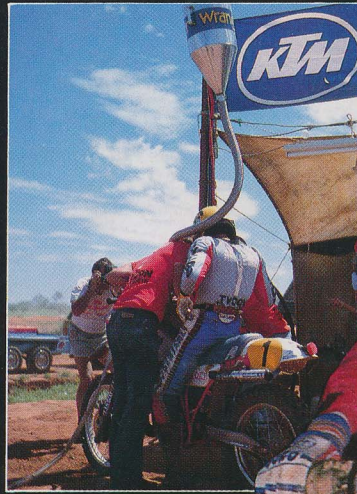


australasian **DIRT BIKE**

AYERS ROCK 12 HOUR MX



JUNE 1983

\$2.20 (\$2.75 NZ)*

YAMAHA IT490K

**BIGGER THAN '82, BETTER THAN '82,
BETTER THAN EVER**

KTM500 TRAIL

STYLIN' IT UP EASY STREET

INTERVIEWS

RAY VANDENBERG & VAUGHAN STYLE

THE PERILS AND PLEASURES OF PRO MOTOCROSS

CARBURETTORS

JET SETTING FOR BEGINNERS

MOTORCYCLE SAFARIS



**MAICO
490
ENDURO**
SPIDER, SPIDER,
ON THE WALL



VOL. 9, NO. 2
JUNE 1983
ISSUE 50

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australian DIRT BIKE

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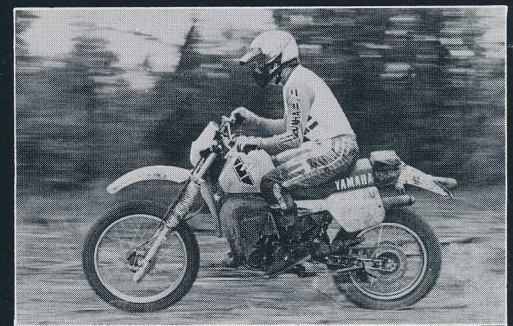
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 NSW. (02) 92 6826.
 TYPESETTING: Ever since H.Mud started winning a fortune off them (\$18 in seven
 minutes) they won't talk to us. If there ah a lot of spelling mistakes, they did it to
 get back at uss.



COVER

Radio Alice sponsors a gruelling 12 hour motocross out near Ayers Rock. Naturally, ADB was there. And naturally, we were too smart to ride.

INSET Phil Lovett won it and established himself as the nation's toughest sun bronzed Aussie. Photo on Kodachrome by Geoff Eldridge.

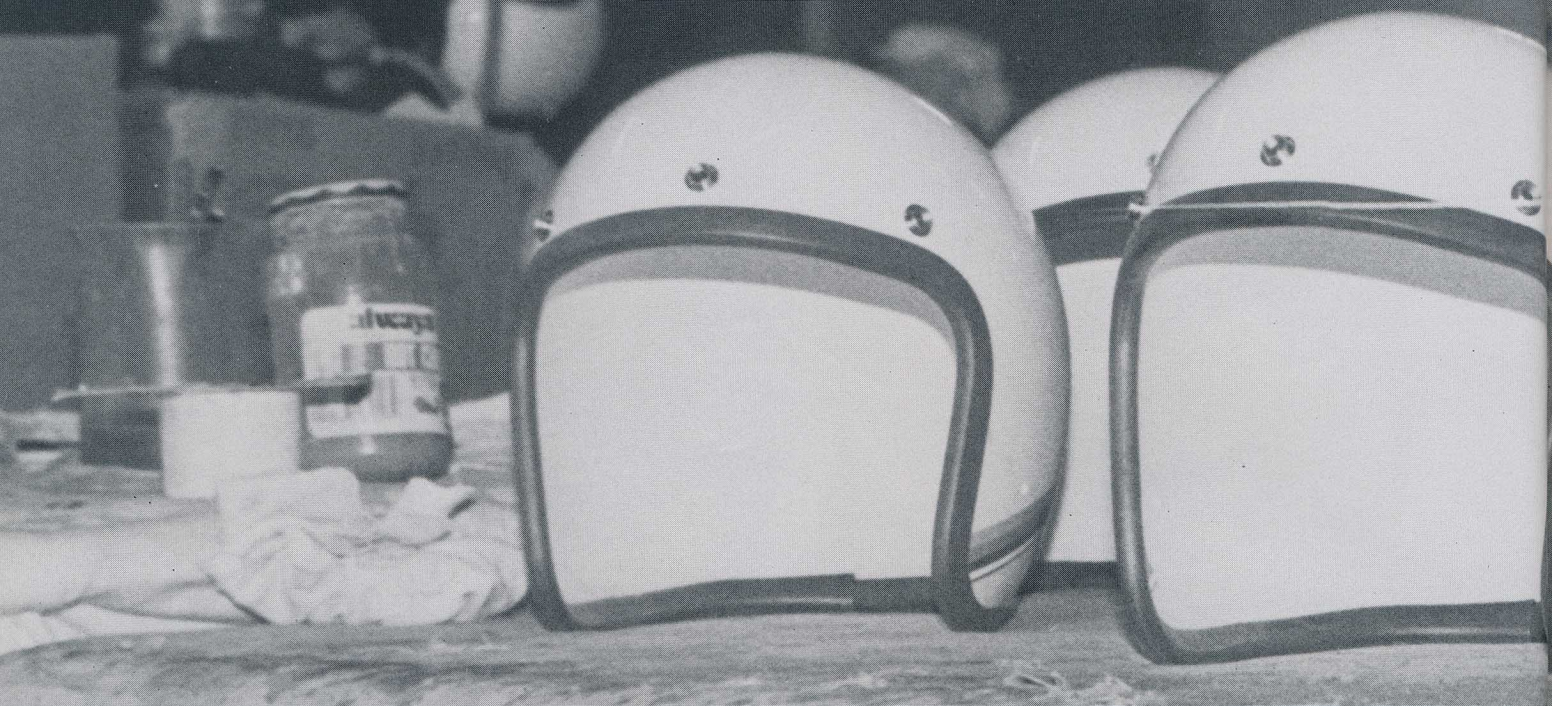
INSET

Honest Muz always says he looks "gumby" on a bike. To prove him wrong, we took 327 colour slides, and here's the one that made him look good. That's a Maico 490 Enduro he's on. Kodachrome by Geoff Eldridge, who can take a nice photo of anyone.



*Recommended and maximum retail price. Have you any idea what it costs us to print this thing now that Bob Hawke has devalued the Oz dollar?

HEADY



HOMEMADE HELMETS BY ELDORADO

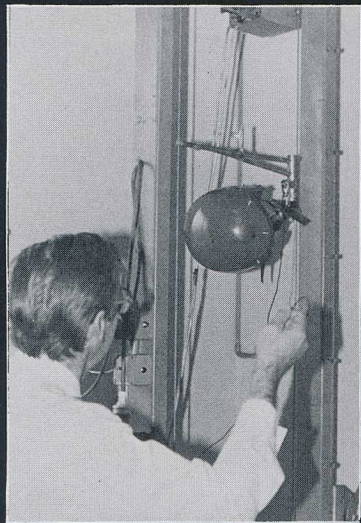
Australians traditionally associate locally made products with inferior quality. That attitude is changing with a lot of people getting behind Advance Australia promotions and the manufacturers of Australian made Eldorado helmets are right in there with a top quality product.

When Mathews Haritos set out to produce motorcycle helmets locally they knew it wasn't going to be easy. The cost of Australian labour alone would seem to be enough of a deterrent but they pressed on regardless of the fact that they didn't have the security of any real protection in the form of import restrictions.

A polycarbonate was chosen for the construction of the Eldorado helmet and the decision has withstood the test of time. When a lot of stories were flying around about

the dangers and problems associated with polycarbonate helmets, the Eldorados got something of a confidence boost when it was reported that Bell helmets in the US rated the Australian made Eldorado open face helmet as the best polycarbonate shelled helmet they had tested.

Bell, of course, are pro fibreglass on the subject of helmet shell construction and have done a great job of establishing their helmets as the finest available in the eyes of a huge percentage of the helmet buying public.

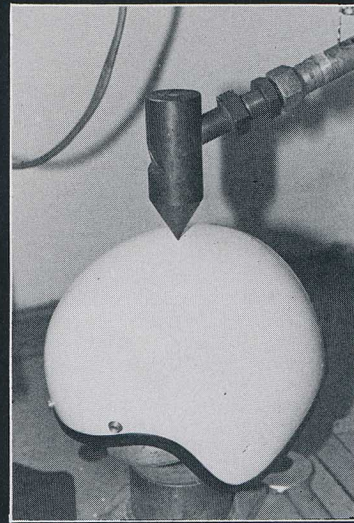


LEFT

This is the one that makes your head ache just looking at it. The impact test. Sensors attached to the regulation weight inside the helmet react to the G forces transmitted through to the inside (where your head would be) and the results of each test show up on a screen. A print is taken from the readout of each test.

RIGHT

A dangerous looking device if ever you saw one. Unlike the impact test, where the helmet is dropped from a great height, in this, the penetration test, the penetrating weight is dropped. If the tip of the pointed weight breaks through the shell, the test is a failure.



STUFF



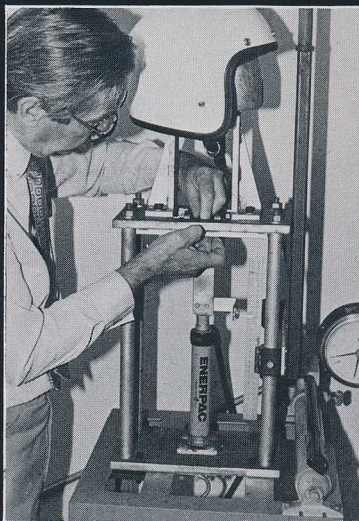
But on the other hand, most of the horror stories you hear about polycarbonate or plastic shelled helmets have arisen from incidents involving unreasonable misuse or inferior quality helmets which were churned out cheaply before today's stringent safety standards were introduced. Sure, there were some bad helmets around and naturally manufacturers out to make a quick dollar elected to construct the helmet shell from less expensive prod-

uct. In this case a type of plastic. There were some helmet shells that were constructed in two pieces and "welded" together leaving a weak seam over the centre of the shell. There were helmet shells that were affected by certain solvents and by the fitting of stickers or painting the helmet, (again, petrol based solvents).

But as Maurice Bratter, the Swiss born designer behind Eldorado helmets points out, any helmet can be affected by certain solvents. Even a fibreglass helmet is no guarantee and you will notice a warning

Anyone serious about helmet safety will get rid of a helmet if they even suspect it could have suffered some damage in a fall. Mathews Haritos has been offering a \$10 trade-in on a new Eldorado if they feel their present specified Eldorado could be damaged. The offer has been open for around two years. As yet, not one person has taken advantage of the offer.

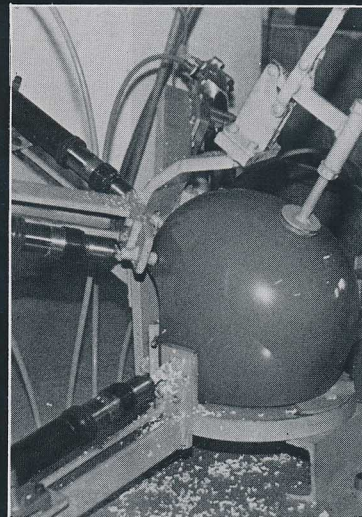
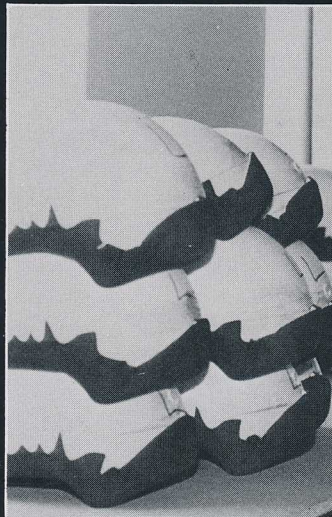
Continued over



LEFT
The strap retention test we watched was cranked to almost double the required tension before something gave way. This test is always taken to destruction, and in this case it was the rivet which tore through the shell to finally destroy things.

RIGHT
You can't buy a bad helmet in Australia these days, so the manufacturers of Eldorado helmets strive to produce a lighter, more comfortable helmet. Polystyrene liners covered with brushed nylon are stacked in readiness to do their bit.

FAR RIGHT
All the helmet shells are the same size (the liners vary according to size) so they are all drilled accurately on this machine.



BEFORE



AFTER



Not only do we stock a huge range of motorcycle accessories, and a m/c repair shop, but we'll give you the best advice on what to buy to suit your needs.

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ELDORADO HELMETS

to this effect inside any helmet you buy.

The ABS material used in the Eldorado EXR is, as you would expect, superior to the polycarbonates being used a few years ago and in fact the graphics are placed on the helmet in transfer (sticker) form. It's still an aspect of helmet care that shouldn't be ignored and if you are in any doubt over your cosmetic plans for your helmet, get in touch with the manufacturer or importer.

OK. That's enough defence for the construction methods of a helmet which is quite capable of standing on its own merits. As we said, these helmets are Australian made and gradually the open face EXR has reached the stage where it uses almost 100% Australian material in its construction. The shell (which Mathews Haritos produce themselves), the carefully researched polystyrene foam liner, the foam padding, the nylon lining, the Terylene chin strap, even the rivets which hold the Australian made metal strap retainer to the helmet shell. All Aussie made.

The company has chosen to put its biggest push behind their open face EXR helmet for a variety of reasons. The open-face verses full-face side of things meant nothing in view of the fact that the market is split right down the middle on sales of these two types of helmets. Personal ideas on comfort, lightness and protection steered them towards an open face helmet of which they are justifiably proud. So much so, in fact, that they have launched a new promotion of the EXR in conjunction with the familiar Advance Australia logo.

In case you hadn't noticed, ADB in general (and the editor in particular) are right behind good quality Australian products, and after taking a look at the Eldorado operation, we're convinced that the EXR deserves your support. Take a look at one if you are in the market for an open face helmet.

AUSTRALIAN STANDARDS

Any helmet sold in Australia these days is top quality, the requirements of the Australian Standards Association see to that with what is called "Quality Assurance Supervision". The Australian testing standards were introduced in 1974 and are constantly under scrutiny. The tests can be updated as new technology is introduced into helmet construction and as new information is brought to the attention of the Standards Association from sources such as the Traffic Accident Research Unit (TARU). The Australian standards are tougher than most helmet testing requirements anywhere else in the world.

The advantage of the Australian system as far as the people we

spoke to saw it was that the testing was ongoing. Some highly respected overseas testing methods require a manufacturer to bring in a few samples of his helmet. If they pass the test then they are away laughing. The testing authority can then, if they wish, randomly select one of these helmets from a dealer's shelf (at the manufacturer's cost) and test it at any time. It sounds like a fine idea to us, but apparently there is potential for helmets to go unchecked for long periods of time.

When a new helmet is about to go on sale in Australia it must pass the Australian Safety Standards requirements and four helmets from the first 200 to be released must undergo the same testing. If there are no problems the test batch goes up to four helmets from every 400. If once again there are no problems there are four helmets taken from every 1000 from then on. If there are problems at any stage, the process works backwards, and once again a higher percentage of helmets are tested. Incidentally, the EXR helmet easily exceeds the overseas standards we hear so much about.

The people at Eldorado carry out a few extra tests for their own interest and information (they are constantly on the lookout for ways to improve their product) which are not legally required. For example, the solvent wipe test which shows up any stresses in the shell. These can be caused by variations in the temperature of the ABS material or the pressure under which it is injected into the mould.

Like we said, it's impossible to buy a bad helmet in Australia these days. We took a look at the Mathews Haritos helmet testing equipment (the only approved commercial testing equipment of its kind in Australia). The tests and results were watched with a combination of interest and fear. Some of those tests are enough to stir up some bad memories for anyone who has been racing (and crashing) as long as the ADB staff.

Only the top section of the helmet is tested (see illustration) for impact and penetration as it has been established as the critical area as far as head injuries go. This part of the helmet shell is generally thicker (six to five millimetres on the EXR and it thins down near the bottom edge).

Tests are carried out at five different points on this top section of the helmet and they are performed under four different sets of conditions. Ambient (normal) temperature: 18-25°C; low temperature: -5°C; high temperature -50°C; and a water test (ambient temperature). The helmet is subject to these conditions for 24 hours before the actual test.

The other test we saw was the strap retention test. By looking at the tests we figure if you ever get to the stage of taking a helmet past the limit of the safety standards you are in big trouble anyway. Take a look at some of the photos and you may get a better idea of what we mean.

