

Print Post Publication No. PP326342/0008

DIESEL TORQUE



**Official Magazine of the Association of
Australasian Diesel Specialists Inc.**

EDITION FORTY-TWO

JUNE 1995



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EDITORIAL

In light of the past and current reassessment of service dealerships of the original equipment manufacturers in Australia, it may be timely to seek answers where possible to certain questions and problems that are arising and causing concern to AADS members in the service sector.

The first point I would like to address is the equipment and tooling that will be required to attain the level of dealership that best suits your business and customers needs. If full service is required, many thousands of dollars may have to be spent to achieve this level and this may also be true for those seeking limited service dealership. Some of you may feel that these requirements are an intrusion on your business and that you have always managed by improvisation and product knowledge gained over many years of experience in fuel injection service and repair. Well this thinking is no longer valid and, for a number of years, the signals have been loud and clear that, to service the latest pumps and injectors, updating of test equipment and tooling would be essential.

So if you have been alert and structured your service fees to allow for the purchase of new equipment you should have no problem in maintaining your current service level. If you have not, then I suggest you talk to your OEM service managers and establish a suitable arrangement agreeable to both parties for the necessary updating of your business.

The second question is training. At the recent AADS convention in Melbourne a meeting was held between representatives of AADS, TAFE and the manufacturers on how best the training needs of the industry could be served. It was agreed after much discussion that three levels of training were possible using existing methods and capabilities and cooperation between all parties. These levels are:-

1. TAFE colleges to train on the basic levels of skills for people entering the trade, most suited to the needs of the employer of that person and the training to be competency based and include on the job training as part of the certificate.
2. AADS to continue to provide, in conjunction with TAFE and with the input of the manufacturers, post trade courses on current and older products being used in

today's market place and to certify members by means of examinations that they have achieved the level of competency on such products.

3. The manufacturers to continue to provide training for their service dealers on their latest products and to provide advice and assistance to the trade in their areas of expertise.

The third point is quality assurance. The theme of our March convention was 'Equipping for Quality' and the question I pose here is, will a quality assurance certificate guarantee that the work performed is up to the standard required by the manufacturer of the product? Of course it will not and unless the three components of equipment, training and management are linked together to manufacturers specifications, real and meaningful quality assurance cannot be achieved.

To sum up, I suggest that the path that lies ahead needs a tremendous amount of dedication and commitment from the industry, the TAFE system and the manufacturer to achieve the goals that I believe that we all want and need. If any link in the chain is broken the industry as a whole will suffer and all the work that has gone in to achieve the standards reached so far will fade away. The future for our industry looks bright, let us all make sure we enjoy its benefits.

MICK RANKIN EDITOR AADS INC.

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PRESIDENT'S REPORT

Those members who attended our 1995 Convention need no reminding of how successful it was. It is the members who didn't attend that need to realise what a fantastic event they missed.

The Victorian boys really did put on a good show and, at short notice, our new executive officer, Don Blanksby and his staff did a first class job in making sure it ran like a well oiled machine.

Following discussions with members of all categories during the convention, it has become clear that we, as an association, face many challenges in the next 12 months. The technological and service philosophies that we have been discussing over the last decade are now with us and will require a whole new approach by us as businessmen and by our association if we are to ensure both our futures.

At a recent Board meeting, a sub-committee has been formed whose brief it is to talk to people from the various membership groups and come up with a positioning statement with recommendations for changes if required.

It is absolutely essential that we take a mature and balanced view in this area and not let our emotions run wild as has sometimes been the case in the past.

I am convinced that AADS (INC) has a role to play in the F.I.E. and turbo industries. I am further convinced that we have reached a state of maturity and professionalism that will allow us to position the association in a way that will benefit all intended parties.

S.N. WALTON,
NATIONAL PRESIDENT AADS INC.

VICTORIAN/TASMANIAN BRANCH REPORT

Congratulations on the excellent response by the Victorian/Tasmanian membership for their support in attending the Melbourne convention in March. It was great to see 43 of

the 65 state members in attendance enjoying a most successful convention. Thirty five (35) service members, which included 5 Tasmanian service members, participated in the world class technical seminars and were able to take in the comprehensive displays featured by the marketing and manufacturing members. For those members who were unable to attend this year, you really missed one of the best national conventions ever staged by the AADS. So make sure you catch up with the changing tempo of your industry by attending the next national convention which is being held in Perth, Western Australia in March 1996.

The next Victorian/Tasmanian meeting will be held on Wednesday 14th July 1995 at the Carlton Football Social Club, Royal Parade, Carlton. Commencing with dinner at 6.30pm and followed by the meeting at 8.00pm. A guest speaker from the Australian Quality Council and T.A.F.E. will address the meeting on the important subject: 'All you need to know about Quality Assurance'. They will outline all aspects including the background and the reasons why you need to evaluate this programme in relationship to your business and how you go about achieving 'QA' accreditation including courses and costs associated in obtaining 'QA' accreditation.

Terry Brain
VIC/TAS SECRETARY/TREASURER AADS INC

QUEENSLAND BRANCH REPORT

Another year and one more annual convention has passed but this time and from all feedback received it was a conference that surpassed all others and one whose themes and seminars were different but always interesting. The keynote address by Mike Rayne once again proved he is beyond reproach in his ability to research and deliver the most thought provoking and interesting discussion and is still able to leave the participants wanting more. The display area was very well laid out and the quality and professionalism that was put into the actively manned displays was outstanding. Congratulations must go to Lucas for winning best stand of the conference and credit must be given to the entire organising committee for their efforts in what amounted to a most outstanding venue.

By the time this article goes to print we will be in the throes of organising our fourth training school for the year. This school to be a repeat of the very successful electronic governor course that was so over subscribed in January. The demand for the training schools has not let up with each session having too many participants for the positions available. This should finally put to bed the ridiculous notion that our members are too apathetic to improve themselves or their businesses.

Some important dates for Queensland members are:

August 12th - Branch meeting at Robertson Gardens, guest speaker to be addressing Environmental Protection in the workplace.

November 10th, 11th, 12th - Branch meeting Hyatt Regency Coolum, guest speaker to be decided upon.

January 26th, 27th, 28th - (Aust. Day long weekend) - Branch meeting at Kingfisher Bay Resort, Frazer Island.

For those interstate members who have already expressed interest in attending the

Frazer Island venue, 4WD bookings are essential should you wish to take advantage of the opportunity to explore the island. These vehicles are in limited numbers so please book at the earliest opportunity. Kingfisher Bay Resort phone : (071) 203 333, fax number is (071) 279 333. The conference organiser, Margaret Price can be contacted on either of these numbers to furnish you with particulars regarding car and accommodation.

Any manufacturer wishing to take the opportunity to discuss future trends and product developments that they feel would be of interest to the meeting should contact me with a view to being a guest speaker.

In closing, I would like to formulate a National Calender of Events and would appreciate any input regarding dates of service schools, displays, conferences, training and other service related meetings notified via Don Blanksby so that this information may be tabulated and published in the Diesel Torque.

Greg Simmons
CHAIRMAN QLD. AADS INC.

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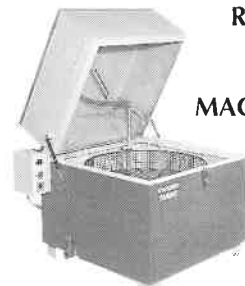
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W.A. BRANCH REPORT

The West Australian branch is active once again and, by the time you read this, will have held its first meeting for some time.

The June meeting will be held at Detroit Diesel in Perth followed by a planning session for the 1996 convention.

We have now confirmed a booking with the Radisson Observation City (same venue as the last W.A. Convention) which is a splendid hotel located right on Scarborough Beach, some 12km's north of the CBD. You had better start getting out your nautical clothes because the Saturday Gala Dinner will be held at the Royal Perth Yacht Club which enjoys one of the best settings in W.A., overlooking the Swan River and the city of Perth itself.

We are also intending to organise a post convention tour program comprising of a package deal to Bali and a coach tour of the South-West of W.A. The cost of the overseas tour will be very low because of the way in which those travelling from the east can simply make Perth a stopover on a round trip. Our travel agents will shortly provide details of the tour packages.

S N WALTON
W.A. BRANCH FOR AADS INC.

SOUTH AUSTRALIAN BRANCH REPORT

Our last state meeting was held on 9th December 1994 in Adelaide.

Elections were held the results of which were:

Chairman: Don Wilkey
Vice Chairman: John Brook
Secretary/Treasurer: Reg Donoghue

A discussion was held on the new rules and were to the liking of those present. The members present were opposed to the heavy vehicle section of The Institute of Vocational Training, formerly the College of TAFE, being moved from Croydon Park to O'Halloran Hill. This will have the effect of moving all Diesel Fuel Injection courses to O'Halloran Hill. Since this meeting the government has

undertaken to move heavy vehicle training back into the Croydon Park region as a result of strong protests by heavy vehicle dealers and others. AADS (SA) branch and some members voiced opposition to the move and it seems likely that Diesel training will return to the area for the year beginning 01/01/96.

Members discussed the problems of tooling up and training to cope with the never ending stream of new fuel pumps. These pumps incorporate new design features requiring updating of equipment and training to have the knowledge and equipment to effectively repair it.

The possibility of having a capability code used in the next members directory. This would help to make the new directory more effective if members specialties could be highlighted in the directory. Other members seeking help with a particular problem could be able to find the member best able to help with the problem at hand much faster.

The convention in Melbourne was once again a great convention. One South Aussie driving to the convention must have been trying to set the high score on a Victorian Policeman's radar gun.

Finally Ed, why does everyone say not to ask you how the Blues are going?

Don Wilkey
CHAIRMAN S.A. AADS INC.

Don, It's so we can get better odds, Ed.

N.Z. BRANCH REPORT

Well summer has gone and winter is well and truly on its way.

After an excellent convention in Melbourne we can only wait in anticipation for the convention in Perth.

AADS N.Z. branch will be having their annual convention in Queenstown in September. For those of you in Australia wishing to attend, please contact Raoul Smith, fax 001164 33485063 for further information. We can guarantee you a great time.

We will be organising two training schools this year pending on numbers attending.

Bosch held a training school in Auckland during April which brought Horst Schnabel and his fishing attributes to N.Z. Wayne Dunning, Lindsay Tadman and myself took him fishing in the Bay of Islands resulting in an excellent days fishing with stories to tell for a long time to come. I also had the pleasure of taking Lewis Brown from M I Diesel Products Ltd and Mac from Simms Diesel fishing around some of my good spots in Auckland. So the next time you see Lewis Brown don't believe all his fishing stories, as Mac and I did catch some fish.

Well the America's cup has come to New Zealand and we hope the organisers learn from any mistakes in Perth and keep the cup in New Zealand for a lot longer than one challenge.

That's all from me and I hope that we can see some members from Australia at our convention in September.

Don Holgate
N.Z.CHAIRMAN AADS INC.

N.S.W. BRANCH REPORT

As the New South Wales branch has not had a meeting since November 1994, there is not a great deal to report.

I have been following up through Mr. Phil Brown from the Automotive Training Board (N.S.W.), who have given me a draft copy of the "Competency Standards" as presented by the National Automotive Industry Training Board, on Heavy Vehicle Mechanics Stream "Fuel Injection Fitting Field".

This "Draft" copy will be presented to the N.S.W. branch members at our June meeting.

This "Draft" copy should be made available to all State Branches for comments.

It allows you (the pump room owner) to have a say in what your apprentices should be learning and becoming competent in.

As an association we have to have these "Competency Standards" Industry driven, not driven by bureaucrats.

Ken Scott
N.S.W. BRANCH CHAIRMAN AADS INC.



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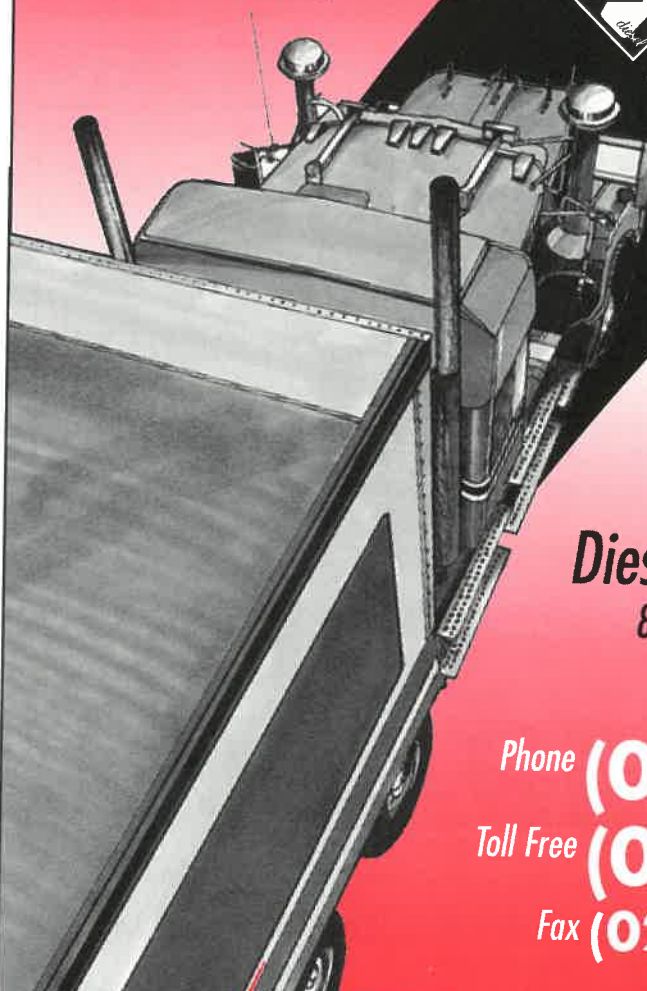
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HALL OF FAME HONOUR FOR BELA BARENYI

Belated honour and recognition was conferred on one of the driving forces of Europe's motor industry when Bela Barenyi was inducted into the Automobile Hall of Fame in Detroit.

In a grand ceremony last week the 87 year old Vienna born designer stepped out of obscurity to take his place in the industries pantheon of giants alongside names such as Ford, Daimler and Diesel. Virtually unknown outside the industry, Barenyi is arguably one of the great designers. More than two thousand patents, including safety conscious steering columns and chassis and body improvements, carry his name. He is best known for involvement in one of the biggest disputes of the car world, the creation of the Volkswagen Beetle. The conception of the Beetle, the world's biggest selling car, is officially seen as the work of designer and engineer Ferdinand Porsche who produced the plans for a 'peoples' car, Volkswagen, through which the Nazis hoped to bring motor transport to the masses. However, designs for an air-cooled engine that sat in the boot of a car had been executed by Barenyi long before Porsche unveiled his Beetle in 1934.

'In the 1920's I had designed a concept for a 'future peoples car', as I called it then, with a box motor at the back, rear axle driven and with a streamlined chassis', Barenyi says.

'At that time I was not in the financial position to protect the concept by patent'.

Most importantly, Barenyi claims to be the inventor of the Beetle's chief distinguishing technical feature, its engine. According to Barenyi, the engine designs Porsche had initially worked on were 'years behind' what he had produced.

'With the engine that Porsche envisaged, the whole thing would never have worked', Barenyi claims.

Barenyi also takes issue with several of the features that Porsche was definitely responsible for. The Beetle's unique oval shape he says, 'was not an expression of beauty. I don't like it!'

The dispute has dogged Barenyi for decades. Several inconclusive court cases dating back to the 1940's cost the designer all his savings. Meanwhile, descendants of Professor Porsche still receive five dollars US for every Beetle sold. Since 1945, 21 million Beetles have been sold.

While Volkswagen may not wish to credit

Barenyi, Mercedes Benz, for whom he worked for nearly 40 years until his retirement in 1973, has honoured him with a biography.

His home town of Sindelfingen, near Stuttgart in Southern Germany recently renamed the street he lives in, Avenue Bela Barenyi.

As for last week's invitation to the DETROIT hall of Fame, Barenyi sees it as a vindication.

Editors Note:-

Thanks to Jack Phillips for this interesting article.

VALE: GEOFF PATTEN 13.9.24 - 15.3.95



Geoff Patten

Geoff Patten was born in Flemington where he lived for most of his life. After completing school he joined the air-force in 1944, where he served until the war's end.

Geoff began his working career at C. Hubbard and Co. in 1945 as an engineering draftsman. He then went on to Fowler Equipment (which was a division of International) where he designed cranes and other equipment. After leaving this company Geoff joined Vic ISAS in 1950 where he worked until 1957.

At this time he joined up with two friends, Keith Begbie and Ron Storen and became partners in "B.S.P. Diesel. Geoff retired in 1991. If any of you ever had any dealings with B.S.P. you would have most certainly met or spoken to Geoff.

Geoff never married but had many interests outside of work. His main interest was horses, which his family was involved in and was a member of the Victorian trotting control board for many years. He tried his hand in antiques, as a store owner and who could forget 'those' stories of his overseas adventures.

Geoff sadly passed away in March 1995 at age 70 after a long illness with cancer. He was one of life's true gentlemen who knew how to live his life to the fullest. A friend who will be sadly missed.

PROFILE ON RASED SPA MILANO MAKING IT IN MILANO



Assembly is checked at every stage of the production process in a room equipped with the appropriate presses and mounting equipment.



Under the direction of Mr Gitu Pathak, President, the Pathak family has been operating for twenty-five years as makers and suppliers to Diesel engine manufacturers, after-market wholesalers and pump repair shops. The business is conducted under the name of R.A.S.E.D. whose products all bear the trademark SPACO.

Forty years after setting up base in Italy, the Pathaks have built up a formidable business that is still growing.

Atop a mountain, 30km from Milan in Italy, as we walk on paths connecting two mountains on a sunny summer day, occasionally stopping by to pick up small wild strawberries, Gitu Pathak, president of RASED explains how his trading family established itself in Italy.

It was in 1951 that his family first set foot in Milan to trade in textiles. Four years later, fuel injection components were added to the trading platter. The Pathaks represented Italian companies like Dellorto Brothers in the export market, since Italy had a strong automobile component base. The move to manufacturing

was the next logical step.

A small factory was started in Milan to make soft materials which were used in components like gasket kits and sealing material. From 1965, using the soft material made indigenously, they moved forward into the manufacture of smaller components like valves and washers.

Today, the company makes over 2,000 components which go into a fuel injection pump. Its workshop at Via Padova, Milan, is fitted with up-to-date computerised machine tools for the production of critical parts. Shaft hubs and liners are made by highly skilled machine tool operators. A state-of-the-art laboratory checks the pump parts to within a fraction of a micron. The design and development of parts is done by in-house qualified mechanical engineers.

The company remained small till it developed the idea of creating a kit for each type of fuel injection pump. The idea came from one of their Australian customers, Repco. "We thought why not kits for fuel injection pumps which itself is sophisticated technology," says Pathak. Thus parts made for the fuel injection engine were made available in three basic kits: gasket kits, jumbo kits or overhaul kits. Branded SPACO, the gasket and service kits include parts like liners, oil seals, rubber olives, jointing rings and dust caps. For easy handling, the jumbo kits are supplied in a specially designed suitcase-like holder. As a result of this simple idea, the company sales boomed. Today it sells 2.5 million gasket kits annually.

While others have replicated the idea, the Pathaks have managed to have a competitive edge because of their range of 5,000 kits. Customers include diesel engine manufacturers, after market wholesalers and pump repair shops. To service such a wide customer base, which includes 100 countries in five continents, RASED invested a further \$5 million in plant and machinery. The future depends on keeping up to date on technological changes in the industry. For this, Pathak has an excellent research and development wing, headed by engineer brother Narendra Pathak. "We will get into electronic systems for fuel injection pumps," says the president. To increase its reach in East European markets, discussions are on to form a joint venture with a local partner.

Though the Pathak family has made Italy its work place and home, adopting its language

and culture, with two daughters who head marketing and finance and two Italian sons-in-law, ties with India are very strong. In fact, in the 1960's, when N.K. Firodia felt the need for an entrepreneur to set up a carburetor factory in India, he turned to the Pathaks of Italy. The reasoning was simple, the major scooter makers in Italy and India were the same: Vespa and Lambretta. Both these companies used Dellorto instruments to get the right mixture. The Pathaks in Italy already had links with Dellorto Bothers. Today Spaco (India) Ltd, headed by GITU's younger brother, Navin Pathak, makes 70 per cent of two wheel vehicle carburetors from its factory in Pune.

FAREWELL

After visiting Australia annually for the best part of twenty years on business, Casey Garcia, Vice President, Interstate-McBee, Cleveland, USA, has decided to retire from his round the world duties and concentrate on spending more time at home with his family. Casey paid his last business trip to Australia and New Zealand during May this year.

Casey's annual round the world trips would

usually mean carrying out business visits to thirty plus countries.

When possible, Casey would attend the AADS Convention. Casey's last two Convention visits were Christchurch 1992 and Adelaide 1993.

AADS friends and acquaintances wish Casey all the very best of health and happiness in his years of retirement.

TEST YOUR KNOWLEDGE

Set out below are some questions taken from technical literature handed out after Alan Gissings 'All you need to know about diesel fuel' seminar.

- Q1 What is Diesel Fuel?
- Q2 What are the principle quality features of diesel fuel about which I should be concerned?
- Q3 What is meant by diesel fuel cetane number?
- Q4 How does water get into diesel fuel, and what problems can it cause?
- Q5 Why do diesel engines smoke?

Answers on page 21

Tom Beesley

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21 YEARS ON

ADDRESS DELIVERED BY KEITH JURGS TO 1995 AADS CONVENTION

Although we have known it under various names since its launching in March 1974, this association has grown to be well supported not only by the servicing sector but by the manufacturing and marketing sectors of the diesel fuel injection and allied industries as well.

When I undertook the task of founding a NSW organisation in late 1973, I didn't envisage that it would arouse the interest of pump rooms in other states or indeed New Zealand. Admittedly, a lot of my initial concepts were to change significantly after a meeting held in Albury in March 1976 resulted in the formation of the Association of Australasian Diesel Specialists.

I am not going to bore you with a resume of the associations growth over the years but rather to bring to your attention some of the areas where I feel that we (and I repeat WE) as a group have failed to achieve certain objectives that I originally considered could be targeted to strengthen the association as its membership grew. However, before I do so, I think that it is only fair that I should at least outline some of the positives which have been achieved and these are as follows:-

1. The production of our own magazine 'Diesel Torque' which even our compatriots in the USA acknowledge as being excellent.
2. The provision to full service members of numbered sealing pliers (at no cost, I might add) which are of great assistance for inter shop warranty purposes when used in accordance with the rules.
3. The co-opting of Batman College of TAFE to carry out training for and on behalf of the association on modules that were developed by Ron Davies at our request. This training is carried out in any state or New Zealand upon receipt of a request from the relevant branch.
4. The development in 1988 of a certification/accreditation programme that was adopted at the 1989 A.G.M.
5. The conducting of examinations (which are part of the certification/accreditation programme) at various venues each year since the 1990 convention in Surfers Paradise.
6. How many of you have recognised that, beginning with our 1985 annual

convention, the style and quality of this annual event has lifted? More importantly, how many of you actually realise that this was due in the main to the organisational and management skills of the man we honoured last night (the late Lance Hosking).

7. The provision of an exhibit area at our annual conference (or conventions as they are now known) which has been of benefit not only to our service members but our manufacturing and marketing members as well by allowing them to show off their wares.
8. The decision at last years A.G.M. to adopt a proposal to completely revise the associations committee structure so as to give each branch a direct voice (via its chairperson) on the controlling body. This decision also resulted in the demise of the former executive and national committees and the creation of a new board of management which reduced the number of management people down to eight.
9. Due to the above, a major re-write of the Rules was needed and whilst this was being done, changes were made in other areas in the Rules which were also in need of revision. How many of you have actually sat down and read the latest copy of the Rules that were sent out to all financial members in September last year?

The above list may not look impressive but, in order to achieve this lot, I can assure you that there was a lot of hard work put in by a very small percentage of the overall membership.

Now let's turn to the negatives, some of which have been in existence since day one:-

1. The lack of input from the 'grass roots' of the membership. For example, why has there never been any items submitted by branches for debate at our A.G.M.'s? This is the only body with which I have been associated that does not have items submitted from its 'grass roots' for debate at its A.G.M. Only you the members can provide the answer to this problem.
2. Our inability to gain the interest and support of vehicle and equipment O.E.M.'s apart from GEC, Mack and Cummins. This is one area where we have not 'pushed our wheelbarrow' hard enough. If we could elicit the interest of the O.E.M.'s in Australasia to become members, it would not only be a help to our finances but, more importantly, broaden our base and thus

better the chances of the associations name (and its membership) becoming better known throughout the business community and bureaucracy. At the present time, apart from those within the ambit of our membership the AADS is virtually unknown.

3. In the early days we had a fairly close liaison with the Institute of Diesel Engineers which included the facility to use their magazine 'IDEA' until we developed our own newsletter. Since then, however, we have been reluctant to form any close relationship at association level with any kindred organisation either locally or overseas.
4. There is an urgent need for action to be taken to have our certification/accreditation scheme recognised within the framework of all relevant spheres of industry and bureaucracy. At the moment, no one outside of the membership of this association gives any credence to, or recognition of, the certificates we issue to those people who have sat and passed any of our examinations which are industry based.
5. Another advantage to having vehicle and equipment O.E.M.'s as members and close liaison with kindred organisations (both locally and overseas) is the interchange of information and knowledge that we, as members, could have access to when the occasion arises. With regards to having the O.E.M.'s as members this could well be an avenue which some of our service members could utilise to obtain technical information that is not otherwise readily available to them.
6. At every convention we are given excellent addresses which keep on pointing out directions that our service members could or should consider implementing in their businesses. How many of our service members return home, spend time looking at their operation to see if they can carry out even some of what they have heard but in the end still do nothing?
7. How many service members are putting into practice the Rules 7.8, 7.9 and 7.10 relating to warranty on their work, coding of work done by them and work done by a fellow member?

These are the more important negatives as I seem them and no doubt some of you could add to the list but it is here at the A.G.M. that

matters of this nature should be fully debated and decided upon and not get left unresolved or deferred for decision at branch or board level.

I will close with these comments-

We urgently need to find a cure for apathy for administering to the majority of our members.

There needs to be a commitment by all members that they will, whenever possible, attend and support meetings of their local branch.

There needs to be a quicker dissemination of a full report of what has occurred at board meetings so that all members are kept abreast of what is happening within their organisation.

We need to look at making this association into a quality one and this can be achieved simply by implementing and enforcing the recently adopted revised Rules and finally, any organisation is like a fire; it needs fuel (even in small quantities) to keep it going but if a damper is put on it, then it will gradually die down until it expires. If you want AADS to keep alight, then it is up to you to play a 'fuelling' role and not act as a 'damper' as some members already have!!!

TECC REPORT

AADS CERTIFICATION EXAMINATIONS

During the Melbourne Convention nine members sat for AADS Certification exams.

The revised question format was a possible reason for the overall results being the best when compared to all previous examinations.

SUCCESSFUL CANDIDATES

FIE Technician

Lawrence Fraser, Cooma Diesel Service.

Credit Pass.

Glenn McLachlan, Burnie Fuel Injection Service. **Pass.**

Geoff Poole, Cairns Diesel Service. **Credit Pass.** Achieved the highest pass mark of any exam since examinations were first held in 1990.

Paul Valencich, Da-Val Diesel Injection Service. **Pass.**

Alistair Weller, Parkes Diesel Service. **Credit Pass.**

Senior Technician, Diesel Principles Module.

Larry Green, Narrogin West Australia. **Pass.**

Ted Sanders, Diesel Australia. **Pass.**

David Webster, Cooma Diesel. **Pass.**

Congratulations to all the above members.

As of May 1995, eleven members have

achieved Senior Technician certification status.
 Warren Ellis, Warrens Diesel Service, NSW.
 Don Holgate, Pukekohe Diesel & Turbo, NZ.
 Peter Pocock, Albany TAFE, W Aust.
 Don Wilkey, Adelaide Fuel Injection Service,
 S Aust.
 Mike Christie, Diesel Progress, Auckland, NZ.
 John Horn, Diesel Specialists, NZ.
 Ken Matthews, Bay of Plenty Diesel, NZ.
 Larry Green, Narrogin Fuel Injection, W Aust.
 Ted Sanders, Australian Diesel, Queensland.
 David Webster, Cooma Diesel, NSW.
 Peter Williams, NZ Marine Turbochargers, NZ.
 Congratulations to the above members who
 will each receive a suitably framed certificate.
 Tom Beesley
 Secretary TECC.

LETTERS TO THE EDITOR



Lance & Mary Hosking.

The President, Directors and Members, Please accept my sincere appreciation for your invitation to me to attend the 20th Annual Convention & Exhibition.

Although, naturally, very different from past functions in which I was involved, I felt this was a giant stride for me in the acceptance of my life without Lance.

It was strange when at times I would forget the present and look up expecting him to appear, smiling and, for me, lighting up the room.

However, the warmth and friendship which greeted me gave me great courage and on my return home I felt I was another step on the path to the future.

My thanks to Robert Bosch (Australia) Pty. Ltd. for sponsoring the Saturday Night Dinner Dance named in Lance's honour. This function was the "main event" of the Convention for him. He always said "when the band starts playing we've made it for another year".

The flowers were beautiful and made it home to Adelaide thanks to the help of Barry and Aileen Norvil.

Lance would have been truly humbled and

honoured that someone saw fit to present "The Lance Hosking Memorial Shield for Commitment to the Association". He was always keen to make a success of any venture in which he was involved and his was a total commitment for the ongoing success of A.A.D.S.

My deep gratitude to all concerned in the Association. I feel confident that the work of the past years will continue and the Association and its objectives are in good hands

Mary Hosking.

Mr Mick Rankin

Dear Mick,

I would like to congratulate the AADS committee on a very professional and successful conference.

The venue was ideal and centrally located. The exhibitors were set up professionally with loads of 'goodies'. The guest speakers were excellent and the general atmosphere was friendly.

Well done and much appreciated.

Glen McLachlan
 BURNIE FUEL INJECTION SERVICE
 TASMANIA.

Mr Don Blanksby

Dear Don,

We would like to take this opportunity to congratulate yourself, Ann, and the rest of your competent staff for the excellent organisation of the recent AADS convention Melbourne.

Taking over the reins of a partly organised convention was always going to be difficult, but thankfully all aspects of the convention were a total success, due entirely to your efforts and those of the Victorian committee. We are certain that all delegates attending enjoyed the experience of a well organised convention.

Our company has supported the AADS since its inception and look forward to an equal opportunity to further support the association by way of sponsorship with future conventions.

Please advise when sponsorships are available for the Perth convention.

Yours faithfully,

Les Gordon
 MANAGER REPCO NSW

SOME MEMORABLE MOMENTS AT THE CONVENTION

- Meeting and greeting Dipaco's John Walker and family for the first time. After a hearty greeting with John, number one son and daughter clutching an Australian mascot, John's wife said to me, "what an amazing country, from Sydney to Melbourne you people are all the same, so open, so friendly".
- The AADS TECC meeting to discuss training matters attended by Mike Rayne, Lucas and Pete Malo Stanadyne USA, Neil Rich, John Batman Automotive College of TAFE, Karl, Bosch (Aust), and Arthur Walz, past President AADS.
- Seeing the fellow being 'sprung' on the DSA display stand.
- The response by Mary Hosking following a presentation by AADS President Stuart Walton at the Lance Hosking Memorial Dinner.
- Seeing the happiness and fellowship on the dance floor after the eating had finished at the Memorial Dinner. Ron Davies mixing with his 'mates', good on you Ron. The happy Walker family obviously enjoying some Aussie hospitality, great to see John. Don Wilkey tripping the light fantastic.
- Seeing Mike Rayne wearing a genuine Aussie Akubra hat.
- Seeing Kevin Cripps being stumped for words after receiving his Honorary Life Membership award. Well deserved Kevin.

Tom Beesley.



Friday welcome dinner. Entertainment courtesy Laurie Levey and Shirley (White Dove) Pusey and Ron Blasket, Gerry Gee and their new dummy Mick Rankin.

What Stuart and Mick have to put up with!



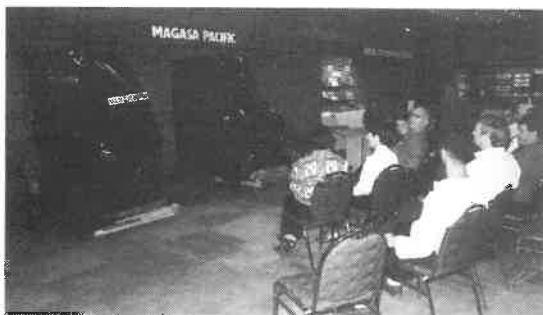
Bruce Tucker talking with Don Blanksby, Stuart Walton, Greg Simmons & John Walker & Son, at the RM Diesel Stand.



Mick Rankin presenting life membership to Kevin Cripps at the farewell lunch. The culmination of many years of friendship and hard work for AADS.



Bruce Tucker farewells members at the RM farewell lunch.



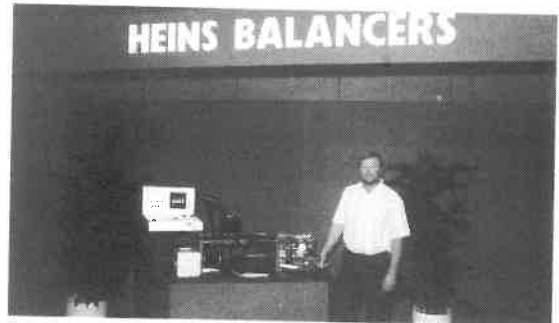
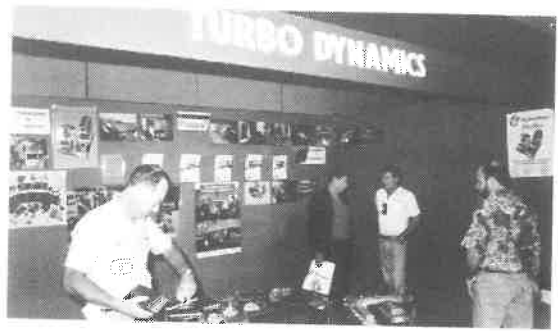
Waiting eagerly for the unveiling of the Magasa Test Bench.



The magnificent

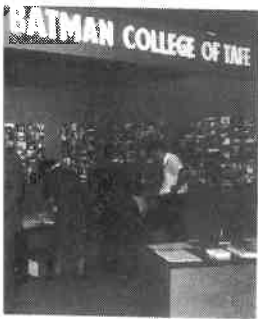


The John Batman College Education stand, featuring



ting members stands.

The turbocharger industry well represented with interesting and diverse stands.



chnical and Further Richardson and Neil Rich.

Many thanks to Carmel Coate, Don Blanksby and Ann Yergin for managing a memorable convention.

FIRST ANNUAL DIESEL HASH 18 MARCH 1995

The inaugural run of the "Diesel Hash House Harriers" took place following the last seminar on Saturday at the 20th Annual AADS Convention in Melbourne. Referring neither to corned beef nor drugs, "hashing" is a sort of hare-and-hounds style of running with runners following a trail (marked by a "hare" with flour and or chalk arrows) that includes checks and false trails to keep them together. It's more social than athletic or competitive, and in fact is known as "the drinking club with a running problem". There are "hash" (H3) groups all over the world.

Several hardy AADS delegates turned up turbo-charged and ready for the run: Sandgroper **Doug Riley** from Turbocharger Sales, who has hashed in Indonesia; **Dennis "Denco" Harper** of Turbo Dynamics and the Wagga Wagga Hash House Harriers; and first-timers **Mick "Tricky Mickey" Rankin** and sons **Geoff "Joffa"** and **Dave "Diesel" Rankin**. They joined local Lakeside H3 hashers "Lizard", "The Boomerang", and "Udder Idjit" in setting off on a trail through scenic downtown Melbourne, marked by hare (and AADS Admin Assistant), Ann Yergin. Occasional Brisbane hasher **Ted Sanders** of Diesel Australia P/L came dressed to run but "got caught up chatting" and managed to miss the run, and AADS President and leader **Stuart Walton** was noticeably absent.

The run took the group past the Rialto towers, then down along the lovely Yarra, across to the Southbank complex (which proved complex enough to lose Mr. Riley), and across the Princes Bridge into the main shopping area. After a jog through City Square and the Bourke Street mall, the group found a welcome drinks stop on Collins Street, where Ann awaited them with a bottle of port! Fortified, they ran "on home" to the little park opposite the World Congress Centre and made short work of a slab of beer. In the "hash circle", charges (glasses of beer to be sculled) were awarded to all new members of the group (i.e. everyone) and to some in particular for various "offences" - such as Doug for

shortcutting back after getting lost and Tricky Mickey for not drinking the Port as he was having withdrawal symptoms from the night before.

Before adjourning back to the Centra for the more sedate version of Happy Hour, the delegates were advised of the time and place of the next Diesel H3 Run: **the 1996 AADS Convention in Western Australia!!**

CONVENTION TECHNICAL SEMINARS

Time did not permit members to attend all the Technical Seminars available. For most members and speakers this would be disappointing. One can learn something from every presentation. Some comments from the seminars I attended are as follows:

ALL YOU NEED TO KNOW ABOUT DIESEL FUEL. Alan Gissing, BP Australia Ltd.

A most interesting and informative presentation and one which all members would have learnt much from. Alan's presentation covered all the technical and physical properties of diesel fuel that influence engine designers, engine and equipment users, fuel injection equipment manufacturers and the aftermarket service industry. Five questions and answers in the AADS Senior Technician Diesel Principles examination were covered in Alan's presentation.

- Alan said that very occasionally at the manufacturing stage a batch of fuel could bring about less than expected engine performance, but poor housekeeping by someone is the cause of most diesel fuel related problems.
- Copper and diesel fuel do not get along together. Sends fuel off, turns it dark, can form a gel that will block filters.
- Sulphur is a form of lubricant. Lower the level of sulphur and wear problems will occur.
- The aromatic quality of fuel can affect oil seal effectiveness.

Test your knowledge. Refer questions and answers items.

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THE DS ELECTRONIC FUEL INJECTION PUMP.

Peter Malo, Manager, Service Training, Stanadyne Diesel Systems Division, USA.

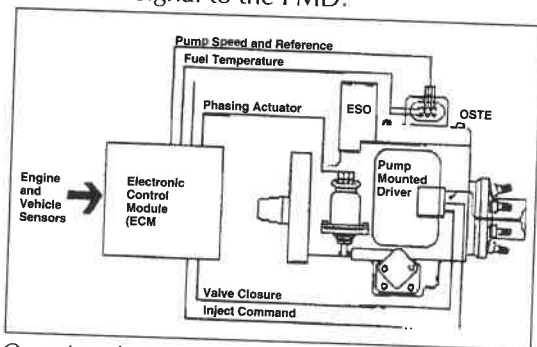
Peter was given a sincere welcome as a first time attendee at an Australian Convention of the AADS. Peter's contribution both technically and socially on the Lucas stand and throughout the Convention was appreciated by all. Many thanks Peter, we hope you can find time to visit AADS in Perth in 1996.

The Model "DS" Electronic Fuel Pump.

The DS fuel pump will fuel GM's 6.5L turbocharged V-8 engines.

System features:

Refer to illustration which shows the Model DS Pump, ECM and system sensors. The engine-mounted sensors send up-to-date engine information to the ECM. Likewise, pump speed and the angular pulse train data from the Model DS Pump are also sent to the ECM. Custom algorithms process this information and send an appropriate inject command signal to the PMD.



Operation of Model DS Pump System

Pump Features:

- Electronic spill control with single 12 volt solenoid actuator for timing and fuel control.
- Pump mounted solenoid driver with poppet valve closure detection.
- High-resolution pump-mounted angular encoder.
- Four pumping plungers driven by internal cam ring.
- Headless rotor drive to isolate torque load from rotor.
- Fuel oil lubricated.
- Fuel inlet at top of pump housing for "V" engine accessibility.

- Spring pre-positioned advance for warm start condition gives a small advance to point of injection.
- Colour changes to ID plate indicates pump modification status. A **black** plate indicates original, a **blue** plate indicates a modified unit.

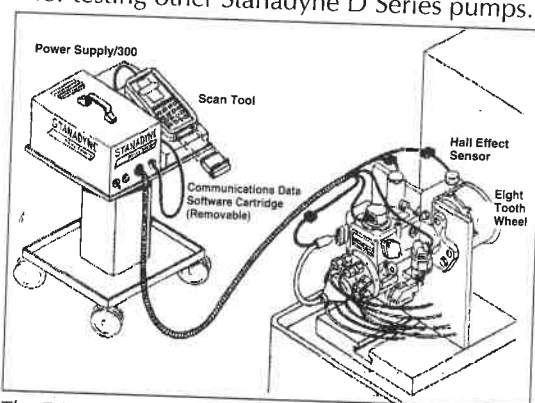
Servicing the DS Electronic Pump

Tooling:

- There are approximately 20 new service tools for DS pump disassembly and reassembly that have been designed.

Testing:

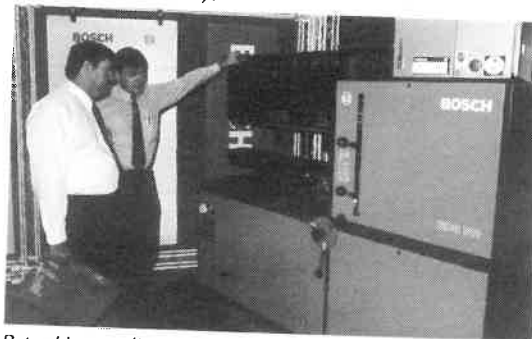
- The DS test equipment package is shown in the illustration and is designed to be used in conjunction with a standard test bench used for testing other Stanadyne D Series pumps.



The DS test equipment package.

TOTAL QUALITY FOR YOUR BUSINESS

Jack Holstein, Manager of National Service and Training, Automotive Products, Robert Bosch (Australia).



Peter Hunter discussing the Bosch 711 Test Bench capabilities.

Three significant statements from Jack's presentation were;

- "Quality is never an accident, it represents the wise choice of many alternatives".
- "High quality does not cost, it pays".
- "Eliminate all forms of waste".

On CHANGE Jack said,

- The rate of technological improvement in the past was about every twenty five years. Now it is about every five years.
- Improvement efforts should be plan driven.
- Control the process not the output.
- Improvement as a way of life.
- Everyone serves a customer.

Recipe for success;

- Training of self and workers.
- Having the right tools and equipment.
- Meet expectations of customer. A satisfied customer will tell eight, a dissatisfied customer will tell sixteen.

Training:

- The small cost of training gives a big return. People with skills means people in front.

Tools and Equipment:

- Have a maintenance schedule to follow to keep tools and equipment in top condition.

Quality Assurance:

- The Standards Australia ISO 9000/2 is not an easy process, but worth the effort. It is a Standard demanded by Governments and many OEM's.
- Look at a business that suits your business package quality.
- Look at the repair package to acquire QA 9002.

Quality:

- Quality is never an accident, it represents the wise choice of many alternatives.

NIPPONDENSO'S APPROACH TO QUALITY.

Robert Kogoi, Nippondenso.



Congratulations to Robert on reaching ten years service with Nippondenso. It does not

seem that long ago that Robert left Adelaide and that he had long dark hair.

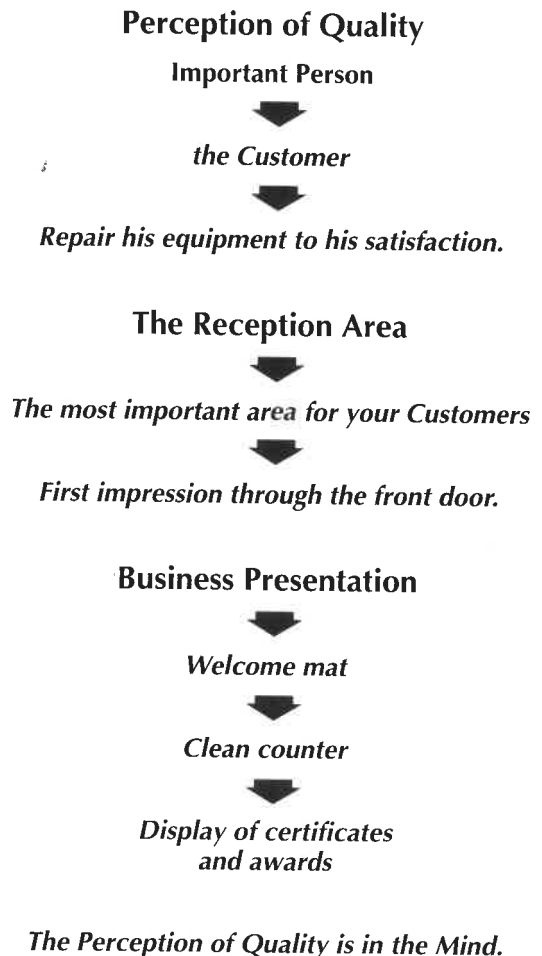
The Nippondenso approach is to see the customer as the *Very Important Person*.

- Develop confidence and responsibility.
- Be sincere and co-operative to customers and employees.
- Improve and advance progressively on-going research and development.
- Provide the best quality and service.
- Instill quality into products.

PERCEPTION OF QUALITY.

Robert Kogoi, Nippondenso.

To finalise my report on the seminars, the opening remarks in Robert's presentation summarised most aptly the basis for success.



Tom Beesley

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KNOW THE SYSTEM YOU'RE WORKING ON

Diagnostic time is more often or not lost time. Lost labour sales are not only costly, but also frustrating and usually lead to a fairly rotten day all round.

Being familiar with a particular fuel injection system and the functions of each component is essential before correct diagnostic procedures can be put into place. Knowing how it works and not forgetting the basic principles of what makes it work, the "suck, squeeze, push and puff", will make life just that more bearable.

The following events happened to a member recently.

A customer brought in a set of injectors from his tractor for a service. Not too many questions asked about how the tractor was performing overall, just repair the injectors.

The injectors are repaired, new nozzles fitted, and the owner replaces them in the engine. All goes fine for a few hours when suddenly rough running starts and the owner stops the engine. After a short delay the engine is restarted and runs well without any apparent problems, but again after a short time the rough running starts again. An annoyed customer rings up and advises of the problem. He removes the injectors and returns with them for rechecking. No faults are found during the testing. Must be something else, so the injectors are refitted for another try. After a few hours of trouble-free operation, the rough running starts again. This time the member goes out to check the tractor in the field. Start up, no trouble. Fortunately it did not take long for the rough running to re-occur. A check for air leaks etc. finds nothing, but the problem persists. The injectors are removed again and taken back to the workshop for a further check.

Again, no faults showed up during testing. Each injector was dismantled and the components checked. *A small difference was found.* In one of the injectors a pressure adjusting shim did not have a central hole in it. It was replaced with one with a hole in it. The injectors were all reassembled, set-up and tested. A return trip was made to refit the injectors in the tractor. No more problems.

Test your knowledge

What was the reason for the one injector to stop working correctly?

Answer page 27.

Tom Beesley.

ANSWERS TO QUESTIONS ON AUTOMOTIVE DIESEL FUEL

- A1** Diesel fuel is principally a blend of petroleum derived compounds called hydrocarbon distillates (heavier than petrol) and may contain additional additives.
- A2** Diesel fuel should be clean and free of water. It should flow properly during cold weather and should not foul injectors or any other fuel system components. It should have an adequate cetane number to provide good starting characteristics and combustion.
- A3** The cetane number is a measure of the ignition quality of the fuel that influences starting as well as combustion roughness. A cetane value higher than required does not materially improve engine efficiency. Most engine builders recommend diesel fuels of at least 40 cetane. All diesel fuels sold in Australia by BP exceed the Australian Standard 3570 requirement of 45 minimum.
- A4** Water gets into diesel fuel storage and vehicles in several ways - by condensation, during transportation, by leakage through faulty fill pipes or vents, and by careless handling. Water can cause injector nozzle and pump corrosion, growth of bacteria and fungi and plugging of fuel filters with corrosion and biological material. Both vehicle and storage tanks should be checked regularly for water and drained or pumped dry as necessary. In extreme cases biocides may be required to control bacterial growth.
- A5** Diesel engine smoke is caused by incomplete combustion. White smoke is caused by tiny droplets of unburned fuel as a result of low engine temperature. This should disappear as the engine warms up. Black smoke is caused by a faulty injector, insufficient air, and overloading and/or overfuelling the engine. Blue grey smoke is the result of burning lubricating oil and is an indication of poor mechanical condition.

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THE HARTRIDGE PRESENTATION. LATEST TEST EQUIPMENT

Mike Rayne, Lucas Aftermarket Operations USA.



President Stuart Walton presents the Best Exhibit Perpetual Shield Award to Wynn Matthews and Peter Lawrence.

As usual Mike addressed a packed house around the Lucas/Hartridge stand and shared with all those in attendance his Vision of and for the Future.

For the future it was necessary to keep all test equipment up and running. Remember 'no test bench, no customers'. Upgrade those older test benches. The 1100 Series bench is old technology.

Test stands of today must be up-gradable for tomorrow. Look at the philosophy of the design of the test bench - electronic management, controlled by software, adaptable to software changes etc. Look how test data and information is managed.

A test bench should not degrade engineering specifications. For example, a volume of fuel is affected by temperature. The old open vials or collection tubes procedure does not take this factor into account. If fuelling from the pump outlets is OK let the test bench computer programme say OK. There is no need to show columns of measurements.

The independent aftermarket will only survive if the quality and service matches that of the OEM specifications.

Finally, Mike said the AADS role in the industry is to be vocal about the availability of information and parts from the OEM's.

KEYNOTE ADDRESS. EQUIPPING FOR QUALITY.

Mike Rayne, Lucas USA, General Service Manager Aftermarket Operations

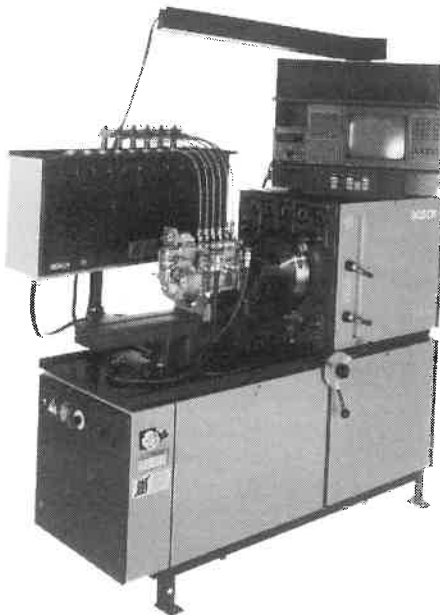
- Information will be the major tool used in our industry's global focus. There will be many pressures shaping the future. Pressure is a constant part of life.
- The new world order is about restructuring, resizing, business pressures and environmental pressures, and unfortunately creating more layoffs during 1995/6.
- Take care to base decisions on facts. Beware of misinformation in the hands of political lobbyists. They can cause real trouble.
- Vehicles of yesteryear will always cause pollution problems and this is likely to be with us for ever.
- The control of the 'in-service' vehicle will do most to reduce the emissions problem.
- There is no universally equal emission test procedure.
- There is a push in Europe to use more diesel powered vehicles.
- There is a question in the USA about the use of more diesel power.
- There is research being carried out on the global impact of any significant lowering of world fuel resources.
- It is not true that the diesel engine has reached the limits of environmentally acceptable design.
- A *paradigm* can be a set of rules, an example, or a model. In our industry, there are many people who have contributed to the setting of rules, setting of examples to follow, and have themselves become role models. These people we call *Paradigm Pioneers*. Future *Paradigm Pioneers* will create new rules, set new examples, but in the process must not develop *Paradigm Paralysis* and act without examining all the evidence.
- *Future Paradigm Pioneers* must work together to create the One Company Concept of **Equipping for Quality** in order to keep the diesel engine acceptable to the market place.

THE BOTTOM LINE - PROFITABILITY

An article in a recent edition of the High Speed Diesel publication reminded me of a conversation I had with Bruce Cornell at the 1991 Convention in Broadbeach Queensland.

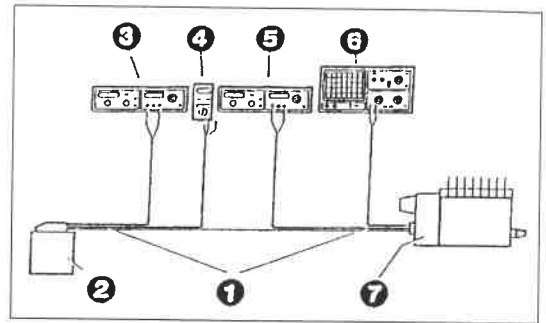
Bruce and I were standing in the Robert Bosch display area. An organisation marketing computer hardware and software shared the same display area.

Horst Schnabel was conducting a technical demonstration on a Bosch 711 KMM/EPS combination test bench. On the bench was 7100 series fuel pump fitted with an EDC system.



Also on the test bench was a test control unit, two stabiliser units, a digital multi meter, and an oscilloscope. In a way, the Bosch test bench display did not look that much different to the display on the desk of the computer organisation.

Bruce and I were both looking at the activity in the area when Bruce said to me, "You know Tom, we are selling ourselves short. That fellow at the computer display has no qualms about selling his expertise for \$75 to \$80 per hour. We blokes in this fuel injection service industry cringe at asking \$45 to \$50 per hour. Some of us should wake up to ourselves."



Service Equipment for RE 24/30 Governor

- | | |
|--------------------------------|---------------------------------|
| 1 = Test lead for Mack Trucks | 5 = Stabilizer 12 volts/15 amps |
| 2 = Test control unit | 6 = Oscilloscope |
| 3 = Stabilizer 12 volts/3 amps | 7 = Actuator connection |
| 4 = Digital multi meter | |

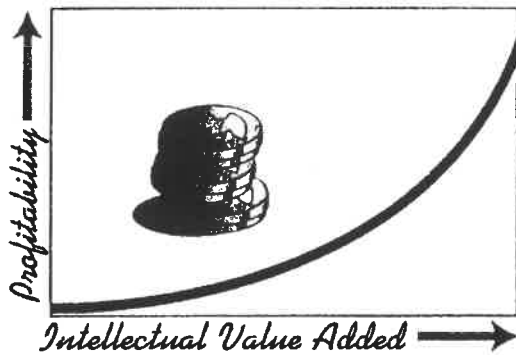
The business environment of today allows little leeway to simply increase prices without delivering greater value to customers.

Profits can be generated by adding perceived value to something. A metal casting has more value than the original iron ore. A casting has more value after machining. Value has been added. The processes developed to mine the ore, make the casting, and then machine the casting, involved a considerable amount of intellectual effort. In other words, many steps in the value-added chain above, added value intellectually rather than physically.

Service members within our Association have all invested in establishing a business, invested in the best available staff, and just over one hundred (the Franchised workshops), have invested heavily in training to further knowledge and upgrade skills.

It takes '*special people*' in our industry to absorb and apply skills obtained from attending training schools on subjects not envisaged in the diesel service industry as little as five years ago. To understand what I am saying, one only has to look through the Bosch Diesel Service Training publication Electronic Diesel Control, the EDC System.

These '*special people*' have the propensity or talent to enable an organisation to add *intellectual value* to the service provided to the customer, who in today's market place is looking for efficient production and high quality.



Intellectual value provides opportunities for competitive advantages and profitability. Focus on your strengths, the things you do best, and develop an understanding of where and how to identify when the opportunities arise to maximise your profitability, that *bottom line*, by adding intellectual value.

Acknowledgments: High Speed Diesels, Robert Bosch.

Tom Beesley

BUSINESS NEWS

Perkins Technology

The England based Perkins Group of Companies, has announced the acquisition of some of the latest computer-aided design technology aimed at helping to keep it at the forefront of diesel design and development. The new CADD5 software and special workstations will enable Perkins Technology's design engineers to manage the whole product cycle within a single computer model. They will have the ability to design, build and test a complete engine on-screen before any manufacturing work is done, thus helping to reduce development costs and speed development cycles.

Note! The descriptive term CADD5 is an upgrade of a computer design and drawing programme CAD. The letters CAD simply mean Computer Aided Drawing. A term found in manufacturing publications is CAM. The letters CAM is an abbreviation of Computer Aided Manufacture and usually means that machine tools are controlled by a computer. The term CAD-CAM an integration of the CAD

or drawing process and CAM the manufacturing process.

A term used in design and development of new engines is CAE, Computer, Aided Engineering.



Perkins' success in breakthrough solutions is aided by the increasing use of simultaneous engineering.

Tom Beesley



No, the above is not a pictorial record of a Parkes Diesel Service or a Turbo Dynamics retrofit job, but a tractor Keith Jurgs came across during a recent visit to Vietnam.

According to Keith, with or without any Quality Assurance and despite the looks, the tractor actually works.

Tom Beesley

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Leaman, Belmont, W.A.	1 x F113 } 1 x F153 }	1 year
Jack Tricky Diesel	2 x 20 H.P.	16 years
Coastal Diesel Service	F 110	16 years
Wauchope Diesel	F 90	16 years
Queanbeyan Diesel	F 120	16 years
Corio Diesel Service	F 120	15 years
Cornell Diesel Service	F 120	14 years
Moree Diesel	F 120	14 years
Rosier Diesel	F 120	14 years
Sheppard Diesel	F 153	12 years
Horsham Injector Service	F 110	12 years
Galloway Diesel	F 120	12 years
C.H.E.S. Engineering	F 120	8 years

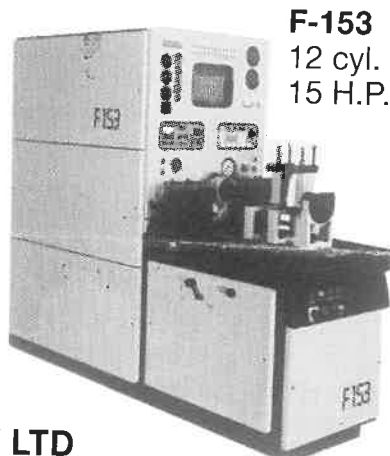
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TRIVIA

A balloonist had to make a forced landing in a paddock and realising he was lost asked a passer-by where he was.

The person replied, "you are in the middle of a paddock in a hot air balloon".

"You must be an accountant" said the balloonist.

"How do you know that" asked the person?
"Because your information is totally accurate, but unfortunately absolutely useless" the balloonist replied.

NO BULL

Prominent Bosch National Service Manager and spouse, spotted at the bull ring in Barcelona recently. You can't hide anywhere these days can you!

GERIATRICS

A young boy named Alistair asked his father what *Geriatric* meant.

The father replied, "three wickets taken with three consecutive balls by a bloke named Schultz".



Alistair & Arthur (Schultz) Walz.

Did you hear about the Scotsman who washed his sporrans?

He couldn't do a fling with it.

Tom Beesley.

ANSWER TO INJECTOR PROBLEM

The solid shim would not allow the nozzle leak-off fuel to drain away. A pressure build-up and hydraulic lock occurred within the injector body and, as a result, restricted the nozzle needle lift consequently affecting fuel flow from the nozzle.

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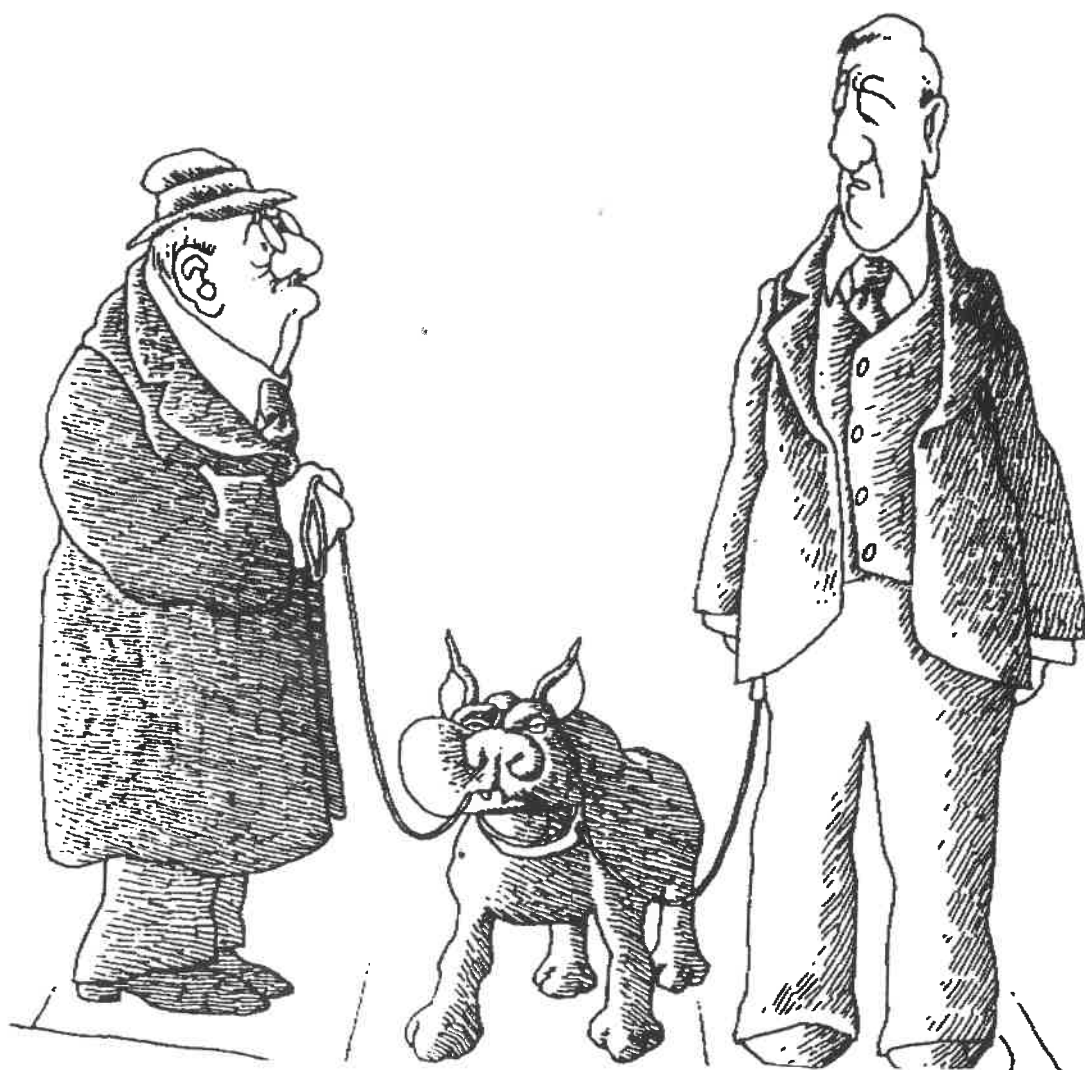


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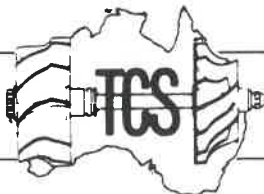
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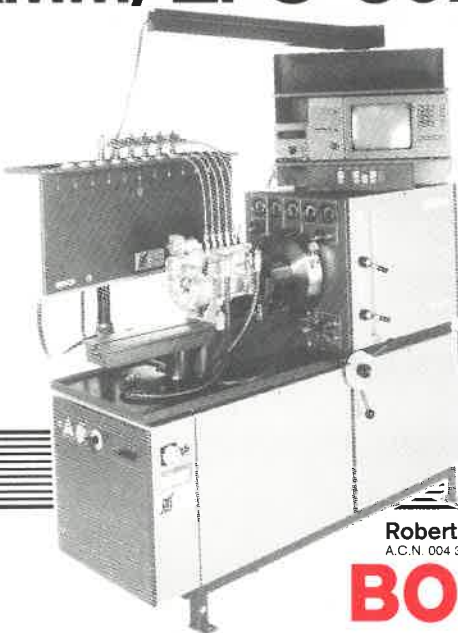
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