

Mayhem at the Murderdrome

If like me you watched the 2012 Olympic cycling events and were fascinated by the Velodrome itself, you were perhaps interested enough to find out the history of velodromes. These oval or circular tracks for closed circuit bicycle racing were first built in the late 19th century, originally in France and soon after in Britain. Motorcycles made an early appearance at these venues, originally as 'pacing' bikes – often very powerful, specially modified machines, they usually towed a huge leather-covered roller behind which the cyclists raced or made record attempts. Hemmingway, a keen cycling fan during his time in Paris, mentions them in his writing.

Jack Prince



Not surprisingly, it wasn't long before someone thought of having motorcycles and cars race on similar type tracks, and so began one of the most highly dangerous episodes in sports motorcycling – board track racing.

Though board track was as American as blueberry pie, for it never caught on in any other country, and indeed could never have happened anywhere else, the builder of many of the USA's tracks was an Englishman. Jack Prince was a former British champion bicycle racer, who had moved on to constructing velodromes in his home country and France before coming to America in the early years of the 20th century. Burly, heavily moustached and invariably bowler-hated, Prince was an intuitive builder who measured out the track site by pacing, marking the layout with stakes; he then had the timber laid out and arranged till it suited him, whereupon he instructed his building crew to nail it together. Art Pillsbury, a civil engineer who later built many premier board tracks, and consulted with Prince on the planning of the Beverly Hills Speedway, later remarked that Prince was an able builder, but 'quite innocent of any engineering knowledge.'

Prince had already built the Los Angeles Coliseum Motordrome, a quarter-mile long motorcycle racing facility based on a velodrome design when he was approached by an old cycling friend, Fred Moscoviks. Moscoviks was an engineer who had previously worked for Daimler and managed their racing team – he would eventually become president of the Stutz Motor Company. Moskoviks brainchild was the Los Angeles Motordrome, to be located on a site at Playa del Ray near the city, and he asked Price to build it for him. Innocent of engineering knowledge Price may have been, but the Playa del Ray Track, constructed in 1909 and the first true board track motor-racing facility in America, embodied safety features which unfortunately, were not included in other tracks until much later. Designed for car and motorcycle racing 'The Boards' as it became popularly known, was a circular wood board track, one mile long, which incorporated a small airstrip and hangar space for several aircraft within its centre, plus a perimeter track for aircraft outside. These aircraft offered aerobatic displays and one event featured cars towing gliders around the track. The aviation pioneer Glen Curtis had a shop and flying school at the track before moving to San Diego to pursue his work on seaplanes.

The track itself was built of pine, which was believed to be most resistant to the effects of the sun, and required 300 miles of 2"x4" boards to construct. The surface was treated with a dressing made from crushed seashells to improve traction. The banking was built with a pitch of 1:3, or an angle of 20 degrees, which was the normal pitch for bicycle velodromes.

The angle of the banking was one of several things that made board track so dangerous, for other later track



constructors, hoping for higher speeds, increased the angle of banking to 40 and even 50 degrees. Not until a decade after the building of the Playa del Ray, did board track builders begin to make use of knowledge the railway companies had held for years and employ the principle of the Spiral Easement Curve.

Spiral Easement or Track Transition Curves were mathematically calculated to avoid the lateral acceleration of a vehicle changing abruptly [and disastrously] at the tangent point where the straight track meets the curve. The start of the transition is at infinite radius and at the end of transition it has the same radius as the curve itself, thus forming a very broad spiral. At the same time in the vertical plane, the outside of the curve is gradually raised until the correct degree of bank is obtained. Art Pillsbury was the first to

employ the principle to board tracks in his 1919 design for the Beverly Hills Speedway.

The Motordrome at Playa del Ray was enormously popular, drawing capacity crowds of 40,000 to watch the top drivers and riders of the day race at 100mph plus for purses of up to \$25,000, a colossal sum in 1909. Electric arc lighting enabled night events to be staged. A specially built Red Car trolley spur brought the crowds out from town - those with their own cars could sit in them and watch from spectator parking. Spectators were protected by double safety barriers and a sand trap, precautions sadly lacking at the rash of board tracks that now sprang up around the country. America was crazy about cars, motorcycles and speed, and board track seemed to be the most thrilling way to combine all of these. Even the 1915 Daytona 500 only pulled a crowd of 60,000 compared with the 80,000 who packed the Chicago board track stands a few days later.

For the promoters and sponsors, one of the chief attractions of board tracks was the low cost of construction. Timber was cheap and plentiful in those pre-WW1 days – the building of the 2 mile board track at Tacoma Speedway in 1915 cost only \$100,000 compared with the \$700,000 spent six years earlier to brick-pave the 2.5 mile Indianapolis Motor Speedway.

Indianapolis had been paved due to severe problems with flying debris from its experimental taroil and crushed stone surface during races, resulting in crashes and several deaths, including spectators, in the first three days of racing. The AAA had stepped in and boycotted any future events at the new track unless 'significant improvements' were made to the surface. 3.2 million ten-pound hand-laid bricks solved the problem, and also gave the track its lasting nickname of 'The Brickyard' [a one metre strip of the original brickwork remains today at the start/ finish line].

The board track's timber surface proved equally deadly. Oil spills soaked into it and made it slippy and treacherous; spinning wheels, particularly on cars, tore up jagged splinters from the irregularly spaced planks - the gaps themselves a hazard to narrow-tired motorcycles-and flung deadly showers of them at the competitors behind. At Tacoma, where the gaps between planking had been packed with crushed rock mixed with tar, the riders were bombarded with a lethal mix of splinters and stones, which scattered on the track surface and provided a further hazard. Former racer Eddie Miller recalled picking splinters as large as kitchen matches out of his face ...'they'd hit the bone and flatten out. When Tacoma began to go it was like driving through a meteor shower'... Goggles and protective leather helmets were essential – many drivers and riders took to wearing heavy leather facemasks.

The deadly splinters easily punctured the flimsy tyres of the day – tyre bursts were a frequent cause of fatal accidents and overturns. The sharp slivers also holed radiators, and it became essential for cars to be equipped with radiator guards.

As time went on it became obvious that timber tracks wore out quickly – 3-4 years was the average. They were exposed to all weathers, and no suitable weather-proofing treatment existed. After WWI timber greatly increased in price – its short track life no longer made it an economic option compared with other surfaces. Repair teams of carpenters and joiners were constantly working on the older tracks, sometimes, incredibly, during actual racing. Veteran drivers tell of repair teams working underneath sections of the track while cars thundered overhead at 120mph.

The public wanted thrills, but the board tracks – or 'Motordromes' as the first motorcycle tracks were named, brought danger too close to home – yearly the death toll rose, not only among riders but also among those who watched them. There was no safety zone at most of these tracks - the public sat on bleachers at the top of the banking, separated from the track only by wire mesh and post and rails fencing.



The worst incident occurred in 1912 at the packed opening meeting of the newly-built Vailsburg Motordrome, Newark, when a popular 19 year old rider, Eddie 'Texas Cyclone' Hashan, lost control of his machine at 90 mph and shot to the lip of the track where he hit the top fence and tore through it, decapitating the nearest spectator before ploughing through the packed bleachers. The bike rammed a timber roof support, catapulting Hashan to his death, then became wedged on the post and, still running at full throttle, spun round it, mowing down nearby spectators. Finally becoming dislodged it careered back on to the track in time to strike and kill Johnny Albright, the luckless last man in the race. The terrified

crowd stampeded and many people were crushed and trampled under foot. It took police and ambulance crews an hour to clear the stadium. Hashan's wife, who always attended races but could not bear to watch her husband ride, had, as was her custom, slipped out of her grandstand seat at the start; Albright's wife saw him killed, collapsed, then recovering, ran bravely on to the track to try to help him. Six people were killed at the scene and several others died afterwards in hospital, the youngest barely 13 years old.

The accident caused a national outcry. The press had a field day, referring to the Motordromes as Murderdromes, and began a campaign for the shorter tracks to be closed for safety reasons. Vailsburg Motordrome never reopened. Meantime the death toll on the tracks continued to rise and motorcycle manufacturers, unnerved by the bad publicity, began withdrawing their sponsorship.

Eddie Hashan



In 1919 a national NMA ban was placed on motorcycle events being held on tracks less than a mile long. For the 1920 season the AAA resumed and reorganised the National Championship system. They authorised 123 Championship events on 24 different race tracks – 82 events were run on board tracks, 12 on Indy bricks, and the remaining 29 on dirt track or road courses.

The new board track stadiums built after the war employed scientific engineering principles in their construction, making use of the Searle Spiral Easement Curve. According to Art Pillsbury, a track correctly engineered to this system could be driven without driver input – the car would steer itself because of the track geometry. Pillsbury's Beverly Hills Speedway was the

first of these new premier class tracks. The post war public, eager for hi-speed excitement, flocked to the board tracks during the '20s – drivers like the cigar-chewing Barney Oldfield were national heroes. But though the Searle Spiral Easement Curve had raised cornering speeds and G-forces on drivers and riders, it had not lessened the casualty rate. The board tracks continued to claim lives even among the most skilled drivers – during the 1920s four Daytona 500 champions were killed racing on board tracks, three of them, Jo Boyer, Ray Keech, and Gaston Chevrolet, a scion of the famous automobile family, in the same year they had won the 500, and three of them on the same track at Altoona, Tipton, Penn. – another Pillsbury design. Even Barney 'Firestone Tires are my only Life Insurance' Oldfield, stunned by the death of best friend Bob Burman in an overturn at Corona, spent a reputed \$15,000 building a 'safety racer', the legendary Golden Submarine, so-nicknamed because of its lacquered bronze dust finish and streamlined alloy body shell which enclosed a built-in roll cage.

However what finally killed the board tracks as a major motor sport was not the death toll, not the increasing cost of maintaining them, but the fact that the public were becoming bored with the spectacle – as cars got faster, it became harder and harder to overtake so that the fastest car [provided it hung together long enough to complete the race] would usually win. The racing public switched their attention to flat track, where though the speeds were not so high on unbanked shale, brick or concrete, there was far greater jostle and competition for a placing. Many tracks closed down as riders moved to the new sport; another factor was that after 1931 no championship races were held on board track, due to an AAA ruling. By the first years of the decade most of the board tracks were gone, though some introduced midget racers which brought back some of the competitive uncertainty the crowds loved. Coney Island kept going with midget racing until it closed in 1939 – Castle Hill Speedway in the Bronx still hosted midget racing until the late 40s.

An often forgotten but major factor in their disappearance was cash – many board tracks now occupied prime building land close to towns, and housing plots were a far better business proposition than a motordrome. Pillsbury's new 70,000 seat Beverly Hills Speedway was dismantled and the land sold to a developer just four years after its construction. However, it was a very good deal for the track's owners, the Speedway Association; they had paid the original owner, a bean farmer, just \$1000 per acre and they sold it for \$10,000 per acre – plus they were able to move their track to Culver City. The Speedway stood approximately where the top Rodeo Drive shopping blocks are today – the Beverly Wiltshire hotel was built on the former NE turn.

Brief and bloody their run had been, but the board tracks somehow represented the spirit of their era – like the Wild West, they vanished to be mourned as a lost part of America's past. They left a legacy in that some of their most characteristic aspects – an emphasis on raw speed provided by steep banking, ample track width to allow steady overtaking, and large-scale grandstand and stadium-style seating for spectators around the course – continue to influence US motor sport today.

However, the sport is not extinct, though track technology has improved – go to U-Tube and watch contemporary board track at Bielefeld, Germany on vintage/replica Harleys, Indians and Excelsior Super Xs. If you want to see what a real board track race of the early twenties at Beverly Hills was like there is an excellent digitalised six minute silent film on the National Film Preservation Foundation's website.

use:- <http://tinyurl.com/board-track-race>

It was originally sponsored by the Indian Motorcycle Company, so no prizes for guessing which bike wins.

Allan Jermieson Hawick

The link below is to a YouTube film attributed to the Czech importer of Indian Motorcycles, a Mr. Frantisek Marik, who made the films during a trip to the USA in 1920, presumably to visit the Springfield, MA, home of Indian. The video claims that Daytona, FL, is the location of this board track, but there was never such a track there, only sand racing. <http://tinyurl.com/board-track>