

SEAT BELTS

The following information on this subject is taken from a variety of sources. Due to legal and safety reasons (and my own lack of expertise), I leave the reader to absorb this information carefully and draw your own conclusions. January 2023

The following information is primarily from a submission by Stuart Ratcliff. Thank you Stuart.

Victoria was the first government to mandate the fitting and use of seat belts in motor vehicles.

As early as September, 1960, a Commonwealth committee recommended that auto traders should install and promote the use of seat belts.

The first Australian Standard E35 (re seat belts) came in 1960 and was approved in April, 1961. In 1966, due to anomalies and inconsistencies, the SAA (Standards Association of Australia) registered a unique certification mark to appear on all belts which met the E35 standard.

A shortcoming of E35 was that it did not stipulate technical specifications for installation. D11 (1967) became the standard that covered seat belt anchorage points. Nonetheless, E35 became the foundation standard that underpinned subsequent standards.

(for a detailed explanation, the following two links are most informative)...

https://www.infrastructure.gov.au/roads/safety/publications/1985/pdf/Belt_Analysis_4.pdf

<https://www.carsales.com.au/editorial/details/buckled-to-history-21137/>

MG first fitted anchorage points on the MGA Mk 2 as standard. This practice was continued with the introduction of the MGB.

Early pull-door handle cars had twin stud mounts on rear wheel arch to mount upper shoulder belt but were changed to single bolt mount to come into line with seat belt mounting regulations (this occurred sometime during 1966).

As from car YGHN3 4317 (July '67)(see original documents below) all seat belts were factory-fitted.



Early belt for Mk I with plastic clip for storing belt buckle (usually fitted on rear quarter trim behind soft top mount).
(This is a US equivalent – ignore the sticker and note the different male clip as shown in the third photo).
photo: S Kinsey

The belts were manufactured by Britax, with grey webbing and chrome flip top buckles.



Britax buckle with early Australian Standards Association marking

photo: S Ratcliff



Single bolt mounting as fitted to later Mk I cars and all subsequent cars

photo: S Ratcliff

Many cars still have the plastic retainer on the rear quarter trim.



Photo showing buckle being held by the storage clip

photo: S Ratcliff

The following two 'Advisories' are written and submitted by Mark Paget. Thanks Mark.

Advisory MG-A seat belts.

Home made seat belt installations won't pass a Safety Certificate inspection.
Home made seat belt anchorages won't pass a Vehicle Modification or Safety Certificate inspection.

Early MG-As have an optional belt and installation kit available from BMC (anchorages and belts; AHH6141 RH & AHH6193 LH). Welding and drilling was required. This is similar to the later factory fit arrangement, save for the upper anchorage. This earlier arrangement being fitted to the outside of the bodywork. The belt could be unclipped at the outer anchorage when raising or lowering the top, then reconnected before moving off.

At an unclear local change point, MG-A was factory fitted with seat belt anchorages. All Australian produced MKII 1600s appear to have all three anchorages for each seat position. These require specific belts and sundry fittings (contained in AHH6175

RH & AHH6194 LH). This arrangement has factory fitted captive nuts under the rear shelf panel (5/16 nuts, within the bracing), brackets with 5/16 captive nuts welded to the chassis at the door opening and captive nuts in the rear hoop of the tunnel. A special bracket, clevis pin and 'R' clip allow the belt to be disconnected and moved aside by the driver, when the top is stowed or erected. The tunnel 'mounting point' is a little optimistic but appears to function and meets the relevant standards of the time.

Accurate reproductions of the bracketry are intermittently available. Reproductions of the seat belts including the correct end plates to match the mountings, are available from some bespoke belt manufacturers. NOTE - the correct plates at the belt ends to match the correct brackets, correctly installed on the vehicle!

Pre 1967 MG-B has a not dissimilar issue with its belts and anchorages.

Creating your own anchorages requires:
design approval, and
installation approval, under the vehicle modification scheme. This is almost impossible to achieve retrospectively.

Bespoke belt suppliers:

- I haven't encountered one that has neat stitching. Hand sewn appears to be incapable of matching the regimentation of automation.
- UK suppliers in particular pay little heed to the presence or visibility of required manufacturer's labels. Nor requisite stated details such as date of manufacture, manufacturer or relevant standards.
- Manufacturers outside Australia DO NOT keep lists of what overseas standards their products may or may not comply with. The buyer/user needs to prove that the product matches requisite Australian regulations (relevant editions of ADR or pre ADR standards).

Example bespoke belt supplier:

- UK - Quickfit Safety Belt Service Ltd.



Typical BMC twin 5/16 stud belt anchorage (not MGA)



Later MGA door-step belt (detachable) anchorage

References:

- BMC Seat Belts brochure - Protection With Comfort (9/1962)
- The MGA Guru website for a slightly confusing and in one area inaccurate explanation
- MG-A Workshop Manual (blue cover) for a just as confusing explanation

Advisory

MG-B seat belts.

Simple points, frequently encountered and usually ignored by owners

There is a propensity for owners and some repairers to place seatbelts in vehicles with no practical regard for safety, legality or ergonomics/usability.

- Home made seat belt installations won't pass a Safety Certificate inspection.
- Home made seat belt anchorages won't pass a Vehicle Modification or Safety Certificate inspection.
- Incorrectly fitted seat belts won't pass any inspection.

All Australian produced MG-Bs have factory provision for safety belts. This will be either:

- pre 1967 three anchor points per seating position, or
- post 1966 three anchor points per seating position system.

- Belts are NOT interchangeable between these anchorage designs.
- Used belts are not acceptable replacement parts.
- There are NO factory fit or approved accessory inertia reel belts installations.
- Any aftermarket inertia reel arrangement would require design approval and installation approval under the national modification scheme. Approving something that has already been made, purchased or installed is impractical. The "design" has to be approved first.

Pre 1967 three anchor points per seating position:

- A - twin 5/16 studs at the wheel arch - rigid attachment of belt end plate
- B - single 7/16 captive nut at the sill - allows belt end plate to swivel
- C - single 7/16 hole or captive nut at the tunnel - may allow belt end plate to swivel
- D - belts are referred to as the aircraft design - stiff grey webbing and a flap type buckle
- E - The buckle end (assembly) is webbing, not a wire stalk.

Post 1966 three anchor points per seating position system.

- A - single, raised (tubular) 7/16 captive nut at the wheel arch - allows belt end plate to swivel
- B - single 7/16 captive nut at the sill - allows belt end plate to swivel
- C - single 7/16 captive nut at the tunnel - allows belt end plate to swivel
- D - belts have soft, flexible webbing*, typically coloured coded with the interior, the buckle is press button

*period webbing is not the same as the fine, tightly wound material introduced in the mid 1970s

- E - The buckle end (assembly) is webbing, not a wire stalk.

- I am not aware of anyone in Australia offering direct replacement belts for MG-B. So called replacements, are typically modern generic belts, with generic measurements, adequate for the installation, hopefully. These will only suit the post 1966 vehicle.

- Generic belts do include generic installation instructions. If followed, this will allow the end plates to swivel, not lock up, not flop around on their bolt.
- Generic kits have generic fittings. Set screws supplied with the kit may be long enough to touch the propellor shaft or bottom in the wheel arch anchor point.
- The inability of owners to mount belts correctly can not be overemphasised.

Bespoke belt suppliers

- I haven't encountered one that has neat stitching. Hand sewn appears to be incapable of matching the regimentation of automation. Perfectly functional, just not geometrically tidy.
- UK suppliers in particular pay little heed to the presence or visibility of required manufacturer's labels. Nor requisite stated details such as date of manufacture, manufacturer identification or relevant standards identification.
- Manufacturers outside Australia DO NOT keep lists of what overseas standards their products may or may not comply with. The buyer/user needs to prove that the product matches requisite Australian regulations (relevant editions of ADR or pre ADR standards).
- Within Australia, bespoke suppliers tend to be repairers rather than manufacturers. Original hardware being reused with new webbing. Perfectly alright, 'presuming' that belts are correct for the application and recycled components are serviceable.

Inertia reel has already been touched on. Concepts ignored by owners are extremely straightforward. Yet dumbfounding in how these points are ignored by owners obsessed with having retracting belts.

- Does the belt assembly meet or exceed requisite Australian rules?
- There are no longer any mainstream manufacturers within Australia providing off the shelf, packaged, retail products. Such items are made overseas and imported.
- Is the reel designed to operate vertically or horizontally? Is it mounted accordingly?
- Does the installed buckle align with the correct position on the wearer?
- If a horizontal reel is mounted lower than shoulder height, how can it function correctly?
- Do any mounting brackets have design approval for use in Australia?
- British or European multi-fit reels (having a position setting for the mounting angle) are barred from road use in Australia. The simple premise that a primary safety feature can be played with by the vehicle operator at the flip of a switch.
- Will belt operation be interfered with when the top and bows are stowed or erected?

The excuses and promises owners make in order to get a vehicle through inspection are always magically forgotten the moment something goes wrong. The finger of accusation is always miraculously pointed at the last person to touch the car. Excluding the owner and owner's mate of course. Every State/Territory has published criteria for their registration inspection. Whether this be periodic or as in Queensland, at point of registration. Modification criteria are national, with some regional variations. In either case they are published. All are publicly available documents.

As the great sage Benny Hill professed, 'when you assume, you make an ass out of you and me'.



Typical BMC twin 5/16 stud anchorage (pre 1967)

Example bespoke belt supplier:
- UK - Quickfit Safety Belt Service Ltd.

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Original BMC documents:

from Service Liaison Summary 124

VARIOUS MODELS

SEAT BELTS

From approximately 2nd June, seat belts are being fitted to the following models
on the production line:- Mini, Range, 1100, MGB, Austin
1800 and J2 Van.

Full details on this will be confirmed in a Technical Bulletin to be issued.

[BMC Technical Bulletin C53/66 \(2.12.66\)](#)

[BMC Technical Bulletin C36/67 \(28.6.67\)](#)

IT IS MOST IMPORTANT (for legal, insurance and safety reasons) THAT THE INSTALLATION OF SEAT BELTS COMPLY WITH THE APPROPRIATE LEGISLATION. THE FOLLOWING COMMENTS ARE PRESENTED PURELY TO HIGHLIGHT THE CONFUSION THAT APPEARS TO EXIST. WHEN I CAN MAKE A STATEMENT THAT I FEEL CONFIDENTLY AND UNAMBIGUOUSLY CLARIFIES THE SITUATION, I WILL SAY SO.

(Front seat belts were mandatory in all cars sold in Australia after January 1, 1969).

The following comments were taken from an 'MG Experience.com' forum in 2014...

Comment 1.

2 February, 2014

Re Securon Seat Belts:-

Below is an extract from the reply to an email I sent to Securon re 514/30 seat belts

Dear Sir,

Thank you for your enquiry.

It is our understanding that ADR4 & AS2596 accept that Seat Belts ECER16 approved, meet the technical requirements for seat belts for use in Australia.

The 514/30 is approved to ECER16 and this is the "E" mark on the label sewn to the belt.

Best regards,

xxxxxx

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Comment 2.

February, 2014

Dear Mr ,

Thank you for your enquiry with regard to the approval of Securon seat belts for fitment to Australian vehicles.

Further to our telephone conversation, I understand that you propose to install Securon 514/30 model seat belts in a 1968 MGB.

As the vehicle was manufactured prior to the compulsory fitment of seat belts to vehicles for sale in Australia, and does not incorporate any advanced occupant protection systems, such as airbags, it is considered that the fitment of aftermarket seat belts, manufactured to comply with Australian Design Rule (ADR) 04/05, is acceptable.

The proposed Securon seat belts are marked as meeting AS/NZS 2596 and European Regulation R16. Both of these standards are referenced in ADR 04/05 as being equivalent to the ADR.

Consequently, provided that the proposed seat belts are installed in accordance with the manufacturer's instructions, they meet all current requirements for fitment to a 1968 model vehicle.

I trust that this information is of assistance.

Regards

Engineer
Department of Infrastructure and Regional Development
Vehicle Safety Standards

(I sent my question to 'media@infrastructure.gov.au' @ 12:34 PM Saturday 11/10/2014.
Reply received @ 3:02 PM Monday 13/ 10/2014. This is The Federal Gov't & they set the ADR Rules & they over rule "The States". Very quick for a Gov't Dept.)

Comment 3

October, 2014

Thought you may be interested in the following statement on the APV website.
"General Purpose Seat Belts, manufactured by APV Safety Products here in Australia are tested in accordance with, and meet the requirements of the joint Australian/New Zealand standard for seat belts AS/NZS 2596.

AS/NZS 2596 is the Australian standard for aftermarket replacement seat belts."

The above is inline with my reading of the ADR.

My Securon belts have the AS/NZS 2596 clearly shown on the tag sewn to the webbing at the lower anchor point. No fuss getting a Vic Road Worthy Certificate which was required to get my Club Permit plates.

RESTORING/REPLACING SEAT-BELTS

The following link (dated November, 2022) contains some helpful hints and Australian businesses for the restorer, when dealing with seat-belts...

<https://www.mgexp.com/forum/mgb-and-gt-forum.1/seat-belts-australia.4589321/#msg-4589321>