



**MILLER  
CELEBRATES  
60 YEARS  
ON THREE LEGS**



Far left: The first Miller fluid head model in the 1940s; Top left: Glamour on the beach c.1965 – wooden tripod in use for a Artransa Park Studios subhire by Grimsdale Productions; Bottom left: 1959 New York – John Leake filming a commercial for QANTAS; Top and bottom: Phil Pendry filming with a Miller head at the Aswan Dam, Egypt in the 60s and for CBC at the Vatican in 1958; Far right: Playwright Keith Aberdeen with DoP back in the days when smoking on set was acceptable!

Some camera innovations are so fundamental that it is impossible to imagine the world of television camerawork without them. The fluid action head, first patented by Australian company Miller, is a perfect example of one such invention. As GTC sponsors Miller prepare to celebrate 60 years of supplying the film and television industry with high-end tripods and heads, Zerb reporter Howard Kayofski takes a smooth pan across the company's history.

**B**efore Eric Miller introduced the world's first patented fluid action tripod head in 1946, camera operators had no option but to work with bulky and expensive gear-driven assemblies; panning shots were tricky and diagonal moves virtually impossible. The fluid head created by Miller revolutionised film and television by giving operators the freedom to shoot far more creatively and to achieve shots that were previously unobtainable.

**A young engineer with vision**

The story begins in the mid 1940s in Sydney, when a young engineer, Robert Eric Miller (Bob) was working with a Fox Movietone Newsreels film crew and realised the need for a better way to create smooth pans and tilts when shooting film in the field. Bob came up with the revolutionary idea of the 'fluid head', which consisted of a cylinder, rotating inside a slightly larger cylinder, immersed in a lubricant. Two such arrangements were employed, one for tilt and one for pan and this became known at the time as the 'fluid head'.

Bob asked for financial and technical assistance from his father, Eric Miller, a retired engineer, to enable him to progress the idea. Eric and Bob worked together on the project and developed the first fluid head, which obtained an international patent on 5 December 1946 in the name of Eric Miller.

The fluid head was built, tested and then taken to America by Bob's friend, John Leake, a young Australian cinematographer. There it took the world by storm, even making headlines in the New York Times on 25 August 1954. The newspaper reported that a young Australian cameraman, John Leake, had "brought to America a healthy dose of Australian swashbuckling, disregard for cost and convention, and a new Australian invention, the Miller Fluid Head (patented) – and the movie world is reeling."

It went on to explain that Leake with his Miller fluid head was "making promotional 'movies' for Australia's national airline QANTAS. These 'commercials' as they are more commonly known, will cost less to produce and look far superior, thanks to the smooth pan and tilt fluid action along with its high quality and portability".

Encouraged by the success and interest shown in Australia and then the USA, Bob registered REM PTY LTD in June 1954 and started manufacturing the products at Rushcutters Bay, a suburb of Sydney. By 1958 Miller was exporting the heads to the USA and other countries (an agency was secured in Japan in 1960), and the venture quickly became successful, establishing a strong market in the USA in particular. The company's ownership changed in July 1971, retaining the name Miller, but the roots and principles of the company

**"In the nick of time the lens cleared and I was in action. The interview went like clockwork... and my Miller tripod came into its own as I quickly shot cutaways of Aung San Suu Kyi... oh so smooth pans and tilts thanks to the excellent fluid head, and quick height changes thanks to the carbon fibre legs."**

**TIM MEIN**

have remained the same, encompassing innovation, excellent design and quality manufacturing, and still firmly based in Australia although nowadays servicing a truly global market.

**Wooden tripods**

The early heads were supported by polished wooden tripods, which the company began to manufacture in the late 1950s. These were made from a fine New Guinean hardwood known for its strength, fine grain and workability. So resilient were these beautifully crafted pieces of kit, there are still many functioning examples of wooden Miller tripods in existence today. Only a few months ago the company was approached by Phil Pendry, a founding father of videography, now



All components are designed and manufactured in Sydney, Australia



**“Throughout the Antarctic winter, my Miller tripod proved a steady rock in the sea of howling wind and snow. Most of the blizzard work was done on a 600mm lens and the need for a super-steady platform exaggerated by this distance and wind was considerable.”**

**WADE FAIRLEY**

in his nineties, who sent the company some wonderful shots of himself using a set of the wooden ‘sticks’ on a shoot at the Pyramids in Egypt back in 1964 plus an even earlier shot from the Vatican in 1958. Responding to the enduring appreciation of these iconic, polished wood symbols of a bygone era, for its 60th anniversary Miller is releasing a very limited special edition of new ‘retro’ wooden tripods built as they were in the old days. Each tripod will be newly minted, individually numbered and a collectors’ delight – all in full working order but based on much older technology.

The past 60 years have seen many significant tripod innovations not even considered at the outset, such as sliding top plates to balance the camera, quick-release plates, ball levelling, spreaders, counterbalanced heads, LED bubbles and the introduction of lightweight carbon fibre.

**Expanding the range**

Lighter weight materials, in particular, have made a huge difference, especially for news cameramen and documentary-makers who may have a bit of a hike to reach the site of their ‘story’. For decades Miller products were perhaps most associated with the news/documentary field.

Up until the 1970s film was still the most usual news-gathering medium but with the release of the first portable video camera from RCA in the mid 70s, closely followed by Sony capturing the market with Betacam in the 80s, everything changed. Suddenly product development in the news/documentary arena had to be geared towards supporting Betacam cameras. This era saw the transition for Miller from being predominantly a film fluid head and tripod manufacturer to one specialising in products for electronic news gathering (ENG).

While Miller still has a strong pedigree in news and television, having supplied many major broadcast networks around the world with their Arrow system in recent years,

with the advent of the new Skyline and Skyline Cine systems for heavier payloads, the company is now also making inroads into the slightly less familiar territories of sport and feature films. At the other end of the spectrum, Miller is also excited about the new Miller AIR, a product designed to provide a top-quality but lower-priced tripod for the ever-increasing wave of DSLR photographers transitioning from photography to videography.

Miller takes responding to the needs of its end-users very seriously and recently held a series of focus groups with the Australian Cinematographers Society. The company feels it has “a responsibility to continuously strive for greater ways to innovatively improve the way in which a cameraman can capture imagery and tell his or her story. And the only way to have a deep understanding of the cameraman’s needs is to spend long, quality hours with them in a series of deep-dive focus and individual sessions as well as shadowing them on the job... living in their shoes, seeing what frustrates them and seeking insights as to how we may eliminate such frustrations. I cannot describe how rewarding this exercise is for us as designers and indeed for the many volunteer cinematographers who are participating. We have spent hours in the ‘deep dive cycle of understanding’ and we have learnt a great deal; and yet we still have much to learn; so we welcome all the feedback and ideas we can get.” From the quotes from satisfied users scattered around this article it seems this policy is working!

**Australian through and through**

As an Australian-owned manufacturer, Miller’s products, down to the smallest components, are still designed and precision-engineered in Sydney, Australia. Every Miller camera support product is subject to the most rigorous quality assurance procedure that begins in design and follows through the whole chain of materials selection, precision moulding, die-casting and machining, right through to final delivery and after-sales service.

**Fast forward**

As Miller celebrates 60 years of delivering top-quality products to the film and television industry, the stats are impressive. Over the years the company has delivered over 100,000 systems (tripods and heads); it has acquired several patents and numerous awards for quality and design. Miller systems

**Key Milestones**

- 1946** The world’s first fluid head patented
- 1954** Miller commence commercial operations in Clement St Factory, Rushcutters Bay
- 1958** Miller export the first tripod to Hollywood
- 1965** Light professional fluid head released, setting new standards for ENG
- 1980** 30/50 fluid heads with counterbalance systems released
- 1992** DS 75mm fluid heads launched globally
- 1997** Arrow head range released
- 2003** Solo tripod series launched
- 2012** Skyline 70 range released
- 2013** Air released for DSLR users
- 2014** Skyline 70 Cine released for feature films



The Skyline 70 fluid head

**“If there is one thing I would change about my Miller tripod, I would have got it years ago instead of messing around with lesser quality equipment that broke down or damaged the final quality of my footage. You can’t go back in time and fix your wobbly tripod!”**

**Minnie Vuong**

are in use worldwide by more than 216 television networks the world over, including the BBC, CBC Canada, CCTV China, NBC USA and ABC Australia.

True to form, Miller will be marking its anniversary on three legs (or with three stumps). A series of anniversary events is planned throughout the year in major markets around the world, including China, France, North America and the UK. This will culminate in Australia in appropriate style with a BBQ for all the Aussie dealers and (...with apologies to all England fans for bringing up a sensitive subject)... a game of cricket.

**Fact File**

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