



YOUNG HERITAGE MOTOR CLUB INC

DEDICATED TO THE RESTORATION OF HISTORIC VEHICLES

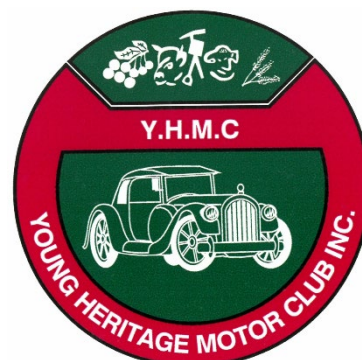
Newsletter - March 2024



Photograph – A few of the pre-1944 cars on the Chrysler Centenary. Line up at was at Young Railway Station, March 2024, before heading to Albury and then attending Chryslers Over the Murray.

Next Meeting: Wednesday, 10 April 2024 at 7.30pm
Venue: Club Rooms at the Young Showground

CHMC: <http://heritagemotoringcouncil.org.au>
NSWHMA: <https://historicmotoring.com.au>
YHMC web: <http://youngerheritagemotorclub.org.au>
YHMC E-mail: br314136@gmail.com
YHMC Facebook: [Young Heritage Motor Club Inc.](#)



THE SELF STARTER IS THE OFFICIAL JOURNAL OF THE YOUNG HERITAGE MOTOR CLUB INC.

Articles & comments reflect the views & opinions of the contributors and are not necessarily those of the club, its committee, or the editor.

YOUNG HERITAGE MOTOR CLUB INC

Directory 2024

LIFE MEMBERS

Reg & Jan Johnson	Margaret & Jeff Charlesworth
Barry & Margret Rose	Les Mc Donnell
Peter & Bev Kinsela	Les & Pam Warren
Col & Jeanette Harmer	

EXECUTIVE

President:.....Phil Dearden..... 0407 293 998 phil.dearden72@gmail.com
Vice President: Graeme Bell..... 0413 368 078 bell_graeme@hotmail.com
Secretary:.....Libby Plumley 0419 822 975 plumtops@bigpond.com
Assist Secretary:..... Col Harmer..... 6382 1712 colharmer468@gmail.com
Treasurer: Narelle Barrett 6382 3946
Assist Treasurer:..... Brian Dron..... 6382 7007 bdron@bigpond.com
Public Officer:.....David Laybutt 0408 699 123 davidlaybutt@bigpond.com
Registration Officer:.....Phil Dearden..... 0407 293 998 phil.dearden72@gmail.com
Web Master:.....Under discussion
Editor: Jo-Anne Holmes 0411 334 843 jmholmes1@live.com.au

SUB COMMITTEES

Registration H Plate

Noel Bell..... 6382 4459
Tony Foster..... 6383 2787
Ian Hardy..... 0407 949 521
Kim Davidson 6384 7347
Peter Kinsela 6382 1712
Mathew Miller 6382 2758

Registration CVS Plate

Graeme Bell..... 6383 7372
Noel Bell..... 6382 4459

Movement Book

Col Harmer 0419 822 975
Peter Kinsela..... 6382 1712
Dave Laybutt..... 0408 699 123

Events

Phil Dearden.....0407 293 998
Col Harmer.....0419 822 975
Dave Laybutt0408 699 123

Country Council Delegates

Graeme & Jenifer Bell..... 0413 368 078
Col & Jeanette Harmer 0419 822 975

Postal Address:

PO Box 479 Young NSW 2594

Bank account details for payments:

South West Slopes Credit Union
BSB: 802-367 Account: 400198728

YOUNG HERITAGE MOTOR CLUB INC

Minutes

Young Heritage Motor Club

Minutes of general club meeting

Held at Showground Club Room on 13 March 2024

The meeting was opened at 7.37 pm by President Phil Dearden. Members and visitors were welcomed. Sixteen members present and six apologies received as per the Attendance Book.

Visitors: Ray Dowling from Murringo.

Minutes: The minutes of the 14th February General Meeting were adopted. Moved Alan Barrett, Seconded Noel Bell. Carried.

Business Arising: Nil.

Secretary's Report: Nil.

Correspondence In: Nil.

Correspondence Out: Nil.

Moved Libby Plumley, second George Martin. Carried.

Treasurer's Report: The Treasurer's report was tabled. The closing balance was \$6,626.56. Moved by Treasurer Narelle Barrett that the treasurer's report be accepted, and any accounts passed for payment. Second Pam Warren.

Newsletter Editor: Members were reminded that contributions were welcomed in order to keep the Newsletter interesting and relevant.

New Members: Nil.

Rego Officer: Darryl Donohue – 1923 Buick, Col Harmer – Torana LJ 1972,
Emal Hakikat – 1966 Ford Mustang

Inspectors: Nil.

Public Officer: Nil.

Events: As per Events attachment to these minutes.

1 September Cootamundra Father's Day Swap Meet

This month's run. Held on Sunday 10 March Harden Truck Show

General Business

Barry Rose advised that he will not be available for the position of Registrations Officer. Phil Dearden agreed to be responsible for the recording of registration data from completed Declaration Forms. This record is in accordance with the requirements of the RMS.

It was noted that the death has occurred of Club member Andrew Loughhead of Koorawatha. His family is selling a 1988 Jaguar XJ.

It was noted with sadness that the death has occurred of Brett Johnson of Young. The Club was represented at his funeral.

Meeting closed at: 8:06 pm

Next meeting: Wednesday, 10 April at 7:30pm Showground Club Rooms.

Young Heritage Motor Club Annual General Meeting 2024

13 March 2024

Meeting Opened: 8:10 pm
President: Phil Dearden
Secretary: Libby Plumley
Members Present: 16 members as per Attendance Book
Apologies: 6 apologies as per Attendance Book
Previous Minutes: Moved Phil Dearden seconded Alan Barrett that previous minutes recorded on 8 March 2023 are a true and correct record. Carried.
Presidents Report: President Phil Dearden presented his report. Phil moved that his report be accepted, seconded George Martin. Carried.

Treasurer's Report: Treasurer Narelle Barrett tabled her report. It showed an opening balance of \$6790.35, Income \$7899.57, Expenditure \$7172.36 with Cash Assets and purchased non current assets of \$13,173.07. Moved Narelle Barrett that report as read be accepted, seconded Charles Plumley.

Election of Office Bearers: President Phil Dearden declared all positions vacant and asked member Graeme Bell to conduct the elections.

Position	Nominated	Moved	Seconded	Result
President:	Phil Dearden	Peter Kinsela	Noel Bell	Elected
Vice President:	Graeme Bell	Phil Dearden	A. Barrett	Elected
Secretary:	Libby Plumley	Alan Barrett	N. Barrett	Elected
Asst. Sec/Events:	Col Harmer	Alan Barrett	N. Barrett	Elected
Treasurer:	Narelle Barrett	Graeme Bell	P. Kinsela	Elected
Asst Treasurer:	Brian Dron	Graeme Bell	A. Barrett	Elected
Public Officer:	David Laybutt	Graeme Bell	C. Plumley	Elected
Editor:	Jo-Anne Holmes	Phil Dearden	A. Barrett	Elected
Web Master:	Under discussion			
Registrations Off.:	Phil Dearden	Graeme Bell	G. Martin	Elected
Club Room Security:	Alan Barrett	Phil Dearden	N. Bell	Elected
Reg. Inspectors:	To remain the same as 2023.			
H Plates:	Noel Bell, Tony Foster, Ian Hardy, Kim Davidson, Peter Kinsela, Mathew Miller			
CVS Plates:	Graeme Bell, Noel Bell			
Truck Plates:	Graeme Bell			
Events:	Phil Dearden, Col Harmer, David Laybutt, Neil Inman			
Delegates to CHMC:	Col and Jeanette Harmer			
Delegate to HMA:	Graeme Bell			
Movement Book:	As per 2023. Questioned if now redundant.			

General Business:

Personal stipends of \$100.00 each be paid to President, Secretary, Treasurer and Editor. Moved Graeme Bell, seconded Noel Bell.

Fair Trading Fee to be paid.

Agreed by club members to continue our membership at \$50.00 for 2024.

Members to notify the Newsletter Editor, Jo-Anne Holmes (email jmholmes1@live.com.au) if they are not receiving the newsletter.

Barry Rose, in his role as Registrations Officer, provided an annual summary of the Club's registrations. It was noted that Barry would not continue this role in 2024.

181 cars/trucks, 16 motorcycles, 6 caravans

114 financial members, 6 life members

Presentation of Reg Johnson Shield: President Phil Dearden presented the annual Reg Johnson Shield for club participation to Narelle Barrett for her continued service to the Club as Treasurer and her involvement in all club activities.

Closed: The meeting was declared closed at 8.35pm.

From the editor

With the 2024 AGM complete for another year, I am excited to say that I held on to my position as editor of the newsletter for 2024. I had to fend off a few contenders and perhaps a few bribes were handed out. Jokes aside, I am enjoying looking for content for each edition and finding some interesting facts along the way. Look out for the "history of brakes" story this month. I was a little startled to find that the car was invented towards the end of the 1900 century, and it took almost two decades to get around to brakes.

Elwyn Jordan has provided a story about a local who took him on the ride of his life in a 1950's Zephyr ute. It is a great read. As Elwyn was going through his "hard copy" pictures of the motorkhana to send me, he was reading the hand written notes on the back of each photo. It was then that he realised that the driver of the scary ride to the dump, the man from Tumut who rang to say "that was me" and one of the drivers in the motorkhana; were one in the same. Needless to say Mr Jordan feels very blessed that he lived to tell the story. Thank you again Elwyn for the article, and for sharing some history of Young.

On a personal note my mum and dad celebrated their 60th wedding anniversary this month. Congratulations Jennie and Col, what an amazing achievement. If anyone would like to announce special birthdays or events for our members please let me know. It is lovely to share in such memories.

Jo-Anne



The builder's method of changing a vintage tyre



Got to have the right gear when working on this heavy stuff.

The Reg Johnson Memorial Sheild Club
Member of the year for 2024



The Reg Johnson Shield was presented to Narelle Barrett for her ongoing support with the club as Treasurer. (Aunty) Narelle has worked tirelessly processing memberships, payments, balancing the books and passing on members name badges, as well as involvement in all club activities. Thank you for your hard work supporting the club.

Join us at the
Bunnings
Easter Family Event

BUNNINGS
warehouse

A family event with entertainment, D.I.Y. plus a Sausage sizzle fundraiser with all funds going to Sydney Children's Hospital Foundation

Date: Thursday 21st March 2024
Time: 5:00pm - 7:00pm

Activities and fun for the whole family

Loads to do at our annual Easter Family Night! We have kids DIY activities, games, fresh popcorn, hot cross buns, lots of our amazing local community groups, an easter egg hunt and a very special visitor for all the kids!

Scan Me

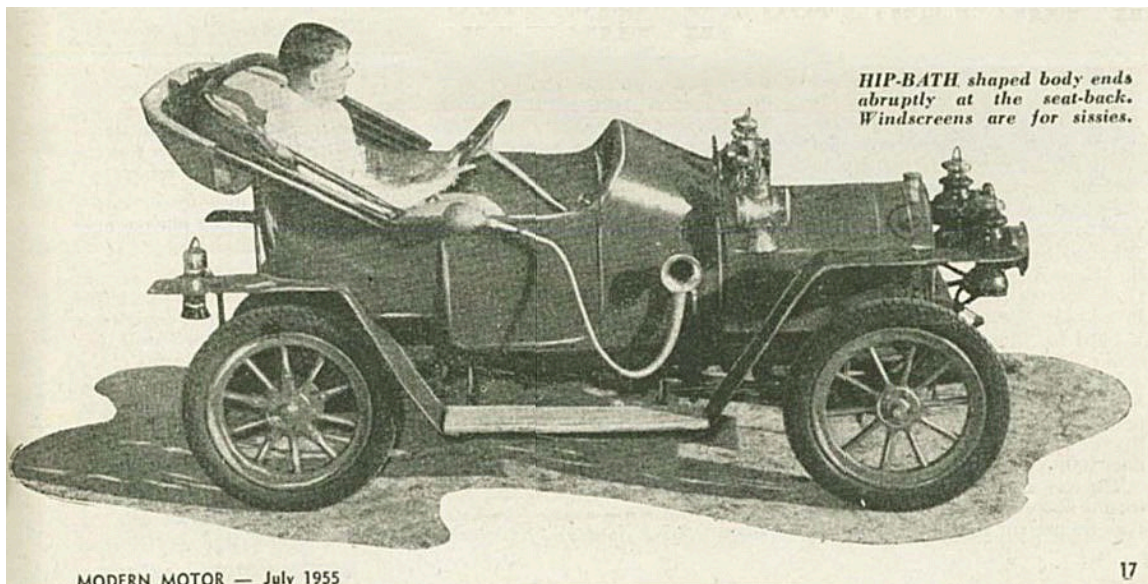
Refer to your local store for details and book your spot using the QR Code above.

For more information contact us on 63801800 or visit www.bunnings.com.au/young

BUNNINGS
warehouse

Le Zebra automobile picture published in 1955

Note the description below, that accompanied the picture (in particular the last sentence).



Club run to Gooloogong Pub

Sunday, 18 February 8 cars including couple of moderns left Young Railway Station at 10:00am and headed to Bendick Murrell rest stop for morning tea.

Peter and Bev Kinsella caught up with us at Bendick which made 9 vehicles carrying 18 members and friends. Aldo Malvacino bought Roy Baker along for the run, and it was great to catch up with him.



After coffee and something to eat the group headed off again toward Cowra, then turned left at Noonbinna and travelled through magnificent, irrigated river flats country to come out onto the Gooloogong Road, bypassing Cowra.

Alan Barrett was having a senior's moment when we turned left at Noonbinna and continued on but quickly realising the error, soon caught up.



Arrived at Gooloogong and enjoyed lunch at the pub where there was a lot of chatting and catching up. Phil and Mollie bought Anna along in the Kombi. Anna is out from France and is gaining work experience on the farm under Phil's guidance.

Leaving Gooloogong we headed for home through the forest to Grenfell and on to Young. The weather for the day was great, a little warm but not uncomfortable and made for a good run and day with very little traffic on the roads.



50th Kalimna Rally held at Albury – Wodonga

Held 1st to 4th March 2024

First on the itinerary was a meet and greet at our Head Quarters (H/Q), the Coachman Motel, on Friday night. Was great to catch up with everyone since the 2023 Kalimna. This was followed with our evening meal supplied by the Lions Club.

Saturday morning activities started from H/Q, rally participants headed out to the Army Museum with their excellent display from all past conflicts.

We then left for a run out to the Bethanga Hotel for a pub lunch. Bethanga is an old gold mining village with a lot of history.



On the return trip we visited the lookout over the Hume Dam, a great sight.

Time to have a short rest. Saturday evening, we gathered at 'The Venue' for the evening meal and the usual Kalimna entertainment, which was very good.



All weekend the weather was great but a little warm.

Sunday morning, heading off from H/Q again, we travelled out to Larkin's Farm for a viewing of their huge collection of Cars, Trucks, Tractors and Army vehicles and more, displayed in a huge purpose built shed where we enjoyed a fantastic home cooked morning tea.







Travelling back along the river we then proceeded to Thurgoona Golf Club for Lunch.



Back home again then at 5:00pm we again headed to H/Q for happy hour followed by a Lions Club catered BBQ. They did a great job.

Monday morning from 8:00am onwards we had breakfast at H/Q and said our goodbyes to everyone for another twelve months.

Next Kalimna will be held at Tumut and most have started bookings already at the Caravan Park.

Col.

THE SCARY RIDE TO THE DUMP

Story by Elwyn Jordan

In all my years of being associated with cars, I can only recall two or three occasions when I've been really afraid while being driven in a car. One of those times was in a late 1950s Zephyr ute, while on holidays with my Grandparents who lived at Young. Just up the road from where they lived was a family that some of our neighbouring friends used to occasionally visit. One day when we were there a friend of that family arrived in the afore-mentioned Zephyr. The family had some rubbish that needed to be taken to the dump, so took advantage of the young man with the ute. I was invited to go with him and went along for the ride.

Now, I didn't know it at the time, but the young guy with the ute was a local hoon known to his friends as "The Drifter", due to his penchant for charging down dirt roads and sliding his car sideways at every opportunity. I only found this out well over 50 years later. What happened was that "The Drifter", then a respectable and very successful businessman in Tumut, happened to read a copy of my local car club's magazine, wherein I had written a story of this wild ride to the dump. He then phoned me up, introducing himself and saying, "*I was that mad driver!*" His name was Phil Barton. Perhaps some of you might remember him? If you do, can I just say I wish you were there to warn me at the time!

Back then (mid 1960s) all the back roads between Victoria Gully, where my Grandparents and this other family lived, and Whiteman Ave, were dirt: as was the road from Whiteman Ave to the dump. So The Drifter (as I now know him) was in his element, and was attacking them like he was driving a local version of Targa Tasmania! I was gripping whatever I could hold onto for dear life, while he laughed deliriously each time the overloaded ute went sideways and slithered its way around another terrifying dirt corner.



This photo is of the actual car; taken back in those days; Phil at the wheel, kicking up the dust as he slides it around on a dirt road somewhere in the local district. Phil sent me the photo after we'd been talking about his exploits (this and many more) on the phone and in subsequent emails. (He's a nice guy and we have become online friends).

But back to the drive to the dump. The most terrifying moment came on the way back, along a straight section of dirt road from the dump with a right-angle turn at the end. Any straight section of road was an invitation for him to smash the accelerator to the floor; and this one was long enough for the now empty ute to gain considerable speed. The right-angle bend rushed towards us at an ever-increasing rate until it was surely impossible to stop! At the last moment he slammed his bare foot on the brake pedal: the car locked its wheels and fish-tailed towards the corner. ***Surely we'd crash!*** Then he was off the brake and onto the gas. The Zephyr shot sideways in a cloud of dust and somehow, miraculously, made it around the corner. More delirious laughter: "*That was exciting!*" He exclaimed.

Needless to say we did make it back alive. I don't think I ever saw him again – and I certainly never went in the car with him ever again!

YOUNG HERITAGE MOTOR CLUB INC

Events Calendar

Note: the following runs are permanently gazetted club runs

- ☞ Wallendbeen Market Days
- ☞ All Fly in or Open Days at the Temora Airport
- ☞ Every Saturday morning and last Sunday in the month for a coffee morning

March 2024

12 th to 19 th	Chrysler Anniversary Run and Chryslers on the Murray
Sun 17 th	Corowa Swim In
Wed 27 th	Club mid-week run day
Fri 29 th to Sun 1 st Apr	CHMC Annual Rally - Parkes Golden Anniversary
Thurs 28 th to 1 st Apr	Coffs camp (Military Vehicles)

April 2024

Sun 7 th	Goulburn Swap Meet. Also Auto Italia at Queanbeyan Park
Wed 10 th to Sun 14 th	Inverell Veteran Rally
Wed 10 th	Club meeting
Sun 14 th	Club run day
Sun 21 st	Yass Swap meet
Wed 24 th	Club mid-week run day

May 2024

Thur 2 nd to Mon 6 th	Pre 31 Rally – Orange
Mon 6 th to Tues 7 th	Dodge Brothers Mini Rally
Wed 8 th	Club meeting
Sun 12 th	Club run day
Fri 17 th to Sun 26 th	Willys Camp at Rathdowney
Wed 22 nd	Club mid-week run day
Fri 24 th to 27 th	Historic Winton Races
Sat 25 th	Old Skool Car Show at Koorawatha

Future events

Sun 21 st July	Wagga Swap meet
Sun 1 st September	Cootamundra Father's Day Swap meet

Chrysler Anniversary Tour
Celebrating the
CENTENARY OF THE FIRST CHRYSLER
BADGED MOTOR CAR
MARCH 2024



To be run as a Monte Carlo, with several starting points - currently have Starts in NSW, VIC and WA. Hoping to add QLD and TAS soon

NSW Schedule

- Mon 11th March 2024 Dubbo (Start for anyone in Northern NSW and Qld)
- Tues 12th March 2024 Young (meet cars coming from Sydney)
- Wed 13th March 2024 Wagga
- Thur 14th March 2024 Corowa - meet up with cars from Victoria, SA, WA & Tas.
- Fri 15th March 2024 Albury/Wodonga for 3 nights to attend Chryslers on the Murray.
- *Optional* Mon 18-19th March Albury - 2 extra days of events around Albury/Wodonga

Eligibility - Pre-1944 Chrysler, Imperial, Dodge Brothers, Dodge, Plymouth, De Soto, Fargo
 (i.e. of the Walter P Chrysler era) *AND*
 Predecessors e.g. Chalmers, Maxwell, Brush and Briscoe

Contacts: NSW & QLD - Matt 042 8827 287
 VIC & TAS - Mark 0419 347 325
 WA - Barry bpsuper@bigpond.com



CHMC 53rd ANNUAL RALLY
AND
PARKES ANTIQUE MOTOR CLUB'S
GOLDEN ANNIVERSARY

29th March to 1st April 2024



RALLY HEADQUARTERS at PARKES RACECOURSE
Eugowra Rd, PARKES

OUTLINE PROGRAMME

Friday 29th Registration from 2.00pm; CHMC General Meeting 7.00pm
 Saturday 30th Display and judging from 9.00am; Local Runs from 12 noon
 Sunday 31st Ecumenical Service from 7.30am; Touring run from 8.30am;
 Presentation Dinner commencing 6.30pm for 7.00pm
 Monday 1st Farewell breakfast from 7.30am

CONTACT: Barry Garment 0408 025 712
 Joyce Mann 0428 626 669

CLOSING DATE FOR ENTRIES Friday 15th March 2024
 at PO BOX 476 PARKES NSW 2870

Entry Forms available from parkesantiquemotorclub@gmail.com
 Or www.heritagemotoringcouncil.org.au

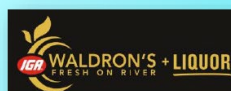
2024 COROWA SWIM-IN
& MILITARY VEHICLE GATHERING
YEAR OF THE BLITZ



Those were the days!

In this issue: Full details of the 2024 Corowa Swim-In & Military Vehicle Gathering
 Entry form - Swap meet stall form - Event shirts order forms - Vehicles for sale adverts
 Accommodation listings - New release Australian army jeep book - DUKW's in Antarctica
 and more

Thanks to our
Supporters :





VCCA NSW Premier Rally 2024
Celebrating our 70th Anniversary Year
 Proudly sponsored by
The National Trust of Australia (NSW)
 Administrators of
The Paul Butler Bequest



The VCCA NSW Premier Rally 2024 is from 10th to 14th April, 2024

We invite you to enter the Premier Rally in your vehicles manufactured prior to 1919. The rally will be centred in the Northern NSW town of Inverell.

Registrations: 10th April 3.30pm – 5.00pm National Transport Museum, 69 Rifle Range Rd, Inverell NSW 2360.

Thursday 11th April - Assemble at National Transport Museum for final Registrations and Mayoral Welcome, prior to a run to Gum Flat School for a Display and lunch, with optional runs to Copeton Dam and Bundarra.

Friday 12th April - Assemble at RSM car park in Lawrence St for a 9.00am departure to Graman for morning tea supplied by the Graman RFS volunteers, then onto Wallangra and Ashford for Lunch at the Bowling Club.

Saturday 13th April - Assemble at RSM car park departing 9.00am, travel to Tom Horwood's Tractor Museum, then onto Delungra for lunch at the Delungra Hotel.

Sunday 14th April - Assemble at National Transport Museum for a 9.00 am departure to Tingha for Morning Tea at the Wing Hing Long Museum, return to The National Transport Museum for lunch and a Public Display.

Tour Director Rod Holmes Ph 0455 266 890 rod.ruthholmes@gmail.com
Assisted by Laurie McGrath Ph 0403 030 998 lauriemarciaromcgrath@gmail.com
and Malcolm Roy Ph 0428 242 691 mwandiarov@bigpond.com

YASS SWAP MEET

PROUDLY HOSTED BY
YASS VALLEY CRUISERS CAR CLUB

7AM - 2PM

SUNDAY 21st APRIL 2024

@ YASS SHOWGROUNDS
27 Grand Junction Rd, Yass

Entry Fee - \$5 (Under 16 FREE)
Vendor Sites (7m x 5m) - \$25
FREE Camping (Saturday) available for vendors
STRICTLY NO FIRES

For further information contact:
Ray 0409 931 229

www.yassvalleycruisers.com Find us on Facebook

The 34th Goulburn Rotary Swap Meet

Goulburn Recreation Area, Veolia Arena, Grace Millsom Function Centre, Goulburn Show Grounds

7th Apr 2024

Next Date: 7th Apr 2024

47 Braidwood Road Goulburn NSW 2580

Contact Details
 rotarygoulburnswapmeet@gmail.com
 0456245836

Event Details
 Time: 7:00am - 4:00pm
 Frequency: Gates open 6am
 Status: Confirmed Event

One of Australia's largest swap meets, the annual Goulburn Swap Meet is conducted by the Goulburn Rotary Club and has been operating for 34 years.

There are far too many items to list, but if it is transportable and legal, it will most likely be traded there. Primarily a market sale of used motor vehicle parts (some stalls for tools and bric-a-brac).

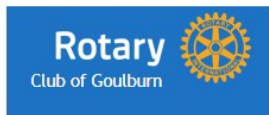
Hot food is available, and there is free off-road parking. More information will be found by following 'Goulburn Rotary Swap Meet' on Facebook as it comes out.

Proudly organised by the Goulburn Rotary Club.

Please contact us via email, phone call, or visit the Facebook page for any further information on attending or being part of the Goulburn Rotary Club Swap Meet.

Facilities

- Cafe
- Carpark
- Coach Parking
- Family Friendly
- Kiosk
- Parents Room
- Public Telephone
- Public Toilet
- Disabled access available, contact operator for details.



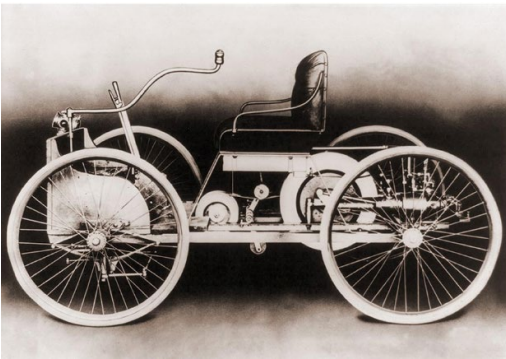
CHACA WAGGA WAGGA SWAP MEET

One of the largest Swap meets in Australia, the CHACA Wagga Wagga Swap Meet draws people from all over the country looking for rare finds, great bargains and a good yarn or two.

The weekend also incorporates the CHACA Show & Shine, a fantastic event that highlights some perfectly restored and maintained vehicles.

Wagga Show Ground
Cnr Bourke Street &, Urana St, Turvey Park
Gates open from 7.00am

The History of Automobile Brakes



Nicolas-Joseph Cugnot is considered the inventor of the automobile. In 1769, the Frenchman developed a steam-driven vehicle – the predecessor to the “Benz Patent-Motorwagen Nummer 1” unveiled by Carl Benz in 1886. Credit where credit’s due. Incidentally, the Frenchman also bears the dubious honour of having the first ever car accident around 250 years ago. At time Cugnot drove his steam vehicle into the wall of a barracks at 4 km/h, engineer had an epiphany. Forward propulsion may be essential for an automobile, but effective brakes are not to be scoffed at either.

The Development of Brakes in the Automotive Market

When automotive engineering started to gain momentum at the end of the 19th century, brakes were initially given little consideration. There was a good reason for this – they simply weren’t needed. After all, the friction in the drive train of the first automobiles was so high that the vehicles could be sufficiently decelerated without brakes under the conditions at the time.



Yet the speed of development gathered pace as quickly as the speed of the automobiles themselves. Engine power and vehicle weight continued to increase. A mere four years after the unveiling of Carl Benz’s automobile, British engineer Frederick W. Lanchester invented the disc brake, for which he obtained a patent in 1902. However, it would still take a few decades for the disc brake to become an established feature.

In 1920, the first automobiles featuring a mechanical four-wheeled brake were launched onto the market. In these vehicles, drivers were still required to generate the full braking force themselves. Four years later, hydraulically actuated drum brakes were presented. In 1950, the first (vacuum-assisted) brake boosters were introduced.



The first automobile in Europe equipped with disc brakes was the Jaguar C-Type in 1952, followed by the Citroën DS in 1955. One development followed hot on the heels of another: the hydraulic partial-lining disc brake was unveiled in 1957. The first predecessors of ABS were presented in 1965, with the first electronically controlled ABS system arriving in 1978. Modern assistance features such as the traction control system or the ESP electronic stability program were introduced in 1987 and 1995 respectively.

Brakes Nowadays

Nowadays, car brakes are true high-tech parts which – as safety-relevant components – are subject to stringent, internationally uniform regulations laid down in ECE standards. The ECE label serves as a hallmark of quality in the automotive sector due to the high requirements for the parts’ characteristics. Our high-quality brake parts in the Jakoparts product range fulfil the very highest requirements for braking performance and safety.

Acknowledgement: The history of car brakes – Herth+Buss (herthundbuss.com)

CLAYTON DEWANDRE V.O.M. SERVO

First published in
MOTOR TRADER
November 30, 1955

Manufacturers: Clayton Dewandre Co.,
Ltd., Titanic Works, Lincoln.

For the car in normal use the limit of its safe useful speed is governed not so much by its engine power, but by the efficiency of its brakes. In the early days of the automobile each trip was regarded as a hazardous adventure, and the fact that stopping power was often negligible was accepted. Later on, various types of brake were used and eventually the drum brake with internal expanding shoes became the accepted standard, with two- and, later, four-wheel application.

Despite a certain amount of complication involved, mechanical operation of the shoes was at first universal. but, the advantages of hydraulic operation having been realized, this design prospered, until the coming of independent front suspension made its use virtually essential. For simplicity of construction, the earlier types of hydraulic brake employed a single expander, with the result that one shoe was trailing and one leading. The leading shoe tends to wrap itself on to the drum as it rotates, and therefore gives a measure of self-application, while the reverse applies to the trailing shoe. There was much to recommend this design, which proved adequate for a number of years.

However, as the general design of cars improved., with more power, lighter and more aerodynamic bodies, better road holding, and so on, so speeds increased. At the same time the weight distribution altered, the front wheels taking a greater proportion of the load. Leading and trailing shoe design ceased to be fully adequate, for the front wheel application, and so the two leading shoe type was originated. As the description suggests, both shoes are applied so as to "lead" in the forward direction of rotation, giving braking for a given pedal effort compared with the previous design.

For another span of time the two leading shoe type of brake met the requirements of steadily improving car designs, until the problem of brake fade was encountered on cars of some weight, and capable of high speeds.

It is beyond the scope of this article to deal fully with the subject of brake fade, but it is sufficient to say that if a brake is overheated its efficiency falls off drastically. The two leading shoe brake through the sheer ability of its design to absorb power quickly develops heat rapidly and taken in conjunction with the modern pressed steel disk wheel, enclosed or semi-enclosed by the body, can give rise to brake fade. This fade can be serious because of the very efficiency of the leading shoe.

This has led designers to consider a complete reversal of conception, and to employ two trailing shoes. This design gives a welcome immunity to brake fade, but, as will be envisaged from earlier remarks, necessitates a considerably more pedal effort in a given system to give the same braking effect as the two leading shoe pattern.

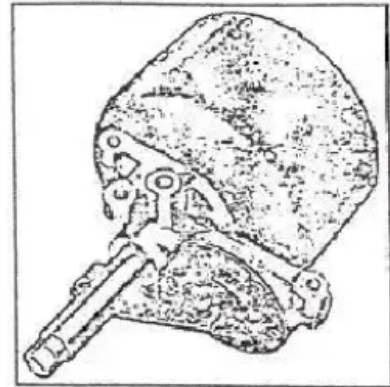
On the face of it, this could be overcome simply by increasing the mechanical advantage of the system by increasing the leverage of the pedal and/or by employing larger wheel cylinder sizes. However, the requirements of the design to be applicable to the modern automobile render both these methods impracticable.

In the braking system there must inevitably be a degree of lost motion, to take up shoe and push rod clearances, and to provide the necessary port disclosure inside the master cylinder to allow for recuperation of the fluid. It is an elementary fact of mechanics that as the mechanical advantage increases, the velocity ratio increases. This means that if the pedal leverage is increased its travel to take up a given clearance will also increase. Thus in addition to the fact that there are obvious limits to the length of a pedal arm, increased leverage would give rise to a length of travel which would not only be unpleasant for the driver, but also impossible to cater for in the design of the body.

These remarks concerning pedal travel would be equally true if the wheel cylinder sizes were increased; it might be possible to give sufficient travel on a new vehicle, but there would be little margin to allow for wear, maladjustment, and so on.

Thus it has been found that the limit of comfortable human pedal effort has been exceeded with the two trailing shoe brake design. This has necessitated the employment of some form of assistance by mechanical, hydraulic, vacuum or electrical means. Of these systems the vacuum-servo has proved to be the most suitable for use on a car, being simple, efficient and reasonably priced.

The idea of employing vacuum-servo assistance to car braking is not new. Some 30 or so years ago several cars of some considerable weight and performance had Clayton Dewandre units to augment the effect of, by modern standards, comparatively inefficient mechanical systems. However, the assistance was



applied to the main braking rod, whereas the modern servo is considerably more ingenious.

The Clayton Dewandre V.O.M.-type servo is now fitted to a number of British cars, and there are indications that other manufacturers will follow suit. A feature of this design is that the servo unit is simply fitted in series in the hydraulic braking system between the master cylinder and the main supply to the wheel cylinders, and operates directly through hydraulic, rather than mechanical, linkage. Manifold depression supplies the motive force, which multiplies that provided by the pedal in a fixed ratio up to the limits of the pressure-difference available. The pedal is subject to a normal reaction so there is no loss of "feel" and in the event of the servo-assistance failing for any reason the system reverts to normal hydraulic control, which gives a degree of braking, although obviously it is not as effective as the servo-assisted effort.

The V.O.M. servo is of simple design, and failures in service are generally due to lack of maintenance. However, since this is not always possible, a chart giving remedies for common faults is included.

After a long period of use faults may develop, and though these can be remedied it is recommended that the unit be returned to the manufacturers for attention.

Mounting

The servo unit can be mounted anywhere in the line between the master cylinder and the feed line to the wheel cylinders, but it should be fitted, if possible, behind a frame or cross member to give protection from damage. It is essential that the servo cylinder is mounted with the hydraulic cylinder slightly above the horizontal position to prevent air-locking of the hydraulic system. It is retained by three bolts which serve only to support it, since the reaction forces are provided within the unit. The servo can be connected direct to the induction system, but more efficient operation is given if a vacuum reservoir with a non-return valve is fitted between the inlet manifold and the servo. The breather hose should lead to a clean and dust-free part of the chassis.

CARS WITH V.O.M. SERVO	
Make, Model	Valve Lever Hole *
Armstrong Siddeley Sapphire, 234,236,343	Outer
Daimler, One-O-Four, Limousine	Inner
Jaguar Mark VIII saloon	Outer
Jensen 541 saloon	Outer
Riley Pathfinder	Inner
Rover 80	Outer

* There are alternative pivot points for the valve lever, the outer one being that farthest from the vacuum valve. Only one hole is drilled in each case to eliminate incorrect assembly.