



Goldsmith

The Pyrenees Heritage Preservation
Magazine

No139 December 2016

Lake Goldsmith Steam Preservation Association Inc

Registration No:- A0032895

Rally Grounds:-

1234 Lake Goldsmith-Carngham Road
Lake Goldsmith Vic.3373

Next Rally

GOLDSMITH AUTUMN RALLY No 109

May 6 & 7 2017



Rally Theme:- Allis-Chalmers Tractors & Machinery

+Special Event:- THE CATS ARE BACK April 29 & 30



The Theme for the 108th Lake Goldsmith Rally was Military Vehicles and equipment and what a turn out it was. Our Rally Themes provide a stage for our members and visiting exhibitors to display their equipment "on mass" to the benefit of all. This always provides a varied presentation and it is amazing what gems appear from the woodwork.

The quadrangle has been the main display area for these events; however as popularity for these feature events grows the displays have had to spread to the arena area. This is great news for the visitors, and a boost to the event and a great addition to the Steam Rally and Grand Parade.



A wide variety of Military Vehicles line up in the Quadrangle for the 108th Rally

Mission Statement

To foster, nurture, encourage and demonstrate technical, agricultural and life skills associated with the Industrial Era.

To provide a quality environment where these skills may be used to educate and entertain members and visitors.

To run two weekend rallies each year, and be available at convenient time for other interested groups or individuals.

To conserve and develop a heritage collection.

Find us on the net at:- www.lakegoldsmithsteamrally.org.au

Or contact us by email info@lakegoldsmithsteamrally.org.au

Or write to: The Secretary:- P.O. Box 21 Beaufort 3373

Or contact the editor:- goldsmithgazet@optusnet.com.au

To register for this “cost & obligation free” bi-monthly e-magazine “Goldsmith”

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Editors Overview

Over the years the rally theme exhibits have provided some entertaining and colourful additions to our displays and Grand Parades. The quadrangle has been host to Australian made tractors, Blackstone engines, International trucks and tractors, Garden Tractors, Caterpillar Tractors and many more.

Some of these events have been spectacular, with earthmoving machinery revamping the arena, and a timber industry bush logging displays using steam and diesel power to load and unload jinkers.

The recent Military vehicle exhibition followed the trend with a fabulous display of vehicles and gear not normally seen at our steam rallies.

An 1840's field cannon complete with period dressed crew provided a flash of colour, sound and smoke as they demonstrated the loading and firing techniques used with muzzle loading field pieces in the American Civil War.

Military recovery vehicles made a spectacular display. The Pacific battlefield tank recovery truck shown on the cover was a star attraction with its armoured 6 man cab and massive winches. The 6 wheel drive wreckers and prime movers gave many their first look at these vehicles.

A Stuart Tank and a Bren Gun Carrier added some tracked vehicles to the display

Chev and Ford Blitz's, Jeeps, Land Rover's, a Dodge Command Car an Austin Champ and a 4 wheeled kitchen were among the tyred vehicles. A Para Trooper Bike was amongst the motor bike display.

All of this was too much for the Quadrangle and the large trucks and an Austin Westin Crane were on display at the North end of the arena.

This Military display was a popular addition to our Rally and our thanks go to all of those who participated and those who provided the displays, it was a great show.

Our Steam and IC trucks and tractors, many with trailing equipment put on their usual colourful and varied display, and gave an insight to the early days of powered transport. Again thanks to those who made this possible.

For those who enjoy variety, there was something for everyone in the Founders Building and the 60 member sheds that provide the unique experience of a Lake Goldsmith Rally.

Our Tuxford engine, which, dates from the late 1850's, is the oldest that we have, was honoured by a visit from a direct descendant of the Tuxford family. Felicity Tuxford and friend Lynda Sergeant were on a visit to gather information for a Tuxford Exhibition to be held in the UK in 2017 or 18.

The Navy Steam Club and their Foden Steam Wagon were joined this Rally by an information support group who were set up in the Founders Building. The display included pictures and information on the Navy's activities, past and present.

As with earlier editions, many pictures in this edition were donated with thanks by Eva's Gallery

The President, Committee and Members hope that our visitors and exhibitors enjoyed the day. Ed.

It's about time to have a look at what turned up for the themed event before we get to the Steam Rally, so here goes.

We are told that the army marches on its stomach, and the mobile kitchen went a long way to helping. This kitchen brings back memories of being treated to hot chocolate at night at school cadet camp at site 17 near Seymour in Victoria. These kitchens were well equipped and used steam as well, which let it enter the steam parade as well as the military parade.



The Shenandoah's Crew Aust. Inc.



The Gun crew put on a fabulous display of the sequenced procedure to safely load and fire a muzzle loading cannon. The Gun was displayed in the Founders building between demonstrations giving everyone a chance to get up close and have a look at this M1841 Mountain Howitzer used by the United States Army from 1837 to 1870. This Howitzer saw service in the Mexican American War, the American Indian Wars and in the Western Theatres of the American Civil War.

This Bronze Barrelled 12 pounder had a 1000 yard range and could be dismantled and carried on 3 Pack Animals.

Thanks to the crew for this great display of a historic military firepower.

C.S.S SHENANDOAH

This ship had a unique and interesting history. From our perspective it was repaired and restocked in Melbourne Australia in January and February of 1865. She was short of manpower and picked up 40 new crew members in the port where 19 of the crew had deserted.

The Shenandoah was built in Glasgow Scotland in 1863 and was launched as the Sea King for service in the East for carrying troops, and later Tea.

The Confederate Government purchased the ship in 1864 and renamed it the Shenandoah and fitted it out as an armed cruiser with a mission to destroy Union Commercial shipping.

The ship sailed for Australia via South Africa and arrived in Melbourne for repairs and stores before entering the Pacific. Prizes had been captured and sunk or bonded in the Atlantic and Indian Oceans, and more were captured in the Pacific. The ships commander learned that the war was over and altered the ships appearance by stowing the Guns below deck and assuming a commercial appearance. In this guise they proceeded to Liverpool in England and surrendered themselves and the ship to the British Government. The crew were pardoned as none declared their British or Colonial nationality. The ship was handed to the United States Government who in 1866 sold it to the Sultan of Zanzibar who renamed it El Majidi. She was beached in a storm with 5 other ships in 1872 and damaged beyond repair.

The Shenandoah weighed in at 1160 Tons, was 230 feet long with a Beam of 32'6". Fully rigged for sail she could get along at 16 Knots, and under the auxiliary steam engine this reduced to 8 knots.



The single propeller was 14' in diameter and made of bronze. The hull had an iron frame and Teak planking. Her armament consisted of 4 * 8" smooth bore cannon, 2 * 12 pound rifled cannon and 4 * 32 pound cannon.

All up she disposed of 38 ships, mainly whalers, and captured nearly 1000 prisoners without any casualties to the crew as a result of action. It never engaged any Union Navy vessels.

The Shenandoah fired the last shot of the Civil War, was the last to unfurl the Confederate Flag and was the only Confederate ship to circumnavigate the world.

The picture above was taken at Williamstown in Melbourne during repairs.



The Shenandoah Crew Aust Inc. is a local re-enactment Group



The Navy Steam Club is a very welcome part of our Rally's and this year their Foden Steam Lorry and Crew were supported by a display from the Navy's information support group who had tent in the Founders Building.

The Navy Steam Club is based at HMAS Cerberus training base at Crib Point near Hastings on Western Port Bay. They are an active volunteer group who exhibit at various public events around the state. The group was formed many years ago in Sydney when steam was still powering naval ships. The display is a great image builder for our youth who look to a life of adventure at Sea. At Lake Goldsmith it fits well with our Heritage display of people and machines that forged our nation. Similar displays from other services would provide our visitors a welcome insight into our rich history.



THE MINATURE FLOTILLER

Before we leave ships and the sea, a quick look at the model boats in action on the pond is in order.



Some gentle action from the operators who guide the fleet from armchair comfort.



Replicas of all manner of water craft have ploughed the seas of the Lake Goldsmith Pond.

Submarines and paddle steamer and yachts with sails have appeared at various times.

The model on the left is in keeping with the military theme of the day

Young and old all enjoy this idyllic scene .

It is difficult for us to display planes or ships at our rallies. We have covered the Navy now we can see something from the airforce's past. This Morris truck below was on display. It was used by the RAAF in an earlier life.



The Ford Jeep, above right, was used by the US Army Airforce. It was completely rebuilt by the Chanter Estate Military Museum in Moama NSW, just across the border from Echuca, Victoria. The Museum displayed other exhibits from its extensive collection of Military and Commercial vehicles.

Contact:- www.chanterestate.com.au

They have an impressive collection.

The Tuxford Engine

Our oldest steam engine, the Tuxford Twin Cylinder Steeple engine made in the late 1850's had a visit from a descendant of the Tuxford Family.

Felicite Tuxford and Lynda Sergeant arrived from the UK and made the trip to Lake Goldsmith on the Saturday of the Rally.

They are collecting information on the whereabouts of any surviving Tuxford machinery. Their Trip took them to Adelaide where members of the family had established an agency to sell Tuxford Machines in Australia. We know of 3 single cylinder engines surviving in Victoria and one in New Zealand.

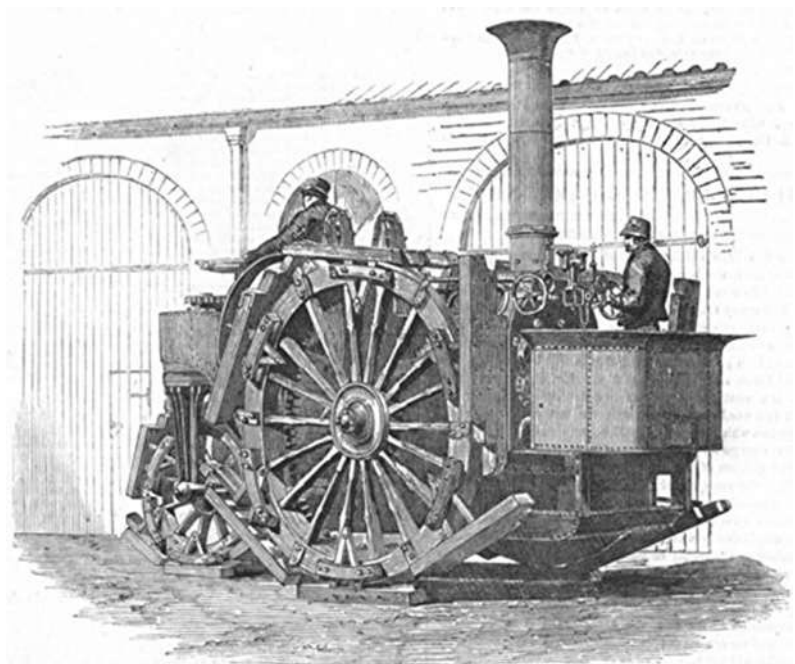
If any readers know of any farm machinery, traction engines or portable and stationary steam engines, or have pictures of such machinery or publications or advertisements the organisers would like to have pictures or copies of the information for a Tuxford Exhibition to be held in the UK in 2017 or 2018.

If you have any information you can contact the Editor on 03 9802 4008 or by email to goldsmithgazet@optusnet.com.au

and I will provide contact details or pass the information on. Anything that you have will be appreciated and it will help to build up a record of this company that wound up in 1880.

The Tuxfords started as bakers using a substantial windmill to grind flour. A steam engine was added to provide power when the wind was low. They learned about the need for base load power very early. It seems that their early experience was difficult to pass on to the future.

The original Windmill head has survived and has been remounted on an existing stone tower.



The Steeple Guides on our engine (top left) can be seen on the Tuxford Traction above, behind the driver.

The Tuxford Windmill is on the left, and Felicite Tuxford is in the centre picture. Lynda Sergeant is on the right. Lynda is associated with the group who look after the mill.

The Military theme at the Rally was dominated by the army. They have the tracked and wheeled vehicles that fit well with the heritage gear displayed at Lake Goldsmith.

The massive Pacific "Dragon Wagon" on the cover was a real surprise, apart from the fact I had no idea of their existence, to see the only one in the country was a real eye opener.

As fortune had it, it was close enough to be transported on the Hutchings family float. The 2 WW2 wreckers arrived from the same source on the same truck, and made a rare display of heavy recovery vehicles. We will return to them later in edition 140 in February with some extra stories following a trip to their home base.

In the main, the vehicles were of WW2 Vintage and later, which covered a terrific range of equipment.

The Victorian Military Vehicle Corp (VMVC) were in attendance were well represented. They can be found on the web at:- www.vmvc.org.au

If you have an interest in military vehicles this is a good place to start

The quadrangle was full, in fact the larger exhibits moved to the north end of the arena.

The lightest vehicle was Clive Keays BSA Airborn pushbike (below left) and the smallest powered



vehicle was a 1944 British Welbike Paratroopers Bike (above right) exhibited by the Chanter Estate Museum. This bike is powered by a 98cc Villiers 2 stroke engine. The bikes were manufactured by the Excelsior Motor Company in Birmingham. They only had one gear and weighed in at 32KG. They were built for the SOE (Special Operations Executive) and some saw action in Europe during Operation Market Garden, and some Commando units used them at Anzio and Normanby. Nearly 4000 were produced between 1942 and 1945 in 3 Marks. After the war the designer, John Dolphin, produced a commercial version called the Corgi. About 27000 were produced between 1947 and 1954.

Locally Malvern Star secured the Australian Agency for these Villiers power units and used them in its Auto-byke which was produced in Melbourne from around 1945 to 1949 when the engine went out of production

The BSA Airborne(below) saw action in Norway Italy and France between 1939 & 1945.



BSA produced over 125000 of these M20 single cylinder side valve 500cc motor bikes.

The military bike was a modified version of a civilian bike. It was produced from 1937 to 1955 and remained in service until the late 1960's.

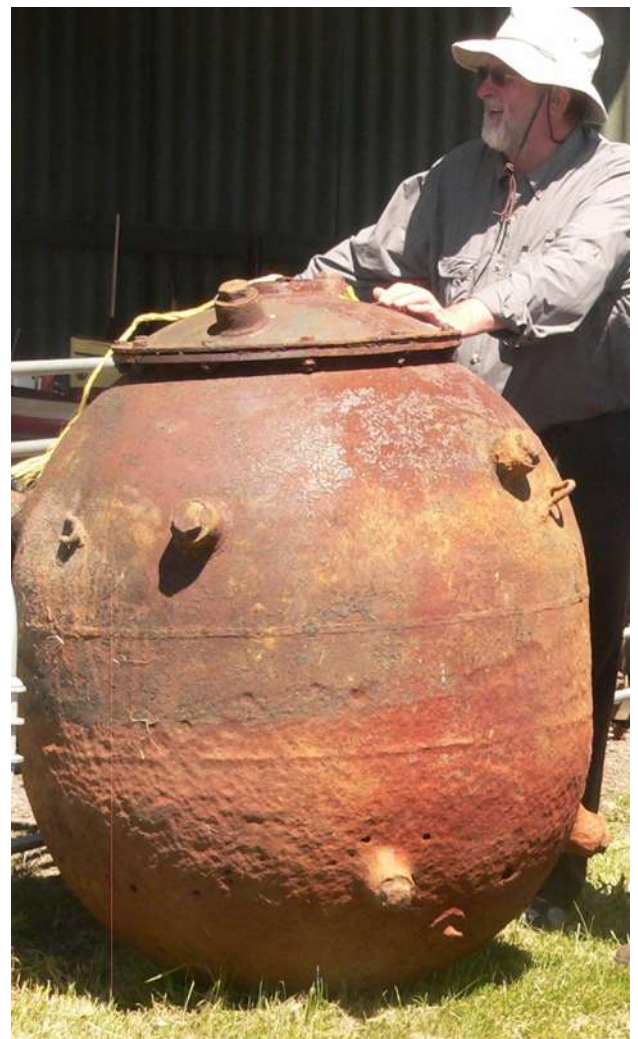
They saw service in all theaters of WW2 . They were considered slow and underpowered, but they were highly reliable and easy to maintain, and could be used with a side car.



I have been told that a wooden Cannon wooden work but they sure make neat backdrop , and remind us of smoke filled decks and Castle defences.



The contact mine casing on the right is a reminder of danger that lurked beneath the surface. This appears to be a British Mk 14 with the Horn fuse bases plugged. They were filled with 320 lb or 500 lb of Explosive. The explosive was TNT (amatol), RDX (cyclonite) or a 50/50 mix of ammonium nitrate and TNT. Later models had 20% aluminium added to



form minol ,which was a more powerful explosive.

It is interestibg to see one with the top cover on, mostly You see them open as incinerators or planters.



These contact mines were tethered to a sinker on the see floor, so that the mine sat just below the water surface. The picture on the left(from the UK) shows the detonator horns. Early 1920 models had Hertz acid detonators. When the horn bent it broke a vial of acid which generated a charge which set of the mine. Later versions used switches to ignite the charge.

This mine was an unexpected and unusual display.

WHEELED VEHICLES



The WW2 Jeep was developed following a call for submissions for a light weight 4 wheel drive vehicle by the US Government. Marmon Herrington were first of the line with 5 converted Ford 1/2 ton trucks in 1937, and American Bantam submitted 3 Austin roadsters in 1938.

In 1940 the US Army specified some standard specifications and called tenders with extremely short tender times. Willys-Overland Motors was the lowest bidder, but the first order went to American Bantam Car Company as they undertook to meet the short delivery schedule called for, and delivered the first for trial on Sept 23 1940. The vehicle designed by Karl Probst would evolve into the Willys MB, the Ford GPW, or what the Army called the Truck, ¼ ton, 4*4 and what everyone calls the Jeep.

The origins of the name are lost to time. It may have been a concoction of the Ford GPW designation, but it appears to have first been used publicly by the Willy's test driver, Irving Hausman who drove it up the Capitol steps in Washington. When asked by Washington Daily News reporter Ketherine Hillyer what it was he said it was a Jeep. The next day Feb 20 1941 the paper showed a photo of a "Jeep" going up the steps, and the name has stuck ever since.

Jeep was a popular nickname for odd machines in the 1930's, and it is thought to follow from a character "Eugene the jeep" in Popeye the Sailorman Comic strips.. Eugene was Popeys pet who could come up with solutions to impossible problems.



Willys produced 363 000 jeeps and Ford produced 280 000, plus 13000 amphibious jeeps.

Like the North American Mustang fighter, the Jeep was a highly successful and versatile machine, developed in a very short time, and it is always a favourite at rallies and exhibitions.

The GPW coding on the Ford was G for Government P for passenger vehicle and W for Willys design.

There is a lot of information available on the net and in books. Much of the above came from Wikipedia. It makes a fascinating read.



The last edition of Goldsmith gave some background on the CMP Ford and Chev Blitz trucks' The Chev above and the Ford in the background are good examples. Over 500 000 of these vehicles were produced and they made a major contribution to the outcome of the war.



Ex military Blitz's were adapted to many civil duties, forestry, mining construction and touring.





This Dodge WD56 Command Car was a rare sight. There were quite a few Dodge weapon carriers around after the war but this is the first Command Car that I have seen.

The $\frac{3}{4}$ ton WC 51 (& WC52 if it had a winch, (see below left) see www.robertsarmory.com for info and more) were introduced to replace the $\frac{1}{2}$ ton Dodge WC series produced from 1939 to 1942, with which they had a high parts interchange ability. Over 250 000 WC series were produced. Some were still in service with NATO until the late 1970's which says a lot for their reliability and effectiveness.

The pictures below centre and right from Wikipedia show hundreds of WC trucks outside the Dodge Factory, and a good demonstration of the advantages of substantial body work.

The WC series was developed by the Fargo division of Chrysler .In 1948 the WC series evolved into the similar looking M-37 which was used by all US Military Services and lasted in service into the 1980's. This series was said to be one of the toughest and reliable military trucks ever built





Various body styles for produced for this versatile vehicle.



Left the WC51 in the water trough, and centre, the earlier WC4, and the M37 is on the right.

www.olive-drab.co also have a lot of information on this fabulous series of military vehicles.

LANDROVER



There was a large contingent of Land Rovers of various models used by the military

The Land Rover was the brain child of Maurice Wilks, Rovers Chief Designer. The company's Coventry Factory had been seriously damaged during the war, and the luxury cars produced by the company were not in high demand in the immediate post war years. A further problem was a limit on steel availability for domestic car production.

Wilks used a disposal Jeep on his farm which was good for transport. His proposal for a marketable vehicle was to design a vehicle that combined the transport of the Jeep with the work capacity of a tractor. The result was a light truck with a tractor style power take off that could be used to drive a variety of farm implements.

The proto type used a Rover P3 motor and gearbox in a jeep chassis with a central steering wheel. The body was hand made from surplus Aluminium Magnesium alloy and the paint was surplus green aircraft cockpit paint.

Production prototypes shifted the emphasis to transport and the steering wheel moved to the right and a simple cheap body was developed. A larger F head engine of 1600cc was fitted and a 2 speed transfer case was developed. The result was a vehicle that was shorter, wider, heavier and faster than the jeep from which it had evolved, and it still had a PTO.

The vehicle was only expected to be in production for a short period and generate some cash to get the car production up and going. By the time the car line was up to speed it was outsold by the Land Rover.

The Series 1 was introduced at the Amsterdam Motor Show in 1948.

They produced 3000 or so in 1948, by 1950 the annual production was 16000

The first Land Rover trial by the Australian Army was 1 vehicle in 1949, and 11 more in 1951.
The First to enter survive was the Series 2 in 1958

Check out http://anzacsteel.hobbyvista.com/othervehicles/landroverph_1.htm for more info.



There was a good variety of Land Rovers on show at the 108th Lake Goldsmith Rally, and thanks to all who display these pieces of our history. Land Rovers seem to have been everywhere that our Army has been since their introduction.



This Mack 6 wheel drive Prime mover (left above) is massive when you are up close, and the Diamond T looks as ready for work as the day it was made.



This Mercedes Benz Unimog diesel looks like is good enough to go into service. The modified Bedford and Austin Champ were a rare and welcome sight



Unfortunately there is not enough space to include all of the exhibited vehicles at the 108th Rally.

TRACKED VEHICLES

Universal Carrier or Bren Gun Carrier

These lightly Armoured tracked Carriers were developed by Vickers-Armstrong who had taken over the Carden-Lloyd Company in 1928. Carden-Lloyd produced a variety of light carriers and tankettes (see picture on the right) based on Ford T mechanicals. The "T" Ford rear axle was at the front. These vehicles used 1/4" and 3/8" armour plate and weighed in at just over 1 ton, and about 450 were built.



Vickers Armstrong developed the concept and in 1935 they produced a prototype machine gun carrier based on Ford V8 truck mechanicals. The radiator, motor, gearbox and rear axle were production units. Sprung bogie units developed by Horstman were used with a short pitch track (+/-2") driven by a sprocket attached to the brake drum on the rear axle in lieu of a truck wheel.

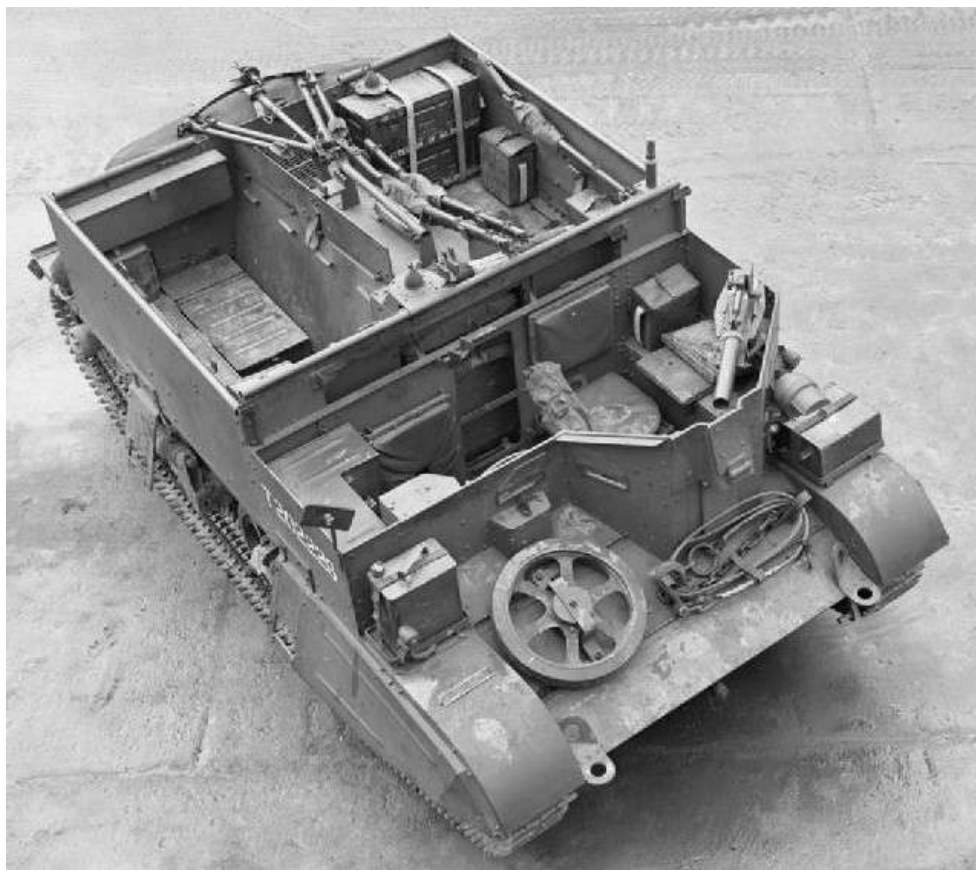
A major innovation was the unique steering system which moved the front bogies (which were attached via a tube) left or right to warp the track and forced the vehicle to follow a circle for large radius curves for tighter curves the driver kept turning the steering which applied a drive axle brake and slowed one track (and accelerated the other) to initiate a constant speed skid steer. This system allowed the vehicle to travel on a formed road without deflecting down the road camber towards the gutter. It minimised use of the brakes and most of all the constant engagement of both tracks prevented reverse steering which was common in brake and clutch steering system on the Carden-Lloyds and other similarly equipped tracked vehicles when negotiating steep terrain. This effect could be disastrous for untrained operators.

This proto type developed into the Dragon artillery tractors.

Following further evaluation the Machine Gun Carrier No2 Mark 1 was introduced in 1935 and orders for 1100 were placed with various manufacturers. The No 1 developed into a scout vehicle.

Thornycroft, Morris Motors, Averling-Barford Armstrong –Vickers and later Sentinel &, Nuffield/Wolseley.

The British adopted the Bren light machine Gun in 1935 and the first contract to use the name Bren Carrier was issued to Sentinel Waggon Company in November 1937. Orders Placed previously were amended to include the Bren Gun Mount. Previously they were fitted with Vickers water cooled medium machine Gun.



The various models being produced were consolidated in 1939 and the Universal Carrier went into production. These British built carriers using the 79E 65hp engine(presumably the 21 stud at that date.) were designated No 1 Mark 1 Later some were fitted with an 85hp American (US) engine and designated No2 Mark 1(the later 95hp EGAEA engine were designated No 2A Mark 1) . Those fitted with the 95hp Canadian engine were No 3 Mark 1. The American and Canadian engine had interchangeable parts, but the early motor did not. These prefixes followed through all Marks.

In 1942 the design was changed and a Mark 2 model was introduced (see previous page) The changes included a spare wheel and tow rope carried on the front, a waterproof welded hull. A Mark 3 was manufactured in small quantities in 1943. It was fitted with a Stacey Towing Hitch and could be fitted with High sides for deep wading,

The basic hull and front compartment remained much the same, but an enormous variety bodies and equipment appeared to adapt the Universal Carrier to all sorts of uses. They were used as observation posts, Machine gun Carriers, Troop Carriers Mortar Carriers, Gun Tractors, Ammunition Carriers, Flame Throwers, Ambulances and Scout cars. Whilst they were not built as combat vehicles they saw plenty of action.

Canada had a slow start as there was a delay developing an armour plate supply. They produced Mk 1 & Mk2 machines and later produced a stretched Carrier, the “Windsor” which had an extra bogie wheel. (top right)The T16 (centre right) was produced USA. It also had four track rollers but was a redesigned lever steered machine. About 20 000 were produced for British use.



Australian and New Zealand Forces used British Mark 1 and some Australian& New Zealand made carriers in North Africa and Greece

Australia produced about 5000 Carriers and New Zealand about 500? locally designed LP 2 (lower picture last page) carriers.

These machines were similar to the original but were modified to suit local parts and processes. They are recognisable by the steep front armour (Glacis) and vertical welded front towing/lifting lugs.

The Universal Carrier at the Rally (below) appears to be a Mark 2 based local production.



The Universal carrier was used in all theatres of World War 2 and Korea where Commonwealth troops were engaged. They were also used by the enemy when they had access to captured ones They appeared in German colours after Dunkirk (about 1000 had been sent over with the British expeditionary Force), and the war museum has a recaptured one in Japanese colours.

Any open topped vehicle is subject to risk from above, strafing, snipers and grenades to name a few. All unarmoured vehicles have this risk. The Carrier offer good side protection from infantry firearms and its low weight (about 4 Tons) and wide tracks gave it good mobility over most off-road areas.

The Carrier could be carried by large invasion Gliders to support airborne troops, and some, on occasions, took to the air unaided



The basic design payload was small, and towbars were not originally included, however, they managed to tow Guns and trailers plus the crew and their gear.

The on board weapons varied. The crew were armed with standard .303 SMLE bolt action rifles which were carried in prearranged mounts.

If a machine gun was carried it was generally protruded from the weapon slot in front of the gunners seat.

The most common weapon was the Bren gun (below) which was a clip magazine air cooled .303 machine gun that could be removed and used independently. Later, Bren guns were sometimes mounted on stands in the rear compartment for air defence.



The Bren Gun name was derived from Brno, the city in Czechoslovakia where the original was designed. It was made under licence and co-developed with the Royal Small Arms Factory at Enfield UK, in 1935. It was in service from 1938 to 2006, and a version is still in production in India. It was also produced by the Lithgow Small Arms Factory in New South Wales. It was gas operated, used a 20 round quickchange

magazine, had a firing rate of 500 Rounds per minute and weighed in at around 23 pounds. (It also made Cadet camps a lot more fun.)

The .55 Boys Anti-Tank rifle was often carried for defence against lightly armoured vehicles and soft skinned vehicles. It could also smash its way through brick and masonry walls, with a devastating effect on anyone behind it. The Cartridge was a belted rimless case with a 9/16" ϕ projectile weighing in at 60grams and travelled at about 2500 feet per second. It could penetrate 23mm of armour plate if it hit square on.



Like artillery it had a slide recoil system, and although it was heavy at 35 pounds, it could be used manually on a bipod. The muzzle brake and recoil made this an uncomfortable exercise. About 62000

were made between 1937 and 1943.

The 50 cal M2 Browning, when it became available was frequently mounted on a stand in the rear for air defence. Ballistically it was very similar to the Boys. It had similar armour penetration and being a machine gun it could be used for air defence, or any vehicles where its tracer rounds could ignite fuel, or its ball rounds could smash engine blocks. This was an extremely useful weapon. At 84 lbs it was too heavy for manual use. It was developed in 1933 from an earlier 1919 30 cal design by John Browning. It is still in service and about 3 million have been built. There is a lot of information on the net about the gun and the round which has been developed for long range sniping. This really is an incredible machine and a reflection on Browning's inventiveness.



Vickers .303 water cooled machine guns when fitted, were mounted in the slot. These gave a more sustained fire and frequently the water cooled barrel was connected to the engine cooling system (see lower picture on page 19)



Vickers acquired Maxim before WW1 and developed Maxim's design into an extremely reliable

machine gun. These portable machine guns could be used manually on a tripod, but required quite a crew to be effective.

They had far more firepower than the Bren. The belt feed and water cooled barrel kept them in action for long bursts. They were in service from 1912 to 1968.

These carriers were best known by their adopted name, The Bren Gun Carrier, But their official name of "Universal Carrier" is a title that reflects their multi function. For their time these machines were a remarkable achievement, and 112 000 were built.

The end of WW2 spelt the end for many of these fabulous carriers, It is fortunate that some survived to be preserved and provide a window to those who never new them in action.



THE STUART M3A1 TANK

The British named the lend-lease American Built M3 tanks “STUART” after an American Civil War Confederate General. The crews nicknamed them “HONEYES” due to the soft ride.

The M3 was an upgraded American M2 Light Tank, designed in response to the improvements in German Tank design which had led in part, to the rapid fall of Czechoslovakia, Poland and France.

The M3A1(Stuart Mk 1)was built between May 1942 and October 1943 and about 4600 were produced by the American Car & Foundry Company. The tank used a 250HP Continental-Wright Radial Air cooled petrol engine (or a diesel in some units). This gave a road speed of 38 MPH and an off-road speed of 18MPH. It was replaced by the M3A3 which replaced the flat front Armour with a curved one. Australia received about 370 M3 Stuart's, most came from America and some came from the United Kingdom. Various models were received including 50 with Diesel engines.

The Turret was fitted with a 37mm Anti-Tank Gun and a coaxial .30 ca machine gun. There was a forward facing ball mount machine gun in the hull, and another above the turret.

Some of these tanks went to Russia where they were not suitable to the conditions. The Americans used some in the Invasion of Africa via Morocco, and later in Burma. The bulk went to British and Commonwealth armies where they saw service in the Desert war. Later they were transferred to Burma and the Pacific theatre where they were more successfully employed against the lighter Japanese Tanks and Anti-Tank Guns. Australian units used these tanks in Egypt, Syria New Guinea and Borneo

The Tank was designed for scouting and flanking action. It was not a battle tank and it avoided contact with heavier German tanks and anti-tank guns. On occasions the turret was removed for use as a scouting vehicle when the heavier tanks were available. Later in the war these light tanks were replaced by the more heavily armoured Matildas.

The Stuart at the Rally is owned by Warwick Bryce and it can be seen at its home base at the Melbourne Steam Traction Engine Club (MSTEC) in Ferntree Gully Road Scoresby near Melbourne. (It will be on show there for their forthcoming Steamfest Rally in March)



This tank has been rebuilt from a hull that had been used as a farm tractor. Like the Bren Gun Carriers mentioned before, many of these tracked vehicles were sold as surplus, only a few survived intact, the bulk were scrapped or cut down for use as farm tractors which were in short supply at the time.

The picture on the left was taken when the hull sides were being built up, the new plate is painted pale blue. The track drive sprockets can be seen clearly. The top of the transmission and differential drive, which controls the steering, is visible inside the hull. The tank arrived without the original 7 cylinder motor. Hopefully one will turn up at some

point in the future. In the meantime an 8-71 Detroit Diesel and Road Ranger gearbox (as a rev matcher) has been fitted to provide a near original performance.

As can be seen in the photo on the left, a radiator has been fitted in the original air outlet. The track tension is adjusted on the rear idle wheels. The track bogie units required rebuilding.

The tracks used in this photo were the ones that arrived with the hull. This tank made its first appearance at Lake Goldsmith for the 100th Rally in November 2012. (see picture next page) The exterior hull was well under way, and the parade ground reverberated to the fabulous sound of an unsilenced GM





8-71. The Tank returned to Lake Goldsmith (below) for the 108th Rally with its Military theme



**The Stuart does a quick lap around the Arena Parade Ground in November 2012
The same Tank on the Parade Ground on November 2016. The major hull work has been completed and a Rotating Turret has been added and a “ new” set of tracks have been fitted.**



This restoration has taken many hundreds of hours and a lot of resources to get it to this state, and the work still goes on. Warwick is still hunting for original parts and fittings, particularly for the inside. If anyone can help they can be assured that parts will be used to help renovate this tank to its original condition. Please contact the editor on goldsmithgazet@optusnet.com.au It was great to see this machine back at Lake Goldsmith amongst so many other immaculately restored military vehicles, each of which has its own story.



The above Stuart M3A1 images were taken from the Australian War Memorial website. They show an early model with a faceted Turret which had side ports for 30 cal machine guns. These early models had 5 machine guns for the 4 man crew.



At about 14 tons the Stuart is a comfortable fit on Warwick's Australian made Leader truck. The combined load is a dual exhibit at any rally.

The last remaining category of Military Vehicles displayed at the last Rally were the Recovery Vehicles. These vehicles will be covered further on, where they will be included with a trip to the Nicholls family collection. Before we get there we will move to the other exhibits, but first a word of explanations about the reason for this lengthy print version of Goldsmith.

Previously I have said that this print version is expensive to print, and expensive to post. For the foreseeable future there will be 4 print versions per year Where it is practical the same content will continue across 6 bimonthly read quality electronic editions and 6 print quality editions on the webpage at:- www.lakegoldsmithsteamrally.org.au under the magazine tab.

This edition 139/140 which covers Dec 16 and Feb 17 is the first of this new series. The email limit is nominally about 10 meg, but many will not take more than 6 meg or thereabouts.

For this and an assortment of other reasons there are up to 40 email delivery rejects every mail out. This has taken days to sort out on occasions, and there are always about half a dozen that seem to resist all attempts to connect with them.

To allow a degree of normality, any future electronic rejects will get a standard email to say that their delivery was rejected and that a copy is available for download on the website and to confirm their current details to the editor: ie Name:-, phone no:- and email address:-, post code or Country if outside Australia, and mailing address if you are a financial member and receive the print version.

If this email does not get through it will be up to intd recipient to contact the Editor.

Goldsmith is available, cost and obligation free, electronically, to non-members as a promotion tool, It uses a separate mailing list to the clubs member list. It is still forwarded to ex members until they advise otherwise.

Please let me know any change of details at your earliest. Thanks in advance.

THE 108TH RALLY

The Rally got of to good start with pleasant weather and a good turn out of visitors





A flashback to the days when Road Plants travelled around rural areas to harvest and process crops the Scobie express is led by a Traction Engine, which in days gone by would have powered the plant when it arrived at a farm. Below, the Fergy Club put on a great display of the various models of this



famous Tractor as they line up for the grand parade at the 108th rally.



Clive Keays gives one of his Tohatsu fire pumps a work out on the dam. When the the calm returned a second Stuart tank appeared



On the left the Scienceworks team run a shuttle service to load wood for the day.





Upper left, an array of models are displayed in front of the Babcock Boiler, while above the Thompson boiler radiates a steady glow while it powers the Boilerhouse display, while right, President Trevor Oliver conducts the JOHN NORRIS BOILER HOUSE tour and outlines the history behind exhibits,



Darren Guy sets up the steam drag saw and tests the steam whistle above his immaculately manifolded boilerhouse shown below. This display of kerosene pressure lamps reflects earlier days.



The Landry family shed housed some rare early tractors and The Phillips shed was as neat as ever.



The Emu Creek Timber Mill attracted a good crowd when it gave demonstrations of the steam milling



The Lofts display shed and the Mt Emu Steam Engine Works have excellent open viewing areas.



The Caterpillar “ Collection” was well represented, and made their own arrangements for litter.



In addition to the clubs mower collection, there were many private vintage mowers on display.



This Howard rotary hoe and a rotary hoe with a finger mower” attachment from Hamilton.



A BMB Cultmate garden tractor complete with ploughing tools attached is a rare sight and has survived well.



Ready for the 109th Rally this immaculate Allis Chalmers model B could have just left the factory, and below 2 Bulldogs look like new after their recent arrival in shed 76.





A Jaques J15 rigged as a face shovel is dwarfed by a 19RB Ruston Bucyrus Drag line



Not to be outdone, the 1903 Bucyrus 65C and the 1925 Ruston No 4 Face Shovel steam up for the rally



This Austin Westen mobile crane and the Diamond Reo both made great displays at the North arena.



A dozer prepares a heap for the Ruston face shovel, and on the left a Hot Air engine makes a grand stand



Lake Goldsmith put on its best for the Rally. Heavy earlier rains helped the display above. This brings us to the end of edition 139 for the electronic and webpage edition. The rally follow up will continue in edition 140. The range of exhibits was enhanced by the addition of the military vehicles and equipment. Whilst we generally have some military at gear at every rally, this exhibit was, in my experience, unprecedented. These vehicles were never designed for the mass market, so their design was dictated by function and cost. The marketing teams never seem to have been invited leaving us with some fabulous designs. Many of these vehicles were manufactured when our survival as a nation was threatened, which gives them a special place in our history. Thanks to all of those who have restored this gear and made it available for the rally visitors and exhibitors to view.