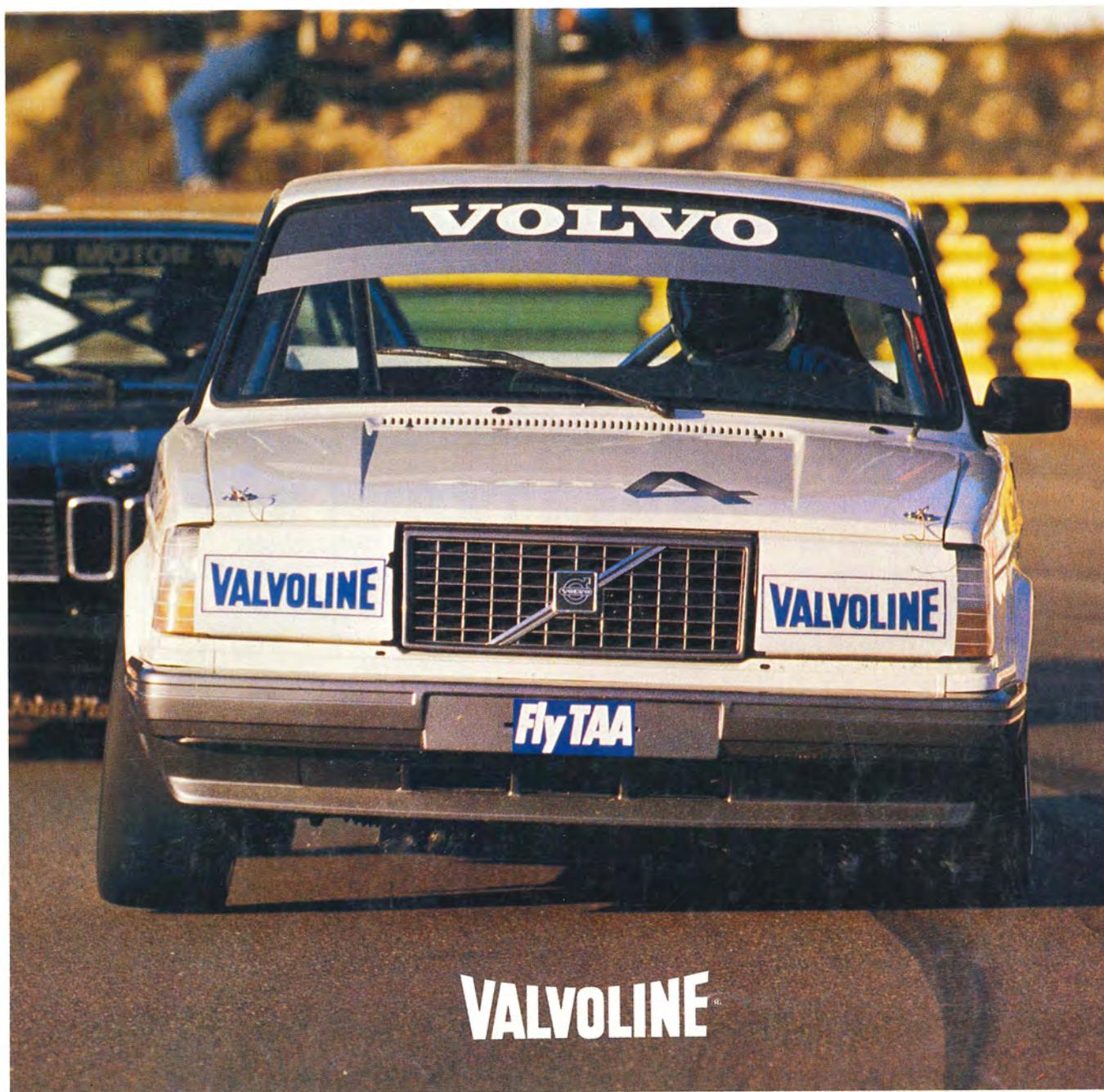


CHEQUERED
FLAG

**SPECIAL
TRIBUTE**

VOLVO IN MOTORSPORT



VALVOLINE

TOP FORMULA DRIVERS JOIN THE WINNING TEAM



Graham McRae



Alf Costanzo



Robbie Francevic



John Bowe

LEADING international Formula car drivers, ex-patriate New Zealander Graham McRae and Italian-born Australian Alfredo Costanzo will add formidable strength to the Volvo Dealer Team's assault on the 1986 Sandown 500 and James Hardie 1000 endurance races.

With reigning Touring Car Champion, Robbie Francevic and John Bowe the Team combines outstanding driving and engineering talent backed by the support of more than 75 Volvo dealers throughout Australia for a successful program.

Graham McRae, 46 and now based in Melbourne adds legendary expertise to the Team as both Formula race car constructor and driver, with three Australian Grands Prix to his credit, the Rookie title at Indy, the Australian Gold Star in 1978 and former F1 and F5000 US titles.

Also providing Formula One and F5000 calibre talent is 43 year old Alfredo Costanzo, resident Porsche sportscar training instructor for Porsche Cars Australia and with a string of Australian Formula One Gold Star titles (1980 through 1983) highlighting his career.

Francevic will team with McRae and Bowe with Costanzo for both the Sandown and Bathurst events.

According to Team co-ordinator, Bob Atkin the immense wealth of both driving and development talent in the Team will provide a combination to allow the best performance at the same time respecting equipment.

"This will allow a focus on the most advanced technology available both from Volvo and supporting component and material suppliers, such as Valvoline oils, that is a key to success," Mr Atkin said, in announcing the Team pairings for the

1986 Australian Endurance title races.

As well, while the Team is in NZ it will be supported by the Kiwi Volvo dealers co-ordinated by Managing Director of NZ's Volvo Distributor, Greg Lancaster of Moller Volcorp.

Formed early in 1986, the Volvo Dealer Team is headed by one of Australia's top motor race engineers – John Sheppard. Based at John Sheppard Automotive at Calder Park

in Melbourne, the Team is backed by formidable expertise.

John Sheppard is the mastermind to previous Bathurst victories for the Holden Dealer Team and has been the key developer behind 14 national motorsport title victories, most being, and including, the 1986 Touring Car Championship.

Sheppard is supported by a dedicated team of engineers. As well, a special Volvo F12 Globetrotter transporter is supplied by Volvo Australia's Truck and Bus Division to facilitate movement of the Team around the nation. □

RACE TRACK VALIDITY

BY PHILLIP CHRISTENSEN

RACE tracks throughout the world have proved a great test bench for car manufacturers for many years. And there can be no better category for volume passenger car builders than the Touring Car class.

Strict Group A international regulations governing our Tourers specify that chassis components, body and most other components must be purely standard – exactly the same parts as fitted to ordinary production cars.

Thus to keep all this together, refine the whole package to the last letter of the regulations and then go out and win endurance races at record speeds calls for concerted research efforts. Such work brings widespread benefits.

The increasing world of electronics has likewise sought many answers from the racing division. Competition cars are surrounded by a field of electronic disturbances due to their specially-built ignition systems. Answers will quickly flow on to production models.

A typical project being tackled headlong initially by race engineers is an electronic system for self-diagnostics. Here will be detection and active intervention to prevent damage to or failure of an engine. Electronics will further facilitate trouble-shooting when a car pits.

Thus Group A generates the best possible feedback to the normal production of road cars. It is no wonder manufacturers such as BMW are disclaiming Formula One for a more concerted Touring Car effort. And the Japanese car builders are alerting themselves to the fact, too! □



The Volvo 240T – in the first European Touring Car championship victory for a turbocharged car.

TURBOS COME OF AGE

VOLVO has brought a large slice of Formula One into the global Touring Car ranks. The Swedish car maker has shown that turbocharging – and its almighty efficiency – can be utilised in performance Touring Cars with the same success as seen in the best Grand Prix racers.

It took less than half a season – in 1984 – for the traditional European Touring Car ranks to be jolted by the emergence of Volvos near the head of the pack. No longer were the likes of BMW, Jaguar and Rover alone... or safe!

At Zolder, Belgium, Volvo became the first manufacturer to stage an ETC win with a turbo car. That was 1984 when Volvo was the car to watch. But by 1985, Volvo was the car to beat!

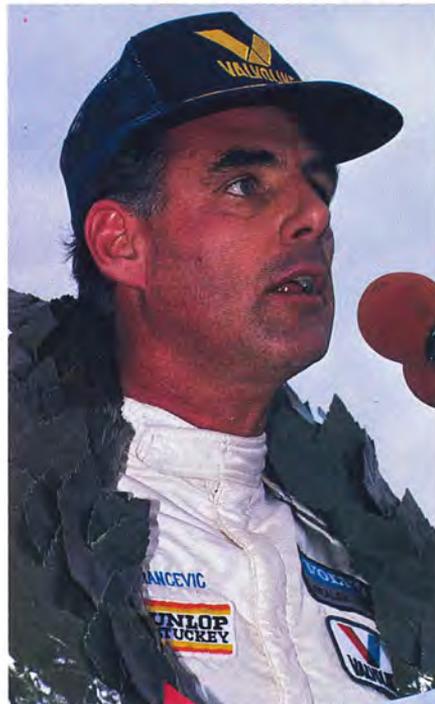
European champion drivers for Volvo – Ulf Granberg, Thomas Lindstrom, Anders Olofsson and Johnny Cecotto – celebrate victory.



The Eggenberger team took the European title last year through the services of its drivers THOMAS LINDSTROM of Sweden and Italy's GIANFRANCO BRANCATELLI.

And best news of all: the European Championship is expanding in 1987 to include the Bathurst James Hardie 1000 as well as endurance events in New Zealand, Japan and South-East Asia. It will be a World Championship for Touring Cars! □

VOLVO WINS TOURING TITLE



1986 Australian Touring Car Champion – Robbie Francevic.

THE 1986 Australian Touring Car Championship has been run and won. Now Volvo has added the Australian crown for racing production makes to its '85 European Touring Car title.

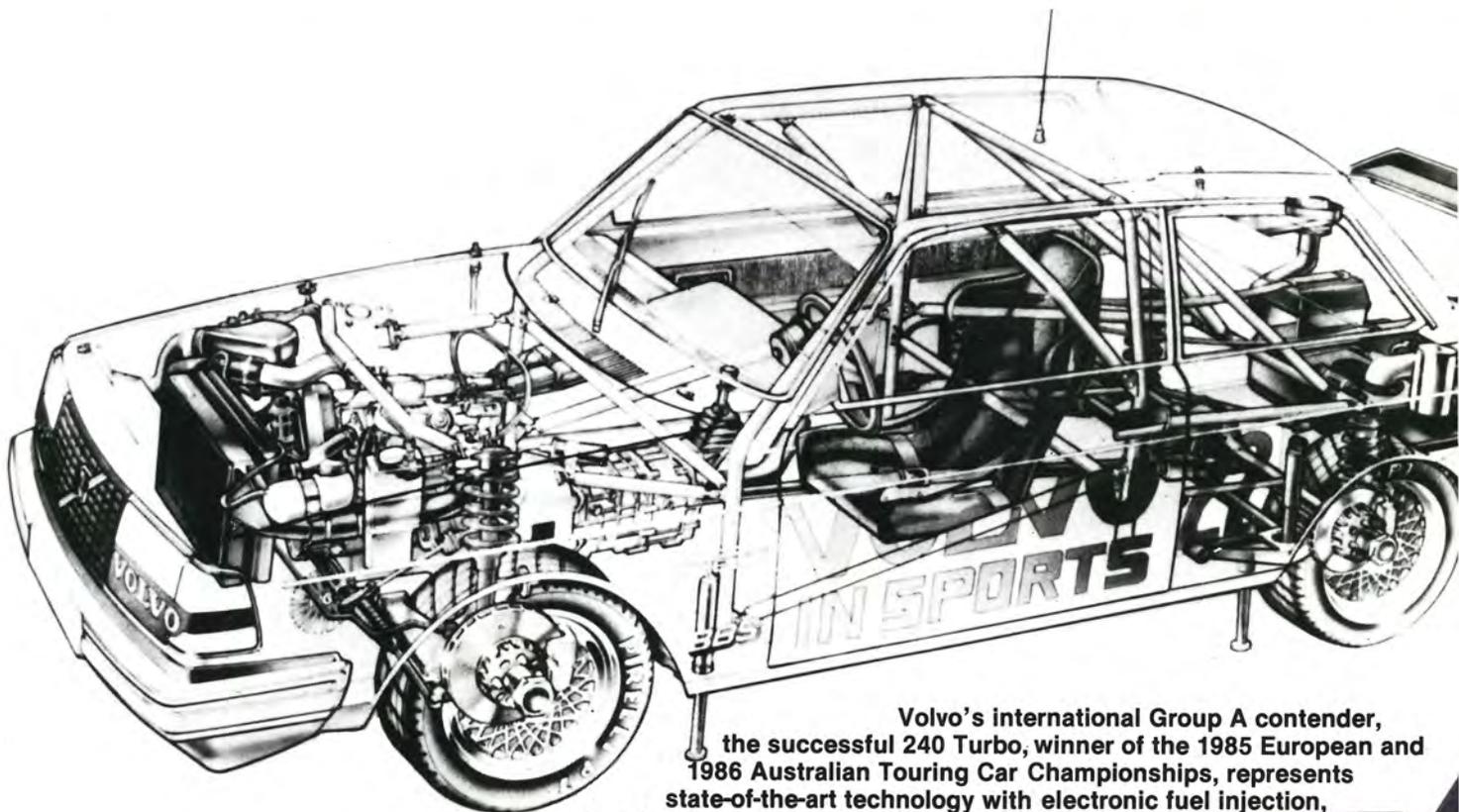
New Zealand globetrotter ROBBIE FRANCEVIC all but clinched the title prior to the final round at Oran Park, Sydney in July. The high-profile Francevic had led the title chase from the opening round at Amaroo Park in early March.

Volvo Dealer Team manager JOHN SHEPPARD engaged strategy to ensure ultimate success. With two straight opening wins in the 240 Turbo, Francevic was called on to temper his aggression – run for the Championship at the expense of individual race wins.

"It was worth it," said Francevic. "But the second half of the season was harder than the first!"

The Volvo Dealer-backed team enlarged mid-season with the presence of a second Turbo car, support and technological in-put from VALVOLINE, and an additional team driver in former Australian Gold Star Formula One Champion JOHN BOWE.

In all, Francevic and the Volvo Dealer Team clinched victory with consistency and reliability. □



Volvo's international Group A contender, the successful 240 Turbo, winner of the 1985 European and 1986 Australian Touring Car Championships, represents state-of-the-art technology with electronic fuel injection, turbocharging and intercooling. Under Group A rules for turbocharged cars, the Volvo 240T is rated as an under-3-litre car (allowing for 1.4 turbo factor) but produces power equal to cars 2.5 times the engine size.

BEGINNING WITH 'A'

By Chequered Flag Publisher - PHILLIP CHRISTENSEN

WEIGHT stops trains. So it is with racing cars. It doesn't matter how much horsepower your car can pump out if it is burdened by inordinate amounts of weight.

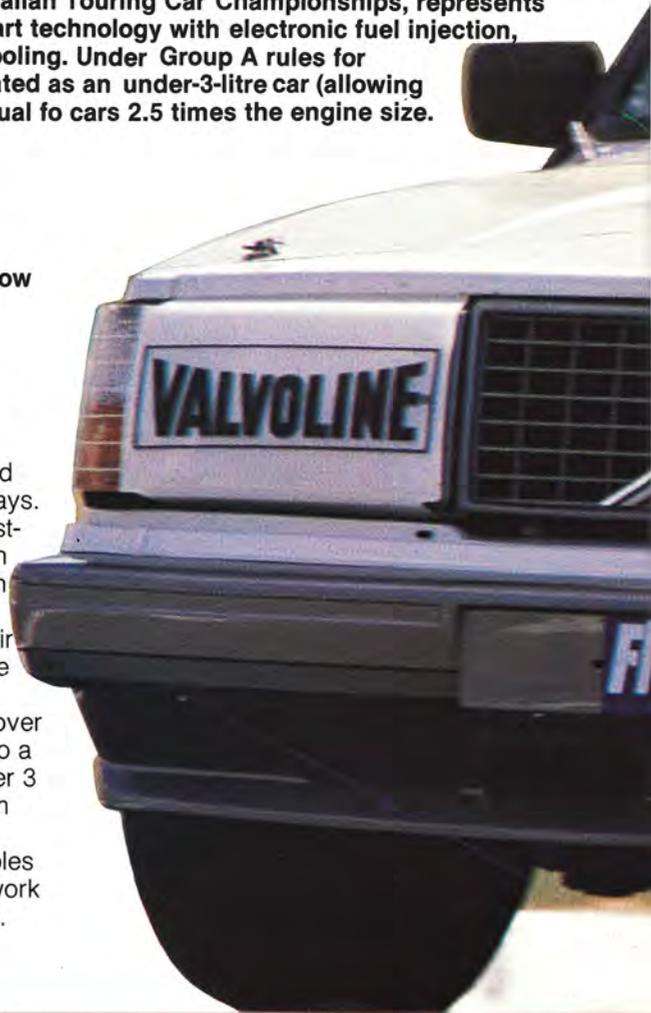
The international Formula governing Touring Cars is known as Group A. It is all an equation which subjects mass production touring cars to a highly-stressed comparison. Only the very best come out winners...

Group A can be called a formula for the future. It was never devised for the dinosaur V8s or V12s which gained rewards in its formative days. In time, the winners will be the cars powered by the smallest and most-efficient motors. An example is the 2.1 litre turbocharged Volvo which produces almost as much horsepower as some race competitors with two-and-one-half times the engine capacity.

The Formula treats all manufacturers fairly. Car makers choose their own particular engine capacity - then enjoy the benefits and share the hardships associated with such choice.

In bland terms, classes run from 1 litre and an impost of 620 kg to over 5 litres and 1400 kg. Turbo cars, such as the 240 Volvo, are subject to a weight multiple of 1.4. Thus the Volvo is rated with a capacity of under 3 litres, carries a minimum weight of 1035 kg and is permitted maximum wheel width of 10".

Eligibility for Group A commences only after 5,000 identical examples of the car have been produced in 12 consecutive months. The bodywork must remain uncut and the wheels must not protrude from the arches. Interior trim can be completely gutted and, naturally, there is strict guidelines for active and passive safety inclusions. □



GROUP A VOLVO 240 TURBO SPECIFICATIONS

ENGINE

Volvo B21 ET
Four Cylinders In Line
Turbocharged

BORE/STROKE

92.3 × 80 mm

CYLINDER CAPACITY

2141 × 1.4 = 2998 cc

COMP. RATIO

7.2:1

FUEL FEED/SYSTEM

Bosch

BOOST PRESSURE

1.5 Bar

POWER OUTPUT

355 hp at 6000 rpm

MAX TORQUE

435 Nm at 4500 rpm

CYLINDER HEAD

Aluminium 2 Valve In Line

ENGINE BLOCK

Cast Iron

TURBO CHARGER

Garret - Airesearch

INTERCOOLER

Langerer and Reich

FUEL INJECTION SYSTEM

Bosch K-Jetronic

WATER INJECTION SYSTEM

Volvo Pat. 10% Water

IGNITION SYSTEM

Bosch Contactless

BRAKES

Lockheed Ventilated Discs

Calipers with 4 Pistons

Adjustable Front/Rear Brake

Balance

WHEELS

BBS 16 in × 9 in

TYRES

Dunlop Radial 245 × 16 in

STEERING GEAR

Rack and Pinion

GEARBOX

Getrag Close Ratio

FINAL GEAR

3.15 to 4.1:1 with Limited Slip

Differential

FUEL TANK

Safety Tank 120 Litres

WEIGHT

1035 Kg

MAX. SPEED

Over 257 Km/H



VOLVO

DEALER TEAM







JOIN THE TEAM!

IDENTIFY WITH THE WINNING TEAM... GET INTO **VOLVO DEALER TEAM** APPAREL. STOCKS ARE LIMITED, SO RACE TO YOUR FAVOURITE **VOLVO DEALER** - OR FRONT THE **VOLVO DEALER TEAM** SPECIALTY TENT AT THE NEXT BIG RACE!

LACOSTE-STYLE COTTON CLUB SHIRT	(R.R.P.)
SM M L XL XXL XXXL	\$22.88
BLUE MESH CAP	\$5.40
Adjustable - fits all	
PURE WOOL BLUE JUMPER	\$44.45
14 16 18 20 22 24.....	
BREEZE JACKET BLUE/WHITE WITH HOOD	\$56.92
100% NYLON 38 40 42 44 46....	
WIND CHEATER WHITE	\$22.88
S M L XL XXL XXXL	

BATHURST AND BEYOND

VICTORY in the Australian Touring Car Championship is already behind the **VOLVO DEALER TEAM** but, seemingly, the year has just begun.

There seems an avalanche of global activity for cars such as the Volvo Turbo which compete in international Group A competition. There is much talk of an Australasian Championship for the latter months in 1986. And the 1987 World Touring Car Championship - including one Australian round - was announced in Belgium on August 1.

The Volvo Dealer Team is well-equipped for future combat, particularly with two team drivers with roots on both sides of the Tasman. The upcoming events are marathon distances - similar to European competition where each race is 500 km or three-and-one-half hours.

The Sandown 500 - September 14 - is the traditional preliminary for Bathurst yet is a classic in its own right. Now more than 20 years old, it is run 3.9 km around a horse racing complex and is Victoria's prestige motor race.



Sandown is the one that got away from Volvo in 1985. Robbie Francevic and John Bowe shared the Mark Petch Turbo and held a 43 secs lead before retiring with a rear-end problem. Maybe this year?

Mount Panorama shares with the Melbourne Cup and the footy Grand Finals the rating of Australia's most important sporting spectacle. Steep climbs, a breath-taking mountain pass

VOLVO POWER FOR THE ROAD



FROM the car maker with a responsible philosophy comes one of Australia's most affordable performance cars... the **Volvo 740 Turbo**.

Based on the very successful Seven Series, the Turbo meets the requirements of today's motoring through engine technology which calls on both fuel injection and intercooling to dazzle up a dynamic road show.

The 1986 model is identified by blackened body trim, five-spoke alloy wheels, body hugging sports seats and houndstooth upholstery. And 4-speed with overdrive manual transmission is now available along with the 4-speed automatic.

What you see on the race track with turbo technology is available on the road, incorporating added levels in comfort, ride and luxury in the 740T. □



Volvo leads the pack - Oran Park final.



Racing turbo motors creates the ultimate stress for engine oils - only the best survive.

STRIKING OIL

IN choosing VALVOLINE range of lubricants, the VOLVO DEALER TEAM shares in a long and successful motor racing heritage. Valvoline was used in the first auto race through the streets of Chicago in 1895 and in a whole sequence of endurance tests that followed - not just cars, but aeroplanes, trains and even steamships.

Away from home grounds such as Indianapolis and Daytona, Valvoline has helped thrust to victory World Drivers Champions Juan Fangio, Alan Jones and Jody Sheckter.

In Australia, Allan Grice called on Valvoline in the car he drove to the first 100 mph lap at Bathurst. Formula Mondial pilots Peter Hopwood, Graham Watson and Bap Romano rely on Valvoline as do Speedway's George Tatnell and Gene Cook as well as dragster Jim Read.

Such is the stress placed on mechanicals in highly-developed Group A cars that the trend has been towards the employment of synthetic oils. Valvoline has sought to rectify that with a mineral oil designed and formulated for hi-tech turbocharged engines. Produced at a much lower cost, it affords the protection required even on the race track.

TURBO V was the first oil marketed in Australia to cater for turbo equipped cars. Its task was to combat high heat forces generated in turbo applications, providing protection for the turbocharger and all vital engine components.

It is engineered to regulate the high "soak-down" temperatures incurred when a turbo engine is switched off. Lubrication engineers had long wrestled with this serious heat problem which quickly breaks down normal oils.

TURBO V contains a balance of antiwear properties, the exclusive CHEMALOY additive treatment providing dispersant, detergent, rust, corrosion and oxidation inhibitors, maximising engine performance and protection.

Outside the engine bay, the transmission and differential seek protection beyond the normal road usage; lubrication has to withstand the power and acceleration called upon at the race circuit. Motor sport has provided the experience and research so that Valvoline can even offer an 80,000 km guarantee through some new car dealers.

Disc brakes absorb the harshest of treatment in any Group A shootout so brake fluids and grease have to meet such conditions - conditions a motorist is never likely to encounter.

SUMMER/WINTER/ENGINE COOLANT completes the total Valvoline package. Now they need to be applied to their perfect mobile test rig - the Volvo Dealer Team Turbo - and go to work! □

and a long downhill straight separate winners from losers... all over a distance of 1,000 km.

Last year was education time for Volvo. But in its first appearance - for drivers as well as car - the 240 Turbo was easily one of the quickest qualifiers and hit the front briefly in the late-morning laps.

New to the schedule of Aussie-based teams are the wide array of New Zealand Touring Car enduros. November 16 sees the Final of the Benson & Hedges series at Pukekohe, a horse racing circuit on the fringe of Auckland.

Then follows a \$250,000 three-race contest scheduled for Manfeild (Palmerston North), Bay Park (Auckland) and back at Pukekohe. The dates are November 30 and December 7-14.

The height of the NZ campaign will be reached in late January with the two race Nissan/Mobil series contested on consecutive weekends in Wellington and Auckland. As with Bathurst, there will be a goodly content of European as well as Australian teams.

Wellington is enterprising in that race organisers stage the event through the streets and dock lanes of the city. It was in this street-fighting mode that Volvo first jumped to the attention of Down Under Touring Car followers. Robbie Francevic and Belgian Michel Delcourt turboed away with the 1985 event. □

VOLVO IN MOTOR SPORT

SOMETIMES forgotten, Volvo is no stranger to competition, though there have been times when the marque was rarely seen at a race or rally track. Now the facts... from 1928 to the present... covering almost 60 year's experience in rallying and racing.



Volvo established its illustrious motorsport heritage more than 60 years ago with success from the earliest days in the Moscow-Leningrad rally (1928) – Top – to European championship and East African Safari titles of the 50s and 60s – Above.

WHEN DID IT ALL BEGIN? Some say the 1950s, some say the 60s, some (the younger ones) say last year when Volvo burst back onto the world's motorsport stage after a long absence. In fact, the association of the Volvo marque with motorsport started in a very small way the year after Volvo started. In that year (1928), a Volvo Jakob OV4 participated in the tough 1360 km Moscow-Leningrad-Moscow Rally. The Volvo was the only car to finish without penalty points! However, apart from a few isolated events, Volvos were not seen in racing or rallying again until the late 40s. One of Volvo's two founders, Assar Gabrielsson, was quoted as saying that "car rallies are as useful to the industry as dog racing."

NEVERTHELESS, SMALL BLACK PV444s BEGAN TO APPEAR IN EUROPEAN RALLIES. In the decade from 1949, Volvos were to appear in rallies all over the Western

Hemisphere. By 1958, the privateers had so impressed Volvo that the then President, Gunnar Engellau gave official approval to help the most promising. In those times, the Volvos were amongst the fastest of the rallying saloons. In 1958, the legendary Gunnar Andersson won the European Rally Championship. The car was the PV544... of which none ever made it to Australia other than a single example of the wagon version, the 210. In 1959 Ewy Rosquist won the European Rally Championship for Ladies, while Gunnar had gone to Buenos Aires to win what Swedish motoring author Per Erik Lindh described in his book "Volvo – The Cars" as the world's toughest rally... the Grand Premio International in Argentina in 1960.

IN 1963 AND 1964, VOLVO WON THE EUROPEAN CHAMPIONSHIP AGAIN. This time Andersson drove the new 122 (Amazon) winning the British RAC Rally in 1963. Sylvia

Osterberg also drove a 122 while Tom Trana campaigned in a 544, winning the Championship in 1964. If the PV544 was the car that had spread the Volvo name through Europe and America, it would be the 122 that would sow the seed in Australia. At Sandown, a 122S grabbed the class win in a 6 hour race. Drivers were Ivan Sedgedan, old friend of Robbie Francevic, and Colin Giltrap. The same year, five Volvos came in the top 20 in the Ampol Trial.

MORE RALLY WINS IN 1965. The Singh brothers of Kenya made history in a well-run-in ex-works PV544, taking first place in the African Safari Rally. By now Volvo had become an institution in rallying... Tom Trana had won the Acropolis, the Midnight Sun and the RAC. These were just three of six international rallies won in Volvos in 1965. Strangely, this year of many successes was to mark Volvo's temporary withdrawal from motorsport in Europe. But the story was different in Australia. A Volvo 122 driven by Monaco Motors, Gerry Lister won three of the first four Touring Car races to be held at Amaroo. And there was more to come.

FIRST BLOOD IN ENDURANCE RACING – 1966. At the old Lowood circuit near Brisbane, the pundits had to swallow their predictions as an ex-works 122S, entered by Scuderia Veloce and driven by David MacKay and Greg Cusack took on Harry Firth's factory-entered Ford GT and won the 4 Hour Race by a substantial margin. Inspired by this success, the Scuderia team entered an 1800S in the gruelling 12 Hour Race at Surfers



Early Australian Volvo success - in the 1964 Bathurst 500.

Paradise, winning the production sports car section. Some up-and-coming peddlers were seen at Mount Panorama in near stock-standard 122s. Names like Kevin Bartlett, John Harvey, Gerry Lister and David Seldon were behind the wheel of those unfamiliar Swedish machines. The following year, 1967, saw the first major wins in rallying... the Rothmans Snowy, the Shelley 300 and the KLG 300.

THE 140 TAKES OUT THE SOUTHERN CROSS - 1968. In the backwoods of coastal NSW and Victoria, the new generation Volvo, a near stock standard 142S, driven by John Keran and navigated by Peter Meyer, bumped and slid its way around the 3000 km route to win Australia's toughest annual rally, the Southern Cross. The same year, Ken Tubman, NSW Rally Champ and Volvo importer Max Winkless and eight other drivers ran a total of four Volvos in the London-to-Sydney Marathon. Elsie Gadd's all-girl crew won the Ladies Class. And in 1970, John Laws, Bill Nolan and Monaco Motors' Gerry Lister entered the Ampol Around Australia Trial, finishing a creditable 12th out of 232 starters in a 144. That was the last major motorsport event Volvos would enter for a long time. Observers said that Volvo had abdicated its race heritage for stolid crash safety.

1979... THE RALLY TO BEAT ALL RALLIES. 20,000 KMS LONG, RIGHT AROUND AUSTRALIA. They claimed it was tougher than the Redex/Ampol

trials. It was called the Repco Around Australia Reliability Trial and Volvo Dealers entered six 240 series cars, the first time these new "safety" models had been tried in serious competition anywhere in the world. The car driven by Australian Champion, Ross Dunkerton and journalist/race driver Peter McKay came fourth outright; first in class. Another Team Volvo won the Ladies Prize. Four of the six Volvos finished, all placed in the top 30 of a field of 170 starters.

1980 THE 343 TAKES OFF THE EUROPEAN RALLYCROSS CHAMPIONSHIP... That lusty infant, the 300 series Volvo hatchback, has knocked off the Swedish championship. There was a new generation of Volvo race-boys at the wheel of two turbo-charged 340s, names of Per Engseth and Per-Inge(Pi) Walfridsson. The wiry Pi had been delighting the Australian rally crowds in earlier years in Datsuns and Mitsubishis. The competition was tough... Golf GTi, BMW, Ford Escort. But in the end the Volvos won the European Rallycross Championships and the stage was set for a sporty new production car, the 360GLT.

LATE IN 1984, RACE FANS STARTED TO NOTICE A SQUARED-OFF SWEDISH RACE CAR AT RACE TRACKS IN ENGLAND AND BELGIUM. At Zolder, a 240 Turbo run by a Belgian Dealer Team and a private Swedish team took line honours. By now the rumours were flying thick and fast. Would there be Volvos in force in the 1985 European Touring Car Championship? One thing was for sure... there was strong interest from the Antipodes. In January 1985, driving the former

Belgian car, Kiwi Robbie Francevic amazed the crowd by winning the Wellington Street Race. The stage was set in both Europe and Down Under.

1985: EUROPEAN TOURING CAR CHAMPIONSHIP TO VOLVO AND TOURING CAR WINS IN AUSTRALIA:

A European Volvo dealer team under the Eggenberger banner took on BMW and other great names and won. It was a knock-down, drag-out nine months of inter-brand rivalry that caused everyone to sit up and take notice. Meanwhile in Australia. Robbie Francevic at the wheel of the 240T, was winning more than his share of races in the Australian Touring Car Championship. The series was taken by the BMW but from that time on, Australians stopped thinking of a Volvo as a conservative up-market car. Volvo had resumed its rightful place as one of the world's best in open competition.

1986: THE AUSTRALIAN CHAMPIONSHIP TO FRANCEVIC AND VOLVO. This year, the Turbo Volvos have been up front both in Australia and in Europe. Race victories continued to fall to Volvo in Europe. The Valvoline Volvo Dealer Team have won the Australian Touring Car Championship. With Francevic and brilliant new Volvo recruit John Bowe, the Valvoline-sponsored dealer team is set for great things at Bathurst, the Grand Prix Group A Race and in New Zealand. For 1987 and beyond, who knows? The lure of a World Touring Car Championship and a combined European/Australasian attack? One thing's for sure, Volvo is back where it belongs, as one of the world's great driving cars! □



TURBO OWNERS: MEET THE FIRST MOTOR OIL THAT WILL TAKE THE HEAT.

300° Celsius — a temperature that will cook normal motor oils. It's more than twice the heat developed by regular engines. But, for most turbos, it's just the average soakdown temperature after ignition turnoff. That's why your turbo needs more protection than it can get from a motor oil designed for normal engines. It needs new Valvoline Turbo V™ — especially formulated to take the punishing heat that's a natural by-product of turbochargers.

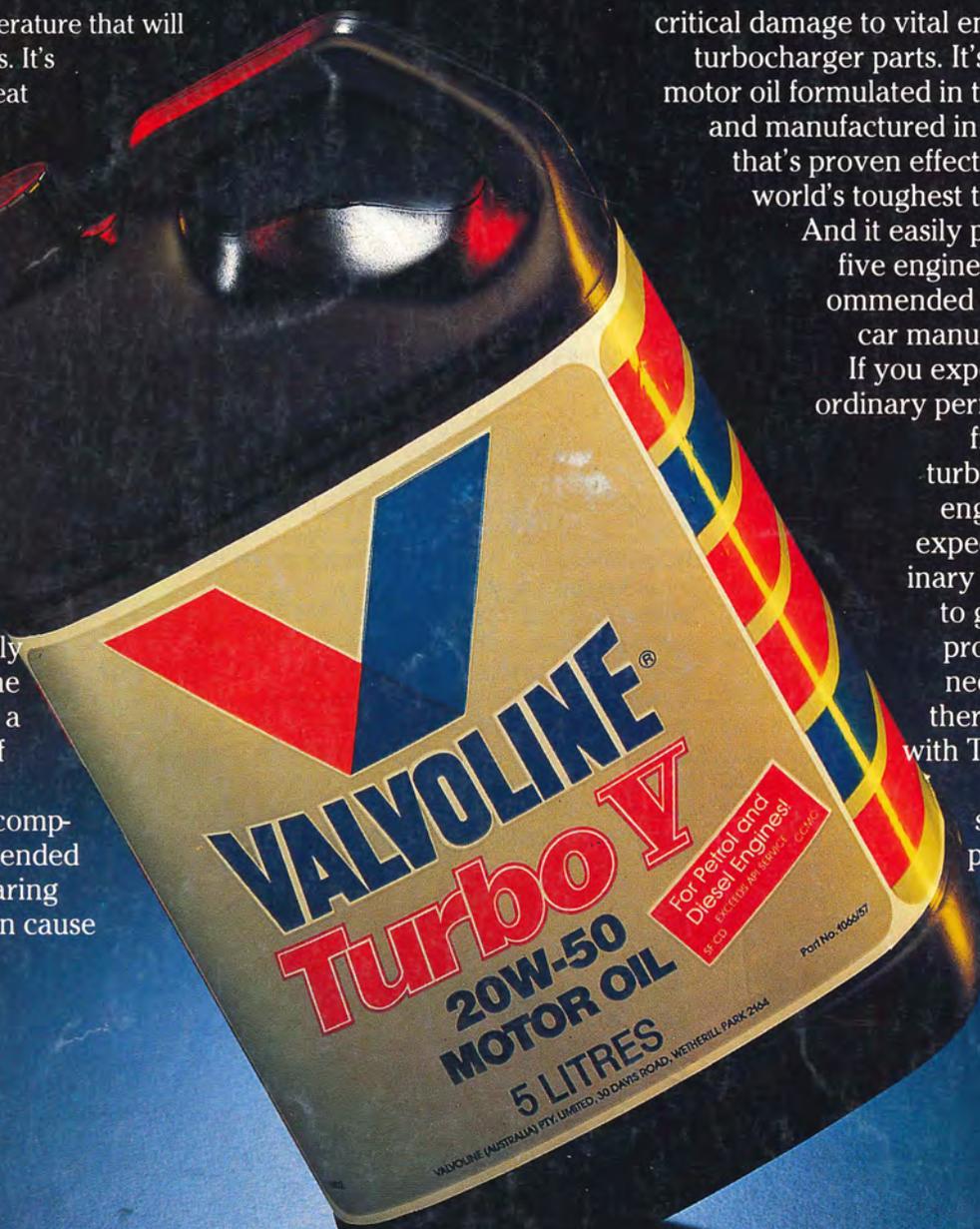
New Turbo V has computer-age additives, blended to protect against searing temperatures that can cause

critical damage to vital engine and turbocharger parts. It's the only motor oil formulated in the U.S.A. and manufactured in Australia that's proven effective in the world's toughest turbo test.

And it easily passes the five engine tests recommended by all car manufacturers.

If you expect extraordinary performance from your turbocharged engine don't expect an ordinary motor oil to give it the protection it needs. Fight thermal stress with Turbo V.*

The new symbol of protection for turbo charged engines.



SYMBOL OF PROTECTION™

* Available in Australia only in 5-litre plastic containers.

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