the oil volume as well. I have come across a problem which I need some help. After cutting the bottom of the sump I realized that the oil pickup is right where the cross tube is and could not be in a worse possible location. In the photos you can see where the pickup is and it must go right to the bottom of the sump. My question is; I Can I move the pick up?; Can I reduce the depth of the

pickup?; If it is reduced what problem could result from that?; Could I just use a flexible pickup and relocate to another lower point?; Could I cut the pickup off and just put a new pipe straight from the pump with a small filter on the end?; Does the pickup need to be vertical?; Could it be external as in a remote style?; How is the pickup secured at the top and does it just unscrew?; This is a bit out of my comfort zone so I need some expert advice. Richard, it is out of a 4x4 blitz and the oil pickup just changed it from an easy mod to a What do I do.



After looking at the comments it seemed a long process to find replacement parts which could take weeks and being the impatient person, I am I thought it can't be that hard to change it so I took off the spring wire and mesh guard and found the pickup tube was just hanging inside about 50mm. After checking the cross tube cover I decided to cut the shroud and the pipe which gave me the extra clearance I needed but only just. I took about 50mm off the sump and was able to graft it back on the same place. I increased the depth of the front section which now gives me another 15-20% more volume of oil. My sump plug is still in the same place which also lines up with the cover plate in the floor.



Overall it took me about 5 hours but I'm happy with the outcome.



I cleaned it all up and gave it a coat of high temp silicone-based adhesive as a good insurance. I just need to give it 24 hrs to cure before painting. Job done



I have made and fitted the two new engine mounts which are made on the same principal as the original. The drive train fits like a glove.



Having only one drive hub I am attempting to fabricate another. As far as I know, the missing one is on the Vickers at Duxford. Anyway! I cut some supports so it retains the flat surface while bending. I know I won't get the exact shape but somewhere acceptable. I drilled through all three sections to stop it from pulling in when under pressure.



I am going to fabricate the bearing housings, weld and machine the excess off after completion. I need two more for the other tank but will wait until I decide what type of drive system will be suitable. after I weld in the boss, I will be able to lathe the outside perimeter down to size. The holes that are in the dish at the moment will be machined off and new holes put in the correct locations.



Almost finished the drive hub. I just need to drill the perimeter holes, face off the plate edge and make the bearing spacer that fits in between the two bearings but I will wait until I get my new ones. I sure will be disappointed if this tank doesn't drive after all this work But I do have plenty of confidence she'll work.





This part is the reduction hub off the driver's side and I need to make a complete one for the other side. The other part I just made was the outer hub which brings me to a question.?? I remember seeing on a thread somewhere here a T16 diff in pieces for refurbishment and I'm pretty sure I saw a similar set up. Am I right saying the T16 diff is the same. The chances of the gears being the same would be remote.



This part is what holds the reduction gears and hub. It's probably the most intricate part to fabricate. I'm using whatever steel I have lying around the place and I don't mind welding pieces together.



The design is quite complicated and I assume they had some voids to save on material and probably weight.



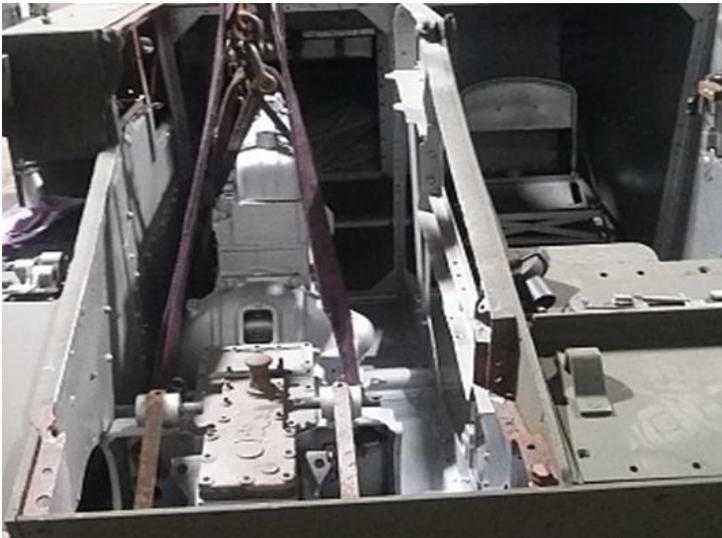
I need to do the top section which I will have to allow a couple of days to machine, fit and re machine to get it all running true. My new lathe is a god sent as my old one never had the diameter that I need. Any way it's coming together nicely.



I assure you, there is a lot I can't make. All you need is a good wife, good equipment, good workshop and in that order too. I will eventually sell one as I definitely don't need two, I think I spent more time with set up than welding and machining but as it's a final drive, I want to make sure I get it right the first time. All the cut-out recess parts would be for lubrication so I don't think I need to be quite so critical there but I will get in to that part with the die grinder tomorrow.



Here is a photo of the engine in place. The mounts are bolted down and I left the slings in place as it will have to come out a couple of times before it's finished.



## Vickers Light Tank Restoration

I would like to thank Colin Jones for his kind permission in sharing his restoration story and photographs with our WVCG members in the Club Magazine "Bartread".

Tony VAN RHODA. Editor.

## TO GIVE AWAY FREE

PRESIDENT; KEV TIPLER HAS THE FOLLOWING BOOKS TO GIVE AWAY FREE TO THE FIRST PERSONS TO CONTACT HIM TO CLAIM THEM. BOOKS ARE AS FOLLOWS:

1. MUD and DUST (VIETNAM) by MICHEAL CECICIL
2. MERCENARIES by TIM RIPLEY
3. SHOOT STRAIGHT YOU BASTARDS by NICK BLESZYNSKI
4. MILITARY VEHICLES. (ILLUSTRATED ENCYCLOPEDIA) by IAN HOGG & JOHN WEEKS

TO CLAIM ANY OF THE BOOKS YOU WILL HAVE TO CONTACT KEV.

MOBILE: 0403 267 294 or EMAIL: [kevintipler.kt@gmail.com](mailto:kevintipler.kt@gmail.com)



Phil HOADLEY has a  
1942 Jeep Rear Axle  
for sale. Best offer.

Contact Phil

Mob; 0400 083 996.

Email; [gkesu@adam.com.au](mailto:gkesu@adam.com.au)

## WVCG CLUB OUTINGS

THE **BAY TO BIRDWOOD RUN** WILL BE HELD ON THE 30 SEPTEMBER 2018. THERE ARE CHANGES FOR THOSE OF US WHO ARE PARTICIPATING IN THIS YEARS EVENT SHOULD NOTE THAT THERE IS AN ALTERNATIVE START FOR THE MILITARY VEHICLES SECTION . WE WILL BE LEAVING FROM THE NEW START POINT AT CIVIC PARK MODBURY. (OPPOSITE TEA TREE PLAZA) SEE DETAILS BELOW:

### Alternate Start

This year we are excited to announce that an alternate start has been organised for veteran vehicles (pre 1919) and military vehicles (up to 31 December 1959). This display will commemorate the 100th anniversary of the end of the Great War. The start at Civic Park, Modbury will shorten the 70km journey to the Finish event at Birdwood by approximately 40kms.

Come early and enjoy breakfast and a coffee and mingle with veteran owners and military vehicle enthusiasts before making your way up North East Road to the finish at the National Motor Museum, Birdwood.

Our thanks to the City of Tea Tree Gully for supporting this initiative.



**WVCG AGM:** WILL BE HELD AT THE TOWER HOTEL ON TUESDAY NIGHT 4th SEPTEMBER 2019 PRIOR TO NORMAL CLUB BUSINESS. SO THINK ABOUT SUPPORTING YOUR CLUB BY NOMINATING FOR ANY VACANT POSITION ON THE EXECUTIVE- REMEMBER IT IS YOUR CLUB

## CLUB RUN TO BIRDWOOD MUSEUM

WILL BE HELD ON SUNDAY THE 28th OCTOBER 2018 — SO THIS WILL GIVE MEMBERS WISHING TO PARTICIPATE PLENTY OF TIME TO ORGANISE THEIR VEHICLES AND THEMSELVES IT IS IMPORTANT TO ADVISE THE TREASURER MICK JENNER OF YOUR INTENTION, SO THAT WE ARE AWARE OF NUMBERS PRIOR TO THE EVENT. THE CLUB WILL PAY FOR THE ENTRY FEE TO THE BIRDWOOD MUSEUM AND THE BBQ LUNCH. THOSE WHO ATTENDED LAST YEARS RUN ALL HAD A GREAT TIME AND THE DISPLAY OF OUR VEHICLES WERE WELL RECEIVED BY MEMBERS OF THE PUBLIC ATTENDING THE MUSEUM. LET'S BEAT LAST YEARS NUMBER OF PARTICIPATING VEHICLES, A SPECIAL ROUTE DRIVING IN CONVOY TO THE MUSEUM WILL BE SET. MEMBERS WILL BE ADVISED OF DETAILS AS SOON AS THE ROUTE AND STARTING TIMES HAVE BEEN WORKED OUT. WE GUARANTEE A GOOD TIME FOR ALL MEMBERS.

# LANDROVER FOR SALE



FOR SALE \$23,000

1980 SERIES 3 LWB ARMY LAND ROVER FFR IN VERY GOOD CONDITION THOUSANDS OF DOLLARS SPENT TO BRING VEHICLE BACK TO ORIGINAL CONDITION. A LOT OF MECHANICAL WORK DONE, BRAKES COMPLETELY REPLACED, ALL BUSHES UNDER THE BODY REPLACED, THE GEARBOX HAS BEEN COMPLETELY REBUILT WITH ALL NEW PARTS. ALL INVOICES FOR ALL WORK AVAILABLE. ALSO INCLUDED ARE \$1200 WORTH OF SPARE PARTS, CAM NET WITH POLES. PLUS A NUMBER OF ORIGINAL RADIOS STILL FITTED. WILL CONSIDER A SWAP FOR A SIMILAR PRICED VEHICLE.

CONTACT; John Jenner. Mob: 0439 551 173 Email: [kerryn.j.jenner@bigpond.com](mailto:kerryn.j.jenner@bigpond.com)



## FOR SALE NOTICE

SHOULD MEMBERS HAVE ANY ITEMS FOR SALE THEY WISH LISTED IN BARTEAD. PLEASE FORWARD DETAILS WITH A PHOTOGRAPH BY EMAIL TO THE EDITOR AT; [gumbrae44@tpg.com.au](mailto:gumbrae44@tpg.com.au) REMEMBER IT IS YOUR MAGAZINE SO USE OUR FACILITIES.

## TYRES FOR SALE

FOUR TYRES 700 X 16 s/h FIRESTONE BRAND \$200 FOR THE FOUR.  
FIVE 900X16 MICHLIN TYRES—SUIT DODGE WEAPONS CARRIER  
ABOUT 25% \$100 EACH

CONTACT FRANK; MOBILE; 0418 828 747

## ITEMS FOR SALE

KEVIN TIPLER HAS THE FOLLOWING ITEMS FOR SALE

2 X JEEP CRANKSHAFTS ( NEED A GRIND ) @ \$40 EACH

5 X 700X 16 BARTREAD TYRES, WITH 30% TREAD REMAINING \$100.

MOBILE: 0403 267 294 or EMAIL: [kevintipler.kt@gmail.com](mailto:kevintipler.kt@gmail.com)

## JEEP ITEMS WANTED

KEVIN TIPLER IS LOOKING FOR THE FOLLOWING ITEMS FOR HIS RESTORATION.

A JEEP BONNET AND A JEEP GRILL. BOTH IN REASONABLE CONDITION

CONTACT KEVIN: MOBILE: 0403 267 294 or EMAIL: [kevintipler.kt@gmail.com](mailto:kevintipler.kt@gmail.com)

## WVCG EVENTS

### WVCG MONTHLY MEETINGS

ARE HELD AT THE TOWER HOTEL, MAGILL ON THE FIRST TUESDAY OF THE MONTH Starting 1900 HR'S. MEALS AVAILABLE ORDERS TAKEN AT THE BAR - ALL MEALS WILL BE SERVED IN THE MEETING ROOM.

**MICK JENNING: TREASURER.**

### A SPECIAL REQUEST

DON'T THROW AWAY THOSE OLD USED JEEP BARTREAD TYRES. RICK SHEARMAN WILL TAKE THEM OFF YOUR HANDS. IT DOESN'T MAKE ANY DIFFERENCE WHAT CONDITION THE TYRES ARE IN AS LONG AS THEY ARE NOT HOLED OR CRACKED.

CALL RICK SHEARMAN on 0408 835 018 or EMAIL: [rickshearman@bigpond.com](mailto:rickshearman@bigpond.com)

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