



THE HOLDEN HERITAGE

CONTENTS (PART THREE)

1993 VR COMMODORE	98
1995 VS COMMODORE	102
1997 VT COMMODORE	106
2000 VX COMMODORE	110
2002 VY COMMODORE	114
2004 VZ COMMODORE	119
2006 VE COMMODORE	125
HOLDEN ENGINE MANUFACTURE 1940-2006	129
HOLDEN IN MOTORSPORT	137
LOCAL PRODUCTION SINCE 1948	143



1993 VR COMMODORE

MONTH OF LAUNCH:

July 1993.

MAJOR EVENTS DURING MONTH OF LAUNCH:

A leaked report by the International Olympic Committee suggests that Sydney is the favoured site for the 2000 Olympic Games; New figures reveal unemployment of 11.1 per cent; Prime Minister Paul Keating leads heated debate on whether Australia should become a republic; Australian dollar rises to 74 Yen after sinking below 70 for the first time ever; War continues in the former Yugoslavia.

POPULAR SONGS:

Can't help falling in love (UB40); That's the Way Love Goes (Janet Jackson); Two Princes (Spin Doctors); Oh Carolina (Shaggy); Believe (Lenny Kravitz).

POPULAR FILMS:

Peter's Friends (Kenneth Branagh, Emma Thompson); Aladdin (animated film with voice of Robin Williams); Cliffhanger (Sylvester Stalone, Janine Turner); The Heartbreak Kid (Claudia Karvan, Alex Dimitriades); Hot Shots 2 (Charlie Sheen, Valeria Golino, Lloyd Bridges).

MOTORING HIGHLIGHTS:

Glenn Seton (Falcon) is crowned Australian Touring Car Champion; Alain Prost (Williams-Renault) wins the French and British GPs, giving him a record total of 50 Formula One victories; sales figures for the first half of the year show Australia's new car market is still depressed but that locally-made cars have made big gains.

Forty-five years after launching the first Holden car, the VR series Commodore was unveiled. Compared with the VP model it replaced, 80 per cent of the exterior was changed and hundreds of large and small mechanical improvements were made. The result was the most technically sophisticated Holden to date.

Rounded rear wheel arches helped give a markedly different profile and, according to designer Phil Zmood, the 'twin port' grille was designed to pay gentle homage to the 1953 FJ model.

The VR safety story was a big one; a new model called Acclaim combined more primary and secondary safety features than any other car in the family price bracket. It had a driver-side airbag, independent rear suspension (IRS) and antilock brakes (ABS), plus other features included on all VR models, such as webbing clamps on the front seatbelts to reduce the risk of head and chest injuries and — in sedans — a lap/sash safety belt for the centre rear seat passenger. The airbag was also fitted as standard equipment to the Calais and could be specified with any other model at extra cost.

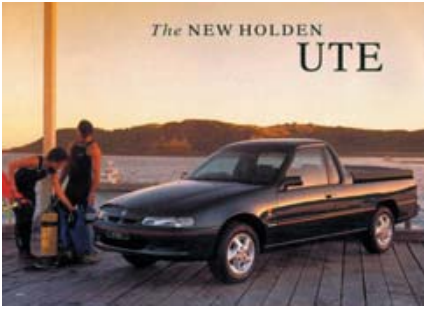
Inside the VR was a soft-form instrument panel designed to wrap around into the moulded door trims, and a

new steering wheel with a two-way adjustable column. A heavily-revised air-conditioning system was free of ozone-depleting chemicals.

The GM-designed IPCM6 powertrain control module formed part of a state-of-the-art electronics package controlling the mechanical, comfort and security features. The body computer (introduced with the VP Calais) was fitted to all models, as was an extremely sophisticated electronic security system. Australian designed, this incorporated an electronic door/ignition key and remote central locking.

The VR's V6 engine boasted slightly more power (130 kW), more refinement, better fuel economy and fewer harmful emissions. The 165 kW V8 was carried over from the VP, but a further option of a 185 kW unit (with 400 Nm of torque) was extended. All engines could be mated to a sophisticated new electronically controlled automatic transmission.

Extensive front suspension revisions, supplemented by an increased track and larger (15 inch) road wheels gave improved ride and handling. The towing capability was boosted to a massive 2100 kg and all models benefitted from substantially more comfort and convenience features.



1993 VR COMMODORE DATA

ENGINES: 3.8-litre V6 (130kW); 5.0-litre V8 (165kW, 185kW option).

TRANSMISSIONS: Five-speed manual gearbox, four-speed electronically controlled automatic transmission.
 MODELS: Commodore Executive sedan, Commodore Executive wagon, Commodore S sedan, Commodore SS sedan, Commodore Acclaim sedan, Commodore Acclaim wagon, Commodore Berlina sedan, Commodore Berlina wagon, Calais sedan, VR utility, VR 'S' utility plus (at time of VR launch) Statesman and Caprice VQ Series II saloons, VR long wheelbase models from early 1994.

PRICES AT INTRODUCTION (INCLUDING S/TAX): \$25,302 (Commodore Executive six-cylinder manual sedan), \$29,183 (Commodore Acclaim six-cylinder auto sedan), \$43,692 (Calais V8 auto sedan).

DIMENSIONS (BASIC SEDAN): Length: 4861 mm; Wheelbase: 2731 mm; Width: 1794 mm.

IDENTIFICATION: Further revision of VN/VP body, with reshaped headlights and turn lenses plus 'twin port' grille. Restyled front and rear guards. Front bumper has large central air intake and a small brake cooling duct on each side. High mounted, rounded rear tail-lights on sedans.

TOTAL NUMBER BUILT: 165,262.





HOLDEN HIGHLIGHTS

1993

- Holden starts the year by launching 'Series II' versions of the VP Commodore models. As well as many detail refinements, Holden's ABS antilock braking system is made available on all Commodore sedan and wagon derivatives.
- An all-new Holden Apollo (the JM series) is launched. Holden describes it as the biggest four-cylinder car it has ever sold. There's a choice between sedan and wagon body styles, and SLX and GS equipment levels. Power comes from a 2.2-litre four-cylinder engine or, for the first time, an optional V6. This has a 3-litre capacity and, like the four, has multivalve technology and electronic fuel injection. All versions are backed by an innovative 'Apollo Edge' program which includes free servicing for 12 months, roadside assistance and, for the first time in Australia, a guaranteed exchange system. Within 14 days or 500km, buyers are able to return the car and receive a full no-obligation credit on any other Holden product — even a different coloured version of the same Apollo.
- Holden Racing Team signs Wayne Gardner, the 1987 500cc GP motorcycle world champion, as lead driver (alongside Tomas Mezera) in a two-car Commodore assault on the Australian Touring Car Championship. Also campaigning Commodores in the 1993 ATCC are Peter Brock, Larry Perkins, Jim Richards and the 1992 ATCC champion, Mark Skaife.
- Holden Special Vehicles celebrates its fifth year of operation by producing special anniversary editions of all its models.
- A second production run of VP series Calais International sedans is produced, following the success of the 1992 model.
- Holden invests \$100 million in plant and equipment to produce the VR Commodore and installs the most advanced electrical quality assurance system ever seen in an Australian car plant. This system automatically makes 76 different checks on each car's electronic systems before it is shipped to a dealership.
- With the launch of the VR series Commodore, Holden becomes the first car-maker to offer Australian motorists a safety airbag on a locally built car.
- Larry Perkins and Gregg Hansford take outright honours in the Tooheys 1000 at Bathurst in a VP Commodore.
- The Holden Jackaroo Monterey V6 is launched. This highly-specified 4WD wagon features automatic transmission, antilock brakes, cruise control, CD player and many other luxury features as standard equipment. Late in the year the entire Jackaroo range is upgraded and a new SE variant introduced.



VR Caprice



SB Barina Swing

HOLDEN HIGHLIGHTS

1994

- A new \$150 million state-of-the-art vehicle painting facility is opened at the Elizabeth plant, giving new Holden cars a clear-over-base exterior finish to match the best imports.
- Restyled 1994 versions of Holden's long-wheelbase Caprice and Statesman luxury models are released. Designated VR, both models feature a plusher interior, an all-new instrument panel and a choice between the 3.8-litre V6 and 5-litre V8 engines. The new styling is widely praised, as is the paint finish (the first fruit of GM-H's new painting facility).
- An all-new Holden Barina SB becomes the first volume-selling Spanish-built car on the Australian market. Boasting distinctively European styling, leading edge safety features and big car road manners, the Barina offers a choice of two body styles, two transmissions, four levels of specification and three fuel-injected engines (1.2, 1.4 and 1.6 DOHC).
- Peter Brock is reunited with the 'works' racing team, sharing the major HRT (Holden Racing Team) driving duties with Tomas Mezera.
- Holden's Engine Company exports its 2 millionth engine. Prime Minister Paul Keating helps crate the milestone engine, which is then shipped to South Korea.
- Holden's Australian V8 celebrates its 25th anniversary. Over 450,000 have been built.
- The Holden Commodore dominates the 1994 Australian Touring Car Championship, with Mark Skaife, Peter Brock and Tony Longhurst in the winner's circle. Skaife wins the drivers' championship.
- The Calibra coupe range is upgraded and expanded to include a high-performance version with a turbocharged engine and fulltime four-wheel drive. A driver-side safety airbag and front seatbelt pretensioners are fitted to all versions.
- By mid-year the new car market is booming. Holden Commodore VR is comfortably Australia's best-selling car, with the 'upper medium segment' in which it competes growing strongly to account for nearly 40 per cent of the passenger car market. Holden's 1994 production is on target to show a 25 per cent lift on the 1993 total.
- Unprecedented demand forces HSV to release a new 5.7-litre 215kW powered Statesman and Caprice models, both feature the new BTR-engineered Hydratrak differential.
- 1994 sales figures show that Holden's sales have grown by a remarkable 19.5 per cent, 8.5 per cent higher than the industry average. With 75,300 sales Commodore is the best selling car for the year, almost 2500 ahead of the Ford Falcon. Both the Barina and the Statesman/Caprice are the best sellers in their respective categories.



1995 VS COMMODORE

MONTH OF LAUNCH:

April 1995.

MAJOR EVENTS DURING MONTH OF LAUNCH:

A car bomb explodes below a US federal building in Oklahoma City killing 168 people; Japanese police continue to investigate the Tokyo subway poison gas attack which killed 11 people and injured over 5000; the murder trial of American football hero O.J. Simpson enters its third month; Russian troops bomb cities in the breakaway republic of Chechnya; the 20th anniversary of the fall of Saigon is celebrated in Vietnam.

POPULAR SONGS:

Here's Johnny (Hocus Pocus); Total Eclipse of the Heart (Nicki French); Think Twice (Celine Dion); Another Night (M.C. Sar and The Real McCoy); Bedtime Story (Madonna).

POPULAR FILMS:

Dumb and Dumber (Jim Carrey, Jeff Daniels); Little Women (Winona Ryder, Susan Sarandon); The Brady Bunch (Shelley Long, Florence Henderson); Outbreak (Dustin Hoffman); Star Trek—Generations (William Shatner); Rob Roy (Liam Neeson, John Hurt, Jessica Lange); Bad Boys (Martin Lawrence, Will Smith).

MOTORING HIGHLIGHTS:

Damon Hill wins both the San Marino and Argentine Grands Prix; an appeal hearing at FIA headquarters in Paris reinstates Michael Schumacher as winner of the Brazilian GP; reigning Australian Rally Champion Neal Bates takes out the 1995 Targa Tasmania.

The VS Commodore was a further advancement of the formula that won its predecessor (VR) top selling status and the title of Australia's most awarded car.

Delivering measurable customer benefits in terms of added economy, Holden's VS Commodore also provided greater levels of safety and security.

Though the appearance remained largely unchanged there were many significant improvements under the skin, including engine and transmission upgrades.

Holden refined the 3.8-litre V6 powerplant to make it smoother and quieter. It was also 13 per cent more powerful and used around five per cent less fuel.

All major components in the V6 engine were upgraded. It received a lower deck design, a new cylinder block, lightweight higher compression pistons and lighter cylinder heads with reshaped combustion chambers.

The engine management system's computing power and memory were doubled and hot wire air mass metering and sequential fuel injection fitted.

Low friction technology developed in Australia and in overseas GM research centres was utilised extensively in the engine.

In line with the terminology used by GM Europe, the new Holden engine was named ECOTEC, for Emissions and Consumption Optimisation through TEChnology. Maximum power was increased by 17kW to 147kW at 5200rpm.

The four-speed automatic transmission was re-engineered to complement the new motor and its computing power was doubled. Changes included revised shift patterns for improved throttle response and reduced fuel consumption.

The VS Commodore introduced dual airbags for the first time on an Australian-built car. These were standard in the Commodore Acclaim and Calais and optional in all other models.

Security, already among the world's best, was further improved. The remote door-locking control could be used to unlock the driver's door only, to prevent unwanted entry by intruders at other doors.

Changes to the exterior appearance were minimal because Holden had done a complete revamp of the body with the introduction of the VR Commodore in August 1993.



External upgrades on the VS were confined to added brightwork within the twin grille slots, the newly-designed Holden Lion emblem and ECOTEC V6 badges on the car's flanks, along with the option of several new paint colours.

Interior changes were more substantial with raised levels of trim and new colour schemes.

The VS Commodore was upgraded with the release of the Series II in June 1996. This brought a new five-speed Getrag manual transmission for ECOTEC V6 models and a more refined V8. All models received new seat and door trim, with the Series II Calais gaining additional rich woodgrain trim, new 16-inch alloy wheels and recessed front fog lamps.

September 1996 saw the introduction of a supercharged version of the 3.8-litre V6 engine. Optional on Calais, Statesman and Caprice, the new engine boosted the power of the V6 to 165 kilowatts, with fuel consumption only slightly higher than the standard 3.8 V6 ECOTEC engine.

1995 VS COMMODORE DATA

ENGINES: 3.8-litre ECOTEC V6 (147kW); 3.8-litre Supercharged V6 (165kW); 5.0-litre V8 (165kW, 168kW); 5.0-litre V8 (185 kW).

TRANSMISSIONS: Five-speed manual gearbox, four-speed electronically controlled automatic transmission.

MODELS: Commodore Executive sedan, Commodore Executive wagon, Commodore Ssedan, Commodore SS sedan, Commodore Acclaim sedan, Commodore Acclaim wagon, Commodore Berlina sedan, Commodore Berlina wagon, Calais sedan, VS utility, VS 'S' utility. Plus Statesman and Caprice luxury saloons.

PRICES AT INTRODUCTION (INCLUDING S/TAX): \$26,780 (Commodore Executive six-cylinder manual sedan), \$30,890 (Commodore Acclaim six-cylinder auto sedan), \$45,830 (Calais V8 auto sedan).

DIMENSIONS (BASIC SEDAN): Length: 4861mm; Wheelbase: 2731mm; Width: 1794mm.

IDENTIFICATION: Comprehensive mechanical update of VR series with few visual changes. New design of Holden Lion emblem, ECOTEC V6 badges on front guards of six-cylinder cars, bright trim in grille openings.





Frontera Sport



YE95 Calibra

HOLDEN HIGHLIGHTS

1995

- March 1995 marks the 50th anniversary of the federal government's approval for Holden to produce Australia's first locally manufactured car. A number of clay models were produced, eventually leading to the November 1948 release of the Holden 48-215.
- The new VS Commodore range is released in April, featuring Holden's new state-of-the-art ECOTEC V6 engine. The result of a \$20 million dollar technology investment in the ECOTEC makes VS the most powerful Commodore to date with power up by 13 per cent. Emission levels are the lowest yet, being 75 per cent better than the 1995 standard and even less than that set for 1997. The VS is also the first locally-built car to offer motorists both driver and passenger side airbags.
- The new HSV range, based on the VS Commodore is released. A new entry level model, the Manta, makes its debut joining the established Club Sport, GTS, Senator, Statesman and Maloo utility models.
- Holden's new entry into the expanding 4WD market, the Frontera Sport, is launched in October.
- Holden Special Vehicles' (HSV) stunning new GTS-R Commodore is launched at the 1995 Sydney Motor Show. Only 75 of the 5.7-litre, 215kW, bright yellow cars are to be produced with each buyer being flown to HSV's Melbourne factory and shown through the building operation. It is also possible to have the engine blueprinted by the HRT mechanics.
- Producing 107,000 vehicles in 1995, the Holden plant at Elizabeth in South Australia sets a new production record. It is the first time in the company's history that production at the plant has exceeded 100,000 vehicles in a calendar year.

1996

- February sees the launch of Holden's 'Little Big Van', the eye-catching Combo light commercial. Originating from GM affiliate, Opel, the Combo comes to Australia with a proven European reputation and several UK awards under its belt.
- Holden sponsors the Grand Prix Celebrity Challenge held in conjunction with the inaugural Melbourne Formula One Grand Prix. Sporting and media celebrities put 24 of the yet-to-be-released Astras through their paces around the Albert Park circuit.
- Released in June, the Commodore and Calais Series II feature a new Getrag manual transmission on ECOTEC V6 models, a cold air induction system and exhaust modifications in the V8 models, upgraded seat and door trim fabrics and minor exterior changes.
- June sees 21-year-old Craig Lowndes, driving a Commodore, become the youngest ever driver to win the Australian Touring Car Championship.
- Backed by European sales in excess of half a million per annum, Holden launches the all-new Astra into the highly competitive small-medium segment of the passenger car market.
- The VS Series II Statesman and Caprice models are launched in September. The new models come with a choice of six and eight cylinder engines, including a new supercharged 3.8-litre V6. The supercharged engine is also available in the VS II Calais.



HSVVS Commodore GTS-R



1996 Combo



HSVVS Commodore GTS-R



TR Astra



1997 VT COMMODORE

MONTH OF LAUNCH:

August 1997.

MAJOR EVENTS DURING MONTH OF LAUNCH:

Diana, Princess of Wales, is killed in a high speed car accident in Paris; a Perth appeal court adds 3 years to the sentence of former business-man Alan Bond; 19 people die when two ski lodges are crushed by a landslide at the NSW ski resort of Thredbo. Ski instructor, Stuart Diver, is rescued after spending 65 hours trapped in the rubble; Australia's cricketers defeat England by 3 Tests to 2 to retain the Ashes.

POPULAR SONGS:

Men in Black (Will Smith), I'll Be Missing You (Puff Daddy & Faith Evans), How Do I Live (Trisha Yearwood), Bitch (Meredith Brooks), How Come, How Long (Babyface).

POPULAR FILMS:

Conspiracy Theory (Mel Gibson, Julia Roberts), Con Air (Nicolas Cage, John Malkovich, John Cusack), Bean (Rowan Atkinson), Absolute Power (Clint Eastwood, Gene Hackman, Ed Harris), Austin Powers (Mike Myers, Elizabeth Hurley).

MOTORING HIGHLIGHTS:

Volkswagen announces its fourth-generation Golf; the return of the Alfa Romeo marque to the Australian market is announced; new figures confirm a worldwide decline in the sale of upper-level luxury cars; Toyota launches its new Australian-built Camry model; Chrysler announces a new version of its CCV - Composite Concept Vehicle. The body is made from thermoplastic similar to that used in drink bottles.

The VT Commodore was totally new, the all-Australian result of a \$600 million investment and the largest and most advanced new vehicle engineering program Holden had ever undertaken.

This range was characterised by powerfully sculpted exterior styling, more spacious and luxuriously equipped interiors, class-leading vehicle dynamics and significant strides in safety performance. The design integrity of its substantially stronger body structure was reflected in appreciably higher levels of build quality and driving refinement, and many VT features were 'firsts' for an Australian car.

With its wider track and longer wheelbase, the VT was the largest Commodore so far and the first to be designed to suit left- and right-hand drive configurations. The level of standard equipment – it included a driver airbag, electric driver's seat adjustment, trip computer, advanced security and remote boot release – was higher than in any other car in its class.

Safety initiatives included computer-designed, crash energy-absorbing body structures, computer optimised restraint systems, pyrotechnic seat belt buckle pre-tensioners and anti-submarining ramps. Side impact airbags were also made available later in this model's life.

The all-new heavy duty braking system worked in tandem with an 'Australian first' traction control system. Ride and handling attributes set a benchmark in 'driver's car' chassis dynamics and IRS was fitted across the range.

The interior offered a completely new instrument panel layout, new seating and richer soft trims. Calais came complete with dual zone climate control, a personal PowerKey system and 'twilight sentinel' automatic headlamps.

Few changes were made to the recently upgraded 3.8 litre ECOTEC V6 powerplant, Supercharged V6 power





output was raised to 171kW. Revisions to the standard 5.0 litre V8 also increased power output and a high-performance 195kW V8 was also offered, before the VT Series II introduction of a 5.7 litre Gen III V8.

The VT Commodore claimed more than 15 major awards in 1997/1998, among them the 1997 *Wheels* Car of the Year and the 1997 Australian Design Award. Several limited edition VT models commemorated Holden's 50th Anniversary in 1988.



1997 VT COMMODORE DATA

ENGINES: 3.8-litre ECOTEC V6 (147kW); 3.8-litre Supercharged V6 (171kW); 5.0-litre V8 (179kW); 5.0-litre V8 (195kW); 5.7-litre Gen III V8 (220kW).

TRANSMISSIONS: Five-speed manual gearbox, four-speed electronically controlled automatic transmission.

MODELS: Commodore Executive sedan, Commodore Executive wagon, Commodore S sedan, Commodore SS sedan, Commodore Acclaim sedan, Commodore Acclaim wagon, Berlina sedan, Berlina wagon, Calais sedan.

PRICES AT INTRODUCTION (INCL SALES TAX): \$29,760 (V6 Executive sedan), \$31,600 (V6 Executive wagon), \$33,980 (Acclaim sedan), \$39,800 (V6 Berlina sedan), \$51,260 (V6 Calais super-charged & V8 Calais).

TRANSMISSIONS: Five-speed manual gearbox, four-speed electronically controlled automatic transmission.

DIMENSIONS (BASIC SEDAN): Length: 4884mm; Wheelbase: 2778mm; Width: 1842mm.

IDENTIFICATION: All-new, larger body with curved lines and distinctive wide guards. Bold twin-nostril grille with different insets for each model. High tail with full-width light panel.

TOTAL NUMBER BUILT: 303,895.





VT Commodore Berlina wagon



SB Barina GSI



JR Vectra



TS Astra



VT Commodore Supercharged V6 Engine



HOLDEN HIGHLIGHTS

1997

- In March, James R. Wiemels replaces William J. Hamel as Holden Chairman and Managing Director.
- The Melbourne Motor Show sees the release of the Holden Vectra. Although the first batch of Vectras is fully imported from Europe, Holden announces that future production will take place at its factory at Elizabeth in South Australia.
- Peter Brock announces his retirement from motor racing.
- The VT Commodore is launched in August and goes on sale on 5 September.
- The Holden Suburban is previewed at the Sydney Motor Show in October. The Suburban, a rebadged Chevrolet, is the biggest 4WD on the market with space for up to nine passengers. Two V8 engines, a Vortec petrol and a turbo-diesel are offered.
- Holden's Engine Operations (HEO) produces its three millionth Family II four-cylinder engine.
- Holden Ltd announces that it will be the sole automotive sponsor of the Sydney 2000 Olympic and Paralympic Games.
- Larry Perkins and Russell Ingall combine to take out the 1997 Bathurst 1000 V8 race.

1998

- In January, the VT Commodore is announced winner of the Wheels Magazine 1997 Car of the Year Award.
- Holden is first to offer side impact airbags in an Australian-made car.
- Local production of the Vectra sedans and wagon begins in August at Holden's Elizabeth (SA) manufacturing facility.
- The all-new Holden Astra five-door compact is launched in September and later collects nine major 1998 motoring awards.
- A two-door Commodore Coupe concept car is the star of the 1998 Sydney Motor Show.
- November sees Australia-wide celebrations commemorating the 50th anniversary of the launch of the first Holden.
- The Elizabeth (SA) manufacturing plant achieves a production record of 120,337 vehicles.
- Holden records its best annual sales result in 20 years, finishing number one in passenger car sales with Commodore easily the best-selling car.

1999

- A new Holden Frontera is released with the option of V6 power for the first time.
- In April Peter H. Hanenberger succeeds James R. Wiemels as Chairman and Managing Director of Holden.
- The VT Series II Commodore is released in June. Along with a number of refinements, it offers even greater value and comes with the option of a new V8 engine, the Chevrolet-based GEN III.
- Also in June, the all-new WH Statesman and Caprice make their debut, introducing a new exterior styling, significant engineering and safety advancements, and innovative electronic technology.
- Holden's last Australian-built V8 comes off the line.
- The three-millionth Family II four-cylinder is exported in July, destination Germany.
- The JS Series II Vectra is released in August.
- Exports of LHD Statesman/Caprice models to the Middle East begin in September.
- The face-lifted Holden Jackaroo and Monterey offer automatic transmission with diesel-powered models
- VT Commodores finish 1-2-3 in the FAI 1000 at Bathurst, with Steven Richards and Greg Murphy first across the line, followed by Craig Lowndes and Cameron McConville and the Mark Skaife/ Paul Morris pairing. HRT's Craig Lowndes claims his third Shell Championship Series title.
- Highlighting its role as Team Millennium Olympic Partner for the Sydney 2000 Olympic Games, Holden releases a total of four Olympic edition models in 1999.
- With annual sales of 155,307 units, Holden is Australia's automotive market leader. Commodore is the country's most popular car for the fourth consecutive year, making it also the top-selling car of the decade.



2000 VX COMMODORE

MONTH OF LAUNCH:

August 2000.

MAJOR EVENTS DURING MONTH OF LAUNCH:

The Federal Government moves to amend the Sex Discrimination Act to prevent IVF treatment for single women and lesbians; compensation claims by two members of the stolen generation were dismissed; an explosion on board the Russian submarine, Kurguz, leaves it crippled on the bottom of the Barents Sea with its entire crew of 116 killed; with his win in the US PGA tournament Tiger Woods joins the late Ben Hogan as the only golfer to win three majors in the same year; Brisbane takes out the 2000 NRL competition with a 14-6 win over Sydney City in the grand final at Stadium Australia.

POPULAR SONGS:

Who The Hell Are You (Madison Avenue), I'm Outta Love (Anastacia), Spinning Around (Kylie Minogue), Day And Night (Billie), Breathless (The Corrs).

POPULAR FILMS:

Chopper (Eric Bana), X-Men (Hugh Jackman, Patrick Stewart), High Fidelity (John Cusack, Jack Black), The Patriot (Mel Gibson, Heath Ledger), American Psycho (Christian Bale, Jared Leto).

MOTORING HIGHLIGHTS:

OPEC production restrictions push Australian petrol prices up to around the one dollar per litre level; successive wins in the Hungarian and Belgian Formula 1 grand prix races takes defending champion, Mika Hakkinen a narrow lead over Michael Schumacher; NSW motoring organisation, the NRMA, is floated on the Australian Stock Exchange.

Number one priorities when the VT Commodore was transformed into the VX Commodore just prior to the Sydney Olympic Games were safety, engineering refinements and styling changes that freshened this hugely successful design while retaining its appeal.

Recalibrated and more powerful electronics were utilised in the engine and driveline and there was considerable emphasis on engineering improvements and feature upgrades.

There was more visual differentiation between models. The VX Executive and safety-oriented Acclaim continued with a bigger version of the twin port grille, flanked by teardrop headlamps. They had new, short-overhang bumper fascias, body-coloured rear decor panel, transparent tail lamps and oval reflectors.

The sporting Commodore S and SS were given a lower, more purposeful stance and bolder frontal design, while the upper level Berlina and Calais stood distinctly apart, courtesy of a full width grille, rectangular headlamps, slightly extended bumpers and differing rear end treatment.

Headlamps with clear polycarbonate lenses utilised complex reflector technology for improved low beam spread, penetration and evenness.

Interior trim fabrics and designs were all-new across the range and emphasised soft-feel luxury and colour-coded harmony. Holden Calais, S and SS variants were given dual-texture leather steering wheel trim. The Commodore SS received customised colour finishes on instrument clusters and metallised console fascias colour keyed to complement exterior hues.





Steering wheel-mounted sound system controls became standard on all models, as did a CD player.

ABS anti-lock brakes were made standard on all models, a first for an Australian-produced family car. Traction control availability was extended to VX Commodores fitted with manual transmission.

The B-pillars (those behind the front occupants), were re-designed to give improved protection from injury in side-on collisions. When impacted, the pillar deforms in a certain way, directing the highest loadings downwards and away from the vulnerable head, neck and chest.

Further increasing side protection, energy-absorbing foam was installed inside the doors, door trim profiles revised to a smoother, flatter design, and door pull handles designed to break away on impact.

The boot-lock was modified so it could be operated from inside the boot.

Modifications to the engine, driveshaft and suspension and noise isolation measures made the VX Commodore smoother and quieter. The suspension changes made it more neutral in its balance with positive, progressive turn in. Ride comfort was retained at the previous high level.

Engine power was increased slightly in the standard V6 and Gen III V8, with clever engineering making the V6 more economical as well. The Supercharged

V6 remained unchanged, but its auto sedan availability was extended to include Executive and Acclaim models.

Rounding off the VX range, the VU Ute was released in December 2000. It was the first completely new Holden Ute in ten years and the first vehicle of its kind to be fitted with independent rear suspension.

The Series II VX introduced Control-Link IRS, which offered even greater stability, control and handling precision, and the Holden Assist in-car communications system was made optional on Calais.

2000 VX COMMODORE DATA

ENGINES: 3.8- ECOTEC V6 (152kW); 3.8-litre Supercharged V6 (171kW); 5.7-litre Gen III V8 (225kW).
TRANSMISSIONS: Five-speed manual gearbox, four-speed electronically controlled automatic transmission.

MODELS: Commodore Executive sedan, Commodore Executive wagon, Commodore S sedan, Commodore SS sedan, Commodore Acclaim sedan, Commodore Acclaim wagon, Berlina sedan, Berlina wagon, Calais sedan.

PRICES AT INTRODUCTION: (incl GST) \$28,900 (V6 Executive sedan), \$30,680 (V6 Executive wagon), \$34,530 (S sedan), \$35,130 (Acclaim sedan), \$38,260 (V6 Berlina sedan), \$45,290 (SS sedan), \$46,830 (V6 Calais), \$50,820 (V8 Calais).

DIMENSIONS: (Executive sedan) Length: 4891mm; Wheelbase: 2788mm; Width: 1842mm.

IDENTIFICATION: As for VT but with revised grille, bumpers, headlamps, and tail lamps.

TOTAL NUMBER BUILT: 207,339.





HOLDEN HIGHLIGHTS

2000

- Holden is Official Olympic Partner for the Sydney 2000 Olympic Games; supporting the Olympic Torch relay and supplying a 3500 vehicle fleet.
- Holden Rodeo range expands to a total of 32 models.
- The Astra sedan is introduced.
- Holden's side impact safety research project wins Engineering Excellence Award.
- The Holden/CSIRO ECOMmodore hybrid-electric concept car is unveiled.
- The VX Commodore and Calais launched in August, introduce a new concept in side injury protection.
- Local production of Vectra sedans and wagons ceases.
- The all-new VU Holden Ute is released in December.
- Holden announces plans to establish a new V6 engine plant at Fishermans Bend.
- All-time record production at Elizabeth (133,016 vehicles) and Fishermans Bend (390,000 engines including the one-millionth V6) manufacturing plants.
- Holden Commodore is Australia's top-selling car for the fifth consecutive year.

2001

- Holden wins total market leadership for 2001 and Commodore is the Australia's top-selling car for the 6th consecutive year.
- The all-new XC Barina and Zafira compact wagon are launched.
- The 6 millionth Holden is produced at Elizabeth.
- Holden is awarded the Windscreens O'Brien safety award for its side impact research program.
- The Monaro sports coupe is launched at the Sydney Motor Show.
- The XC Barina is named Wheels magazine Car of the Year.
- Holden and Kidsafe announce partnership to conduct first-ever national child restraint safety inspection program.



WH Statesman



Monaro CV8



Rodeo



XC Barina



Zafira



Frontera



2002 VY COMMODORE

MONTH OF LAUNCH:

September 2002.

MAJOR EVENTS DURING MONTH OF LAUNCH:

Six people die when a small plane crashes on Hamilton Island; The world stops to commemorate the first anniversary of the terrorist attacks on the World Trade Center and the Pentagon; Israel lifts its 10-day siege on Yasser Arafat's Ramallah headquarters; the Brisbane Bears and Sydney City Roosters take out the AFL and NRL premierships.

POPULAR SONGS:

The Logical Song (Scooter); Objection/Tango (Shakira); Cleanin' Out My Closet (Eminem); Two Wrongs/PJs (Wyclef Jean); Gangster Lovin' (Eve).

POPULAR FILMS:

XXX (Vin Diesel, Samuel L Jackson); Insomnia (Al Pacino, Robin Williams); The Sum Of All Fears (Ben Affleck, Morgan Freeman); Bend It Like Beckham (Parminder Nagra); Austin Powers - Goldmember (Mike Myers, Michael Caine).

MOTORING HIGHLIGHTS:

Subaru driver Possum Bourne takes his seventh straight Australian Rally Championship at the Rally of Melbourne; Toyota and Ford release new Camry and Falcon models in direct competition with the new VY Commodore.

Expanded to include a new SV8 sports sedan, the VY series set a strong new styling direction with harder-edged, angular lines, a more aggressive 'face' and a sharper rear end which improved aerodynamic performance.

Inside, the look was also cutting edge, with a totally re-designed instrument panel, featuring a binnacle-style instrument cluster and multi-function digital displays, a new centre console and steering wheel.

Emphasising Commodore's reputation as a true driver's car, VY benefited from the most intensive vehicle engineering program undertaken by Holden since the development of the VT. It offered a new measure of refinement and improved drive character via significant advances in chassis dynamics, build precision, powertrain and safety performance. As an example, its new steering package delivered a precise feel through more positive feedback and improved on-centre definition.





The VY series introduced upgraded high feature Blaupunkt audio systems, automatic headlamps, road-speed sensitive intermittent wipers, headlamps off programmable time delay and passenger airbags across the range – and such options as Rear Park Assist on sedans and a six-stack in dash CD player (where not standard).

VY Series II models added cruise control, passenger seat lumbar support, sunglasses holder and rear reading lamps across the range and introduce active front seat head restraints on Acclaim and Calais models, 'memory' seats and heated exterior mirrors on Calais.

2002 VY COMMODORE DATA

ENGINES: 3.8-litre ECOTEC V6 (152kW); 3.8-litre Supercharged V6 (171kW); 5.7-litre Gen III V8 (225kW, 235kW, 245kW).

TRANSMISSIONS: Five-speed manual gearbox, four-speed electronically controlled automatic transmission.

MODELS: Commodore Executive sedan, Commodore Executive wagon, Commodore S sedan, Commodore SS sedan, Commodore SV8 sedan, Commodore Acclaim sedan, Commodore Acclaim wagon, Berlina sedan, Berlina wagon, Calais sedan.

PRICES AT INTRODUCTION: \$30,880 (V6 Executive sedan), \$33,570 (V6 Executive wagon), \$37,050 (S sedan), \$37,510 (Acclaim sedan), \$39,410 (supercharged S sedan), \$39,730 (Acclaim wagon), \$40,490 (SV8 sedan), \$40,850 (V6 Berlina sedan), \$43,730 (V6 Berlina wagon), \$45,440 (V8 Berlina sedan); \$49,490 (SS sedan), \$48,250 (V6 Calais), \$48,320 (V8 Berlina wagon), \$49,320 (supercharged V6 Calais), \$52,840 (V8 Calais).

DIMENSIONS: (Executive sedan) Length: 4964mm; Wheelbase: 2788mm; Width: 1842mm.

IDENTIFICATION: Revision of VX. New 'family' grille, squarer rear styling.

TOTAL NUMBER BUILT: 241,909





The Holden Heritage



One Tonneor



ZC Vectra



2003 Rodeo



TS Astra SRI Turbo



SSX crossover sports hatch



HOLDEN HIGHLIGHTS

2002

- Cross8 all wheel production prototype unveiled at Melbourne Motor Show.
- Holden Monaro wins Australian Design Award in Industrial Design category.
- 4WD Holden Cruze launched in June.
- \$2 billion capital expenditure program announced (2002-2006).
- Holden's first major US export program announced - Monaro/Pontiac GTO coupes.
- VY Commodore and Ute, all new Combo compact van released in September.
- Holden Racing Team's Mark Skaife/Jim Richards V8 Supercar wins Bathurst 1000, Skaife wins V8 Supercar Australian Championship.
- 7.0-litre Holden Monaro wins inaugural Bathurst 24-Hour Race.
- SSX crossover sports hatch concept launched at Sydney Motor Show.
- Holden becomes strategic partner in General Motors Daewoo Auto and Technology.
- Holden sets all-time sales record for Australian carmaker, wins total market leadership and Commodore is top seller for seventh consecutive year.



TS Astra convertible



WK Caprice



Peter Brock behind the wheel of the 7.0-litre Nations Cup Monaro during a support race at the 2003 Australian F1 Grand Prix.



Mark Skaife in the Holden Racing Team VY Commodore on his way to winning the opening round of 2003 Australian Touring Car Championship in Adelaide.

HOLDEN HIGHLIGHTS

2003

- \$200 million redevelopment of Holden's Fishermans Bend precinct announced.
- Launch of new generation Rodeo light commercial range in February.
- Holden continues emphasis on child safety, initiates free child seat inspection service.
- Launch of new generation ZC Vectra range
- WK Caprice and Statesman introduced.
- Holden Innovation R&D centre opens.
- Turbocharged Astra SRI and Convertible introduced.
- SS Commodore wagon introduced.
- Launch of 'reborn' Holden One Tonner cab chassis range in May.
- Third shift commences at Elizabeth Vehicle Operations in June, employing 1000 extra people and increasing workforce to over 9000.
- Launch of VY Series II Commodore, Berlina, Calais, Ute, One Tonner and Series III Monaro in August.
- Crewman four-door ute introduced, offering the world's only four-door car-based utility.
- Adventra all wheel drive crossover wagon launched in September.
- October marks 50th anniversary of FJ Holden; 25th year of Commodore production; Holden's 23rd Bathurst win (Greg Murphy/Rick Kelly, Kmart Racing); launch of Crewman Cross 8; commencement of Monaro (Pontiac GTO) shipments to USA.
- \$400 million Global V6 engine plant opens in Port Melbourne in November; Monaro(1-2) wins second successive Bathurst 24 Hour Race.
- Commodore tops passenger car market for eighth successive year; Holden posts all-time record light commercial sales.



2004 VZ COMMODORE

MONTH OF LAUNCH:

September 2004.

MAJOR EVENTS DURING MONTH OF LAUNCH:

More than 330 people die following a siege at a school in the town of Beslan in republic of North Ossetia; election campaigns are in full swing in both Australia and the United States; nine people die and over 100 are injured when a suicide bomb explodes outside the Australian embassy building in Djakarta; Port Adelaide wins its first Australian Football League premiership with a 40-point win over the Brisbane Lions.

POPULAR SONGS:

She Will Be Loved (Maroon 5); Leave, Get Out (Jojo); My Place (Nelly); Broken (Seether featuring Amy Lee); Scar (Missy Higgins); When The War Is Over (Cosima).

POPULAR FILMS:

The Bourne Supremacy (Matt Damon, Franka Potente, Julia Stiles); Dodgeball (Vince Vaughn, Ben Stiller, Christine Taylor); Shark Tale (Will Smith, Robert De Niro, Renee Zellweger); The Village (Joaquin Phoenix, Bryce Dallas Howard, Adrien Brody); Suddenly 30 (Jennifer Garner, Mike Ruffalo, Judy Greer, Andy Serkis).

MOTORING HIGHLIGHTS:

The booming Australian motor vehicle market continues with both the month of September and year-to-date sales setting new sales records; Ferrari driver, Rubens Barrichello, takes out the inaugural Chinese Grand Prix at the Shanghai International Circuit.

The significantly upgraded VZ range represented the final iteration of the vehicle platform introduced with the VT Commodore. It was distinguished by sharper design themes and a 'twin spear' sculpted bonnet, beneath which was a completely new high-feature Alloytec V6 engine, produced at Holden's \$400 million Global V6 plant in Port Melbourne, Victoria.

More powerful, responsive and fuel-efficient than the outgoing ECOTEC V6 and matched to new and improved transmissions, the new generation Alloytec V6 reinforced Commodore's reputation for driver's car performance character and innovative safety technology.

Chassis dynamics were improved by brake, suspension and steering system upgrades across the range. All V8 models now had electronic throttle control and benefited from further evolutionary improvements to engine management, transmission and cooling systems. SS and SV8 models received a power boost to 250kW.

Strong graphics – larger air intake openings, new radiator grilles (with the single sports bar now shared by all models) – emphasised width across the

front. Headlamp design was more compact and such cues as specific bumper facias, differing headlamp bezels, parking lamp treatments, textured mesh inserts and chrome grille headers gave each model an individual identity. A new SV6 performance model replaced the Commodore S and sported new





The Holden Heritage

circular tail lamps, in common with SS and SV8. In early 2005, the SV8 took on all SV6 exterior styling features.

The lightweight, all-aluminium 3.6 litre Alloytec operated with double overhead cams and four valves per cylinder. It delivered more peak power and 90 per cent of peak torque between increased rev ranges, with fewer emissions. New features included continuously variable cam phasing, a powerful micro-hybrid engine control unit, electronic throttle control, variable intake manifold (Alloytec 190), coil-on-plug ignition, forged steel crankshaft and piston cooling jets.

Executive, Acclaim and Berlina were specified with the 175kW Alloytec engine. The high-performance, 190kW Alloytec 190 engine specified on Calais and SV6 was linked to a premium five-speed automatic transmission with paddle shifters on the steering wheel. SV6 offered the option of a new six-speed manual.

The Alloytec V6 introduced a new era in Holden chassis control systems and active safety technology, with Acclaim and Calais delivering features such as electronic stability program – a first for

an Australian-built car – electronic brake distribution, brake assist and corner brake control, all of which help drivers to maintain vehicle control in emergency situations.

Interior refinements included a new centre stack, which in Calais and Berlina had a insulated storage compartment for small items, fresh trim fabrics and patterns. Calais now offered leather trim as standard.

2004 VZ COMMODORE DATA

ENGINES: 3.6-litre Alloytec V6 (175kW); 3.6-litre Alloytec 190 V6 (190kW), 5.7-litre EFI Gen III V8 (235kW, 250kW).

TRANSMISSIONS: Five-speed manual gearbox, four-speed electronically controlled automatic transmission.

MODELS: Commodore Executive sedan, Commodore Executive wagon, Commodore Acclaim sedan, Commodore Acclaim wagon, Commodore SS sedan, Commodore SV8 sedan, Berlina sedan, Berlina wagon, Calais sedan.

PRICES AT INTRODUCTION: \$33,160 (V6 Executive sedan), \$35,150 (V6 Executive wagon), \$39,050 (Acclaim sedan), \$40,990 (Acclaim wagon), \$38,990 (SV6 sedan), \$41,990 (SV8 sedan), \$50,990 (SS sedan), \$42,990 (Berlina V6 sedan), \$47,500 (Berlina V8 sedan), \$45,830 (Berlina V6 wagon), \$50,430 (Berlina V8 wagon), \$52,660 (Calais V6 sedan), \$57,360 (Calais V8 sedan).

DIMENSIONS: (Executive sedan) Length: 4876mm; Wheelbase: 2789mm; Width: 1842mm.

IDENTIFICATION: 'Twin spear' bonnet, revised grille, air intake, haedlamps, facia treatments.

TOTAL NUMBER BUILT: Still in production.





HOLDEN HIGHLIGHTS

2004

- One Tonner-based SST custom pickup, Holden designed and V8-powered Elfin sports cars unveiled at Melbourne Motor Show.
- Long wheelbase export program to South Korea confirmed in March to start in early 2005.
- Holden and Monash University Accident Research Centre extend safety research program to Middle East; announce \$1 million vehicle simulator upgrade to assist local safety research.
- Announcement of Global V6 engine plant capacity expansion to annual maximum of 240,000 units.
- Convertible Monaro engineering study unveiled, Holden concept cars from 1969-2003 displayed in May.
- Elizabeth manufacturing facility undergoes major revamp in July as part of \$400 million capital expenditure project.
- Holden Caprice named Saudi Arabia's 2004 Car of the Year.
- Holden reveals details of high feature, locally produced Alloytec V6 engine.
- Last ECOTEC V6 engine produced at Fishermans Bend in July.
- Upgraded VZ Commodore, Berlina, Calais, Ute Crewman, One Tonner and WL Caprice and Statesman launched in August.
- Free mobile child seat inspection service extended from Sydney and Melbourne to Adelaide.
- Holden Ltd and Saab Automobile Australia announced integration into a single business entity from 1 January 2005.
- 260kW VZ Monaro and all-new AH Astra hatch released in September.
- Torana TT36 hot hatch showcar unveiled in October at Australian International Motor Show, Sydney.
- Holden Commodore (Greg Murphy/Rick Kelly) wins Bathurst 1000 for sixth successive year.
- Fifty years of Holden exports milestone passed in November.
- Holden and CSIRO announce future powertrain research program.
- Commodore tops passenger car market for ninth consecutive year.
- Holden breaks single-year vehicle export record.



VZ Monaro



AH Astra



Crewman Cross 8



VY II Adventra



WL Caprice



Torana TT36 concept car



HOLDEN HIGHLIGHTS

2005

- 40th anniversary of General Assembly Plant opening at Elizabeth in January.
- One Tonner, Crewman Cross 6 models and Adventra V6 released February.
- Plans confirmed to import vehicles from GMDAT, South Korea.
- New corporate HQ at 191 Salmon Street Port Melbourne officially opened in May; Statesman exports to GM Daewoo, South Korea, commenced.
- Company name changed to GM Holden Ltd, effective 1 June.
- 40,000th Monaro-based coupe sold, special edition CV8Z announced to mark final chapter of Monaro production.
- Astra 3-door coupe and wagon launched July, Tigra hardtop convertible in September.
- Holden Commodore (Mark Skaife/Todd Kelly) wins Bathurst 1000.
- New Viva and Barina model ranges launched, Efijy custom coupe, SX3 7-seater SUV concept unveiled at Sydney Motor Show in October.
- Four millionth Holden engine exported in November.
- Expanded GM global design role announced for Holden in December; Global V6-engined Rodeo announced.
- Commodore Australia's top selling car for tenth successive year.
- Holden sets all-time vehicle export record with 60,158 sedans, utes and coupes shipped to global markets.



TK Barina hatch



AH Astra wagon and coupe



XC Tigra hardtop convertible



JF Viva wagon, sedan and hatch



VZ Monaro CV8Z



Efijy custom coupe concept



2006 VE COMMODORE

MONTH OF LAUNCH:

July 2006.

MAJOR EVENTS DURING MONTH OF LAUNCH:

The G8 Summit is held in St Petersburg; Italy defeats France in a penalty shootout to win the soccer World Cup; Israel launches an attack against the Lebanese militia group Hezbollah in response to the kidnapping of two Israeli soldiers; Former Iraqi leader Saddam Hussein is taken to hospital after a two-week hunger strike during his trial for crimes against humanity; Actor Mel Gibson is arrested on a drink-driving charge.

POPULAR SONGS:

Hips Don't Lie (Shakira Feat); Promiscuous (Nelly Furtado); Who Knew (Pink); This Time It's For Real (The Young Divas); Crazy (Gnarls Barkley).

POPULAR FILMS:

Pirates Of The Caribbean: Dead Man's Chest (Johnny Depp, Orlando Bloom, Keira Knightley); Cars; Superman Returns (Brandon Routh, Kate Bosworth); The Break-Up (Jennifer Anniston; Vince Vaughn).

MOTORING HIGHLIGHTS:

An Audi R10 TDI wins the Le Mans 24-Hour race, the first win by a diesel-powered car; Rising fuel prices see a decline in YTD vehicles sales of 3.1 per cent over the corresponding period in 2005; Ferrari driver Michael Schumacher wins each of the three Formula 1 Grand Prix during the month - US, French and German - to narrow the lead held by defending champion Fernando Alonso.

The all new VE Commodore sedan represented the fourth generation of Australia's best-selling car range. It was the product of Australia's first \$1 billion car program and the most clean sheet development project in almost 60 years of Holden vehicle production.

The VE was the first example of a new global rear wheel drive architecture for General Motors, developed with potential for GM markets around the world. It offered striking exterior and interior design, performance, refinement, fit and finish competitive with the world's best car brands.





Safety was a major factor, with the chassis designed to accommodate active and passive safety technologies. The crash avoidance Electronic Stability Program (ESP®)* was made standard, all models could be purchased with six airbags; curtain airbags were available for the first time.

A stiffer, stronger body structure with expanded use of high-strength steels, multiple load paths and optimised deformation zones met real world crash performance objectives.

Refinements to Alloytec V6 and Gen IV V8 powertrains lifted power and torque, improved takeoff feel, responsiveness and torque delivery. Alloytec engines had new variable intake manifolds and free-flowing new exhausts. The L98 6.0L V8 was matched to a dual exhaust, quad outlet system and its 270kW peak power output was the highest ever offered on a standard Holden.

An advanced Linear Control Suspension system, four-link at the rear, multi-link strut at the front, delivered outstanding ride and handling without sacrificing ride comfort. There were all new larger fade resistant brake systems and bigger wheel and tyre packages across the range.

An entirely new electrical interface and expanded microprocessor capacity provided improved safety and infotainment capability. All models had fully integrated satellite navigation capability and were telematics capable. Rear seat DVD entertainment was standard on Calais V and optional on all sedans. Heating, ventilation and air conditioning systems were totally new.

The model line-up was revised with a new Omega nameplate replacing Executive and Acclaim and a new V Series concept with SS V and Calais V highlighting top-range choices.

The beautifully proportioned VE made a dramatic style statement, characterised by a purposeful stance and pronounced wheel arches. Designers took increased safety and flexibility into account and maximised interior space without making the car significantly larger.

Individual models were more differentiated, inside and out. There were two headlight styles, three front fascias,

four rear light styles, three rear fascias and two rear spoilers in the standard range. Wheel sizes ranged from 16" (Omega) to 19" (SS V). Three interior treatments, functional, performance and premium, incorporated features (centre stack, seating designs, color and trim combinations, etc) that were specific to each theme.

* ESP is a registered trademark of DaimlerChrysler AG.

2006 VE COMMODORE DATA

ENGINES: 3.6-litre Alloytec V6 (180kW); 3.6-litre High Output Alloytec V6 (195kW); 3.6-litre LPG Alloytec V6 (175kW) 6.0-litre Gen IV V8 (270kW).

TRANSMISSIONS: V6: four-speed automatic, five-speed manual, six-speed manual.

V8: Six-speed automatic, six-speed manual.

MODELS: Commodore Omega, Commodore SV6, Commodore SS, Commodore SS V, Berlina, Calais, Calais V sedans.

PRICES AT INTRODUCTION: \$36,490 (Omega with a/c); \$39,990 (Berlina V6), \$39,990 (SV6 sedan), \$44,990 (Berlina V8), \$44,990 (SS V8), \$45,490 (Calais V6), \$50,490 (Calais V8), \$51,990 (SS V V8), \$53,490 (Calais V V6), \$58,490 (Calais V V8).

DIMENSIONS: (Omega) Length: 4894mm; Wheelbase: 2915mm; Width: 1899mm.

IDENTIFICATION: All-new body, wide stance accentuated by prominent wheel arches, short overhangs, stretched wheelbase. High belt line, larger body-to-glass proportion, 'hockey stick' C pillar graphic, trapezoidal grille, large air intake, high decklid.

TOTAL NUMBER BUILT: Still in production.





HOLDEN HIGHLIGHTS

2006

- 6.0L Gen IV V8 engine, at the time the most powerful standard Holden engine ever offered at 260KW, replaces Gen III V8.
- Last Monaro produced is auctioned for charity in February, fetches \$187,600.
- Astra turbo diesel, T2X coupe SUV concept, Barina sedan unveiled at Melbourne Motor show in February.
- Astra five-door hatches launched in June; Holden announced VE Commodore would be first to offer ESP safety technology across the range.
- Launch of new generation VE Commodore, Berlina and Calais in July.
- Launch of WM Caprice and Statesman in August; PM John Howard commemorates completion of a \$532 million upgrade to the Vehicle Operations plant at Elizabeth, SA.
- Holden airship flies maiden voyage.
- First VE Commodore and WM export models shipped to Middle East.
- 150 Global V6 engines worth \$500,000 donated to Automotive Training Australia.
- Holden Captiva SUV range launched in October; dual fuel Alloytec V6 engine released
- Astra TwinTop convertible and SRI hatch debut at Sydney Motor Show.
- Holden's Rick Kelly wins V8 Supercar championship title



The Holden Heritage



Barina sedan



Astra CDTi



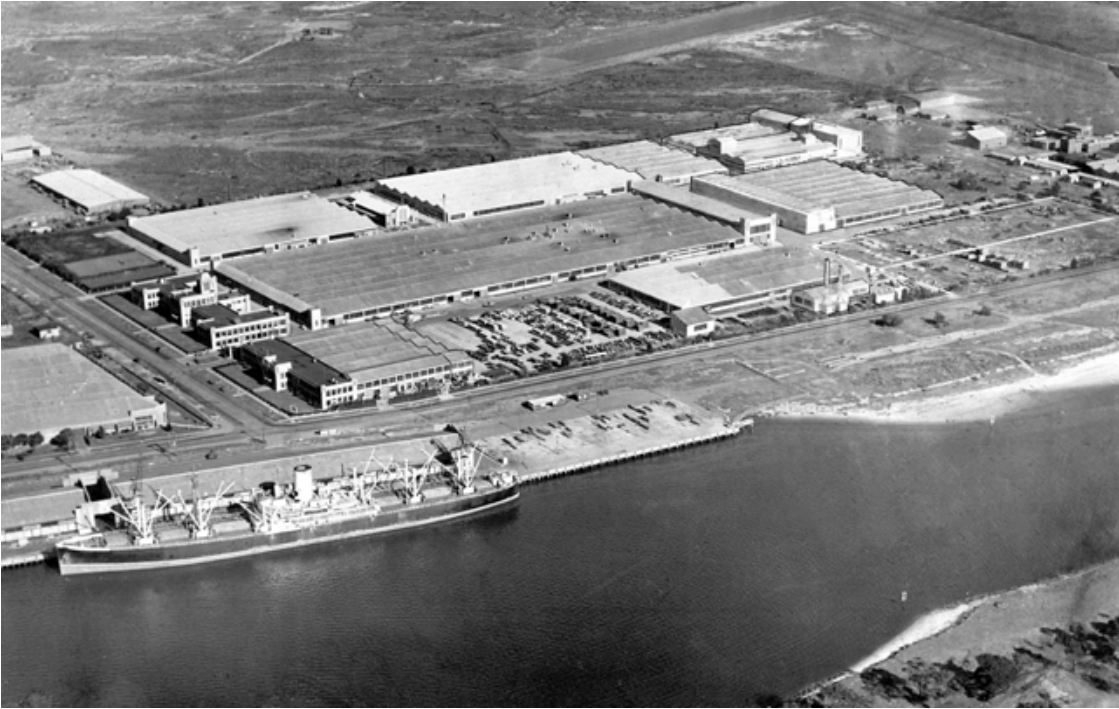
WM Caprice



WM Statesman



Captiva LX



HOLDEN ENGINE MANUFACTURE 1940-2006



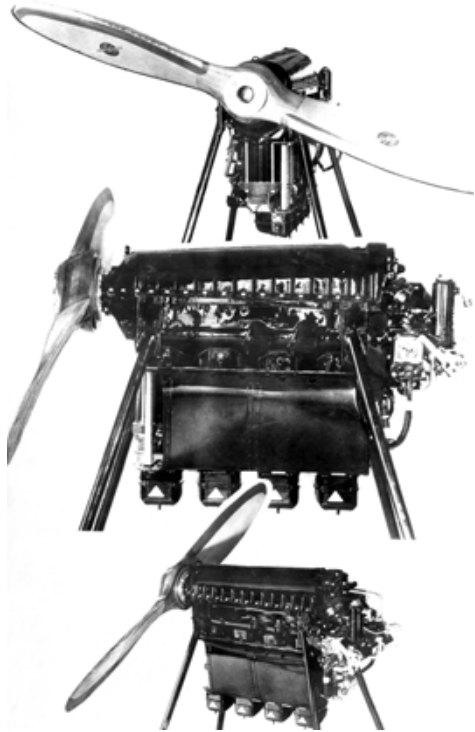


ENGINES OF WAR

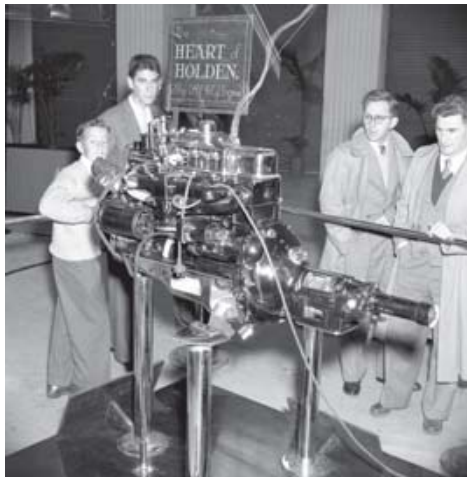
General Motors-Holdens was the first company in Australia to mass-produce internal combustion engines. In 1940, with the outbreak of World War II and subsequent isolation from US and European supply sources, plans for a foundry and engine shop at the GMH port Melbourne site were accelerated to support the war effort.

The new foundry produced a wide range of cast components, among them cylinder heads and engine blocks for the GM-designed 165hp Gray Marine diesel unit, the same engine that later powered Normandy landing craft on D-day. More than 1300 Gypsy Major aero engines and spares and four-cylinder radial engines for naval torpedoes were also built at Fishermans Bend.

At war's end, GMH had acquired many of the skills and capabilities required to turn its attention to automotive engine manufacture, and funds were injected into upgrading plant facilities in preparation.



Gypsy Major aero engine



THE GREY ENGINE

Full-scale manufacture of the first Holden engine commenced at Port Melbourne in the second half of 1948. The six-cylinder, 2.15 litre, 45kW 'grey' engine, so named for the colour of its painted block, powered Australia's first mass-produced car, the Holden 48-215.

Noted for its torquey performance, high cruising speed, exceptional fuel economy and durability, the overhead-valve grey engine continued, with minor engineering changes, to power successive Holden models through the 1950s and early '60s.



THE RED ENGINE

In June 1963, a newly completed £11,000,000 engine plant began operations at Port Melbourne, producing two new and more powerful six cylinder 'red' engines. They were the 2.45 litre '149' and the 2.95 litre six cylinder '179', introduced with the EH model range.

With a shorter stroke and larger bore, they operated with a higher compression ratio and featured such advancements as seven bearing crankshafts, hydraulic valve lifters, external oil pump and filter.

Over their long life, the red engines benefited from numerous re-engineering programs and the application of new technologies to improve performance and fuel efficiency.

Production of Holden's red engines ceased in 1980.



THE FIRST AUSTRALIAN V8

In 1964, GMH instituted a \$20 million V8 engine design and development project in response to a strong national push for a locally produced 'bent eight'. Five years later, a new engine facility at Fishermans Bend began producing two versions of the new Aussie V8 – the '253' and '308'. The engines made their debut with the 1969 HT Holden series, after the 308 was exhibited in the mid-engined Holden Hurricane concept car.



308 engine.

More than 541,000 Holden V8s were built over a 30-year period, a record of longevity comparable to that of the venerable Chevrolet V8.

The Holden V8 powered every mainstream model from the HT to the VT Commodore, not to mention 70s model Toranas. It was successively re-engineered to embrace such advances as unleaded fuel and multi-point fuel injection and constantly refined to produce escalating levels of power and torque. The 'unleaded' version was introduced in 1986 and the fuel-injected 5.0 litre V8, at 165kW the most powerful mass-produced Australian engine to date, went into pro-



duction in 1989.

In addition, the plant had the capacity to produce specialised units like the 'Group A' for racing homologation. Over the years, Holden V8s also found their way into open-wheeler racers, trucks, boats and 4WD vehicles, among other applications.

The last locally-built Holden V8 came off line in June, 1999. It was replaced by the Gen III 5.7 litre alloy V8, developed by General Motors Powertrain.

THE FAMILY II FOUR CYLINDER ENGINE

In 1979, GMH invested \$300 million in a high volume four-cylinder engine plant and foundry at Fishermans Bend. It began producing GM's compact, lightweight and fuel efficient 'Family II' Camtech engine in 1981, with two thirds of the projected peak annual production of 300,000 units destined for export.

Production of 1.6 litre Family II engines to power Holden's new front-wheel drive 'J car', the Camira, began in 1982 and by 1983, the Fishermans Bend four-cylinder plant had produced its 250,000th engine.

Engine and component exports helped to elevate General Motors-Holdens to the position of Australia's major exporter of manufactured goods in 1983, when almost 150,000 Family II engines were shipped out of the country.

A further \$67 million investment in plant upgrades and re-tooling preceded the start of production of the second generation Family II engine in 1985, when unit exports topped 193,000.

1986 saw the reorganisation of General Motors-Holden's into two GM subsidiary companies – Holden's Motor Company (HMC) and Holden's Engine Components Company (HEC).



Holden employees with the three-millionth four-cylinder engine, September 1997.



The following year, HEC passed the one million Family II engine production milestone and exports to Korea commenced, assisting the achievement of the one millionth export engine milestone in 1988.

HEC produced its two millionth export engine in 1994. By that stage the company was generating more than \$1 million in export revenue every working day and servicing a global customer base. Component sales in raw and machined iron castings accounted for \$30 million annually, and HEC plant and foundry had the capacity to produce 335,000 four cylinder, 110,000 V6 and 26,000 V8 engines per annum.

In 1995, HEC announced a \$200 million investment boost over a two-year period to support the introduction of four valve, double overhead camshaft (DOHC) technology, foundry modernisation and capacity expansion.

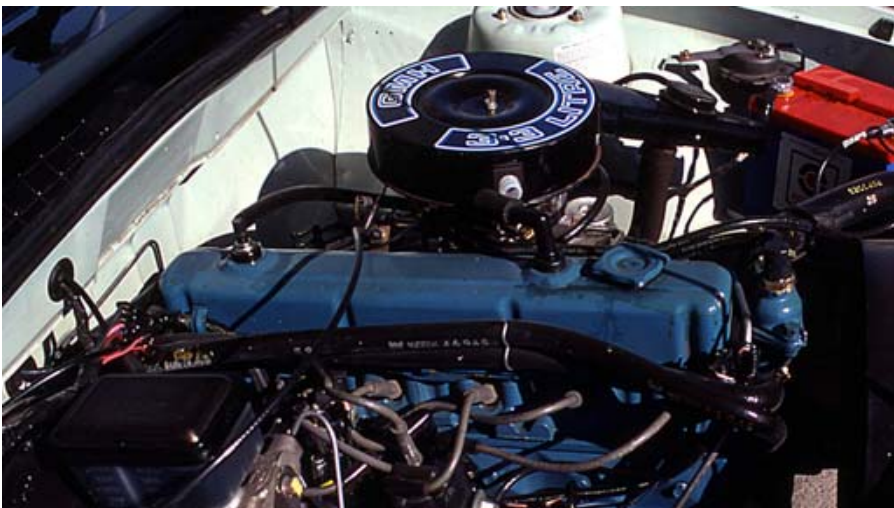
Later that year, HEC became today's HEO (Holden Engine Operations) following its re-integration into Holden manufacturing operations, poised to make a key contribution as GM moved to develop its operations in the Asia Pacific region.

The three millionth Family II four cylinder engine was produced in 1997, when HEO shipped out more than 260,000 engines and earned export revenue of \$450 million. The three millionth export milestone was reached in 1999.

In 2000 – when the foundry poured a record 50,000 tonnes of metal – HEO shipped 264,942 engines, earning total export revenue of \$447 million. In 2002, HEO engines and components earned \$150.5 million dollars in export revenue.

In 2004 and 2005, Holden Family II four-cylinder engines were exported to South Korea, China, Thailand, South Africa and South America.

In 2006, engine export destinations included Italy, Germany, Sweden, South Korea and Thailand (Global V6); South Korea, China, Thailand and South Africa (Family II).





THE BLUE ENGINE

With the launch of the VC Holden Commodore in 1980 came a new range of six and eight cylinder engines painted GM blue. Upgraded to XT5 specifications, they were up to 25 per cent more powerful and 15 per cent more fuel efficient than their predecessors.

Six-cylinder features (2.85 and 3.3 litre) included a new 12-port head, new manifolding, a two barrel carburettor and electronic ignition. The 4.2 litre and 5.0 litre V8s benefited from new heads, inlet manifold, electronic ignition and a four-barrel carburettor for the 4.2 litre V8.

In 1984, a new 3.3 litre EFI engine was introduced with VK Commodore and the 4.2 litre V8 ceased production. Also available was a 3.3 litre six with electronic spark timing and air injection.

Production of blue six cylinder Holden engines ceased in 1986 with the introduction of the VL Commodore, powered by a Nissan-sourced 3.0 litre unit.

THE V6 ENGINE

In 1986 Holden chose a U.S. designed and developed Buick V6 engine for the upcoming next-generation VN Commodore, due for release in mid 1988. Following an intensive engineering program, assembly of the V6 commenced at Port Melbourne early in 1988.

The 3.8 litre, 127kW, EFI V6 – a fuel efficient, light, compact, torque performer – was localised to suit Holden requirements, a process which included fitment of an Australian-developed electronic engine management system.

In 1995, a \$9 million investment saw the original unit replaced by a radically revised second generation ECOTEC V6. Utilising low friction technology for improved performance, it was smaller, lighter and more fuel efficient.

Assembly of a 165kW Supercharged V6 variant commenced in 1996.

With the VX Commodore debut in 2000, normally aspi-





rated V6 engine power was increased and fuel economy further improved. HEO employees celebrated production of the millionth V6 engine one month later.

The 3.8 litre ECOTEC V6 benefited through the years from a continuing series of refinements carried out to improve operating smoothness, performance, economy and exhaust emissions. It ceased production in August 2004.

THE ALLOYTEC V6

Production of Holden's all-new Alloytec and Alloytec 190 Global V6 engines began in June 2004 at a new \$400 million engine plant in Port Melbourne.

The new Alloytec engines replaced the ECOTEC and Supercharged V6 right across the Holden V-car-based passenger and light commercial vehicle range, beginning with the VZ Commodore, Calais and WL Caprice and Statesman models released in August 2004. They also powered Holden's six-cylinder export vehicle variants.

The 'clean sheet' Global V6 engine family was created by GM to fulfil its strategy to build a new generation of sophisticated, high-feature six-cylinder engines for worldwide application in premium and high-performance vehicles. One of the prime objectives was to create a highly flexible platform from which a matrix of cost-effective variants could be developed.

From the program's inception in 1999, teams of Holden product and manufacturing engineers worked as part of a multi-national GM team to develop the Global V6. They contributed a wealth of rear wheel drive

powertrain experience to make certain that everything required for the Australian Alloytec variant was included in the initial charter.

The unique development and localisation of the Alloytec V6 took place on both sides of the Pacific and consumed more than 200,000 staff hours and 143





experimental engines and required 60 specific tests.

Because the Alloytec engine design included so many high-tech features, its electronic engine and transmission control systems needed to be equally advanced. The critical task of calibrating Alloytec engine software and all its technologies for local conditions and driving patterns took two years and the talents of 15 specialist Holden engineers. More than 7000 variables were required for the calibration – five times more than ECOTEC.

The program involved frequent test trips to extreme climate and altitude locations in Australia, Europe and the USA as well as hundreds of thousands of proving ground kilometres and a rigorous emissions testing schedule.

The Alloytec engine is a lightweight V6 of all-aluminium construction and 3.6 litre displacement, operating with advanced double overhead camshafts and four valves per cylinder.

Electronically controlled and hydraulically actuated, continuously variable cam phasing brings outstanding camshaft operational flexibility. A dual stage variable intake manifold facilitates greater torque at low to medium engine speeds and increases power at high speed.

For increased efficiency, the High Output Alloytec V6 is equipped with variable cam phasing on exhaust as well as inlet camshafts.

A micro hybrid design 32-bit capacity engine control unit, one of the most powerful currently available for automotive use, dictates every aspect of engine operation. Electronic throttle control effectively coordinates drivers' intentions with the actions of various powertrain control components.

The 3.6 litre 180kW Alloytec and 195kW Alloytec High Output engines deliver more peak power and considerably more torque across the rev range than the 3.8 litre ECOTEC V6 while maintaining a similar level of fuel economy and producing fewer emissions. A 175kW LPG Alloytec V6 variant is also available.



Alloytec High Output 195kW.



HOLDEN IN MOTORSPORT





Almost as soon as the first 48-215 Holdens began appearing on Australian roads, men began racing them. Post-war legends like Dick Shaw, Jack Meyers and Ray Long wheeled their 'Humpies' around circuits long gone from active service: Mount Druitt, Caversham, Fishermans Bend, Templestowe, Gnoo Blas and the like.

The crowds flocked to see them take on the foreign Peugeots, Customlines, Zephyrs, Fiats and Morrisies. A rivalry and a tradition of sedan racing in Australia was born.

Soon enough, the 48-215 was joined on the circuits by the FJ, then in the mid-50s by the FE. They were raced by the likes of Stan Jones, Leo Geoghegan, John French and many, many, others.

The attractions of the Holdens as racing vehicles were many and familiar. They were relatively simple, strong and offered a good return in terms of horsepower for your dollar. Famous tuning names like Repco, Waggett and

Perfectune developed around the Holden.

And with no unified national rules for sedan racing in the 1950s, the sky was the limit.

At one stage Leo Geoghegan's Humpy boasted streamlining and underbody fairing, which pre-dated ground-effects technology by 20 years.

It wasn't only on tar where the Holdens made their mark. In 1953, Jones and fellow racing legends Lex Davison and Tony Gaze drove a 48-215 to 64th place overall in the Monte Carlo Rally.

The 50s was also the era of the Redex, Ampol and Mobilgas round-Australia trials, and Holden scored its share of success despite some strong international opposition, particularly from Volkswagen. It was also an era where home-built 'specials' littered Australian racing and many of them used Holden power and components.

The end of the decade saw the introduction of Appendix J regulations to cover sedan racing nationwide and the establishment





of a single-race Australian Touring Car Championship.

In 1960 an endurance race for production cars called the Armstrong 500 was held at Phillip Island and by 1963 the race had transferred to Bathurst. This was the decade in which the popularity of tin tops gradually usurped the position of open-wheel race cars as the country's pre-eminent form of motor sport.

Holden played a crucial role in that development. This was the era of the EH 179, the HD X2 and the great Monaro, with drivers like Norm Beechey, Brian Muir and Spencer Martin. It was also the era of the Supercar, with Ford and Holden going head to head with GT Falcon versus Monaro GTS.

The privateer Monaro of Bruce McPhee and Barry Mulholland scored Holden's first victory on the mountain in 1968. McPhee drove the entire race (with the exception of one lap, to satisfy regulations) and was content to play a waiting

game and allow the others to destroy themselves. And destroy themselves they did. The unexpected victory was to be the start of a love affair between Holden and the Great Race at Mount Panorama that continues to this day.





HOLDEN VICTORIES IN THE BATHURST 1000

1968	HK Monaro GTS 327	Bruce McPhee/Barry Mulholland
1969	HT Monaro GTS 350	Colin Bond/Tony Roberts
1972	LJ Torana XU1	Peter Brock
1975	LH Torana L34	Peter Brock/Brian Sampson
1976	LH Torana L34	Bob Morris/John Fitzpatrick
1978	LX Torana A9X	Peter Brock/Jim Richards
1979	LX Torana A9X	Peter Brock/Jim Richards
1980	VC Commodore	Peter Brock/Jim Richards
1982	VH Commodore	Peter Brock/Larry Perkins
1983	VH Commodore	Peter Brock/Larry Perkins/John Harvey
1984	VK Commodore	Peter Brock/Larry Perkins
1986	VK Commodore	Allan Grice/Graeme Bailey
1987	VL Commodore	Peter Brock/David Parsons/Peter McLeod
1990	VL Commodore	Win Percy/Allan Grice
1993	VP Commodore	Larry Perkins/Gregg Hansford
1995	VR Commodore	Larry Perkins/Russell Ingall
1996	VR Commodore	Craig Lowndes/Greg Murphy
1997	VS Commodore	Larry Perkins/Russell Ingall
1999	VT Commodore	Greg Murphy/Steven Richards
2000	VT Commodore	Garth Tander/Jason Bargwanna
2001	VX Commodore	Mark Skaife/Tony Longhurst
2002	VX Commodore	Mark Skaife/Jim Richards
2003	VY Commodore	Greg Murphy/Rick Kelly
2004	VY Commodore	Greg Murphy/Rick Kelly
2005	VZ Commodore	Mark Skaife/Todd Kelly

MOST SUCCESSFUL HOLDEN DRIVER AT BATHURST 1000

Peter Brock (9 wins, 27 starts)





HOLDEN VICTORIES IN THE AUSTRALIAN TOURING CAR/V8 SUPERCAR CHAMPIONSHIPS

1970	HT Monaro GTS 350	Norm Beechey
1974	LJ Torana XU1	Peter Brock
1975	LH Torana L34	Colin Bond
1978	LX Torana A9X	Peter Brock
1979	LX Torana A9X	Bob Morris
1980	VB Commodore	Peter Brock
1994	VP Commodore	Mark Skaife
1996	VR Commodore	Craig Lowndes
1998	VS/VT Commodore	Craig Lowndes
2000	VT Commodore	Mark Skaife
2001	VX Commodore	Mark Skaife
2002	VX Commodore	Mark Skaife
2006	VZ Commodore	Rick Kelly



COMMODORE BATHURST 1000 RECORD

First Bathurst race:	1980 (VC Commodore)
Total Bathurst 1000s:	26
Total Bathurst victories:	17
Second placings:	12
Third placings:	12
Total podium placings:	41

REPCO ROUND AUSTRALIA RELIABILITY TRIAL

1979 VB Commodore (1st 2nd 3rd), Peter Brock/Noel Richards/Matt Phillip, 1st

MOBIL 1 ROUND AUSTRALIA TRIAL

1995 VR Commodore Ed Ordynski/Ross Runnalls

SPA FRANCORCHAMPS 24 HOURS RACE (BELGIUM)

1986 VK Commodores King's Cup teams prize, Moffat/Harvey/Brock
 1987 VL Commodore First in class, fourth outright, Moffat/Harvey



**WORLD TOURING CAR CHAMPIONSHIP
- FIRST ROUND (MONZA, ITALY)**

1987 VL Commodore Moffat/Harvey

NEW ZEALAND TOURING CAR SERIES

1982 VH Commodore Brock/David Oxtan

WELLINGTON 500 STREET RACE (NEW ZEALAND)

1986 VK Commodore Brock/Moffat

1987 VK Commodore Brock/Moffat

PUKEKOHE (NEW ZEALAND)

1986 VK Commodore Harvey/Neil Lowe

1987 VK Commodore Perkins/Denny Hulme

NZ V8 SPRINT SERIES

1996 VR Commodore Greg Murphy

NZ V8 SUPERCAR ROUND

2001 VX Commodore Greg Murphy

2002 VX Commodore Greg Murphy

2003 VY Commodore Greg Murphy

2004 VY Commodore Jason Bright

2005 VZ Commodore Greg Murphy

2006 VZ Commodore Mark Skaife

BATHURST 24 HOUR

2002 Monaro CV8 Steven Richards/Garth Tander/Cameron McConville/Nathan Pretty

2003 Monaro CV8 Peter Brock/Greg Murphy/Todd Kelly/Jason Bright



LOCAL PRODUCTION SINCE 1948

FAMILY MODELS PRODUCTION



MODEL SERIES	VOLUME PRODUCTION COMMENCED	TOTAL NUMBER PRODUCED	PRODUCTION BREAKDOWN		
			DOMESTIC	BUILT-UP EXPORT	COMPLETELY KNOCKED DOWN
48/215	1948	120,402	120,402	0	0
FJ	1953	169,969	167,441	2,528	0
FE	1956	155,161	148,586	2,831	3,744
FC	1958	191,724	187,055	1,946	2,723
FB	1959	174,747	161,939	3,256	9,552
EK	1961	150,214	143,362	2,574	4,278
EJ	1962	154,811	145,566	3,797	5,448
EH	1963	256,959	236,266	7,181	13,512
HD	1965	178,927	157,946	6,521	14,460
HR	1966	252,352	228,542	7,723	16,087
HK	1968	199,039	183,094	5,001	10,944
HT	1969	183,402	162,144	5,849	15,409
HG	1970	155,787	132,418	5,129	18,240
HQ	1971	485,650	398,802	14,558	72,290
HJ	1974	176,202	166,301	949	8,952
HX	1976	110,669	103,812	593	6,264
HZ	1977	154,155	144,078	1,749	8,328
VB	1978	95,906	92,445	629	2,832
VC	1980	121,807	108,645	586	12,576
WB Statesman & Caprice	1980	60,231	58,827	204	1,200
VH	1981	141,018	126,089	739	14,190
VK	1984	135,705	119,909	346	15,450
VL	1986	151,801	134,795	4,322	12,720
VN	1988	215,180	200,066	6,684	8,430
VO Statesman & Caprice	1990	9,396	9,208	188	0
VG Ute	1990	5,690	5,178	512	0
VP	1991	111,770	105,965	5,805	180
VR	1993	165,262	156,564	8,698	0
VS	1995	277,774	263,885	13,889	0
VT	1997	303,895	270,467	33,428	0
WH Statesman & Caprice	1999	62,436	22,489	39,947	0
VX	2000	211,125	177,204	34,021	0
VY	2002	241,909	206,092	35,817	0
WK Statesman & Caprice	2003	23,877	7,410	16,467	0
VZ Commodore	2004	Still in production (wagon and ute).			0
WL Statesman & Caprice	2004	50,893	5,993	44,900	0
VE Commodore	2006	Still in production.			0
WM Statesman & Caprice	2006	Still in production.			0

TORANA/SUNBIRD PRODUCTION



MODEL SERIES	VOLUME PRODUCTION COMMENCED	TOTAL NUMBER PRODUCED	PRODUCTION BREAKDOWN		
			DOMESTIC	BUILT-UP EXPORT	CKD
HB (1)	May 1967	16,318	15,969	349	0
HB (2)	Sept 1968	20,243	19,950	289	4
LC	Sept 1969	74,627	71,277	2918	432
LJ	Feb 1972	81,813	70,176	1819	9818
LH	May 1974	70,184	60,539	258	9387
TA	May 1974	11,304	9275	13	2016
LX	Dec 1975	65,977	62,110	123	3744
U C	Feb 1978	53,008	46,495	225	6288

GEMINI PRODUCTION



MODEL SERIES	VOLUME PRODUCTION COMMENCED	TOTAL NUMBER PRODUCED	PRODUCTION BREAKDOWN		
			DOMESTIC	BUILT-UP EXPORT	CKD
TX	Feb 1975	43,099	4397	2	0
TC	Dec 1976	17,256	17,255	1	0
TD	Mar 1978	42,396	42,396	0	0
TE	Sept 1979	70,567	70,562	5	0
TF	Feb 1982	28,326	28,325	1	0
TG	Mar 1983	24,675	23,535	0	1140
RB	May 1985	16,263	16,261	2	0

CAMIRA PRODUCTION



MODEL SERIES	VOLUME PRODUCTION COMMENCED	TOTAL NUMBER PRODUCED	PRODUCTION BREAKDOWN		
			DOMESTIC	BUILT-UP EXPORT	CKD
JB	July 1982	85,725	79,420	150	6155
JD	Oct 1984	36,953	36,842	111	0
JE	Mar 1987	29,129	26,226	743	2160

VECTRA PRODUCTION



MODEL SERIES	VOLUME PRODUCTION COMMENCED	TOTAL NUMBER PRODUCED	PRODUCTION BREAKDOWN		
			DOMESTIC	BUILT-UP EXPORT	CKD
JS	1998	21,687	15,832	5855	0