



HOT AIR

NEWSLETTER

APRIL 2009

The Automotive Air Conditioning, Electrical and Cooling Technicians of Australasia

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Members - show your support and interest in your association and sign up for these events.

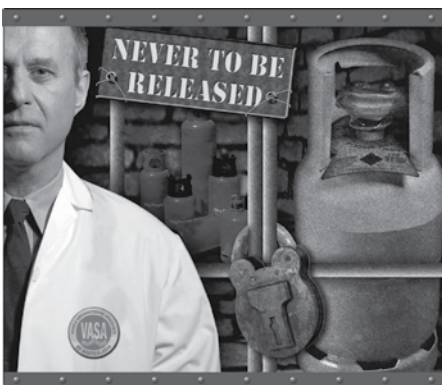
VASA members who are able to make their way to either Sydney or Adelaide are urged to take advantage of two top training events being organised by VASA.

**Sydney, 30 May 2009
Adelaide, 13 June 2009**

These events are for VASA members only and the cost is heavily subsidised by either VASA itself or sponsors.

Support your association, and do something really worthwhile (and tax deductible) for yourself.

Full details inside.



The 'Never to be released' brochure, produced several years ago by VASA to help members educate their clients on the need for full a/c system checks rather than a gas top up, is being re-released.

Members from Adelaide to Brisbane say the brochure is the best thing VASA has ever produced for attacking a complex customer relations dilemma. The VASA board will send every member a small bundle of free copies when printed, and additional copies will be available at cost.

THE NOOSE TIGHTENS

The noose is tightening on backyard workshops and technicians who attempt to handle fluorocarbon refrigerants (R134a in automotive's case) without either the skills or the necessary licence or authorisation.

From 1 July next, any sandwich board or sign which advertises any air conditioning service must carry the business's AU or authorisation number. If not, there is a \$5,500 penalty for a company or \$1,100 for an individual technician.

This will be good advertising for those businesses playing the game, but those trying to fly under the radar, without a displayed AU number, will be easily spotted in 'drive-bys' by ARC auditors.

Chairman of the Australian Refrigeration Council, Mark Padwick, who is also VASA president, says professional repairers who have done the right thing will have nothing to fear from a range of amendments to the licensing regulations. "Those who are still trying to handle refrigerants without an authorisation or a licensed technician are the ones our auditors will be aiming for," he added.

"VASA members should regard the prominent display of their AU number as a marketing bonus," said Mark.

"The displaying of the AU number is in line with ARC's ongoing promotion of the 'look for the tick' campaign.

"This is another opportunity for members to be proud of their VASA logo, and proud of the fact that they have the necessary licences to carry out repair work on vehicle air conditioning systems.

"Your point of difference in the market



will be that you are recognised as having extra qualifications while the backyarders do not. Under the new rules, the backyarders who attempt to advertise that they do air conditioning, will be caught," added Mark.

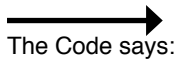
Most complaints by VASA members continue to focus on the use of sandwich boards outside workshops which offer 'Regas (or topping up) for \$69'.

Many workshops, including those which are authorised, claim a right to continue this type of promotion, saying that they use it as a 'hook' to get motorists who are unfamiliar with the regulations, inside their door.

VASA can only take their word for it that once the customer is in their clutches, it is explained to them that a simple regas is illegal and that a proper system check is the minimum requirement to verify the integrity of the system.

To date, the government has not specifically said that such signage is illegal, although the Code of Practice in automotive clearly says the practice of topping-up is an offence.





The Code says:

A.4.1 The addition of refrigerant to an existing system charge to "top up" must not be carried out.

VASA's contention is that if topping up is illegal, why wouldn't a sign advertising a top be illegal, whether or not the workshop is authorised?

At best, VASA regards such inducements on sandwich boards as unprofessional, misleading and dishonest.

However, where the government has clamped down is where a business advertises regassing, top ups or anything else to do with maintaining or repairing R134a-charged systems, and the workshop has no authorisation and no licensed technicians.

In these cases, they have committed an offence and the fines are steep.

So, in brief, any workshop without the relevant permits which makes any representation that they can provide any service relating to handling of refrigerant is breaking the law.

SYDNEY AGM ACCOMMODATION

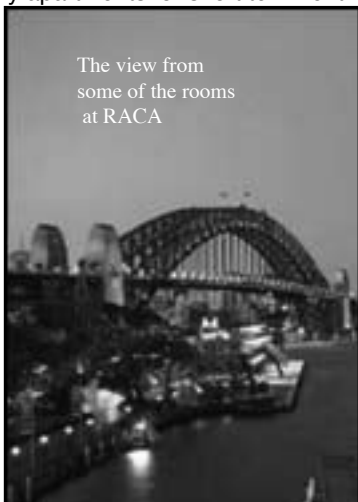
For those who can book now, there is limited accommodation of an old world charm available at the Royal Automobile Club of Australia (RACA) in Sydney for the AGM day and dinner - Saturday 30 May 2009.

If you are not a member of RACA, you can still make a booking, but you must quote that you are the guest of member Deyan Barrie, and you must give his membership number, 87619.

Single rooms without facilities - \$125.00
Single rooms with facilities - \$155.00
Queens - \$230.00
Kings - \$245.00
Deluxe - \$260.00
Harbour deluxe at \$270.00

Other accommodation very close would be Sir Stamford Plaza and the Quay Grand apartments. In North Sydney/Milsons point, just over the bridge, there are many apartments for short term rent.

The view from some of the rooms at RACA



**Saturday
30 May 2009**

One big day in Sydney

town:

✓ **Training morning**

✓ **Lunch**

✓ **VASA Annual General Meeting**

✓ **Open forum**

✓ **Mini Trade Show**

✓ **Celebration dinner**

All for \$95 and bring your partner to dinner FREE

Since this event is wrapped around the Annual General Meeting, all financial members of VASA throughout Australia and New Zealand will receive a meeting notice and a registration form around the end of April.

That will give everyone a good month to make their final arrangements and their booking.

With the AGM notices will be forms for the annual election of directors, so if any member would like to put their hand up for a tour of duty at the helm of VASA, now is the time to consider it.

The \$95 deal is aimed at the full day and night of events and, as the heading suggests, it will even include a free ticket for your wife or partner to join you at the dinner.

If full day attendance is an issue, here are other options.

All financial members are entitled to attend the AGM from 1pm-3.30pm absolutely free. So if that's the only time you can spend with us on the Saturday, try to make it.



If you really can't attend anything else that day, VASA members and their partners are welcome to the dinner

at 7pm, but the cost will be the full charge of \$100 per head.

Bookings are essential at least a week prior.



The historic Royal Automobile Club of Australia - AGM venue

9.30am-10am

The day starts with a morning tea

10am-12noon

Training provided by The Automotive Technician trainers, covering electrics diagnostics and how to put a value on your services and increase your bottom line

12noon-1pm

Lunch

1pm-3.30pm

VASA Annual General Meeting and open forum

3.30pm-4pm

Afternoon tea

4pm-6pm

Mini Trade Show with drinks and canapés

7pm-midnight

Three course dinner and drinks.

For those who fear the AGM is a formal and boring affair - **don't**. The formalities are usually very short, but members are then invited to engage in a wide ranging debate on issues which affect them and their business.

It's an opportunity for members (and potential members) to speak their mind, offer ideas to improve business and discuss solutions to everyday workshop problems.

A TaT training session



There are a couple of trade show slots for VASA member wholesalers or OEMs.

If you are interested, please contact VASA director Jeff Smit for details.

The Royal Automobile Club of Australia (RACA) is at 89 Macquarie Street, Sydney, opposite Circular Quay, so it's a very convenient train stop for Sydney-siders.

Part IV of the Australian History of Vehicle Air Conditioning



Ralph Cadman, a VASA Pioneer and Life Member continues his memoirs of the characters, movers and shakers of the vehicle air conditioning industry in Australia.

1975 Unicla Silverwater NSW Ralph Cadman

Becoming frustrated with family co-directors, Ralph Cadman moved to Unicla. At that time, Unicla was supplying systems to Nissan, Mitsubishi, Honda and Ford and components, including the twin cylinder reciprocating compressor, to several local OEMs. Hans Tol, an interesting character, agreed with the Japanese owner to take Ralph on as a part owner and director.

The participation increased in 1980 with the resignation of Hans and a long friendship and partnership began between Ralph Cadman and Tetsuo Nobata, the owner of Unicla in Nagoya Japan.

1976 Summercool/Cooltemp Brisbane Steve Whitelock/Bevan Carrick

Steve's early introduction to the industry came from Mark IV and he joined forces with Bevan when installation speed was the secret of success. For several years, they tolerated the low volume hand-made components the suppliers were providing, but this would not last too long. Steve and Bevan particularly, had a strong desire to provide a quality product which fitted easily and, most importantly, quickly.

The car market was buying an installed product so fit it quickly and enjoy the benefit of a higher profit.

The partnership was strong and soon they were employing a large number of fitters and fabricating mount brackets and refrigerant pipes and hoses. They learned much from Air International, who were manufacturing mount kits at that time. Soon, enquiries from the industry led them to commence manufacturing for others throughout Australia and it seemed obvious for Steve to run the install side and Bevan to be the manufacturing element of the partnership.

The story is legendary and the escalation in their business left the industry in awe.

Eventually, the strength of imports even affected Cooltemp and, like many others in the industry in the new millennium, the only chance of survival was in a niche which offered high specialisation and limited competition.

1977 Automotive Imports Melbourne Vic John Blanchard Snr

John spent some time in Malaysia as an engineer with Nippondenso and returned to Australia with a plan to create a parts importing business from his home. John became the Victorian sales agent for Unicla and assisted Unicla's air conditioning systems' growth considerably.

As the business grew, so did John's ambitions and it wasn't long before John introduced some components to sell in parallel with Unicla. In the mid '80s John commenced importing replacement OEM condensers from Taiwan, which led to the development of Melbourne Auto Air and its distribution network throughout Australia.

1978 Worldaire Silverwater NSW Ian Maudsley

Ian was one of the characters in the industry and used his Marlan connections to import parts from some of the more interesting suppliers, such as Dave Schenk of Dallas from whom Ian borrowed the name.

Ian tolerated the complexities of the industry for a while, but it got to be a little hard for him in the long term.

Supplies were sourced from:

Discal Corp San Francisco	Ogura clutches
Electra Air Dallas	Mark IV components
ARA Dallas	Rooftop truck units
Clardy Mftg Fort Worth	Clardy evaps
Atco Dallas	Hose fittings
AMC Fort Worth	General components
Danhard Dallas	General components

DPD San Antonio	VW systems
Frigette Fort Worth	General components

1979 Sanden Kirrawee NSW Bob Jones Snr

Sanden Japan purchased rights to the Abacus 5 piston compressor for manufacture in Tokyo. Sanden recruited several international Mark IV employees, notably Bob Johnson Snr and eventually Bob Jones Jnr with most early sales development coming from Hong Kong and the Asian region.

Over a short period of time, an enthusiastic team of salesmen was infiltrating the aftermarket with the new Sanden compressor. South Africa, Australia, Asia, Phillipines and, of course, Dallas were strong bases for the Sanden/Mark IV alliance in the aftermarket. This pairing, assisted by Discal San Francisco, with the Toyo Clutch connection, made a dynamic force worldwide.

The following years saw many changes and staff movements worldwide.

The aggressive stance of Sanden saw the Japanese corporation enter the tough field of OEM worldwide and the foundation laid by these ex Mark IV employees held the current dominance of Nippondenso at bay for many years.

It is only the stockholding link of Nippondenso/Toyota which prevented Sanden continuing to prevail.

Sanden's expansion between the mid '80s and late '90s is legendary.

Many thanks to VASA member 264, Stewart Barrett of Belconnen Automotive Repair Services in the ACT, and VASA member 322, Rodney Smith, of the Auto Air Centre in Hamilton New Zealand, for taking the time to send in their history.

Hot Air will run stories on each of these pioneers as soon as we can get them to part with some pictures of themselves in action.

The form to register yourself as a pioneer in air conditioning will be on the new VASA website soon.

(Continued next issue)

The Code spells out the things you **MUST** do and the things you **SHOULD** do

Hot Air is publishing the entire Code of Practice, with comments, section by section, to help with interpretations.

VASA has received a number of requests for information, as well as some criticism of the Code for its lack of detail.

While VASA and the MTA had a great deal of input into the Code, at the end of the day, the Code had to undergo a strict government process involving technical as well as legal scrutiny.

It is important for technicians to understand that this Code is delivered on the assumption that those who pick it up to read it, **already know what they are doing**.

In other words, too many technicians are expecting the Code to be a full-on workshop manual. The Code is only supposed to be read by technicians who are already well trained, and have at least the minimum Certificate II standard of understanding of vehicle a/c systems.

Members need to understand that this Code does not constitute a technical design document and must be used with other standards and Codes of Practice already in existence - in particular, AS 4211.1 - 1996 gas recovery or combined recovery and recycling equipment.

A.17 Filling and charging equipment

A.17.1

When filling the charging equipment from the refrigerant cylinder, the hoses should be as short as practicable and be fitted with isolating valves (see Section A6).

A.17.2

The hose may be lightly purged with refrigerant when initially installed. At other times some refrigerant must be retained between the two isolating valves.

A.17.3

During filling, the displaced refrigerant gas must be returned to the recovery cylinder.

A.18 Evacuation and re-gassing process

A.18.1

Where practicable the compressor oil level should be checked and topped up to the correct level.

A.18.2

The equipment must be capable of ensuring the evacuation of air and

moisture from the system being serviced, by reducing the system to a gauge pressure of minus 90 KPa, or below. The vacuum pump should operate for a minimum time of 30 minutes before isolating the system.

A.18.3

The system pressure should be checked one minute after isolating from the vacuum pump and re-checked 5 minutes later. A rise in excess of 2 KPa (15mm Hg) indicates a leak or moisture in the system. The fault must be rectified.

A.18.4

If no leaks are detected, the air conditioning system may be serviced in accordance with the manufacturer's instructions (while complying with the code of practice). If leaks are detected, the refrigerant must be recovered and the system repaired.

VASA COMMENT:

If, after servicing the system as set out above, a further leak is detected, the refrigerant must be removed and the system repaired.

The system should then be performance tested and leak tested again.

A.18.5

The air conditioning system should be performance tested and must be leak tested.

A.18.6

Whenever a vehicle air conditioning system is serviced, the service organisation must attach a durable label in a prominent position showing at least the following information:

- Name of the service organisation
- Name and Refrigerant Handling Licence number of the technician conducting the service
- Date of the air conditioner service
- Date of the last filter change
- Type of refrigerant in the system
- Type of oil in the system
- Type of dye, if any added.

A.19 Leak detection

Preparation for electronic leak detection: Prior to leak testing, a refrigerant identification check should be carried out if the refrigerant composition is unknown. This is to minimise the risk associated

with the use of electronic leak detectors that use an electrical discharge across the tip in the presence of hydrocarbon refrigerants.

A.19.1

To overcome the practice of topping up the system with a coloured dye and asking the owner/driver to drive the car for a few days, the following notes should apply:

* Suitable leak detection equipment must be used in the detection of refrigerant leaks. The equipment can be electronic, visual or pressure leak detection.

* Irrespective of the type of leak detection equipment used, the equipment must be used in accordance with the equipment manufacturer's and or supplier's operating instructions and maintained accordingly.

* If Refrigerant Handling Licence holders use dry nitrogen test equipment to detect leaks, reference must be made to the vehicle manufacturer's service guidelines.

A.19.2

The use of ultraviolet dye as a diagnostic tool to detect leaks is acceptable if all other available means of leak detection have failed and the technician still suspects the presence of a leak. Adding dye to a system must not be used as a diagnostic tool of the first resort.

A.19.3

A technician that proposes to use ultraviolet dye as a diagnostic tool to detect leaks must have documented all other efforts made to detect the leak.

A.19.4

Technicians must refer to the manufacturer's specifications to ensure that the use of dye does not impinge on the warranty or future serviceability of the system.

VASA COMMENT:

The use of dye is a last resort and technicians must check the oil in the system first to ensure the system does not contain a lot of dye.

Dye, which is slightly abrasive, is hard to remove from a system, and too much dye may dilute the oil and encourage seal failure. Too much dye can compromise the life expectancy of the compressor.

Manufacturers do not encourage the use of any refrigerant other than pure R134a. Refrigerant blends are not recommended.

Refrigerant Update

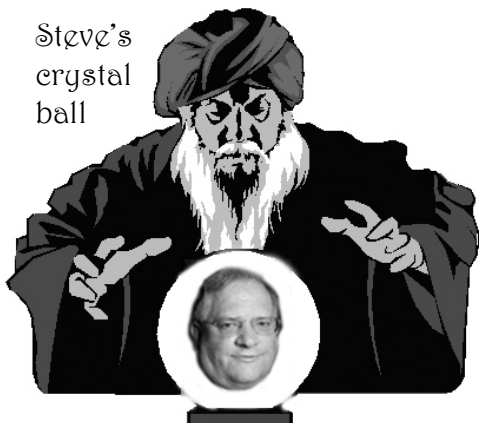
Much is being said and written about the possible new refrigerants being considered as the world replacement for R134a.

A summit convened by Stephen O. Andersen of the US Environmental Protection Agency recently outlined very clearly the pros and cons of the current contenders.

While Australian and New Zealand VASA members will be using R134a for quite a few years yet until supplies of new refrigerants are commercially available, it will be important for technicians to keep themselves well informed, so that they can plan for future servicing and maintenance expertise.

Hot Air, through its international affiliates and contacts receives the latest information on world trends.

Steve's
crystal
ball



- Environmental authorities and citizens worldwide will pursue fuel-efficient, GWP<150, technology for mobile and stationary air conditioning.
- VDA, the German car makers, with the support of Greenpeace, will pursue R-744 for domestic EC markets.
- Japan, USA, and EC companies will pursue R-1234yf for markets in hot and humid climates demanding energy and LCCP performance.
- Market transformation outside EC may start sooner and finish faster than the F-gas Directive.

It's official, the car repair industry has been singled out by an expert as typical of those industries which will do well in a recession, unlike many others.

Andrew John, Associate Professor of Economics at the Melbourne Business School, said that people don't go out and buy new cars but they start repairing their old cars.

HFC-1234yf: Japan, US, Non-VDA* EC Choice

Benefits

Near drop-in for direct expansion MAC systems
Ready for conventional, hybrid, electric and fuel cell
Low global warming potential (GWP = 4); non-toxic
Superior Life-Cycle Climate Performance (LCCP)

*VDA is the
German
Automobile Industry
Association

Challenges

Mildly flammable
Higher refrigerant cost
Not yet produced in commercial quantities
Pending SNAP regulatory approval in US markets

1234yf has low global warming potential, is a near-drop-in replacement, and is not toxic. 1234yf is mildly flammable, but experts have determined that it can be used in properly designed direct expansion systems with insignificant fire risk.

R744: VDA Choice

Benefits:

Particularly suitable for mild European climates where people prefer less air conditioning
Supported by the VDA, some suppliers, and EC companies claiming patent rights
Very low global warming potential (GWP = 1)

Challenges:

Total system re-design, high pressure, toxic, costly
Poor small car fuel efficiency, cooling, and drivability
Pending SNAP regulatory approval in US markets

For many years, R744 was considered the front runner. It has low global warming potential and good cooling performance. R744 is still beset by a number of challenges, including cost, fuel efficiency in hot climates, toxicity, and poor performance in small cars.

HFC-152a: Backup for HFC-1234yf

Benefits

Good energy efficiency and cooling performance
Medium global warming potential (GWP = 124)
Superior LCCP if leak-tight systems with idle stop
SNAP listed. Low cost and unprotected by patents

Challenges

Mildly flammable
Safe in direct expansion systems only with detection and discharge or other safety systems
Safe in secondary-loop systems properly designed

HFC-152a is a promising alternative with good cooling performance, good energy efficiency, and low global warming potential. It is the backup choice for companies who prefer HFC-1234yf.

Hydrocarbons (HC): Choice of No One

Benefits

Good cooling performance and energy efficiency
Low Global Warming Potential (GWP = ~5)

Challenges

Highly flammable, easily ignited
Not safe in direct expansion MAC systems
Secondary-loop air conditioning systems and other safety mitigation does not yet satisfy automobile industry safety concerns
Prohibited by many environmental and safety authorities. Not SNAP listed

Hydrocarbons were also considered because of low global warming potential, good cooling performance, and excellent efficiency. However, no manufacturer or responsible regulatory authority recommends HCs because less flammable, energy efficient, low – GWP alternatives available.

Don't fall for the flammable refrigerant line:

VASA members are reminded of their duty of care to themselves and their employees when called to service equipment known to contain a flammable refrigerant

VASA members are being warned to consider their duty of care to themselves and their technician employees when called on to work on any vehicle or farm machinery which they know to contain a hydrocarbon or flammable refrigerant in the air conditioning system.

Calls from concerned members continue to be received at the VASA office as hydrocarbon salesmen sporadically target farm equipment, having failed to make big inroads into the passenger vehicle aftermarket industry.

Surveys conducted by VASA, the last being in Adelaide which was reputedly the heartland of hydrocarbon use, show clearly that R134a is the refrigerant of choice in the vast majority of workshops and hydrocarbon refrigerant was found in a very small percentage of vehicles surveyed over the height of summer.

For those who might need a little reinforcement, note the following:

There is still not one car manufacturer or maker of original mobile air conditioning equipment in the world who will endorse the use of a flammable refrigerant in their air conditioning systems.

The latest world trend towards new refrigerants to meet environmental targets (printed elsewhere in this newsletter), also proves conclusively that a hydrocarbon refrigerant is **not** on any car makers' radar.

Equipment manufacturers continue to warn that to use hydrocarbon refrigerant will void warranty, and international manufacturer Denso has issued warnings about the potential damage to compressors with constant use of this refrigerant.

There is also great doubt that any insurance company will honour any claim in the event of an explosion causing personal or property damage, if they

knew that a flammable refrigerant was in the air conditioning system which was not designed for the use of dangerous goods.

Flammable refrigerants are dangerous goods in all jurisdictions. Hence their complete ban in mobile air conditioning equipment in Queensland and, under New South Wales and Victorian occupational health and safety regulations, the requirements on the use of hydrocarbons are so strict that no repairer would ever be able to get the necessary written approvals from vehicle manufacturers for its use in vehicles.

In Queensland, the government continues to issue warnings about the use of hydrocarbons.

In one safety alert, readily available at their website, the government reinforces that LP or hydrocarbon gas is not approved for use in vehicle air conditioners in Queensland.

They also warn that LP gas in small quantities can give rise to a devastating explosion in confined spaces such as vehicles.

In communications to key refrigerant and air conditioning associations as recently as April 2009, the Chief Inspector, Petroleum and Gas, Stephen Matheson, warns that in Queensland, all appliances which use hydrocarbon refrigerants must be approved.

Realising that hydrocarbon refrigerants are being used in some domestic and commercial refrigeration, he has also flagged to industry that specialised training in hydrocarbon refrigerant will be introduced in Queensland, with a course available later this year.

He reminded that in Queensland, it was an offence to sell, install or use an unapproved appliance and to carry out gas work on such appliances. Mobile air conditioning equipment is certainly an

unapproved appliance.

In the Queensland Government's Safety Alert on use of hydrocarbon refrigerant, the Government says that inspectors had found cans of a highly flammable refrigerant known as HR12 being offered for sale for use in automotive air-conditioning units.

The alert goes on: "The use of flammable gas refrigerants in automotive applications is currently not permitted in Queensland.

- The flammable refrigerant offered is similar in composition to LP gas.
- LP gas is a highly flammable product and can lead to fire or explosion.

"All automotive refrigeration installers or maintainers must take particular care to ensure that this, or like refrigerants, are not used in vehicles in Queensland," the alert says.

"Any vehicle currently converted in this State to use LP gas as a refrigerant will need to be recalled. Please report any instances of this product being sold/used to a Petroleum and Gas Inspector."

VASA members report that while few cars are charged with hydrocarbon refrigerant, a small number of farmers in some communities are being talked into using the refrigerant in their farm machinery.

Members in rural areas are advising farmers that they cannot expect professional technicians to make service calls when air conditioning breaks down in the middle of harvesting, if it is known that the air conditioning systems have been charged with a hydrocarbon refrigerant.

VASA members are urged to report any fire or explosion incidents, of which they have personal knowledge, in farm equipment which has been charged with hydrocarbon refrigerant.

Send to: secretary@vasa.org.au

The refresher course from the original RTP, a distinctive training program developed by VASA for its members, will be continued in the next issue.

New DVD on air conditioning servicing procedure is a must-have for all workshops

One of Australia's most experienced air conditioning trainers, Grant Hand of Automotive Training Solutions, has delivered the most comprehensive and clear air conditioning service message ever produced.

It's a timely refresher course for the experienced and an essential tool for apprentices and newcomers to the industry.

as opposed to a quick 'top up' - now illegal - and finally, an in-depth study of why components fail.

And, inside the DVD case is a 24 page workbook, containing a summary of professional air conditioning service procedures.

This total package is retailing for \$50, but for VASA members, a limited number of DVDs are available for only \$40.



To order your copy, email a request to secretary@vasa.org.au with your name, membership number and phone number and we will post it to you immediately along with your invoice.

Copies will also be on sale at all VASA functions.



Thanks to sponsorship funding from Refrigerants Australia, creative input from Grant Hand's company Automotive Training Solutions and production support from VASA, this long awaited program, filmed during 2008, is now available at a special price to VASA members.

You receive an attractive DVD case containing three programs, including a detailed air conditioning service on a vehicle, an insight into how to sell a professional service,

An incentive to abide by the rules

VASA has taken a new marketing approach to encourage new memberships, and to reward all members who pay their annual subscriptions within the required two months from 1 April.

VASA's year runs from 1 April to 31 March, and strictly according to the rules of the association, members who have not renewed after two months can no longer enjoy the benefits of membership. So the VASA board agreed

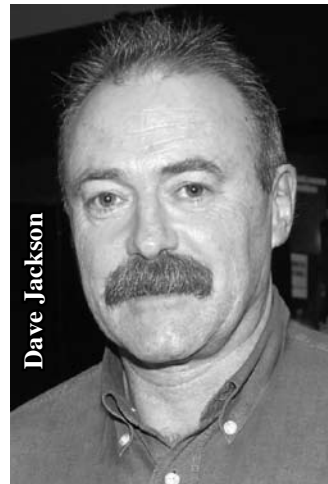
with a new incentive scheme to reward members with this smart new VASA jacket, which will also have the member's company name on the opposite pocket.



Top trainer line-up for Adelaide show for VASA members

VASA director in South Australia, Dave Jackson, with help from member wives, Julie Jackson, Carrie Stangroome and Carolyn Vidler, have put together a top-line weekend in Adelaide for 12, 13 and 14 June, with the main day being the Saturday.

It's a training program and trade show designed



specifically for members of professional automotive aftermarket associations, Bosch and VASA.

It begins on Friday night, 12 June, with a Bosch evening exclusively for their service dealers. Many VASA members are also Bosch dealers.

On Saturday morning, starting at 9.30am at the Adelaide Stamford Grand, the training program begins, featuring:

- Darren Todd (Bosch senior trainer) electronic controls and sensors
- Mark Bruce (REDARC) showcasing new products
- Bosch new equipment presentation
- Dave Townley (ADAIR) air conditioning systems.

During Saturday, from 10m to 4pm, a partners tour includes lunch and wine tastings



at selected Adelaide Hills wineries followed by Haighs Chocolate private tastings with a gift box for every partner.

The Saturday Gala Dinner starting at 7pm will include a three-course meal plus refreshments.

It's Oscar night for SA VASA members

The winner of the Outstanding Service Award for RAA approved air conditioning workshops will be announced along with a VASA local recognition award, and the Bosch Service Dealer Award.

There will be great giveaways throughout the weekend.

The prices, shown on the booking form on the next page, are very affordable thanks to generous sponsors.

The Sunday morning farewell breakfast, starting at 9am is at delegate's cost.

Fill out the form on the next page and send it in quickly to avoid disappointment.

Changes to licence conditions

Holders of the refrigerant handling licence who are not employed or hired by the holder of a Refrigerant Trading Authorisation must now include their ARC licence number on any invoices, receipts and quotes for work carried out under the licence.



BOSCH / VASA Training Program and Trade Show

Friday 12 June 2009 - Sunday 14 June 2009
at the Adelaide Stamford Grand, Moseley Square, Glenelg SA



REGISTRATION FORM

BOSCH SERVICE DEALERS ONLY

**12th June Friday Night Bosch Trade Show and Cocktail Evening 7pm
(No Cost)**

Company Name: _____

Attendee Name: _____

Attendee Name: _____

Attendee Name: _____

Limited 70 Delegates only

Saturday Ladies Winery Bus Tour

Company Name: _____

Attendee Name: _____

X \$50.00 pp = _____ TOTAL

Limited seats 20 only

Saturday Technician Training

Company Name: _____

Attendee Name: _____

Attendee Name: _____

Attendee Name: _____

X \$40.00 pp = _____ TOTAL

Limited seats 70 only

Saturday Night Gala Dinner Registration

Company Name: _____

Postal address: _____

State & Postcode: _____

Email address: _____

Phone: _____ Mobile: _____

Fax: _____

Attendee Name: _____

Attendee Name: _____

Attendee Name: _____

Attendee Name: _____

X \$ 72.50 pp = _____ TOTAL

Limited 70 seats only

Please enclose payment with registration form:

Cheque payable to **I & C Stangroome** or **Direct debt BSB 065148 ACCOUNT 10011826**

Postal address for registration form & cheque payment is **66 Rowell Rd Lockleys S.A. 5032** or registration Fax **08 83543540**

Saturday Gala Dinner

\$ _____

Saturday Training

\$ _____

Ladies Lunch

\$ _____

GRAND TOTAL

\$ _____

This Event is tax deductible through your business



All functions will fill quickly so to avoid disappointment book early.

Rooms are available from \$180.00 per room per night, Please book rooms by ringing the Stamford Grand on

(08) 83761222 quote Reference booking number B01306. Please book as soon as possible to secure a room.

Any further information required contact David Jackson on 0412244439, Carolyn Vidler on 0404092268 or Carrie Stangroome on 0412119543

