

# PROGRESS



NORTH SHORE BRANCH OF THE VINTAGE CAR CLUB OF NEW ZEALAND.

MAGAZINE : **'PROGRESS'**

Club Address: **40 Masons Rd, Albany**

Phone: 09-4792779

Editors E-Mail Address: [nsvcc@orcon.net.nz](mailto:nsvcc@orcon.net.nz) **(Please note: New email address)**

Club Nights: Every Wed from 7.30pm.

Restoration Shed: Every Wed from 7.30pm, and open days (2-5pm)

Every Thursday Morning 9am - 12pm

Committee Meetings: Last **Monday** of the Month, 7.30pm

**(All Reports Email to Editor Within 2 days of meeting please)**

Club Open Days: First Sunday of the Month (2 – 5pm)

Ladies Night: 3<sup>rd</sup> Wed of the Month.

Club Runs: Normally 1pm Start, 3<sup>rd</sup> Sun.of month. Always check the  
'coming events' page, or elsewhere in Magazine, for  
information regarding these events.

NSVCC Website: [www.vintagecarclub-northshore.co.nz](http://www.vintagecarclub-northshore.co.nz)

### **COMMITTEE:**

Chairman Paul Collins Ph: 09-423-7888

Vice Chairman: Peter Lloyd Ph: 09-426-7179

Secretary: Maurice Whitham Ph: 09-627-0310

Treasurer: Michael Dorbeck Ph: 09-415-8339

Delegate: Brent Mathieson Ph: 09-489-1310

Club Capt: Kevin Lord Ph: 09-413-9157

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Warrick Orr Ph: 09-413-7178

Clive Sandham Ph: 09-486-6047

Dallas McNeil Ph: 09-424-3598

Neil Beckenham Ph: 09-426-5831

### **I.D. Cards:**

All ID Card applications must be forwarded to the committee for processing.

### **Progress Magazine:**

*Please note:*

The information in this magazine is supplied as a service to members. Articles of interest are welcomed. The opinions expressed in this magazine are those of the authors, and the Club accepts no responsibility for the accuracy of the statements.

'Progress' is registered at GPO Wellington, as a Magazine.

**Insurance:** VERO. Branch Number: HO 0300144.

**ISSUE NUMBER: 422.**

**MONTH: AUGUST 2011**

**COMING EVENTS:**

Aug	21	Triple Combined Run (starts NS, 10.30)
Sept	24-25	Spring Tour
Oct	16	Monthly Club Run
Dec	3	Swap Meet and Car Show (at club Grounds)Sat

**E/MAIL Addresses for Committee members:**

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"Malcom Dean"-----  
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**COMING EVENTS (OTHER THAN NSVCC BRANCH EVENTS)**

This page is intended to help inform members of Coming Events **other** than our own branch events. These events will also include other Branches Rallies/Functions etc, where our members may wish to participate

**2011**

**2012**

Jan	16 - 27	VCC Rally (Wanganui)
Feb/Mar		Proposed Wellsford/Warkworth Camp Out (Refer P 17)

Well the winter chills and heavy rains have certainly come in force. It seems to just rain and rain almost every day. Our lawns are so saturated that to walk across them leaves muddy impressions everywhere.

Early in July, Kath and I attended the Wellsford/Warkworth **Winter Woollies Wander**, along with my brother, Bruce, from Kaitaia. The run began at the Matakohe Museum, and travelled over numerous back country roads around Ruawai and Paparoa, before finally heading back to Warkworth to their clubrooms, by the satellite Station, for the finish. Dinner followed that evening, in Warkworth, and we were pleasantly surprised to find we had achieved 1<sup>st</sup> place in the Post 60 class. Overall winners were Doug & Bev Grant, from Dargaville, and the first Wellsford /Warkworth members were Nigel & Julie Hawkes, in a 1930 Ford Model A pick-up. They now have the dubious task of plotting next years run.

Next morning we paid a visit to the home of Jamie & Julie Thompson, in Carran Road, to visit his collection of Ford Falcon GT cars, models and memorabilia, along with some unusual Garden Art. A lovely display and beautiful grounds, well worth a club visit anytime. My brother enjoyed the weekend very much.

Then we set off for Auckland airport for my brother's flight to Dunedin to visit our sister in Oamaru .

We collected Bruce from the airport the following Saturday evening, and then drove down to Cambridge for the night. Next morning we continued on to Rotorua for the swap meet – my, what a wet weekend and what a terribly muddy event. It seems quite a few sellers and buyers were put off by the weather again this year, and subsequently it was very much smaller than in previous years. They really need to find a drier venue to hold it in the future.

We returned back home via Tokoroa and Te Awamutu, taking the opportunity to recheck the last section of the up and coming **Spring Tour**.

On the 17<sup>th</sup> of July we joined North Shore members for a lovely run to Devonport, to visit the Old Museum in Vauxhall Rd, followed by the new Navel Museum, finishing off with a relaxed cuppa at the museum café. We made a visit to the McGregor's home in Vauxhall Road before heading homeward. A great turn-out and a very enjoyable days outing. Thank you Kevin & Marlene for organising this.

Our August run is the **Triple Combined Run on the 21<sup>st</sup>**, starting at North Shore (see ad elsewhere in magazine). Then in September is the **Spring Tour** (entry forms in this mag.). There is a lot to see, so don't miss out – **book early** to ensure your accommodation.

Also don't forget the 2012 Rally in Wanganui. Entry forms need to be in by the **end of this month** to avoid the late entry penalty fee.

Club wise things are progressing along smoothly, thanks to the continued efforts and great team work of the committee, and other volunteers, working tirelessly on your behalf. The shed kitset has now arrived, but the poor weather prevents any progress at this time, however when it improves we will be ready to go.

Brent and I will be off to the National AGM & Executive Meeting at Nelson on the 5<sup>th</sup> to 7<sup>th</sup>. We have a couple of items to bring up for discussion. Brent will report on the meeting in our next month's magazine.

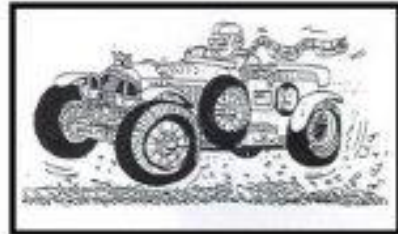
In the mean time I am looking forward to spring, and the longer daylight and improving weather it brings, which should encourage more activities, both on the road and in the workshops for restorations and runs.

So until then keep warm and well.

Regards to all.

Paul Collins.

**TRIPLE COMBINED RALLY  
SUNDAY 21st AUGUST**



**STARTING AT 10.30am at the  
NORTH SHORE VCC  
CLUBROOMS**

**THIS RUN IS IN THREE PARTS WHICH  
HAVE BEEN SET BY  
NORTH SHORE BRANCH  
HIBISCUS COAST GROUP  
and WELLSFORD / WARKWORTH  
BRANCH**

**COME AND ENJOY THE DAY**

**NOTE: PLEASE BRING YOUR LUNCH AND DRINKS.**

24<sup>th</sup> & 25<sup>th</sup> September**To South Waikato/Tokoroa**

Saturday Morning 8.45 am.

**We meet**, as usual, at the Elliott Street car park (next to the RSA) at Papakura.

We will travel via a short country route to Waiuku to the home of one of our club members to view his collection and enjoy the lovely gardens while we enjoy our **Morning Tea**. (*Tea & Coffee supplied*).

From here we cruise the country highways skirting Pukekohe, through Tuakau and Pukekawa following the Waikato River to Huntly, and Tirau to take us to our **Lunch Stop** at a lovely property near Cambridge. (*BYO food – and a picnic blanket if it's sunny*). - *Tea/Coffee available*.

About 1.15 pm we will depart travelling through some beautiful country highways to bring us to the Tirau Museum for a look at the most amazing collection of – well you name it he has got it – and lots more. This is our **Afternoon Tea** stop.

Departing from here, we continue south, then west to Tokoroa, our **destination** for the day. Motels have been reserved (book via entry form) – *we will assign you to the motel*. (See map attached).

**Dinner** is at the Cosmopolitan Club and offers a good menu (2 courses & tea/coffee) at a good price.

**Sunday Morning 8.45 am.**

We have organised a short Tiki tour of the town, before heading on towards Arapuni and Kihikihi, visiting some interesting places along the way. (*You will need to bring morning tea, and lunch with you today*).

**The Lunch stop** is at the Alphra Lavender Gardens near Kihikihi, *You will be able to have a picnic on the lawns if it is fine*. (*Tea/coffee/juice supplied*)

*Afterwards* we will visit a craft shop, and then a copper-work workshop.

This is where we will finish the tour this year, leaving you to depart at your leisure. I am sure you will enjoy the variety of things to see and visit that we have arranged this year. Your organisers, Paul & Kath Collins.

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NSVCC

**SPRING TOUR 2011.**

ENTRY FORM

24<sup>th</sup> & 25<sup>th</sup> September

Name: ..... Total attending: .....

Address: .....

Phone: ..... Vehicle: .....

**Rally entry fee (per car) \$20.00**

LUNCH STOP entry fee (includes Tea/Coffee) \$5.00 p/p x ..... \$.....

AFTERNOON STOP (Tirau Museum) entry fee \$5.00 p/p x..... \$.....

Total \$ =====

NOTE:

**Saturday Night dinner,**  
**At Cosmopolitan Club– (pay at Club)**

**Accommodation:**

(Approx \$45.00 to \$60.00 p/p – pay at assigned motel on arrival)

Please indicate requirements below:

( )	( )	( )	( )	( )
<b><u>Studio</u></b>	<b><u>Studio</u></b>	<b><u>Studio</u></b>	<b><u>1 B/Rm</u></b>	<b><u>2 B/Rm</u></b>
Sleeps 2	Sleeps 2	Sleeps 4	Sleeps 3	Sleeps 4-6
(Db/Queen)	(Twin beds)	(4 Singles)	(Qn/Db/ + 1Single)	(1 Qn + 4 Singles)

Send entry to: "SPRING TOUR"  
 C/- Paul Collins  
 376 Port Albert Rd  
 R.D.2  
 Wellsford 0972

Entries close 17/9/2011

Please make cheques payable to  
 'Spring Tour'

For more information  
 Contact Paul Collins

Ph: (09) 4237888 027 2922204 e-mail [Collins.electronics@xtra.co.nz](mailto:Collins.electronics@xtra.co.nz)

## Club Captains Report

July Run had a good turnout on a lovely sunny winters day, following the road around the Bays to Milford [ where I had spent my younger days in tinny canoes and old sailing boats]. It certainly is different now.

The visit to the old Devonport Museum was found most interesting with history and artifacts from North Shore, and many old photo's.

Then onto the Navel Museum, after looking around at our Navel History most enjoyed refreshments in the sun looking out over the Harbour.

August run will be the Triple Combined. Details elsewhere in the magazine.

Happy Motoring ---- Kevin.

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### MISSING TROPHY.

The Post 60's Trophy is missing/unaccounted for. Would anyone knowing its whereabouts, please contact Kevin----Ph 09-4139157.

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### Restoration shed activities.

The restorations of club vehicles is progressing at a steady pace, and a discussion regards the assistance of restorations of members own vehicles took place at our last committee meeting. While minor work of this nature has been taking place recently, it has the approval of the committee to continue this assistance to members, with conditions to be examined by the Restoration Shed Sub Committee, and approved by the committee.

The intention is generally to provide expertise and advice to members on their own restorations, with members to generally complete their own work, but with assistance, and finishing work (where required) provided from members attending on restoration days. This would mainly be the repair of parts bought in to the restoration shed on Thursday mornings eg. Mudguards, Bonnets, Headlights etc. These members would be expected to participate in club restorations or working bees etc and to pay for their own materials.(EG. Active and participating members)

**REMEMBER:** The hoist is there to be used for/by members in the repair and maintenance of their vehicles, eg. lube and oil changes etc. Thursday morning restoration personnel are happy to assist. EDITOR.

Contact a SUB Committee member for further info.

Sub committee members:

Brian Cullen----Kevin Lord-----Warrick Orr---Clive Sandham----Richard Lloyd—John Tombs

Phone numbers are on Page one, or talk to us on a Thursday morning.

Recently Neville and I took advantage of the offer by the Auckland Branch Commercial group to visit the restoration workshop run by Mr Antonovic near Waiuku.

Ford nuts missed a real treat. Apart from the fire engine there was an interesting line-up of a V8 pickup (Ute to you), V8 Express truck and a V8 (ex Coca Cola) truck. Apparently the Express truck was made for 1 year only (1934) in response to a demand for something bigger than a pickup, but narrower than a normal truck. So a lengthened pickup body was fitted to a truck chassis with only one instead of twin wheels at the rear.

We also saw a Police car, a Hot Rod made up from a brand new 34 V8 body, fitted with a front axle machined from a single billet of aircraft aluminium, with state of the art remote suspension. Apparently safely capable of well over 150 kph, but costing (if my memory is correct) \$500,000.

The shed has a separate machine shop, clean assembly room, spraying booth and paint oven. In the paint oven was a replica Bugatti racing car body. The paint finish was outstanding, as was all the work and painting done on the premises.

We visited the sandblasting shed, set well away from the rest of the works, and learnt the difference between garnet (when it breaks up it stays rough) soda (good for paint removal without harming the metal) and different grades of glass (general purpose and cheap). The ability to do the blasting then immediately move back to the paint shop was obviously very beneficial since there was no time for rust to start forming.

Mr Antonovich also had a 1934 V8 saloon in original (a bit rough) condition that he loves driving and has no plans to restore.

But the fire engine! Originally imported as a new 1932 V8 truck chassis and bonnet (or hood if you want to speak American) back to the firewall and windscreen, it was coachbuilt as a fire engine for the Wellington Fire Brigade. So far it has cost \$70,000 to restore which includes over \$20,000 for chrome. This makes our Chevrolet restoration very cheap Mr. Treasurer! I will not try to describe it, but hope the photographs give you some idea of how luxurious and shapely it is. Well worth the visit, and I don't like Fords (Richard Bampton)



**AD'S AND NOTICES**

**P9**

**North Shore Vintage Car Club  
Branch Price List**

<b>Cloth Badges</b>	<b>\$6</b>	<b>(All Queries please contact The Secretary)</b>
<b>NSVCC Car Badges</b>	<b>\$15</b>	
<b>VCC Chrome Wings</b>	<b>\$25</b>	<b>( All payments are to be made to the: North Shore Vintage Car Club)</b>
<b>VCC Brass Wings</b>	<b>\$20</b>	
<b>NSVCC Lapel Badges</b>	<b>\$5</b>	
<b>Rally Card Holders</b>	<b>\$10</b>	

**EDITOR'S E-MAIL ADDRESS;                    [nsvcc@orcon.net.nz](mailto:nsvcc@orcon.net.nz)**

**Name Badges:**

Would members please wear their name badges on rallies or events, to assist in helping to "get to know" each other, particularly new members.

Please be sure to add your name to the list (in the club rooms) when attending rallies.

**I.D.Cards:**

These are compulsory for all National Calendar Events. Be sure to take them with you.  
**Photographs of your Vintage car.**

The club needs a photo of your Vintage Car to display in our club rooms, along side those already on display. These should be of a size 10 x 8 inches. Frames and captions are free. Remember, these photo's are one of the main attractions for visitors, prospective members, and of course, current members. A Photo of your car can be arranged next time you attend a rally or club function. **Please: Check with a committee member first.**

**Rally's:**

Make sure you have a current W.O.F. and Rego.when participating in Club organized events.

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**Magazine request by E/Mail** (This request may be E/Mailed to the Editor)

I-----Do not require the Magazine "PROGRESS" to be sent to me. I will do the following (Please cross out the option not applicable)

- 1 I intend to download my copy (or view) from the Clubs Web-site.
- 2 I request my copy to be sent to me by E/Mail

My E/Mail address is:-----

**From:** Sandi Murray [mailto:Sandi.Murray@aucklandcouncil.govt.nz]

**Sent:** Wednesday, 2 March 2011 12:52 p.m.

**To:** admin@vcc.org.nz **Subject:**



**Oil Recycling**  
Engine Oil Recovery

New oil recycling service launched in Auckland New Zealand Vintage Car Club.

As you may have heard, a new 'free' service has been launched in the Auckland region to offer home mechanics a safe and convenient place to dispose of used engine oil. Aucklanders can now take their used engine oil in a sealed, leak proof container to any of the 21 drop off locations around Auckland – at any Repco store or to Total Oil in East Tamaki. We will be adding new locations as businesses volunteer to become a drop off point. The used oil service is a pilot project initiated by Auckland Council in partnership with the Ministry for the Environment and industry supporters. If successful, we hope to roll it out throughout New Zealand. We would like your club's support for this and we would like your members to use the service! In order to ensure your members are aware of this service, we have free funnels printed with information about the scheme that we can send to you for your members. Please email if you would like us to send some out to you. We would also be interested in any promotion through newsletters or other means if you are able to assist. If you have any queries, or would like a representative to visit your club to talk about the used oil recovery project, please contact me directly or visit our website [www.oilrecycling.org.nz](http://www.oilrecycling.org.nz).

Yours Sincerely, Sandi Murray | Waste Minimisation Project Advisor

Phone: 09 836 8508 or email: sandi.murray@aucklandcouncil.govt.nz  
Solid Waste Business Unit – Infrastructure and Environmental Services, Auckland Council.

## **FOR SALE**

1948, Morris 8. I am owned car this for the last 5 years. All in original condition, WOF, Reg, 58k miles on the clock. Runs very well. Also have 6v battery charger to go with it. New tyres, new battery. I bought this from New Plymouth.

I am now planning to move to Australia and would like to sell this to a good home.

I bought this car for \$4,500 and spent \$750 to put a new Dif and about \$200 for a new battery but I am happy to sell this for \$4,000 ono. Any offers will be considered. It is kept at my home in Upland Road Remuera, Auckland.

**Cyril Gunaratne**

Area Manager North Auckland, Highways & Network Operations **DDI** 09 928 8714 **M** 027 496 7859



1941 Kurtis Buick special. Frank Kurtis built it on a 1941 Buick Century platform, finishing after the War in 1946. Amazing design for the time.

1929 RUXTON MODEL C





Over the decades, few concept cars have had the ability to boast production provenance, however limited it may have been. Take this [1952 Chrysler D'Elegance](#), for instance. It was done so tastefully, and received with such fanfare at the 1952 Paris Motor Show, that Ghia built an additional 25.



**1933 Derby L8 Roadster**

# PACKARD V-12 MARINE ENGINE

P13

The Packard 4M-2500 engine was utilized in all U.S. Navy World War II PT boats. This engine was based on the 1925 Liberty aircraft engine which was earlier converted for marine use in racing boats. During the war the Packard engine went through various performance updates and modifications. With early engines rated at 1100 h.p. and progressing to 1500 h.p. during the war. The Packard 4M-2500 engine was a supercharged, water cooled, gasoline powered V-12 engine, weighing approximately 2900 pounds.

The Packard 4M-2500 marine engine was not the Rolls-Royce Merlin, nor did U.S. Navy PT boats use the R.R. Merlin engines, which is sometimes misstated. However, Packard did built a version of Merlin Engine under contract by Britain for British aircraft use.

## **The Packard 4M- 2500 - PT Boat Engine**

<b><i>Cylinders:</i></b>	12 - V angled arrangement
<b><i>Supercharger:</i></b>	Gear driven - centrifugal
<b><i>Cooling:</i></b>	Fresh water
<b><i>Maximum RPM:</i></b>	2400 rpm, 2000 rpm sustained
<b><i>Rating:</i></b>	1200, 1350, 1500 depending on year of manufacturing
<b><i>Fuel:</i></b>	100 Octane gasoline
<b><i>Fuel Consumption at 40 knots:</i></b>	Top speed at 40 knots, running three engines, 474 gallons per hour. Full fuel load (3,000 gallons) 6.3 hours.
<b><i>Fuel Consumption at 40 knots:</i></b>	Maximum sustained speed at 2000 rpm, running three engines, 292 gallons per hour. Full fuel load (3,000 gallons) 10.3 hours, range radius of 259 miles at 35 knots, 518 miles total.

**In June 1940**, the British were fighting and dying by the thousands, with the very survival of their homeland at stake. Waves of German Luftwaffe bombers, with clouds of fighter escorts, pounded Britain's cities virtually at will, causing horrific civilian casualties with the goal of breaking the population's will to resist. The Royal Air Force battled heroically in the skies to blunt the German offensive, but its pilots clearly needed help. The thundering Rolls-Royce aero engines that powered their fighters were hand-assembled, just like the company's cars, and couldn't be produced rapidly enough. With the fate of Britain hanging in the balance-along with its vital future role as a launching base for the massive Allied counteroffensive against the Nazis-former General Motors president William S. Knudsen, now in charge of wartime production for the federal government, called on Henry Ford to build 9,000 of the Rolls-Royce Merlin engines, 6,000 of which would be shipped on an emergency basis to the RAF. Ford deliberated and eventually agreed. Knudsen then passed along the thanks of President Franklin D. Roosevelt for Ford's cooperation.

That was a mistake. Beyond his deeply ingrained isolationism, Ford despised Roosevelt, the New Deal and organized labor with equal vitriol. He shouted his abrupt refusal to build any of the engines and ordered the enraged Knudsen off the property.

Ultimately, Ford would play a titanic role in the war effort. But this time, Knudsen took his contract to build 9,000 engines to the Detroit headquarters of Packard, ranked 14th in sales among domestic manufacturers, which readily accepted the job. From that modest start, Packard would eventually produce 55,523 improved versions of the highly complex Merlin engine on a mass-production basis, which would power a variety of Allied military aircraft.

Not only that, Packard would develop marine engines that would power the U.S. Navy's fleet of patrol torpedo or PT boats, mainly in the Pacific Theater. Packard, you see, was a lot more than just Knudsen's Plan B after Ford rejected the Merlin contract. It had a long record of building aircraft engines that dated back to 1917 and included the DR-980 engine of 1928, the first diesel-fueled aircraft engine to actually fly. Moreover, Packard had been building V-12 engines dubbed the Twin Six for its luxury motorcars since 1932, and both the Merlin and marine engines would share that same configuration. In 1942, the company was in the hands of George T. Christopher, who had replaced G.T. Gilman, who had served for a year after Alvan Macauley, Packard president since 1917, left the post. As he had been since 1912, Col. Jesse Vincent, Packard's vicepresident of engineering, was the firm's

chief mechanical architect, and was long known around the plant as "The Master Motor Builder." He would ultimately hold 206 patents for innovations ranging from spiral bevel drive gears to automotive air conditioning. "The government came to Packard because it already had such a huge reputation as an engine builder. Packard had already been building both marine and aero engines, so when you consider the extent of what the company had done before the war, the government knew they had that kind of expertise." When all civilian U.S. auto production was halted on February 9, 1942, what should have been a bright year for Packard came to a close. The model year's production would total 27,961, but only 6,058 of the company's cars were built in calendar year 1942. Packard had bowed its new Twentieth Series late the previous summer, which extended Packard's new "Clipper" styling to all its model lines. The former 110 and 120 series were renamed the Packard Six and Packard Eight, respectively. Also offered were the Super Eight 160, Darrin-styled convertible and the Super Eight 180 line.

When war production commenced in earnest, its main assembly plant on East Grand Avenue in Detroit was virtually gutted and retooled to produce the military engines. One consequence of that changeover involved the dies that were used to fabricate parts for the pre-1942, and pre-Clipper, Packard Junior and Senior lines. The War Production Board asked Packard to sell the dies to Germany's erstwhile ally, the Soviet Union, which had aligned itself with the Allies after Hitler invaded the Motherland in 1941. The rationale was that the Packard dies would enable Russia to rapidly re-convert to automobile production after the war. The deal certainly achieved that much: For many post-war years, Politburo bigwigs-or at least those still breathing after Stalin's murderous purges-tooled around in huge ZIM and ZIL limousines that looked just like 1941 Packards.

Long before Packard ever assembled one, the Rolls-Royce Merlin was already a certified superstar among piston-driven aircraft engines. The earliest roots of its development dated back to the 1920s, but its best-known predecessor was the 22-liter, normally-aspirated Rolls-Royce Kestrel V-12 of the early 1930s which, once supercharged to 700hp, became known as the Peregrine, and enjoyed success in the hugely popular Schneider Trophy seaplane races of the 1930s. Next, Rolls-Royce bolted two Peregrines together into a 1,500hp, X-24 layout and called it the Vulture, intended for use by bombers and other larger aircraft. The need for an intermediate-sized engine was becoming increasingly obvious, and development work began in 1935 on a 27-liter

V-12, around the same time that the RAF selected the Supermarine Spitfire and Hawker Hurricane to be its new-generation air-superiority fighters.

The new V-12 proved to be a perfect fit for both their airframes, and the new, supercharged Rolls-Royce power-plant was named Merlin, after a species of small falcon.

After taking over the Ford-rejected contract, Packard delivered the first stateside Merlin engine by August 1941. Packard would ultimately produce 23 upgrades or design evolutions of the Merlin, each more powerful than the last. Unlike virtually all aero engines of the time, the Merlin used evaporative liquid cooling, which was less than fully reliable in the original Rolls-Royce design. Once ethylene glycol-based antifreeze from the United States became available, the Merlin proved reliably cool. As Neal noted, at Rolls-Royce, "the Merlin was practically hand-built." Quality control was determined, though slow and primitive: Rolls-Royce engineers would randomly select newly completed Merlins, put them on a test stand and run them at maximum power until something failed. The broken engine was torn down, the weak part located and redesigned. The development process was dangerously slow for an island nation under siege.

As manufactured by Packard, the Merlin was given the designation of V-1650, and by any measure, it was brutally powerful, increasingly so as 100-octane aviation gasoline became readily available from U.S. refineries. Weighing 1,650 pounds, the Merlin V-12 displaced 1,649 cubic inches, with a 5.40-inch bore and 6-inch stroke. One important upgrade was the addition of a two-speed Farman blower drive to its Rolls-Royce centrifugal supercharger. As fuels continued to improve, the Merlin's compression ratio edged upward, ultimately to 6:1, and supercharger boost was likewise increased, aided by Packard's addition of water-alcohol injection. By late in the war, its output approached 1,700hp. What's more impressive was, that power came from a smaller, more efficient engine than the German opposition could field. For example, the Daimler-Benz DB 601, an inverted, watercooled V-12 that powered the Messerschmitt Bf 109, displaced 2,179 cubic inches, just under 36 liters. The BMW 801, a 14-cylinder, twin-row radial engine installed in the Focke-Wulf Fw 190, measured out to a massive 42 liters, or 2,562 cubic inches. The V-1650 Merlin, as improved by Packard, was so strong that it ultimately replaced the General Motors Allison V-1710 in the North American P-51 Mustang. Other Merlin derivatives were installed in the RAF's Avro Lancaster bomber, De Havilland Mosquito fighter-bomber, and the U.S. Army Air Corps'

Curtiss P-40 Warhawk. Vincent, Packard's lead engineer, brainstormed the assembly-line layout for the Merlin and ordered specialized tooling, having a good grounding in industrial engineering and plant design. Next, an army of Packard draftsmen redrew the original Rolls-Royce blueprints with far greater precision. Packard developed a light-measuring tool that allowed Merlin component tolerances and clearances to be checked within 1-millionth of an inch. Packard also employed a practice of freezing critical parts to set their tolerance with no ambient heat to make the part expand, throwing the calculations off. Ultimately, Packard performed more than 70,000 inspections on each of the Merlin's 14,000 parts. The company used 80,000 gallons of aviation fuel per day just for testing the engines. Each engine was fully disassembled and rechecked following the test, then rebuilt for shipping. "The engineers just took a look at the Rolls-Royce design, made the necessary changes and redrew them to American tolerances," Neal said. "After that, the Merlin had no kinds of massive problems, certainly no more than you would have with any other engine of that complexity." Its reputation for premium-quality cars notwithstanding, Packard already had at least 20 years' worth of experience in designing and mass-assembling precision engines for both aviation and marine applications. It began with the Liberty aircraft engine, built during World War I in both V-8 and V-12 configurations. Its excellent power-to-weight ratio made it an ideal choice for use on the water. More than one Roaring Twenties bootlegger was able to outrun the Coast Guard after making his delivery in some sheltered New Jersey inlet thanks to Packard Liberty power. The pioneering powerboat racer and builder from the Great Lakes, Gar Wood, annihilated his competition during the prestigious Gold Cup races in the 1920s and 1930s, packing Packard power. By 1937, work had begun on designing a relatively light, fast attack boat. Ultimately, they would be built at the boatworks of Higgins and ELCO; the Navy's familiarity with Packard's engine work, plus the blazing publicity over Wood's racing exploits, landed the PT boat engine contract on Packard's doorstep. Like the Merlin aero engines, the marine engine would be built at Packard's main East Grand Avenue assembly plant. Despite the commonplace assumption, the new-generation Packard marine engine, initially tagged the 4M-2500, was anything but a repopped Liberty. Instead, Vincent started with a clean sheet and designed a four-stroke, 60-degree V-12 with an aluminum block with a bore of 6.04 inches and a 6.50-inch stroke, which brought it to 2,490 cubic inches.

Weighing 2,900 pounds, the 4M-2500 had four valves per cylinder, a 6.4:1 compression ratio, and a centrifugal supercharger with intercooler. A Holley 1685F aircraft carburettor supplied the fuel, 100-octane gasoline, fired by two spark plugs per cylinder. The first engines developed 1,200hp, but improved versions with higher boost levels nominally made 1,500hp. Packard built 14,000 marine engines during the war, three of which went into each of the Navy's 768 PT boats, two astern and one amidships for better service access.

The most common of the plywood-fabricated PT boats, the 80-foot version made by ELCO (now General Dynamics Electric Boat of Groton, Connecticut, the Navy's primary designer and builder of nuclear attack and ballistic-missile submarines), displaced 50 tons when armed. With up to 4,500hp on tap, the three Packard engines could guzzle a combined 500 gallons of fuel per hour when maintaining a top speed of 42 knots, or just under 50 mph. The speed and manoeuvrability made the PTs ideal for hit-and-run night attacks on Japanese merchantmen or warships. Given the crash nature of the war effort, Packard was enlisted to provide some visceral assistance to other automakers working on military materiel. For example, the lavishly landscaped Packard Proving Grounds in Utica, Michigan, with its 2.5-mile banked speedway and Albert Kahn-designed buildings, was turned into a tank testing facility that was widely used by other manufacturers, most notably Chrysler. By 1945, Packard was actively involved in the development of jet engines, starting with the experimental XJ41 turbojet first tested in 1946. By 1952, Packard had received an Air Force contract to build 3,025 General Electric J47 jet engines under license.

For all Packard's distinction as a war contractor, its core business of building cars was bleeding after the war. With a Clipper-based line-up, Packard sales dropped to half of pre-war levels by 1947. All-new styling elevated 1948 sales by 88 percent with more than 98,000 cars built, but the following year, Packard's 50th anniversary, more than 500 dealers gave up their franchises, Christopher resigned, and sales fell to less than 64,000 units. Sales continued to languish into the '50s, and in late 1954, Packard desperately merged with Studebaker, which was drowning in debt, a forced marriage that ended calamitously. "You would think that their reputation of building engines during the war would have stood them in good stead later, but it didn't happen," Neal mused. "They certainly played on it all they could at Packard, but it wasn't enough to save the company."

Many Thanks to Arnold for this article.

## 1947 Talbot-Lago Record T26

P19



The wonderful coachwork was designed by the grand master Figoni for his friend Anthony Lago, owner of Talbot. The interior is sumptuous – soft, solid leather and a lot of delightful details confer to this car an extraordinary charm. The 4.5 liter six cylinder engine provides an awful 170 horsepower and a torque of 200 Newton meters and has a double overhead camshaft.

## **1967 SUNBEAM TIGER**



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**Wednesday night club opening will normally be done by Brian. If he is unavailable, he will notify another member to open the club rooms.**

## WEB SITE.

Please be advised that the branch web site is now up and running, if you have anything you wish to place on it, send it through to either Dallas McNeil or Brent Mathieson and we will place it for you. Have a look! Check it out on [www.vintagecarclub-northshore.co.nz](http://www.vintagecarclub-northshore.co.nz) let's have your feedback, Enjoy!

NOTE: at the Committee Meeting Tues 1 Feb 2011 it was agreed to add the magazine to this site.

These are from a book called "Disorder in the American Courts", and are things people actually said in Court, word for word, taken down and now published by Court Reporter that had the torment of staying calm while these exchanges were actually taking place.

**Specially interesting for Lawyers and Doctors.**

ATTORNEY: She had three children, right?

WITNESS: Yes.

ATTORNEY: How many were boys?

WITNESS: None.

ATTORNEY: Were there any girls?

WITNESS: Your Honor, I think I need a different attorney. Can I get a new attorney?

ATTORNEY: How was your first marriage terminated?

WITNESS: By death.

ATTORNEY: And by whose death was it terminated?

WITNESS: Take a guess.

ATTORNEY: Can you describe the individual?

WITNESS: He was about medium height and had a beard.

ATTORNEY: Was this a male or a female?

WITNESS: Unless the circus was in town, I'm going with male.

ATTORNEY: Is your appearance here this morning pursuant to a deposition notice which I sent to your attorney?

WITNESS: No, this is how I dress when I go to work.



August  
2011

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TOP: 1957 MK2 FORD ZODIAC OF PAUL AND VENETA HANSEN

BOTTOM: 1952 CHEVROLET OF BRIAN AND GAY CULLEN

