Go Torque. Trade News Direct.

Winter 2010

Holden Trade Club Up and Away

Inside this issue:

- > Inside HRT.
- > Cruze Leads WTCC.
- > Tech: Diesel Particle Filters.
- > Holden Legend Torana A9X.
- > Restoration Parts fire up.



Iden.

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Welcome...

Welcome to the Winter 2010 edition of Go Torque, you may have noticed this issue is a bit bigger than past issues. Go Torque has joined forces with ACDelco Today to give you a trade magazine with the lot. We have filled this issue with interesting articles, technical features and the latest news to keep you up to date with what's happening around the world of GM and Holden.

Have you ever wondered what goes on behind the scenes of HRT? Well, Gerald McDornan looks in detail at how Rob Crawford runs one of the world's most successful racing teams.

Diesel technology is fast evolving and to help keep you up to date, we look in depth at Diesel Particle filters with an interesting technical article.

As always, there is an update on Motorsport News, including how the Cruze is fairing in the World Touring Car Championship, plus we find out what happened to Maurice Fabietti and his Trade Club Monaro at the Mildura Slamfest drags.

Holden Trade Club introduces a loyal member in David Smith, a long time business owner from Queensland. Graeme Kirk shows us his jawdropping hot rod that runs a 900hp GM Performance motor. We also feature the mighty A9X Torana. The A9X Torana is arguably Australia's greatest ever race car. Eric Norton tells us all about the legend that is, the A9X Torana.

Holden are proud to have Rare Spares as a partner with the launch of the Holden Restoration Parts program. Helping return your old Holden back to the way it was intended, with quality endorsed parts.

ACDelco Today shows us a range of new products and also goes into detail about the benefits of ACDelco batteries and the new revolutionary range of Beam style Wiper blades.

There is also a feature on Mick 'Patch' Frossos, who recently competed and won at the Westernationals in his Super Stock ACDelco 300ZX drag car.

The team at Holden hope you enjoy reading the bigger and better Go Torque magazine.

Go Better

David Metzke Aftersales Marketing Manager



*2 year / 50,000km whichever comes first. Contact your authorised Dealer for more details Holden. Go better.

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Fast Facts. 53,000m²

Or the equivalent of three MCG playing arenas is the size of the Holden service parts warehouse.

Holden Racing Team.



V8 Supercars is Australia's glamour motorsport and widely regarded as the world's greatest touring car series. Sixteen events across four countries with over two million fans, and a worldwide TV audience in the tens of millions – and growing stronger every year. **By Gerald McDornan**

While on the TV it's all glitz and glamour, for those behind the scenes it's a lot of hard work, tight turnaround times, long hours and lots of travel. The sport's most successful team, the factory Toll Holden Racing Team, is led by Rob Crawford, a straight up kind of guy who doesn't mince his

Crawford started at the bottom sweeping floors and worked his way to what's considered one of the top jobs in Australian motorsport, albeit after making a detour via Europe and Formula 1. His impressive resume includes leading Kmart Racing with Greg Murphy and Rick Kelly to back-to-back Bathurst titles in 2003-04 before taking the same team, then under the HSV Racing banner, to two straight V8 Supercar Championships with Kelly and Garth Tander in 2006-07.

Crawford moved from HSV Racing – the then sister team to HRT – to the factory squad in 2008 to begin the process of rebuilding HRT into the team that dominated the sport for much of the late 90s/early 2000s. And Crawford is making progress...

Last year, while not winning the individual Driver's Championship, HRT leapt back up the points table and took out the coveted Team's Championship, while Tander and Will Davison won a bevy of races, including the biggest of them all, the Bathurst 1000. Having started on the workshop floor and appreciating all the background work that goes into making a racing team successful, you won't see Crawford in the hospitality area schmoozing with the sponsors at the end of the day - he leaves that to the marketing staff and drivers. But you will find Crawford still in the garage helping pack up everything to be put back into the transporter, and when it's all loaded and the day's race is over, he'll have a beer with his trusted mechanics.

It's a tight-knit group and Crawford is fussy about who is on his team, looking for particular qualities in prospective mechanics. "Attitude is the number one priority with whom we employ - racing's not

all glitz and glamour, there's a lot of hard work, long hours and time away from your family and friends," Crawford said. "We need people who have a willingness and determination to work hard and achieve goals - not only their own, but also the team goals. They also need to be able to cope with over 100 days away from home each year - that's not a lifestyle that suits everyone."

HRT has a long standing arrangement with the VACC that sees the organisation supply one of its award-winning second or third year apprentices to the team for a year to gain experience, the 'program' producing some of HRT's finest.

"Our deal with the VACC has been very successful, the opportunity to work for the Holden Racing Team gives apprentices something to aim for while they are learning their trade.





Dhabi and Bahrain and two weeks away overseas, HRT's crew arrived back home in Melbourne on Monday, 1 March, while Tander and Will Davison's Commodores flew back in to Brisbane the following day - the transporter waiting to road freight them straight back to Melbourne, arriving at the team's Clayton headquarters around 24 hours later.

With just one day off in between, the HRT crew was back in the workshop on the Wednesday completely stripping, refreshing and rebuilding the cars before they were loaded back into the transporter for the overnight trip to Adelaide just five short days later.



HRT Workshop



The crew arrived in Adelaide the following day to begin another five straight days of hard work and intense competition - the first job for Crawford and his crew at any track, 'building' the HRT garage. "We try to set the garages up as close as possible to what we have back at our Clayton workshop, and make sure they are easy to work in with all the tools in the same spots." Crawford said.

"The biggest issue is that there are huge differences in the garage dimensions between all the circuits and it is important to create a familiar environment wherever we are - Abu Dhabi, Winton, Adelaide or Bathurst."

With roaming TV cameras and regular sponsor pit tours, presentation is critical and HRT's garages are always clean, pristine and a credit to the team and sponsors, lined with walls displaying the team's identity and corporate logos - the same look travelling to each and every round.

HRT enjoyed a less than successful trip to the Middle East, Tander twice hit from pillar to post and Davison struggling for speed, but the long hours and hard work paid off in Adelaide, Tander clean sweeping both races to give Holden its first victory there in three years.

After the truck was packed, Crawford enjoyed a quiet drink with his team before they began the process all over again, with HRT's cars having to be parked up at Albert Park for the non-championship Australia just nine days later...



Diesel Particle Filters.



The need for a Diesel Particulate Filter (DPF) arises from European emissions legislation. Emissions of nitrogen oxides (NOx) and particulates (soot) from diesel vehicles are typically four to five times higher than for petrol vehicles. Euro 5 limits reduce emissions of particulates from diesel cars by 80% compared to Euro 4, the previous standard.

To prepare for the Euro 5 standards, vehicle manufacturers have used various methods to optimise diesel engines, and the primary solution is to fit a DPF. As emissions standards continue to challenge manufacturers, so DPFs will become as commonplace in diesel car exhausts as catalytic converters are on petrol cars.

A DPF is installed in the exhaust system of diesel engined vehicles to remove particulate matter or soot from the exhaust gas. DPFs can typically attain 85-100% efficiency, so that a diesel vehicle with a correctly functioning DPF will emit no visible smoke from its exhaust pipe.

Benefits

- Environmentally friendly solution
- Highly efficient filtration
- Proven technology
- Low unit cost
- Durable, reliable and maintenance-free
- Ease of installation and replacement
- 'Fit and forget' in normal use

Regenerative DPFs

There are various different types of DPF, using different materials and internal arrangements in the filter core, but all can be categorised as either single-use or regenerative. Single-use DPFs collect soot until their efficiency is impaired and are then replaced and disposed of, whilst regenerative DPFs have the facility to burn off accumulated soot when 'full'.

All DPFs installed on Holden vehicles – and specifically, those Holdens of European design – are regenerative type, designed to last the full life of the vehicle with no scheduled servicing or maintenance requirements other than normal periodic regeneration which occurs automatically and without any input from the driver.



When its monitoring system detects that the DPF is 'full', the engine ECU initiates a regeneration process. The fuel injection pattern is altered to increase the exhaust temperature so that the DPF reaches 600°C, and the soot is harmlessly burned off.

Under normal driving conditions regeneration typically takes 10-15 minutes. If the vehicle is used mainly for short journeys, however, a longer trip may be needed for regeneration to occur. In this case, the driver will generally be informed by an indicator lamp on the instrument panel.

Precautions

This relatively straightforward piece of equipment is not without its potential problems, however.

Fuel and oil quality and consumption, and even driving style and environment, can have an adverse effect on DPF operation. In some cases this can be rectified by the driver but in more serious cases the vehicle must be returned to a Holden Dealer for forced regeneration or ultimately replacement of the DPF.

Fuels

Only diesel fuel with sulphur content less than 50 ppm and conforming to EN590 should be used. No additives should be considered other than those already incorporated in general commercial diesel fuel supplies. Before using bio-diesel or water-diesel emulsion fuels, advice should be sought regarding their suitability.



Oils

Only oil with a sulphur content of less than 7000 ppm should be used, and oil consumption should be within the manufacturer's limits, typically less than 1 litre per 1000km.



To the average owner, this translates as a requirement to monitor oil consumption and to use only fully synthetic engine oils; semi-synthetic oils cannot be used, just as leaded fuel cannot be used in petrol engines fitted with a catalytic converter.

This is because in every engine there is always the possibility of a minute quantity of oil being burnt as a result of 'blow by'. The sulphur content of semisynthetic oil would lead to ash deposits in the DPF core, permanently clogging the filter and effectively choking the engine.

Driving style

Experience has shown that driving style can affect the operation of the DPF, for example in urban situations where sufficiently high exhaust gas temperatures are not reached, the DPF may fail to regenerate. This can even occur on cars used mainly on highways, where vehicles with particularly high gearing are revving too slowly to generate the required temperatures.

In these cases, owners should be advised to engage in occasional harder driving in lower gears to achieve regeneration. Drivers ignoring DPF warning indicators do so at their peril. Soot will continue to accumulate in the filter core, clogging the airways and causing increased back pressure until the engine can no longer run efficiently and a dealer repair will be required, or even complete DPF replacement. Holden. Go better.

How the DPF works.

Exhaust gasses enter the DPF 1 and pass through the silicon carbide core 2. The core is designed to have an enormous surface area relative to its compact external dimensions and collects any soot particles present 3.

Pressure 4 and temperature sensors 5 in the DPF casing constantly feed information to the engine ECU, which accurately calculates and monitors the volume of soot held in the DPF to determine the point at which regeneration should be initiated.

When the DPF becomes 'full' (6), the ECU programmes the injection system to fire a minute quantity of fuel into the exhaust system to further heat the exhaust gases until the DPF core reaches 600°C. At this temperature the soot is burned off (7) leaving the DPF regenerated.

Throughout the process the gases leaving the exhaust tailpipe remain clear of soot – no 'black cloud' – and the driver remains unaware of any change in engine operation or performance.

Further information

If you need more information on DPFs or are faced with a DPF malfunction or repair on a Holden, call your local Holden Dealer's Service Department for expert advice.

Oil Specifications

Quality

Not all engine oils are the same and with advanced synthetic oils fast becoming the default engine oil specified by vehicle manufacturers it may pay to check you are fitting the correct specification.

ACDelco Engine Oil	Grading quality classification			
	API	ACEA	ILSAC	GLOBAL
Supreme Plus, Synthetic 5W30	SM/CF	A3/B4/C3		
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Select Fleet Diesel 15W40	CI-4/SL	E7/E3/B4/B3/A2		DHD-1
Supreme, Semi Synthetic 1	SM/CF		GF-4	
Select, Mineral 10W30	SM			
Select, Mineral 20W50	SM/CF			

Oil quality

API (American Petroleum Institute)

ACEA (Association Constructeurs Européens d'Automobiles)

ILSAC (International Lubricant Standardization and Approval Committee) GLOBAL DHD (Joint venture between ACEA and the Engine Manufacturers Association)

ACDelco engine oils are advanced, high quality and formulated to meet the very latest industry standards – contact your Holden Trade Club Dealer today and you can be confident that you've got the right engine oil for all of your customers.



Holden V8 Supercars Update.



Holden has dominated the 2010 V8 Supercar season to date, Commodore clean sweeping the first three rounds of the series, as well as winning the non-championship Australian Grand Prix event.

Jamie Whincup and TeamVodafone got the season off to the perfect start by winning the inaugural Yas V8 400 at the spectacular Yas Marina Circuit in Abu Dhabi, Whincup's team-mate, Craig Lowndes finishing second in a brilliant TeamVodafone 1, 2 on debut for Holden.

Holden backed this great start up the following week in Bahrain, when Whincup went back-to-back ending the historic Middle East double-header undefeated.

The factory Toll Holden Racing Team did not have the start everyone expected, with reigning Bathurst champs, Garth Tander and Will Davison returning home to Australia languishing in the points.

But showing the true style of the champion team that it is, HRT bounced back in style with Tander leading from the front and clean sweeping Adelaide's sensational Clipsal 500 – the first Holden win in Adelaide since Todd Kelly's win on debut of the VE Commodore in 2007.

Holden and Tander's run continued just two weeks later when the 2007 V8 Supercar Champion drove his HRT Commodore to victory in the non-championship V8 Supercar Challenge at the Australian Grand Prix in Melbourne.

While the GP offered no series points, Tander's win was important for his and HRT's momentum as they try to crawl back into championship contention.

The V8s now head to New Zealand for the ITM 400 in Hamilton in mid-April before heading back to Australia for the Ipswich 400 near Brisbane, Queensland, two weeks later, the sixth round at Winton Motor Raceway, near Benalla, Victoria in mid-May.

For up to the minute information on Holden in Motorsport log on to HoldenMotorsport.com





Cruze leads WTCC.



It has been the sweetest possible start of the 2010 World Touring Car Championship season for the Chevrolet Cruze. A triple win in race 1, another podium in race 2 and six finishes in the points in total have put the team in the lead of the Manufacturers' standings, while Yvan Muller, together with Gabriele Tarquini, tops the Drivers' rankings.

Race 1 in a rain-soaked track in Curitiba, Brazil was a Chevrolet show, with the three Cruzes of Yvan Muller, Rob Huff and Alain Menu dominating from the start and signing an impressive triple victory. In race 2, despite the reversed grid, the Cruzes were again able to repeat a trio, this time in 3rd, 4th and 5th positions, with a different order: Menu, Muller and Huff, respectively.

The results marked a great team achievement, with the Cruze impressing both for its performance level and its reliability. The team is leaving Brazil as leader in both championships, a position which is both the best reward for the hard work done by the entire team and a wonderful start to 2010.

Fast Facts. 208kW The power the 2.0L Chevrolet Cruze WTCC Race Cars produce.











Trade Club

Holden Trade Club has been developed to make selected genuine Holden and ACDelco parts available to the trade at truly competitive prices. Trade Club is a straightforward business proposition from Holden to the genuine trade: price reductions over and above normal trade discounts on a wide range of service and repair parts for Trade Club members. Anyone in the motor service or repair trade with an ABN can join. If you're not already a member, simply contact your nearest Holden Trade Club Dealer.

Find your nearest Dealer at holdentradeclub.com.au

David Smith: In at the beginning of two Trade Clubs.



David Smith is the Owner and Head Tech at Alan Winford Mechanical Repairs of Loganholme, Queensland. The business was established in 1979 and David took the helm in 1992 when he emigrated from England. Alan Winford was one of the first businesses to be signed-up to Trade Club by local Holden Dealer Motorama, Springwood.

Nothing too unusual about that: over 20,000 independent repairers across Australia were welcomed to the Club at the beginning of February. But for David it's second time round. David served his apprenticeship with Vauxhall Dealer New Crown Sharpes and witnessed the birth of Vauxhall Trade Club in 1991. Today the UK Trade Club has 56,000 independent repairer members and turns over the equivalent of \$120,000,000 in fast-moving GM parts.

As the name suggests David's business covers most aspects of service and mechanical repair work with a specialism towards fuel injection. With two technicians, three hoists and six bays a typical workload is around seven to 10 cars a day. "About 25% of the vehicles we work on are Holdens and I guess we source 25% of our parts requirement from the local dealer," comments David.

David works on everything from 2010 model year to thirty year old cars and all work is generated through a great local reputation and 'word of mouth'. "50% of our work is for companies in the surrounding industrial area and our retail customers are local families. We do a good job for mum and dad so the sons and daughters come to us and their friends too. We've tried advertising but you end up doing quotes all day for people who buy on price and not necessarily quality and service."

Paul Rietveld, Sales Manager for Holden Parts has been delighted by the response of repairers across Australia. "It's great to welcome businesses like David's to Trade Club. Today, more than ever, Holden recognises the vital part that independent repairers play in the industry. Clearly we've got a job to do in growing our 25% share of his Holden parts supply but I'm sure we're heading in the right direction."





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VT Commodore - Collision Parts

Headlamp	Right - 92140000 Left - 92140001	\$ 242 .50ea
Bonnet	92047408	\$ 599 .00
Front Fascia (Executive & Berlina)	92083333	\$272 .00
Radiator Support Panel	92167942	\$446 .00
Front Bar Reinforcement	92083908	\$ 148 .00
Fascia Guide Rail Assembly	Right - 92177409 Left - 92177408	\$ 22 .75ea

*Whichever occurs first, speak to your Holden Dealer for further information. Regular recommended trade price excluding GST. Valid until 30 June 2010.



Fabietti takes off in Mildura.



Maurice Fabietti was planning to entertain at Slamfest in Mildura, but didn't plan to in this sort of style with a spectacular crash in his first run. Up against Peter Kapiris, Fabietti lost traction, veered across the track and slammed into the concrete barriers at close to 160km/h.

Fabietti's initial thoughts were for his co-racer and good friend, Kapiris.

"I left the starting line really well but got out about 60 or 100 feet and spun the tires and did an instant right turn," Fabietti said.

"The first thing I thought of was 'Where's Peter?' He's one of my best friends and you never want to take one of your opponents out.

"I tried to correct it and almost got it around but I made contact with my front right wheel and that was it."

Fabietti was lucky to walk away from the crash without any major injury, nursing only a sore finger and shoulder. The car on the other hand will need a bit of work.









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GM Performance

Why Bigger is Always Better.

Although the body is courtesy of the blue oval, its heart is 100% GM. Graeme Kirk's '32 hot rod is one serious machine. The rod is running a blown GM Performance 572ci big-block. Obviously the 620hp that the 572 pumps out in 'stock form' was simply not enough. So an 8/71 Weiand blower was dropped on to give this '32 around 900hp. Not bad for a weekend cruiser.

The credit for this jaw-dropping '32 has to go to Mick Paddy. Mick was the man behind this ground-up rebuild that started about two and a half years ago. Mick imported the '32 body from the States and did all the handy work. The decision to go a big-block Chev was an easy one. Mick didn't hesitate to order the almighty GM Performance 572. The 572 is the king of the GM performance range, and like this rod, is designed to demand attention and admiration.

As you would know, hot rods are 100 percent custom jobs, endless hours of engineering and ingenuity needs to go into a build like this to get it all to work. When you cast your eyes across this ride, you can't fault it. The workmanship of every aspect of this rod is first class. Did you notice the red gas sticker on the number plates? That's right, look closely at that engine bay and you will notice a pair of chromed convertors neatly mounted up front that feed the twin straight gas carbs sitting atop the blower.

You could stare at this rod for hours and still miss some of the minor features that make this '32 so unique. The shaved door handles, door locks and boot locks give the body a totally smooth look. In conjunction with the two tone paint scheme and orange pin-striping this rod is in a league of its own.

Graeme loves taking the rod to car shows and seeing the attention it gets as he rumbles in. Most people are in awe of the GM Performance 572, many people are left staring at the engine, trying to comprehend the size and the power of the blown big-block.

Graeme looks forward to cruising his 900hp hot rod to a few more car shows and turning a few more heads in the process.













Horsepower: 502 @ 5100 RPM Torque: 565 FT/LBS @ 3200 RPM Compression Ratio:9.6:1

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M Chev 350, 4 Bolt Mains Horsepower: 290 @ 5100 RPM Torque: 326 FT/LBS @ 3750 RPM Compression Ratio: 8.5:1

Horsepower: 502 @ 5200 RPM Torque: 567 FT/LBS @ 4200 RPM Compression Ratio: 9.6:1

🚨 350 Fast Burn **385 Turnkey** Horsepower: 385 @ 6000 RPM Torque: 385 FT/LBS 4000 RPM Compression Ratio: 9.6:1

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The A9X Torana.



When a car has a large fanatical following over 30 years after it raced, you know it's special.

By Eric Norton

A phrase was coined in the 1960s, "Win on Sunday, sell on Monday". It meant that winning cars created dealer showroom sales from enthusiastic motor racing followers and the general public. In today's world that might seem a bit far fetched but it was true and it worked. Motor racing was regarded as the ultimate endurance test, winning races meant the car was not only fast but reliable and well-engineered. This was true because motor racing right up to the late 1980s was mostly comprised of production cars with minimal modification from standard specifications. Holden's long and fine history of racing involvement through that 30 year period was pivotal in the refinement and improvement of its road cars available to the general public.

During this era a horsepower race ensued

between Holden, Ford and Chrysler resulting

in some very hot cars. By the end of the 1970s only Holden was left actively participating in motor racing, Ford and Chrysler pulled their official support and money several years earlier. By 1979 the Torana was a very developed and race-proven production car, but not just any Torana – the mighty A9X.

The legend began with the XU-1 Torana, after that came the second generation body style, the LH model which offered a hotted up version called the L34 option, the facelifted LX followed with the ultimate evolution, the A9X, now also available in the very sporty hatchback body style. Introduced in September 1977, A9X-optioned Toranas instantly took a 1-2 at the Sandown endurance race, the traditional lead up to Bathurst where it wasn't victorious. That was literally about the only event the A9X didn't win in the next two years, (1978 and '79 Australian Touring Car Championships and the Great Race of the same years).

Even before this the Torana had an enormous following but it is the last two years of the decade which forged the Torana legend forever. Having left the

Photo - Scott Paddy - autoshotz.co

Holden Dealer Team in 1975 to run as a privateer, Brock came back to the factory team in 1978 – and there was never a better match than Brock and the Holden Dealer Team. He won the '78 championship and Bathurst. He came second in the '79 championship and won Bathurst again. Now, any Bathurst win is a big prize but the year of 1979 is etched in the history books as the greatest of all time. In an impeccably prepared and presented A9X hatchback Brock wrote the script on how to defeat and demoralise the opposition with co-driver Jim Richards. The stats are amazing; Brock qualified on pole position, led the entire race distance (shared only relatively briefly with Richards), won by a huge 6 laps and…broke the lap record on the last lap - 161 laps/ 1,000kms around the world's most gruelling touring car track. With victory in the bag he flew around the circuit in the most audacious display, right on the "ragged edge", hanging the tail out through the high-speed mountain top section, lifting wheels over kerbs. Everything to lose and nothing to gain.

"Win on Sunday, sell on Monday"





Detractors deny the importance of this victory saying that with no Ford factory team in the game it was an easy win for the well-funded HDT. That is to deny the facts. Even without full Ford support Allan Moffat was still as competitive as ever, and Brock had to beat a flotilla of other very capable drivers. Note that Bob Morris won the 1979 season championship, (in an A9X) and only lost to Brock in '78 by two points. Probably the Holden Dealer Team's biggest strength was thoroughness of preparation, as the maxim says, "To finish first, first you have to

The stats are amazing; Brock qualified on pole position, led the entire race distance, won by a huge 6 laps and...broke the lap record on the last lap - 161 laps/ 1,000kms around the world's most gruelling touring car track.

finish". HDT boss John Sheppard recently told JUST HOLDENS Magazine in an interview that they "blueprinted the alternator bracket" – to ensure proper belt alignment thus eliminating any thrown fan belts at high revs. Brock's record was because of his driving skills and superior attention to detail by Sheppard's crew. Torana cleaned up against all comers with the top nine placings, then tenth to a Celica – not a Ford in sight.



Holden Legend



Photo - Eric Norton - justholdens.com.au

The 1979 Hardie Ferodo was the final outing for the Torana A9X, having been out of production for more than a year it was racing on borrowed time under CAMS rules. The shattering 1979 Bathurst victory was the Torana's last race, a last hurrah for Holden's greatest little powerpack...and Brock's personal salute to the car he loved so much - Brocky drove the A9X off the mountain and into the history books.



Fast Facts.

Top speed down Conrod Straight 270 km/h Price at introduction: \$12,500

• An A9X hatchback now sells for over \$200,000

Special thanks to Just Holdens Magazine.

Check out a special Collectors' Issue of JUST HOLDENS Magazine dedicated solely to the A9X's exploits in 1979, on sale nationally in newsagents (www.justholdens.com.au).



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Accessory News.

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- Curved, tempered and tinted slam action rear door fitted with heavy duty stainless steel hinges and gas struts for easy operation.
- External locks fitted to side windows for easy access to load area, a single key operates all locks.
- Carpeted interior walls with a fluorescent dome light. Rear roof spoiler with LED brake light.
- Smooth high gloss finish colour coded to your vehicle.
- Optional Roof rails capable of carrying up to 85kg.

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Accessory Specials.

Pontiac GXP 19" Wheel **Production Surplus Sale**

Available now, this great looking 19" Wheel to suit VE SS Commodore variants. These are surplus to production requirements and have been previously fitted to vehicles with tyres mounted, therefore it is important to note they may have minor marks. The wheels are priced at just \$900 for a set of 4

rims until sold out.

Part No. 92212153HS \$900.00

Centre caps are available separately in either Holden or Pontiac versions.



Accessory News

17" SV8 Rims - Special Offer

Dress up your VY/VZ Commodore with a set of 17 inch SV8 wheels. Available from your local Holden Dealer. Come in and check out the range of Genuine Holden alloy wheels.

Part No. 92123119 \$800.00



to fit GXP Wheels shown above

VE/WM Chrome Mirror Caps

Available now, are these neat chrome mirror caps for all VE Commodore Sedans, Utes and Sportwagons plus WM Statesman and Caprice.

Simple to fit, these caps will individualise your vehicle in moments and add an extra style element.

Part No. 92214921 **\$105.**00











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Restoration

Holden Restoration Parts By Rare Spares.



In 1948 Australian motoring history was written with the introduction of the 48-215, or as it was more simply known "the Holden" (later commonly called the FX). A real sense of excitement and national pride accompanied the release of "the car made in Australia, for Australia" - but nobody guessed what a runaway success this plain and practical six-cylinder sedan would prove to be. In fact by 1951 the Holden had won market leadership for General Motors in Australia.

More than 60 years on and automotive aftermarket companies such as Rare Spares have helped ensure that the FX and many other now Classic Holden vehicles are still enjoyed - through the provision of affordable high quality replacement parts and accessories, helping Holden enthusiasts restore their vehicle back to Holden's original standards.

"Holden restorers have a passion for our brand unlike anything I have ever experienced. They have become an integral part of Holden's popularity. We share a vision with Rare Spares to see classic Holden vehicles still being admired and driven for generations to come" said Paul Rietveld - Sales Manager Holden Genuine Parts.

Holden has always been supportive of Rare Spares efforts to manufacture replacement parts for older model Holdens, but has recently made an official partnership with the most recognised name in the Australian restoration market, Rare Spares, through the joint development of the "Holden Restoration Parts by Rare Spares" Program.

"We have a long history with Rare Spares through previous collaborations and we know they produce high quality products. That's why we have appointed Rare Spares as the custodians of the 'Holden Restoration Parts' program" said Paul Rietveld.



The Holden Restoration Parts Program will include parts from VS Commodore, all the way back to the original, 48-215. Rare Spares have already manufactured more than 170 parts under the "Holden Restoration Parts" program for a varying range of older model Holden's. The range of parts currently includes:

- Badges
- Decals
- Electrical Components
- Exterior Components
- Interior Components
- Engine & Cooling Components
- Lamps & Lenses
- Wheel Caps & Trims

"The 'Holden Restoration Parts' logo symbolises that the particular Rare Spares product has been manufactured as an official Holdenbranded part or has been manufactured using original Holden tooling" explained Les McVeigh, Managing Director of Rare Spares. "Over the next couple of years, we expect to rapidly increase the number of products under the new brand" said Mr McVeigh.

The Holden Restoration Parts product range will be available from participating Holden Dealers, as well as a full range being available in-store throughout the Rare Spares Distributor network.

"Making low volume parts at an affordable price is not easy. Over the years we have had to look outside the square to develop unconventional ways of re-manufacturing certain parts, otherwise they just would not have been made. With the support of Holden, making Holden Restoration Parts will become easier for us and more viable for the Holden Restorer" concluded Mr McVeigh.

Holden Restoration Parts



The Holden Cruze has arrived. But it's nothing like the small cars you've seen before. To begin with, it doesn't look like something you'd find inside a cereal box. With a choice of state-of-the-art petrol or turbo diesel engines, it drives even better than it looks, and yet it's still one of the most fuel efficient cars in its class with the 4-cylinder petrol engine using just 7.0L/100km! It's got more room than most small cars, including a large 400 litre boot, and its stylish interior features a dual cockpit design and dark leather-appointed heated sports seats. Safety comes first with six airbags, Electronic Stability Control (ESC) and a five-star ANCAP safety rating standard across the range, the highest possible for any car on the road. And with luxuries like rear parking sensors, auto headlights, cruise control and iPod® integration⁺ that allows you to control your iPod[®] from your steering wheel, we think you'll agree, the small car just got serious. Holden Cruze. Go better.

Holden Cruze. The small car just got serious.







CDX model shown. †Manual 4-cylinder petrol engine. Fuel economy based on ADR 81/02 testing. Actual fuel consumption depends on factors such as traffic conditions, vehicle condition and how you drive. ^CDX model only. ‡Not all portable music devices or USBs are supported by the infotainment system; please check with your Dealer. HBR0327/NAME/RACT

The Holden **Owner's Grant.**



Cruze CD

>Fuel economy from just 7.0L/100km^o >Electronic Stability Control (ESC) >6 airbags including side curtain airbags >Cruise control >USB & iPod® compatibility^Ω >Automatic headlamps





Captiva 5

>2.4L 4-cylinder engine >Electronic Stability Control (ESC) >Dual front & side curtain airbags >17" alloy wheels# >Front & rear park assist >Cruise control >Roof rails



Barina 3 door hatch >Zippy 1.6L engine >Dual front & side impact airbags >CD audio with MP3 'plug & play' >Steering wheel mounted audio controls >Front power windows & mirrors

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Things you need to know: 1. Max. sale price for Commodore International. 2. Max. sale price for base Cruze CD petrol manual. 3. Max. sale price for Captiva 5 2WD manual. 4. Max. sale price for Captiva 7 SX AWD petrol automatic. 5. Max. sale price for Barina 3 door hatch manual.6. Max. sale price for SV6 Ute manual. Offers available on models delivered before 31/05/10, unless extended, or while stocks last at participating Holden Dealers. Holden reserves the right to change or extend these offers. Not available with other offers. Private or ABN buyers only. *Recommended driveaway price includes 12 months private registration, 12 months compulsory third party insurance, dealer delivery and stamp duty. ΔOver \$7,500 of extra value based on RRP of extras. #Steel spare wheel. Bluetooth® is a registered trademark and logo of Bluetooth® SIG, inc. Check holden.com.aut od determine your phone's compatibility. Veuel economy for manual only based on ADR 81/02 testing for combined urban/extra urban driving. Fuel consumption depends on factors such as tradific conditions, vehicle condition, vehicle load and your driving style. iPod® is a registered trademark of Apple Computer Inc. ΩNot all portable music devices or USBs are supported by the infotainment system. Please check with your Holden Dealer. HRE0527_FP3_A



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Refer to ACDelco Catalogues for more details



ACDelco offers a comprehensive Product Range to suit Most Makes Most Models. For your nearest ACDelco Automotive Parts Stockist call 1800 ACDelco

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ACDelco

Quality Automotive Parts



ACDELCO BATTERIES

Power to the People

By Risto Sampola

You would almost be forgiven for considering car batteries to be boring. For the most part you would be right too, but when a battery fails the excitement kicks in right away – and for all the wrong reasons. Your customer's pride and joy of a car is instantly reduced to a box–on–wheels, going nowhere fast. Late for work, holiday put on hold, missed flight, the call to cancel an appointment. See, batteries or at least failed ones, can be pretty exciting.

A merely flat battery can of course be jump started, but that means having cables and a willing participant or a jump starter battery, preferably not one last charged two years ago. The battery might have run flat due to a light or similar left on overnight or it may simply have met the end of its life. If it's the first scenario then a full charge might be all that is needed, but if the battery was drained below its recommended minimum charge then sulphation may have occurred. While some smart chargers claim to revive a sulphated battery, they rarely come back to full life again. They may work, at a reduced capacity, for a while, only to return with more excitement for you a little later.

If the battery is truly dead then your customer is stuck that little bit deeper. They now have to have a new battery delivered to them – and that's where their choices become seriously limited. If it's not on the recovery truck, they're not having it – and it's also a lost sale to you. Roadside recovery organisations sell thousands upon thousands of their own batteries to stranded customers every year with no option to shop around. Just like any other consumable item, car batteries will at some stage come to the end of their lives. There are many critical variables in the design and actual construction of a car battery and if just one of these fails, the entire battery can fail with it. As with so many other things in life, car batteries are not created equal. ACDelco's wide range of car and marine batteries, from starting to deep cycle, have been meticulously engineered and superbly manufactured to ensure they perform time after time.



Cut-away of a Sealed

No amount of high-grade battery design is of any use unless it is built tough to go the distance. The engine bay of a car isn't a great place to be as it's a home to heat, vibration, water spray and even sub-zero winter nights, plus little bits of whatever it is the car was just driven over. At the heart of ACDelco's range of Low Maintenance Accessible (LMA) batteries, you'll find lead calcium expanded grids, which offer life-extending benefits such as very low water usage and self-discharge – and resistance to overcharging,

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corrosion and gassing. The ACDelco LMA battery casing is made of high impact resistance polypropylene to handle the harshest of vibrations and most models feature coin top vent caps for easy top ups. The negative plates inside each battery have separator envelopes to prevent performance reducing short circuits as well as providing further resistance to shocks and impacts. The shelf–life of an ACDelco LMA battery is up to six months, so even seldom driven vehicles can be started with confidence. The vast range of models ensures compatibility with most makes and models of cars, making ACDelco your supplier of choice.

ACDelco's Sealed Maintenance Free (SMF) batteries also feature ACDelco's lead calcium expanded grid technology for superior endurance and performance. However, the ACDelco SMF battery casing is also fully factory sealed to create a 100% maintenance free battery. The integrated liquid–gas separator returns liquid back into the reservoir, eliminating the need for water inspections and top ups. Most SMF battery models feature a built–in and easy to read hydrometer, which indicates charge level at all times with no need to reach for a multi–meter. Being fully sealed also means no risk of contact with battery acid or corrosive spills inside the engine bay, making them easy and safe to work with. ACDelco SMF batteries have an extremely low self–discharge rate and offer a shelf–life of up to 12 months. All of this technology is backed up to the privative spills used.



A car starter battery needs to deliver a massive amount of current to 'get things going'. Seeing as 'Volts (V) x Amps (A) = Power (W)', the low 12V of a car battery must be made up with many amps to make up for the substantial power required to turn over the engine. A car battery's CCA's (Cold Cranking Amps) number in the hundreds, whereas, for example, your 240V mains socket at home provides a comparatively measly 10 Amps. The flipside is that the current draw is only required for a few seconds until the engine has started and the alternator is then feeding power into the car's electrics and charging the battery up again. The Depth Of Discharge (DOD) is measured as a percentage drained from a fully charged battery. In the case of starting a car (or a boat engine) the typical DOD is around 2–5% and repeated starter battery discharge to even 50% will cause battery failure in as few as 30 discharge cycles.



depend or

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ACDelco Deep Cycle Batteries are designed for even the most extreme environments.

So, what about running accessories for extended periods of time? When travelling or touring by car, be it a five-star motor home, a camper trailer or just a 'ute and a tent', the chances are there's a fridge running, some 12V lights, shower water pump, a charger for a mobile phone or a camera and so on. Similar requirements are also placed on marine use batteries, which need to power various boat electrics for extended periods of time without the engine running. A car can start in a few seconds, but a 12V fridge may need to run for days. This type of usage is best taken care of with dedicated 'deep cycle' batteries.

As the name suggests, deep cycle batteries are designed to cycle deep and can be drained up to 80% DOD with no additional charging for extended periods. ACDelco offer two main types of deep cycle battery – dual–purpose and dedicated deep cycle with the maximum recommended DOD of a dual–purpose battery being 50%. The main structural difference between a starter batteries the plates are thinner and employ a spongelike construction to maximise the surface area of the plates for that high current 'jolt' needed to start an engine. In deep cycle batteries the plates are much thicker and solid in order to be able to handle the deep discharges necessary at a lower current consumption.

A typical use for a dual-purpose battery would be a situation where two dedicated batteries (starting and deep cycle) are not practical, such as a smaller 4WD or an SUV, where it might be advantageous to run a car fridge, but there's not enough room in the engine bay for a dedicated dual-battery set up. In the case of a larger 4WD it is possible to have two or more batteries in the engine bay, one for starting and one purely for deep cycle use. These two batteries are then separated by a dual-battery system, which always



ensures the starter battery is full, before switching charge to the deep cycle battery. Many ACDelco deep cycle batteries even feature dual posts (stud/ post) to easily accommodate low current appliances as they don't need large posts due to the smaller gauge wiring used. However, the large posts are still there for connection to a high current charger or alternator.

By their nature, deep cycle batteries are taken to more remote places, from vehicle touring to marine use, often to places where help is not so close by should something go wrong. With nearly one hundred years of experience in the automotive industry and products that can be found in over one hundred countries, ACDelco's range of batteries offers the kind of quality everyone deserves – application track can absolutely

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ACDelco Deep Cycle

NEW PRODUCT – BEAM WIPER BLADES ACDelco

ACDelco WIPERS CATALOGUE

Fit with Confidence – ACDelco's innovative Beam Wiper Blades

Windscreen Wipers are one of those things that you don't truly appreciate until you really need them. How often do you flick on the wipers, just as it's started to rain and you instantly wish you hadn't. As the dirt, rain and bird droppings smear across your windscreen making the road in front of you disappear while you frantically spray the entire contents of your washer bottle to get some clarity. What you need is a pair of wipers that are designed to perform when you need them most.

Introducing ACDelco's revolutionary range of Beam Wiper Blades.

Beam blades represent the latest generation in wiper technology featuring a slimline and aerodynamic design which assists in providing a high quality wipe demanded by today's vehicles.

The beam blade is a revolutionary design that continues to grow in popularity, with the technology now appearing on many late model vehicles. This new architecture eliminates the joints and hinged framework of traditional blades. In these "frameless blades" the arm force is applied directly to a curved metal beam that supports the rubber. The curvature is designed to evenly distribute the arm pressure along the length of the blade. The blade literally hugs the windshield. Two key advantages are achieved, streak-free wiping and reduced friction, minimising chattering and noise.

ACDelco Beam Blades also have the added advantages of:

- A symetrical spoiler making it suitable for either left or right hand wiper operation.
- Being designed with replaceable rubber refills, which negates the need to purchase complete wiper assemblies.

ACDelco Beam Blades are available in 2 different designs:

- A multi fitment design that is supplied with a range of adaptors to allow retro fitment to most vehicles built with conventional wiper technology. It can also be used as a direct replacement for a number of vehicles that have beam blades fitted as standard.
- The second design has more specialised adaptors featuring a lower profile required to suit the later model vehicles that have beam blades fitted as standard

Please refer to the application section of the new ACDelco Wiper catalogue for the recommended wiper assembly for your vehicle.





3 Reasons to choose ACDelco **Beam Blade Wipers**

- **1.** Advanced design allows even pressure on windscreen when compared to conventional wiper assemblies.
- 2. Wiping surface is graphite coated to reduce friction and minimise chattering and noise.
- 3. ACDelco Beam Wipers can easily be retro fitted to suit most vehicles built with conventional wiper technology.



ACDelco Beam Wiper Blades are available to Holden Trade **Club Members.**

For all your windscreen wiper needs.





FEATURES

- Product descriptions with key features and benefits.
- Clear illustrations and instructions to help you install all products from the ACDelco wipers range.
- quickly and easily.

Contact your local ACDelco stockist and ask for your new Wipers Catalogue or download now from acdelco.com.au/wipers

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BRAKE PAD CATALOGUE ACDelco

ACDelco MICK FROSSOS LIGHTS UP WESTERNATIONALS

COMING SOON – NEW 180 PAGE ACDELCO BRAKE PAD CATALOGUE

From Alfa Romeo to Volvo

ACDelco stock a huge range of Brake Pads

INCLUDES

- Easy to read application lists make it easy to find the correct part number fast and efficiently.
- The Brake Pad Profiles section allows you to visually see if the Brake Pad is correct.
- Easy to understand technical information with detailed illustrations.
- Product information about both the ACDelco DURASTOP BRAKE PADS and the ACDelco HIGH PERFORMANCE BRAKE PADS.
- ACDelco recommended brake consumables.



Catalogue Features



Detailed technical information with diagrams to help you find the right Brake Pad.



Easy to read application list, designed to help you find the part you're looking for, fast.



Brake Pad profiles make sure you make the right choice with a full size visual of each Brake Pad profile.

Mick 'Patch' Frossos and his yellow ACDelco Nissan 300ZX are well known across the Western Australia drag racing scene. He and his 300ZX have been blowing away the competition and entertaining the crowds for quite some time now.

Recently at the Westernationals held at the Motorplex in Perth, Mick won the Super Stock crown by defeating tough competitor Allen Puglia in the final and setting a new national record in the process.

Mick has put a lot of blood, sweat and tears into the build of this car, and winning the top qualifier's medallion was a great reward for his hard work and ended up setting the tone for the rest of the Nationals.

"It's been really financially and mentally straining to get here, we came out at the beginning of the season and had a little hiccup with the new engine, and I had to send it back. This is my first time back and we kicked arse." Mick said

Frossos was extremely proud to win Super Stock in a WA built car and credited his engine builder on a job well done.

"Thanks to PRE Engines, what an engine, what a weapon," he said.

Mick, with the help of Race On Custom in WA, built this mighty drag car. Although Mick spends the majority of his time hauling trucks around Australia, he still finds time to set up his national record holding Drag Car.

Mick competed in the B/APA Class (APA stands for altered production with automatic transmissions). Altered production vehicles use replicas of production based sedans, coupes and closed sports cars with unlimited engine modifications and extended wheelbases. B/APA allows for 166.1kg per litre (6.00 lb per cubic inch), it must be naturally aspirated and cannot exceed 1134kgs (2500lbs) in weight. So if you were running a 1134kg car, the biggest engine you would be allowed to run, would be a naturally aspirated 416ci engine.

Patch runs a 404ci Hemi small block that pumps out approximately 820kW @ 9800rpm, which is over 2.7hp per cubic inch. Which is just mind blowing when you compare it to say the 325kW, 6.2 litre HSV GTS that produces around 1.15hp per cubic inch. The amount of precision engineering that goes into a drag racing motor is staggering, it's not just a matter of slapping something together. Hours of precision machining and tuning goes into putting a motor like this together. These motors aren't built to clock up thousands of kilometres, they are made to shotgun you down the guarter mile in 7-8 seconds. So it's a little unfair to be comparing this motor to the engines fitted to a regular street car.







300ZX FAST FACTS

Car: 1997 Nissan 300ZX Engine: 404ci Hemi Small Block (Built by PRE Engines) Power: Approx 820kW @ 9800 rpm Transmission: Proflite 3 speed automatic transmission 0-400m: 7.37 seconds @ 183 mph (294.5 km/h) **0–60ft:** 1.034 seconds



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