

WP ACTION SERIES

# Classic HARLEY

RARE & COLLECTABLE HARLEY-DAVIDSON® CLASSICS



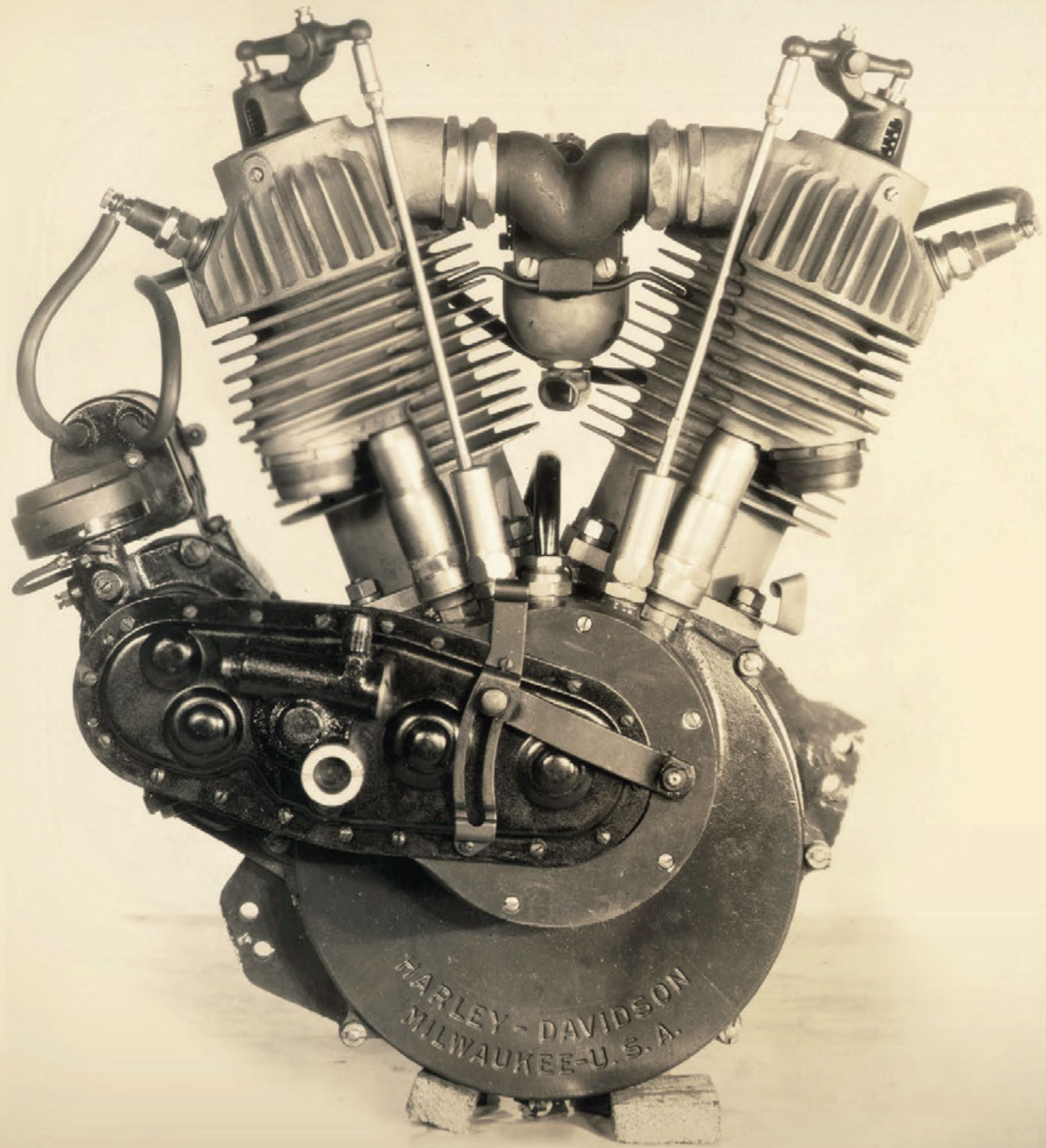
Foreword  
NEALE BRUMBY

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Foreword  
NEALE BRUMBY

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## Foreword

**H**EAVY DUTY Magazine started back in 1991 and has grown into one of the world's most respected Harley-Davidson and V-Twin magazines. HEAVY DUTY showcases the most stunning Harley-Davidsons, photographed by leading motorcycle photographers.

HEAVY DUTY is published by husband and wife team, Neale and Viv Brumby, who are passionate Harley-Davidson riders and dedicated to producing a top shelf publication. Together with a small, dedicated team, HEAVY DUTY is published bi-monthly and available both by subscription and in bookstores around the world, as well as digitally in electronic eMag format at [www.heavyduty.com.au](http://www.heavyduty.com.au).

Technical Editor Doc Robinson, has been recognised in the Motorcycle Hall of Fame for his international contributions to the motorcycle journalism. The design team, headed by leading art director Craig Fryers, all contribute to a premium product that HEAVY DUTY readers enjoy each and every issue.

Each year HEAVY DUTY Magazine takes readers to Sturgis, South Dakota USA, to the world's biggest biker party. The sleepy town becomes the mecca of V-twin attention when half a million riders converge on the little town in August every year to celebrate this iconic event. HEAVY DUTY's annual tours have been conducted for over 10 years and are truly the trip of a lifetime!

Harley-Davidson has been building stunning motorcycles since 1903. With a rich and vibrant history that extends over 110 years, Harley-Davidson have a plethora of outstanding and rare motorcycles that HEAVY DUTY has had the privilege to feature. This book showcases a careful selection of some of the more collectable motorcycles featured in the magazine over the last five years.

Collecting and restoring these bikes has become a popular past-time with many bikes now commanding prices far beyond their original purchase price.

Every bike in this book has a history attached to it. That may mean a recorded individual history or a reflection of the model itself, but all have played a significant part in shaping the story of the marvellous motorcycles from Milwaukee. Some models are restored and others wear their original livery, just as they left the factory. But all the bikes in these pages are the genuine article; real Harley classics which reflect their owners pride and passion.

I hope you enjoy them as much as we have.

Neale Brumby  
Publisher, HEAVY DUTY MAGAZINE

Photo courtesy of Harley-Davidson

# CALI CUTDOWN

LESS WAS MORE,  
EVEN WAY BACK IN  
THE 1920s...

MODEL 1928 JDH



**B**efore we had customs, choppers and even bobbers we had cutdowns. Yes the bikes of the '20s – particularly Harleys and Indians – were rather tall, and it made a lot of sense to some free-thinking individuals to do something about it. Early exponents of the cutdown art seemed to reside on America's west coast. The Spear brothers, Sam Oppie, Dudley Perkins and later John Cameron and Lance Tidwell were all involved in designing and building our first true custom Harleys.

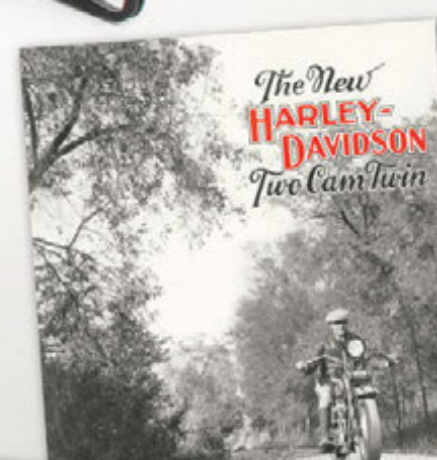
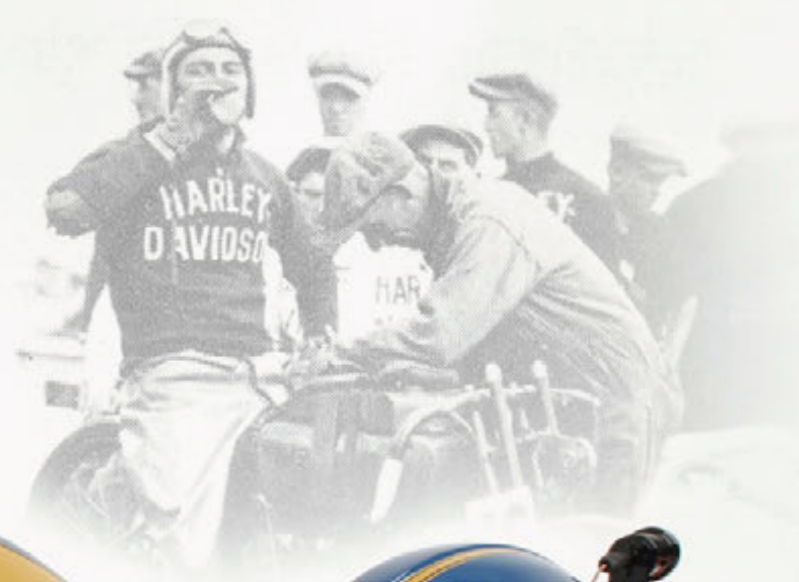
Frames received the major attention, resulting in tanks being shortened, smaller-diameter but wider wheels, and of course what would a custom bike be without more horsepower?

Our feature bike is arguably the definitive form of cutdown art. The bike has been rebuilt and restored by the owner, who lived in Nebraska, over the past 10 years and a delectable smorgasbord of period components shows in the finished result. The engine is the sought-after Harley Davidson JDH Two Cam produced for only



two years – 1928 and 1929 – and the engine rebuild was carried out by the doyen of vintage Harley engine rebuilders, Mike Lange. Mike has a collection of vintage Harley racers and is seen racing them very competitively in the Board Track class at race meetings at Davenport and Wauseon in the USA. Cylinders are still on their standard bore and period stroker flywheels have been added to give an 80ci capacity. This means a big, powerful engine to power a small, lithe bike that only weighs 135kg. A Schebler carburettor takes care of the induction side of things while a Baby Bosch magneto handles the spark. Because magnetos provide their own power source no other power generation or battery mechanism is required. Fewer parts generally means less weight and greater reliability.

The 1928 frame has had its share of cuts, welds and bends to give it a very 'Spear Brothers' stance. The front forks are another masterpiece. These are from a very rare 1932 Harley DAH hillclimber.



RIGHT & BELOW: Harley's Two Cam built its reputation on the back of widespread sporting success.

## HARLEY-DAVIDSON TWO CAM TIMELINE



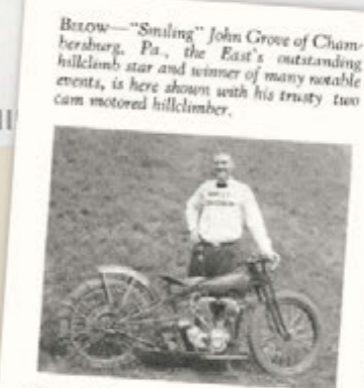
**1919** The first Harley Two Cam engines are produced mainly for fitment in board-track racers both in IOE and eight-valve configurations. A banjo-style cam cover with a very large oil pump was incorporated in the design. One was known to go to New Zealand and now resides in the Harley Museum. At least one came to Australia but went back to USA in the '80s. Six are known to still exist.

**1923** The design was refined with a new cam cover being installed; they were designated FHA for the IOE series and referred to as the indirect action type, as rockers were still used to transpose motion from the camshafts to the pushrods. Two are known to be in Australia of the eight thought to exist.

**1925** The first 'direct actions' were built. These were designated FHAC for the IOE versions and had tapered Ricardo cylinders. They featured separate lifter blocks and built at the rate of about 30 a year. By 1926 they were powering oval racers with direct drive via a countershaft, hillclimbers with single-speed transmissions and European road racers with 3-speed transmissions.

**1928** The JH 1000cc and JDH 1200cc road bikes were released. These continued into 1929. The JH had tapered cylinders, not to be confused with the Ricardo type.

**1930-1934** While the VL series started in 1930, hence deeming the Two Cam obsolete, it was still the favourite of a lot of racers. The Competition department continued to build some FHAD-style engines for favoured dealers mainly in Europe. Some of these were to a capacity of 80 cubic inches.



Below—"Smiling" John Grove of Chambersburg, Pa., the East's outstanding hillclimb star and winner of many notable events, is here shown with his trusty two cam motored hillclimber.

Below—"Herb" Reiser of Milwaukee, Wis., the idol of mid-west hillclimb fans. Dozens of victories and records are credited to "Herb" and his favorite two cam.

CENTER PICTURE—Joe Petralli, snapped just after winning the National Championship 100 mile solo event at the Altoona, Pennsylvania Speedway, July 4th, 1925, when he established a new A. M. A. record for the "century" with an average speed of 100.36 miles per hour, riding a Harley-Davidson two cam motorcycle. This was the first time in competition that any motorcycle ever made 100 miles in less than one hour. Later, at the Laurel, Maryland, Speedway races, Petralli again clipped many seconds from former world records when he set new high marks for the 10 mile solo and the 25 mi solo events, averaging 111.18 miles per hour over the 10 mile route.

## TWO CAM TWIN ORIGINAL SPECIFICATIONS

### MOTOR

Two Cam, twin-cylinder, V-type, air-cooled, four-stroke. Fitted with Dow metal pistons.

### 74ci MODEL

Bore 3 7/16in, stroke 4in, piston displacement of 74ci.

### 61ci MODEL

Bore 3 5/16in, stroke 3 1/2in, piston displacement of 60.34ci

### CARBURETTOR

Schebler DeLuxe with air cleaner.

### TRANSMISSION

Harley-Davidson 3-speed progressive sliding gear with positive gear-shifter locking device.

### LUBRICATION

Harley-Davidson throttle-controlled motor oiler provides proper lubrication at all motor speeds. Transmission lubricated separately. 20 Alemite fittings.

### ELECTRIC EQUIPMENT

Harley-Davidson generator, weather and waterproof coil, timer, 22Ah storage battery, motor-driven horn, two-bulb headlight, standard taillight, switch panel. Relay cutout in generator-battery circuit.

### STARTER

Harley-Davidson rear stroke on right side.

### CLUTCH

Harley-Davidson multiple dry disc, foot operated.

### HANDLEBARS

One-piece Roadster type, 1in tube, double stem with closed end grips. Regular-style handlebars optional.

### FRAME

Strongly reinforced heavy gauge high carbon, seamless tubular steel with wide trussed loop. Drop-forged steel head.

### CONTROLS

Grip – double-acting wire controls enclosed in handlebars and cables. Toe-operated compression relief.

### BRAKES

Harley-Davidson foot-controlled contracting rear brake and built-in hand-controlled expanding front-wheel brake.

### DRIVING CHAINS

Roller, 5/8in pitch and 3/8in width.

### SADDLE

Large, roomy form-fitting Mesinger. Harley-Davidson adjustable spring seat post.

### TYRES

Full balloon, 25 x 3.85in. Standard 27 x 3.85in size optional.

### WHEELBASE

60in.

### TANKS

Narrow saddle type. Gasoline capacity of 2.5 gallons. Reserve gasoline tank, 1.25 gallons. Lubricating oil tank, 1 gallon. Wide, standard-capacity tanks optional.

### FOOTBOARDS

Harley-Davidson, folding.

### TOOL EQUIPMENT

Complete tool and tyre repair kit.

### FINISH

Harley-Davidson Olive Green with maroon stripe with gold centre and edged in black.



Of course hillclimbers didn't need front brakes so it was decided not to burden our cutdown with the extra weight either! Fuel and oil tanks are super-narrow Peashooter items (Harley's 350cc racer of the same period), which bolt straight up to the 1928 Big Twin frame (once cutaways have been manufactured for clearance of the overhead valve inlet rockers).

This work, as well as general refurbishment and painting the tanks, were entrusted to Brad Wilmarth, – work for which he is highly respected. The narrow tanks helped provide clearance for the dropped, racing-style handlebars. A Troxel-style racing seat refurbished by Howard Heilman looks great, while



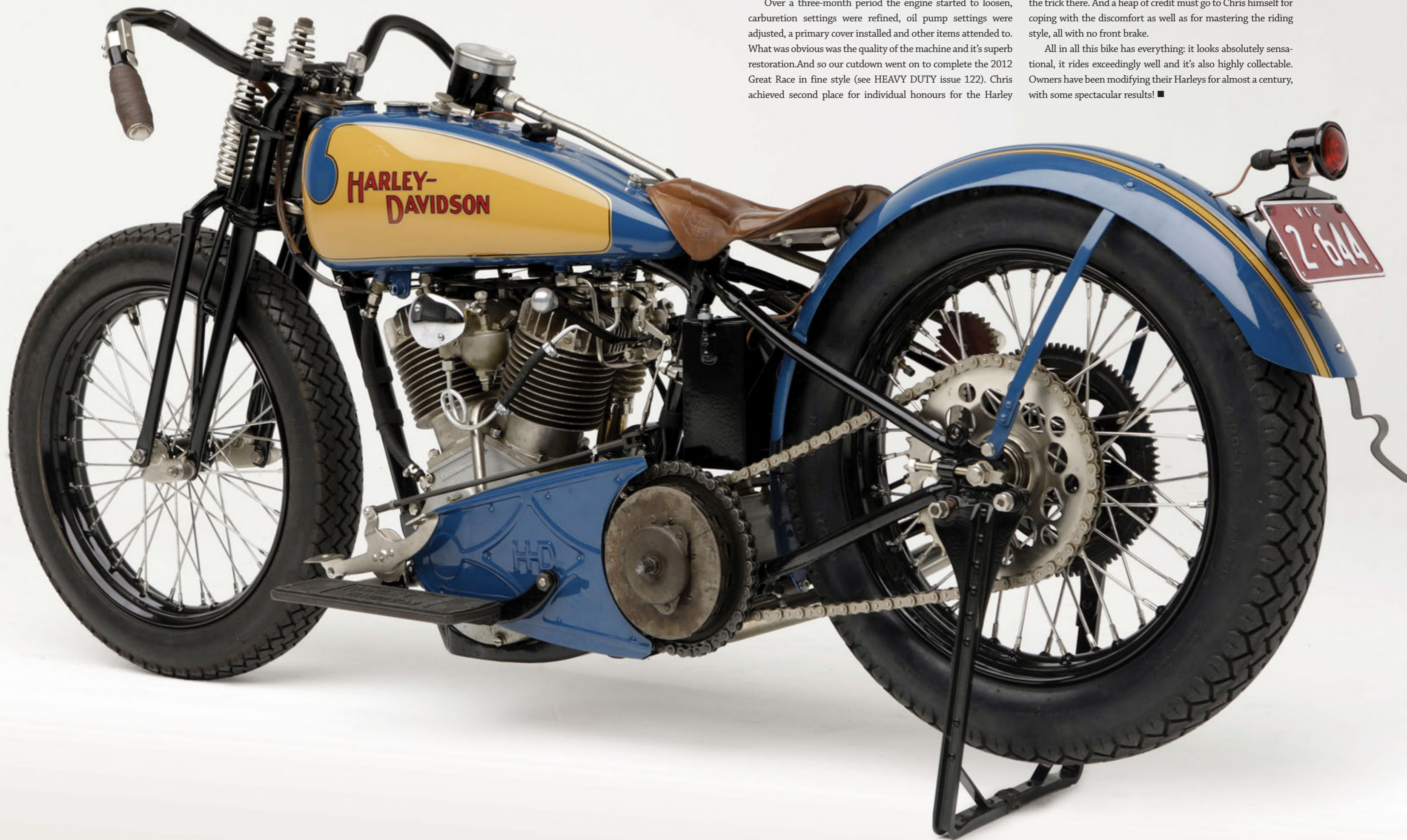
It's hard to miss the speedo drive and rear brake assembly!

not providing much in terms of creature comfort. The rear brake is of the stock external band type and 4.00 x 18in Avon SM tyres are installed on later safety rims. Two short pipes scavenge exhaust gases effectively. Transmission is a stock 1928 3-speed driving through a period racing DAH clutch and a narrow 0.25in primary chain.

This cutdown ran in the 2012 Harley versus Indian 20th Anniversary Great Race. This would require significant road testing and development to ensure completion of the 650km, two-day timed reliability trial. While all the components had been reconditioned to the highest of standards they are still 80-year-old components that we are running with modern oils and fuels, on modern roads with modern traffic.

Harley City Service Manager, Chris Wells, played development engineer, as well as pilot for this project. And the rider's conditioning, as well as the condition of the bike is important. Remember, you have no rear suspension, an unsprung seat, forks with barely 2in of travel and handlebars that nearly touch your knees.





your knees. They're not ergonomics that will keep you away from the chiropractor, but in this case one wasn't needed.

Over a three-month period the engine started to loosen, carburetion settings were refined, oil pump settings were adjusted, a primary cover installed and other items attended to. What was obvious was the quality of the machine and it's superb restoration. And so our cutdown went on to complete the 2012 Great Race in fine style (see HEAVY DUTY issue 122). Chris achieved second place for individual honours for the Harley

team. The bike's entire mechanical maladies for the event amounted to losing a rear axle nut, but some fencing wire did the trick there. And a heap of credit must go to Chris himself for coping with the discomfort as well as for mastering the riding style, all with no front brake.

All in all this bike has everything: it looks absolutely sensational, it rides exceedingly well and it's also highly collectable. Owners have been modifying their Harleys for almost a century, with some spectacular results! ■

MODEL 1915 MODEL F SIDECAR

# GREY GHOST

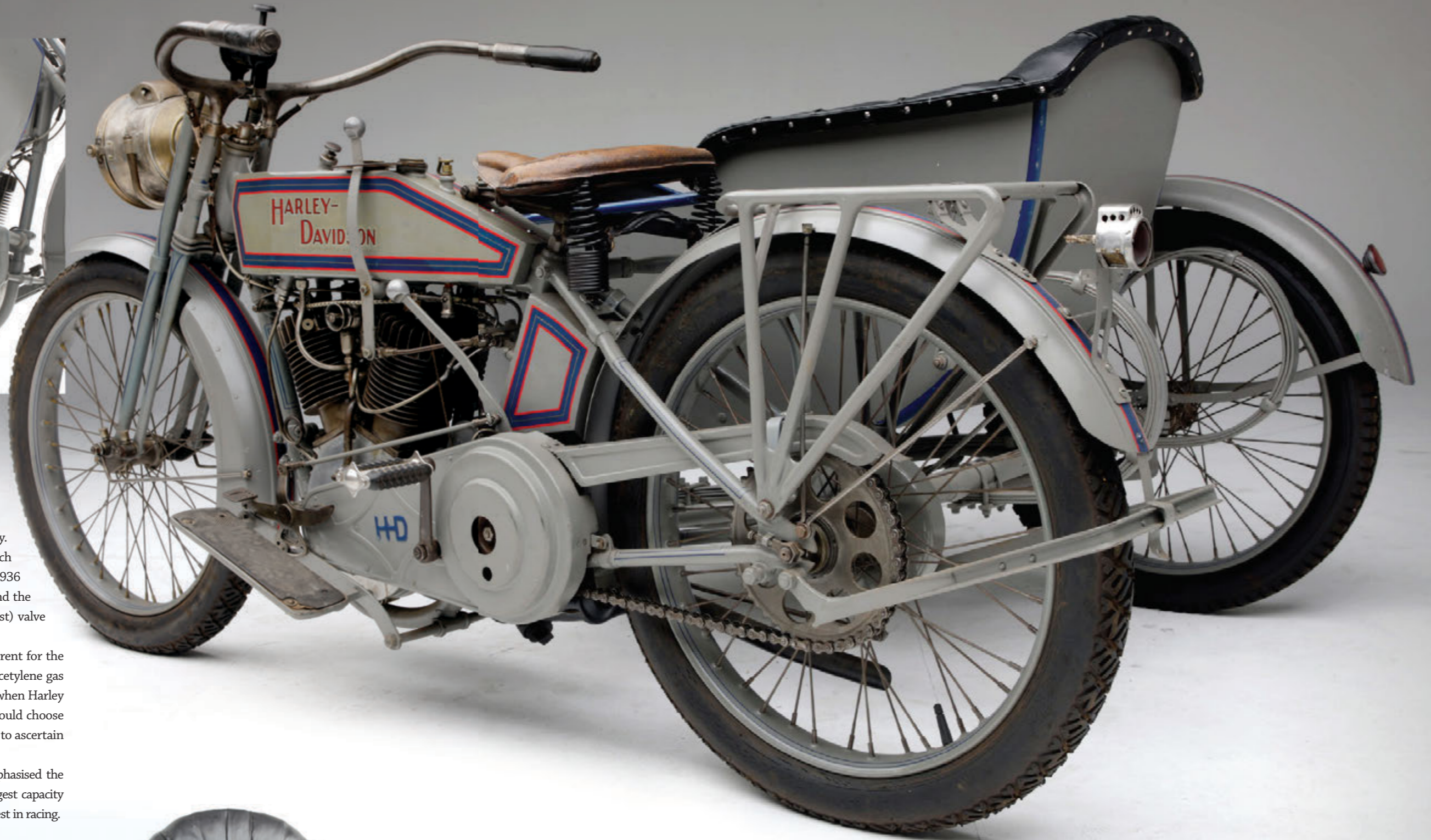
THIS SUPERB 'SILENT GREY FELLOW' HAS BEEN STORED AWAY FOR NEARLY 100 YEARS ...







The sidecar is a genuine, factory-fitted accessory.



**1915** was a watershed year for the Harley-Davidson Motor Company. They introduced a 3-speed transmission – a format with which riders would be familiar until its eventual replacement, the 1936 Knucklehead. Then there was the clutch, which would be used for the same period, and the engine refinements of the 1000cc V-twin – the IOE (Inlet Overhead and side Exhaust) valve configuration would stick until the introduction of the VL series in 1930.

Electric lighting was also introduced, with a generator and a battery providing current for the headlight and taillights. Previous to this, limited illumination had been provided by acetylene gas lamps, making riding in the dark a particularly hazardous affair. As was often the case when Harley introduced a significant change, the electric lighting wasn't mandatory – customers could choose from the electric Model 11-J, or the gas Model 11-F. Of course it didn't take riders long to ascertain the advantages of the electric lighting system.

Harley's advertising literature, as well as mentioning 29 engine improvements, emphasised the cubic capacity was 60.34 cubic inches – well under the 61 cubic inches that was the largest capacity allowed under FAM racing regulations of the day. This was the beginning of Harley's interest in racing.



*“The Model F emphasised the best design practice of the period. It had a guarantee of 11 horsepower...”*

A stripped, stock Model K racer was announced as part of the 1915 model line-up for a mere \$250. The following year would see the formation of a Harley race team, kicking off one of the golden periods of success for the factory in motorcycle sport.

The Model F emphasised the best design practice of the period. It had a guarantee of 11hp, a Bosch magneto ignition, Schebler adjustable carburettor, and the already-mentioned 3-speed transmission.

The double-bar frame had a continuous loop from the steering head to the seat post and all the frame fittings were either forgings or made of special pressed steel – no castings were used.

As was usual for the period, only a rear brake was employed, as a front brake was considered dangerous on the predominantly unmade roads of the era. The 28in wheels were shod with Goodyear rubber.





The front fork was of Harley's own design and was utilised by the racing team for a further 15 years without any major refinement. The handlebars had a diameter of 1in – a thickness still used by Harley today.

Choosing the colour was easy – there was only one option for these models, that being grey. That of course helped coin the phrase 'Silent Grey Fellow', a common description for Harleys of this vintage.

Harley built 16,493 motorcycles in 1915 with approximately one third leaving the factory with sidecars. Remember, in this period the motorcycle was often the sole means of family transport. The sidecars were designed and built at the Milwaukee facility and could be attached or detached within minutes.

The all-steel construction was finished in the same grey with pinstriping to match the motorcycle. In Australia, sidecars were supplied by local manufacturers. It was during this time that sales in Australia started to increase and within five years was one of Harley's most significant export markets.

With so many motorcycle manufacturers operating in the USA at the time, Harley was under pressure to sell all its large volume of stock, but it wasn't until June 15, 1916, that Harold Brungard Senior purchased the bike pictured here, a 1915 Model F – complete with acetylene lighting kit and factory-fitted sidecar – for a total sum of \$385. Harold was a farmer from Pennsylvania, who grew corn to supply the rapidly expanding popcorn industry.

One can only imagine the striking image presented by

the crisp, grey outfit against the green backdrop of the corn. The outfit must have spent a lot of its existence carefully parked in one of the farm's barns, as its condition today – even when taking the light restoration it received in 1990 into account – is very good. The bike was passed on from Harold Senior to Harold Junior and it wasn't until some 20 years ago that the family decided to part with this treasure.

A refurbishment was instigated by the new owner that included an authentic repaint and an engine overhaul. The cylinders were given their first bore in 75 years to a mere 10 thou oversize. A new crankpin, valves and bearings completed the engine rebuild, readying it for the next 75 years. The rear brake was re-lined, the wheel bearings were replaced and with new tyres it was ready to roll.

In 2011 the outfit was purchased for Melbourne's Harley City Collection. As previously mentioned there were other 1915 models sold in Australia but the rugged conditions of the time saw few survive. Interestingly, the 1916 models appear to have a far greater survival rate, even though they were built in similar numbers. ■

*“The cylinders were given their first bore in 75 years, to a mere 10 thou oversize.”*



# THE

FOLLOWING WWII THIS  
BIKE WAS THE MOTORCYCLE  
WORLD'S PIN UP GIRL ...

# VETERAN

MODEL 1946 KNUCKLEHEAD





*“... the bike shown here has led a sheltered life, having covered a mere 14,000 miles.”*

The biggest war the world had ever seen was barely over in September 1945, when, in the time-honoured method at the national dealer conference, Harley-Davidson introduced its 1946 models. With lots of ex-servicemen with money in their pockets looking for excitement of a less threatening kind, Harley's future was looking good.

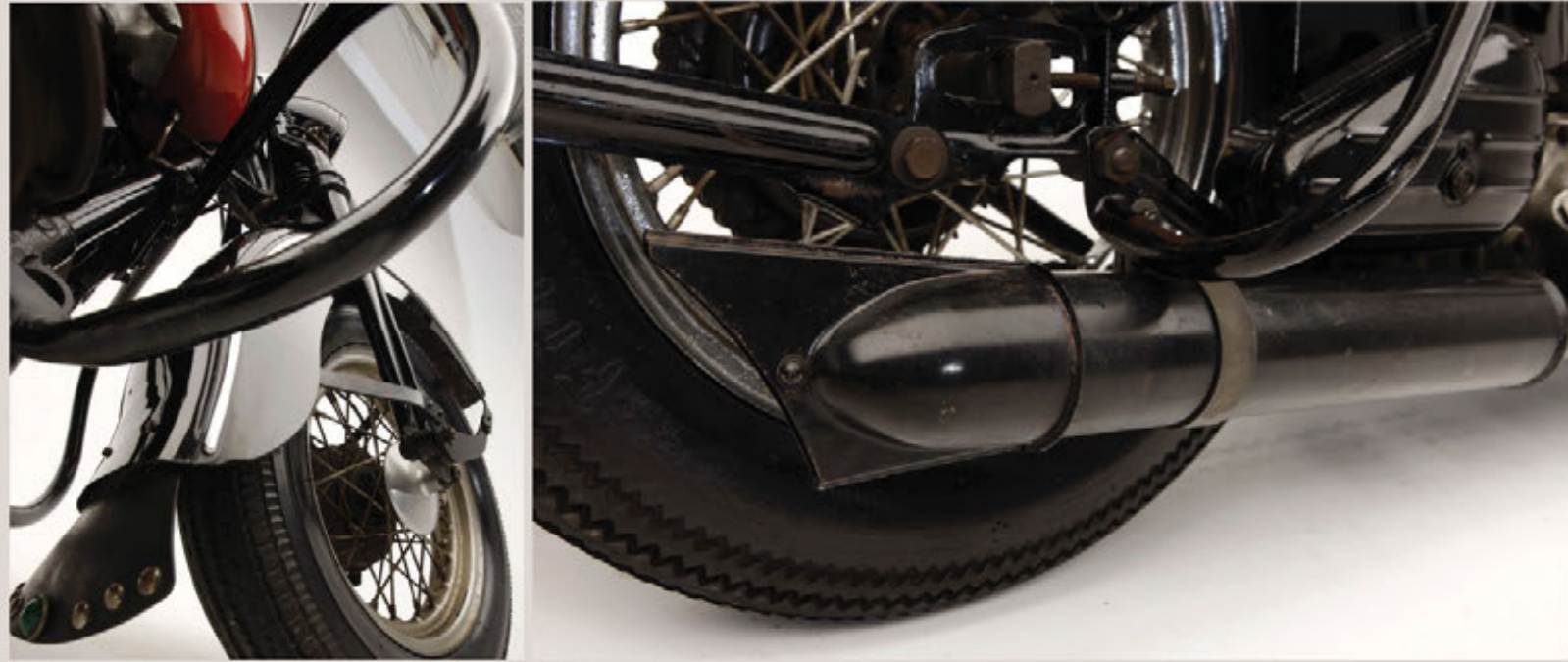
Harley had produced some 100,000 bikes for the Allied war machine, and this in turn had primed the Milwaukee factory for returning to civilian production.

Back in 1936, Bill Harley and his design team came up with a brainchild now called the 'Knucklehead', but in those days it was referred to as the 61 OHV. In 1941 the model's capacity was boosted to produce the 74 cube OHV and by then it was ready to be produced in serious numbers.

After some teething problems during the initial production run in 1936, the 61 OHV was quickly developed into a sporting mount with few equals. Its modern looks, excellent performance and handling, along with excellent durability, had set a foundation for Harley for the next 50 years.

As previously mentioned, in 1941 the 61-cube (1000cc) design was extended to the 74-cube (1200cc) model. These two capacities were offered in parallel until 1952. 1940 ushered in the introduction of optional 16in wheels – an option that by 1946 would be found on most H-D models.





The bike shown here, from Melbourne's 'Harley City Collection', has led a sheltered life having covered a mere 14,000 miles since new. It features the unlisted paint option of black fenders and Flight Red gas tanks. In 1946, Harley models were still experiencing some of the WWII-created shortages of rubber and chromium, among others, but this Knuckle didn't fare too badly.

While it still has the black painted headlamp rim and the embossed steel footboards, it received chrome-plated wheel rims and a chrome air cleaner. Very unusual for the period are the plated handlebars with the short racing-type advance/retard and throttle controls. Quite possibly they were fitted at a later date but they certainly have the patina to suggest they've been on the bike for at least half a century.

Riding this original 64-year-old 61 OHV is a real treat. After a couple of primer kicks, starting is instant and the 1000cc engine runs like a sewing machine (well, by Harley standards, anyway). The smaller engine doesn't have the stump-pulling torque of its bigger 1200cc brother, but it revs harder and it's much smoother.

The Knucklehead is much smaller than today's modern Harleys (it's 70kg lighter than a Softail, for example), and it has a very low centre of gravity. By 1946 Harley had kicked out the rake to allow for the 16in wheels, providing even better stability at speed. As on Harleys of today, its brakes are adequate, without being fantastic.

One can only say that, in 1946, purchasing a new Knucklehead gave you a memorable ride. ■



# PEA

THESE POCKET ROCKETS  
TOOK THE SPEEDWAY  
CRAZE TO THE WORLD ...

# SHOOTER

MODEL 1928 PEASHOOTER 350



In 1926, as sales of large-capacity motorcycles started to decline, Harley-Davidson released a series of side-valve and overhead-valve 350cc single-cylinder machines with an eye to the export market, and in particular England, Australia and New Zealand. Almost 8000 were produced in this year out of a total Harley production of 22,275. The majority were fairly pedestrian side-valves but of interest to this story are the considerably more spritely OHV models. With the advent of speedway tracks – a craze that began in Australia – Harley decided to introduce a purpose-built racer which became known as the 'Peashooter', due to its unusual exhaust note.

These early versions had a weight of 85kg, an 8:1 compression ratio, a short stubby open exhaust and a Bosch magneto, and they produced nearly 30hp. Some 45 of these machines were built in 1926, with at least six coming to Australia.

Oval-track racing in Australia was becoming very popular with spectators; there were major circuits at Maroubra in Sydney and one called the Motordrome in Melbourne, along with many other suburban tracks throughout the country.

The success of speedway was not lost on Harley-Davidson, who sent out factory rider Eddie Brinck to do battle for the Milwaukee brand. Eddie was to win the 'Golden Helmet' at Maroubra Speedway in 1926 on his 350cc Peashooter, against many 500cc machines.







**IDENTIFICATION  
NUMBERS OF KNOWN  
PEASHOOTERS  
IN AUSTRALIA & NZ**

- 1926**  
26S544
- 1927**  
27S512, 27S518, 27S525,  
27SA546
- 1928**  
28SA509, 28-48, 28-50, 28-52
- 1929**  
29SA503, 29SA511
- 1930**  
30CA505
- 1931**  
31CA503



*"Oval-track racing in Australia was becoming very popular with spectators, at Maroubra in Sydney and one called the Motordrome in Melbourne..."*



Crowds of up to 15,000 would watch men who were to become household names – Frank Arthur, Tommy Benstead, Reg Hay, Vic Huxley and Frank Duckett – all scored victories on the Peashooter.

During 1927 the cylinder head was changed to the twin exhaust port style that had become popular for racing machines of the period.

The frame was changed to resemble the road-going versions but it was shorter and with a countershaft, rather than the 3-speed transmission used in the road bikes.

Schebler AM throttle barrel carburetors were used, allowing a fuel of cocktail of 75 per cent wood alcohol and 25 per cent benzol. This not only allowed the compression ratio to be further increased but made the engines run much cooler. Power output was now quoted as 35hp and before the model's production ceased in the mid '30s it was to reach 40hp. Joe Petralli was responsible for much of the model's development during the later period.

In 1928 the Peashooter's main competition was to come from the English Douglas flat-twin. Fay Tylour, who was England's female dirt track champion, was to tour Australia at this time with her Douglas. She was to give Billy Lamont,

## SPECIFICATIONS

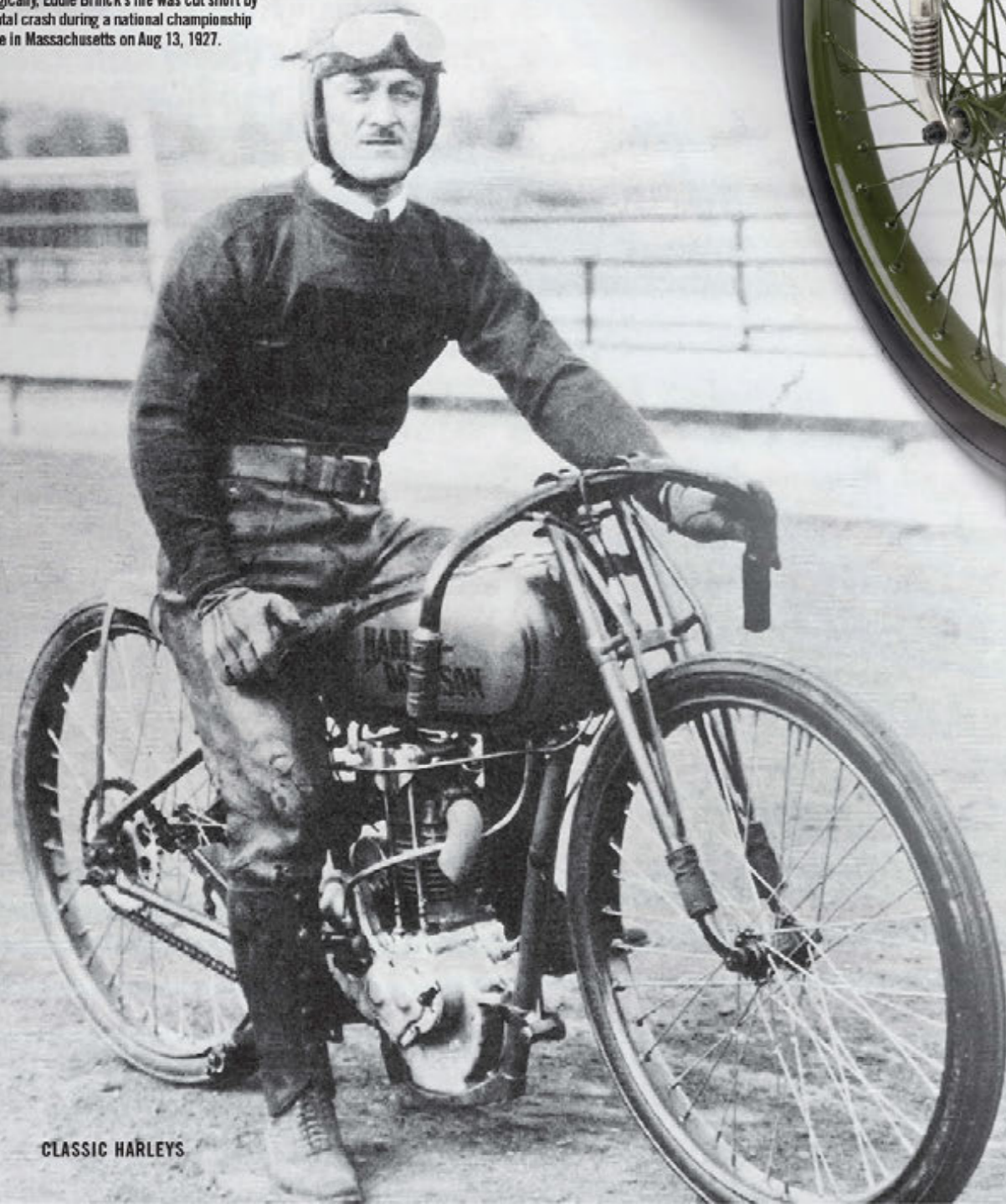
### POWERTRAIN

Type: .... Single-cylinder overhead valve  
Displacement: ..... 350cc (21.35ci)  
Transmission: ..... Direct drive  
Primary drive: ..... Chain  
Secondary drive: ..... Chain  
Brakes: ..... None  
Ignition: ..... Magneto

### CHASSIS

Frame: ..... Single loop  
Suspension: ..... Telescopic forks  
Wheelbase: ..... 49.625"  
Tyres: ..... 28 x 2.25"  
Colour: ..... Olive Green

Below: Eddie Brink was a AMA Class A racing champion of the 1920s. Brink won AMA national titles in 1925 and again in 1927 riding a Harley-Davidson. His background in engineering gave him a special interest in small high-revving engines, his favourite being the Harley-Davidson 350cc "Peashooter" motor that came out in 1926. Tragically, Eddie Brink's life was cut short by a fatal crash during a national championship race in Massachusetts on Aug 13, 1927.



*"Looking at the Peashooter is to look at a rolling sculpture ... and when one looks at the prices paid for paintings on a piece of canvas, it makes bikes such as this look like an absolute bargain!"*

Paddy Dean and Tommy Benstead the hurry up at the Sydney Showground in front of almost 100,000 fans. Speedway had really arrived.

From 1928 Australian stars were to go to England and win both fame and fortune. Frank Arthur in particular was a great exponent of racing the Peashooter in England.

While most catalogue Peashooters were 350cc, a special run of 500cc versions were made. Several of these were to come to Australia but they were never quite as successful as their smaller siblings.

The Peashooter shown here is number 28SA509 – which decoded- translates to a 1928 350cc alcohol Peashooter with countershaft. It was the 10th competition bike built in 1928.

It's no longer in its original racing chassis, which has been replaced with a road-going version of the same year. This frame varies in detail and has a slightly longer wheelbase than the original. The extreme rigours of racing saw only small numbers of original frames survive.

A clutch has been added for ease of use when riding in confined areas. When the original countershaft was installed bikes were push started; they would then do a lap of the oval for a rolling start. And just to add to the riders' challenges, there were no brakes.

Looking at the Peashooter is to look at a rolling sculpture. The Harley-Davidson Racing Department during this period was the ultimate master of making a motorcycle look like it was doing 100mph when standing still, and when one looks at the prices paid for paintings on a piece of canvas it makes bikes such as this look like an absolute bargain!

This bike was procured by Harley City about a decade ago from Queensland. For three years it went to Peter Leech's establishment in Tasmania, where it was given a cosmetic refurbishment by Peter and graphics master Peter Baker.

It can now be viewed at the Harley City Collection museum at 770 Sydney Road, Brunswick, 6km north of Melbourne's CBD. ■

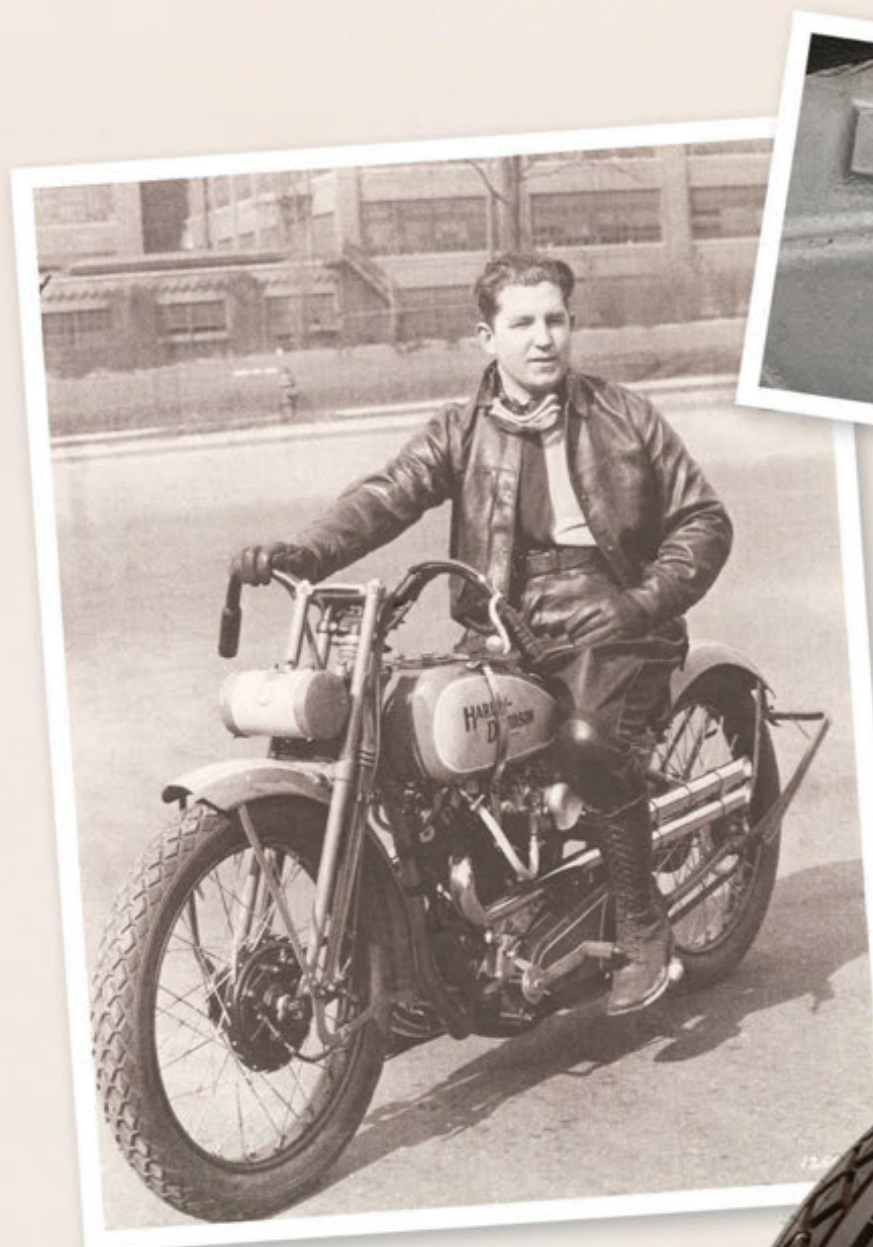
MODEL 1933 DAH RACER

# GLORY DAYS

A PHOTO  
UNEARTH'S  
HARLEY'S  
RAREST RACER

**F**or longer than I care to remember, I've been smitten by a photograph of an obviously very contented man sitting upon what I would consider to be the most magnificent motorcycle ever created. Years after first laying eyes on it, I would learn that the photo was of Paul Weyres, an accomplished racer from Germany, snapped when he was taking delivery at Milwaukee of his new 1930 Harley-Davidson DAH 750cc OHV European Road Racer.





*"This is where the trail for this most exotic of machines stops... almost."*

### CLASSIC CONTROL

Shifter gate, gear lever, auxiliary oil pump, gas tank filler and oil tank filler with no digital display to tell you which is which.



This is where the trail for this most exotic of machines stops ... almost. It's known that Harley-Davidson built at least one more identical machine. It's also known that they built approximately 20 DAH hillclimbers of similar mechanical specification. All these models carried 1930-series engine numbers, except for one. The exclusion is the bike pictured here which bears the number 33DAH501, meaning it was built in 1933. All racing bikes of this period ended in the 500 series of numbers.

The paper trail has also revealed that 33DAH501 was raced in regular hillclimb specification, apart from a special lightweight frame bike built by Californian tuning wizard Bill Graves, of the Pasadena Harley dealership Graves and Chubbuck. This was raced by hillclimber and speedway ace, Byrd McKinney.

Byrd appears to have landed frequent rides on exotic Harleys of the period. Archive photos show him on a 1928 FHAC at the Murock Dry Lakes; an earlier DAH; a 1934 CAC Speedway bike and 33DAH501. In 1936, Byrd came to Australia as part of a six-man American speedway team that squared off against the Australians at the Sydney Showgrounds.

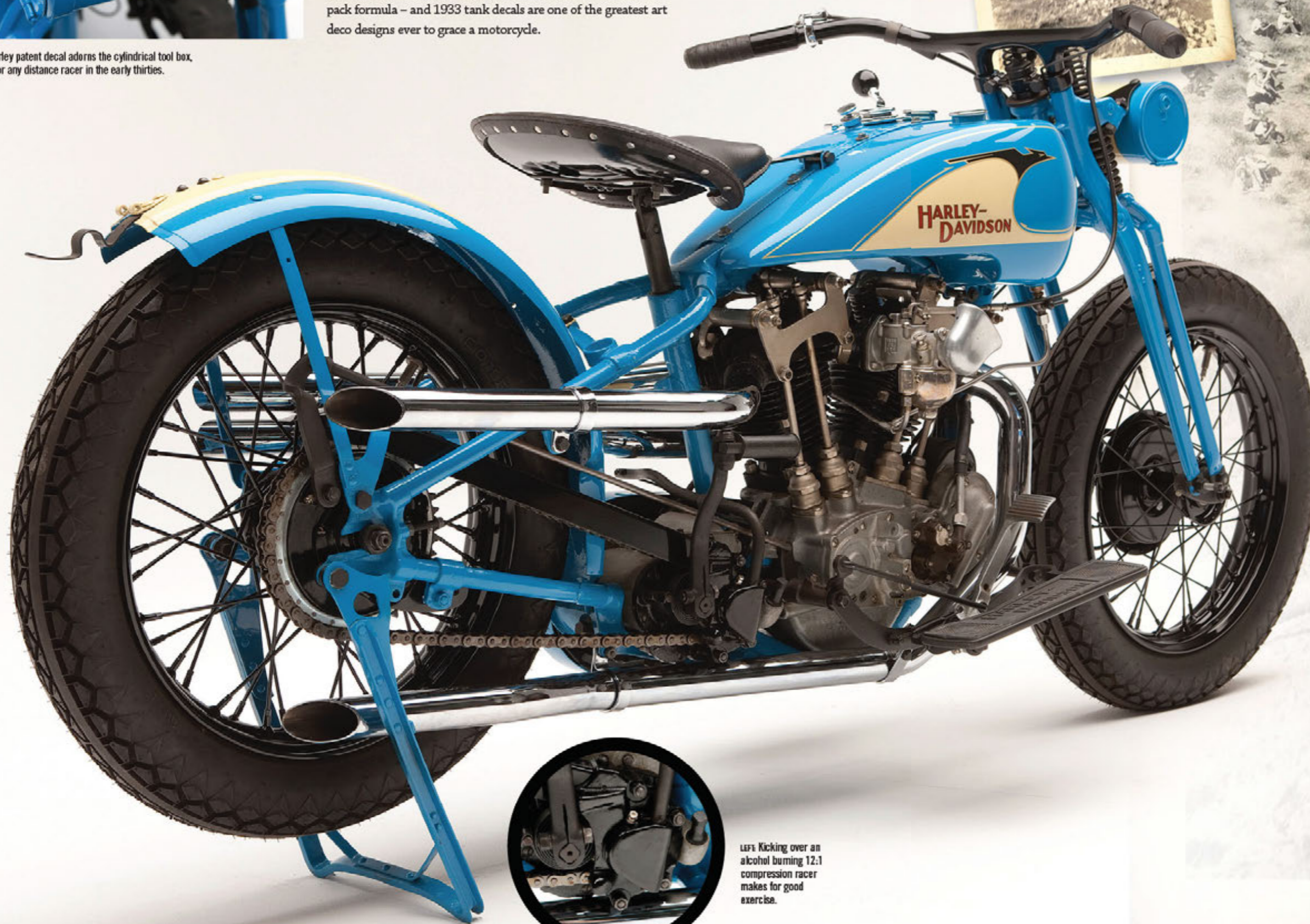
In recent years, more additions have been made to DAR history. Recently Dale Walksler from the US museum, Wheels Through Time, has discovered a DAH built by Harley around 1929. This bike features an earlier style of frame, similar to board track specification.



ABOVE: Harley patent decal adorns the cylindrical tool box, a must for any distance racer in the early thirties.

Early American race bike expert, R L Jones, is well on the way to building a 1930 DAH-spec bike, which is remarkably faithful to the detail of the original.

In 1997, Melbourne-based Harley dealership, Harley City, purchased 33DAH501 from the Tony Penachio Collection in Westchester County, New York. '501' was still in its Bill Graves chassis, as raced by Byrd McKinney. In 2001 it was decided to put the single-purpose Graves frame under the bench and introduce engine '501' to a period RL road chassis. Clive Weiss modified the tanks to go over the bulky OHV gear; Billy MacNamara did the same with the frame. Peter Leech applied the paintwork, keeping it to his special thin, non-two-pack formula – and 1933 tank decals are one of the greatest art deco designs ever to grace a motorcycle.



LEFT: Kicking over an alcohol burning 12:1 compression racer makes for good exercise.



TOP LEFT: Byrd on a 1930 DAH. A very rare machine with the early cross over forks. Very few photos appear of these front forks in action as period reports say they made the bike easier to flip over backwards.

ABOVE: Byrd at work on 501 with the later style conventional type springer forks. These bikes ran on alcohol on a very high compression ratio. The DAH's were still being raced and winning in the early 1950's. These hill climb events were hugely popular back in the day. Note the rope in the foreground, used to assist fallen riders and bike recovery teams as they negotiate the steep slope.

RIGHT: Byrd made quite a name for himself racing in the 1930s, earning rides aboard some of Harley's top-shelf competition hardware.



⚠️ The kill switch is responsible for shutting down the spark produced by the Bosch Magnets.



Steve Mowat was charged with the project's greatest challenge – the DAR exhaust system. After all, although the DAH/R has only one exhaust valve per cylinder, it has two exhaust ports. It took me many years to realise that the DAR system runs on totally different paths on each side of the bike – two high on the left, and one high and one low on the right.

A multitude of clamps and spacers hold the four pipes on, all faithfully duplicated from those two original archive photos. And yes, it's thought that this was the first Harley exhaust system to be chrome plated. The Harley Race Shop really wanted to show off its handiwork. Some 76 individual pieces went into this jewel of a system, and the sound they emit is like no other.

Hillclimb fans and purists need not feel too bad, as the loss of 501 in hillclimb guise has been supplemented at Harley City by a rare duplex frame from one of two remaining DAH hillclimbers – but that's a story for another day. ■

## DAH TIMELINE

**1916** Harley introduces the 8-Valve, its first OHV model. It's an immediate success, and is built in very limited numbers to 1927. Only factory race teams and some favoured dealers receive them although several make it to Australia and New Zealand.

**1926** The 350cc single OHV Paashooter is released. Again numbers are limited, but at least six 1926 models make it to Australia, where they are raced on speedway tracks.

**1928** A 500cc version is released and again Australia receives at least six. 350cc models continue to be built and some make it to Australia.

**1928** Harley, with the assistance of a Milwaukee dealer, Knuth, fit 350cc Paashooter top ends on to a two-cam bottom end, creating the first 750cc OHV. It is believed that three of these were built, with two still in existence. These weren't that successful.

**1929** Harleys first four-cam bottom end is used on the DL 750cc side-valve range.

**1929** Work starts in earnest to produce a competition engine in 750cc four-cam OHV specification. The DAH debuts as a 1930 model at a Pittsburg hillclimb event and John Groves pilots the DAH to its first victory.

**1930** Harley builds the main run of DAH and DAR models, probably about 20 in total. Towards the end of this run the carb is moved from the left to the right, allowing installation of a better breathing, Y-shaped inlet manifold. Some 1930 engines are installed in what are believed to be 1932 duplex frames – and sold as 1932 models for \$300!

**1933** One 1933 model – this bike 3304/1501 – is built with slightly different crankcases and the later-style top end.

**1939** By now the DAH has won nine national hillclimb titles (seven by Petrali), making it one of Harleys most successful racers ever – and, of course, the rarest.



# THAT RARE BIRD

FROM THE AUSTERE  
WAR YEARS  
COMES A CLASSIC  
KNUCKLE...

MODEL 1943 KNUCKLEHEAD



It was 1943, a very serious time to be in the motorcycle business, when a major conflict was in full swing in just about every corner of the globe. Fortunately Harley-Davidson had a major military contract building the indomitable WLA. Some 27,000 of them were built in that year alone. For the special few who could satisfy the War Production Board that a civilian motorcycle was required to aid the war effort, a Knucklehead could be ordered. Apparently not many people could meet the criteria, as only 203 were built.

Four different models were available in the OHV Knucklehead range – the 1000cc E and EL and the 1200cc F and high-compression FL. Of the latter only 33 were built, the bike featured here being one of them. It's not difficult to figure out that no civilian Harleys came to Australia in 1943.

Late 2010, organiser for the Knucklehead 75th Commemorative, Kendal Maroney, was looking for an example from every year of Knucklehead production for the event. And a 1943 model was always going to be the toughest to source. As luck would have it, right at the very time his search was going on, an Oregon collector put one of the few in existence

*“Of the latter only 33 were built, the bike featured here being one of them.”*



on the market. While Kendal didn't have to get War Production Board approval, clearance from wife, Wendy, was equally critical. In any case, the purchase was made and it is now history that at least one of every year's production was present at the commemorative Knucklehead event at Milawa, Victoria in March 2011 (see HEAVYDUTY magazine #117).

All of the 1943 Knuckleheads were available only in Utility Solo Group specification, i.e. the specification you see here – solo seat, no extra trim, regular handlebars and so on. Chrome was virtually non-existent, with the only plated pieces being the four large hexagon shaft nuts on the rocker boxes. Kendal's bike also has the chrome tank emblems of a 1942 model – these were generally painted in drab grey during this period. The only colour listed as available for 1943 was grey but it was certainly possible that a few escaped with a brighter paint scheme of an earlier year. To claim that the scheme would have been as bright as the superb Harley Orange seen here would be a bit of a stretch, but it does do a magnificent job of accentuating the magnificent, squat lines of this 16in-wheeled, mid-'40s Knucklehead.







These engines are great performers, easily propelling the 535lb machine to speeds well in excess of any speed limit. As we've said before, early bikes with 16in wheels are not as stable as their 18in-wheeled siblings and some care must be exercised on rough surfaces. But, with careful set-up the brakes are more than adequate.

This bike has had an Antique Club of America style of restoration, meaning that it's correct in the majority of its detail. Because of the rubber shortage these bikes received steel ribbed footboards and steel kicker pedals. Many engine parts were painted white to eliminate the zinc required for silver paint and cadmium for the cad-plated parts.

All in all, a very handsome and highly desirable collectable. ■



## SPECIFICATIONS

### ENGINE

Type: 1200cc Knucklehead  
Cases/bearings/barets: Stock  
Pistons: Cast steel, strutted  
Compression ratio: 7:1  
Pushrods: Alloy  
Valves/springs/retainers: Stock  
Ignition: 6-volt  
Carburetion: Linkert  
Exhaust: Stock

### TRANSMISSION

Type: H-D 4-speed, constant mesh  
Clutch: Multi-plate  
Primary drive: Duplex chain  
Rear drive: Single chain

### FRAME & SUSPENSION

Frame: 1943 FL  
Front: Springer forks  
Seat: Leather solo

### WHEELS & TYRES

Rims: 3.00 x 16  
Tyres: Continental 5.00 x 16  
Brakes: Drum

### CONTROLS

Bars/grips/mirrors: Stock  
Levers: Cast steel (front brake only)  
Switchgear: Hi-to horn  
Headlight: Guide  
Taillight: Beehive

### GUARDS & FINISH

Guards: Stock  
Fuel tank: 3-gallon  
Oil tank: 4-quart wrap around





**PAN** THE YEAR 1948 SAW THE BIRTH OF ALICE COOPER, OZZY OSBOURNE - AND THE HARLEY-DAVIDSON PANHEAD ...

# AMERICA

MODEL 1948 PANHEAD

In 1948, Harley-Davidson was in the middle of a post-war sales boom. The previous year had seen the company build some 20,000 V-twins and 1948 would see a similar number roll off the production line. However, sales numbers aside, the really big news for 1948 was Harley's new cylinder head design, which – due to the shape of the rocker covers concerned – would become known universally as the Panhead.

Made of cast aluminium, the new heads improved heat dissipation and were lighter into the bargain (not that weight was always a major concern at Harley!). They were also vastly easier to assemble and had improved oil sealing capabilities.



Gleaming like it rolled off the line yesterday and with just 29,000 miles on the clock, Harley City's '48 Pan is as clean as they come.



*"...From a collector's perspective the 1948 Panhead is highly desirable, despite the relatively high numbers that were built."*

Another nice touch, and a feature found to this day, was the introduction of hydraulic lifters. They might not have been as efficient as later examples, and they didn't work so well on cold winter mornings but, once the oil had warmed up, the reduction in mechanical noise was significant. As with the passing of any generation, there were enthusiasts who bemoaned the loss of their beloved Knuckleheads but generally the improvements ushered in by the Panhead were well received.

The frame, fork and a great number of other parts remained virtually unchanged from the 1947 models, as it would be the Hydra-Glide of 1949 that would see updates in these areas. This means that from a collector's perspective the 1948 Panhead is highly desirable, despite the relatively high numbers that were built. Their unique nature was also recognised by the chopper builders of the late '60s and early '70s, so the survival rate of good, stock examples isn't high.

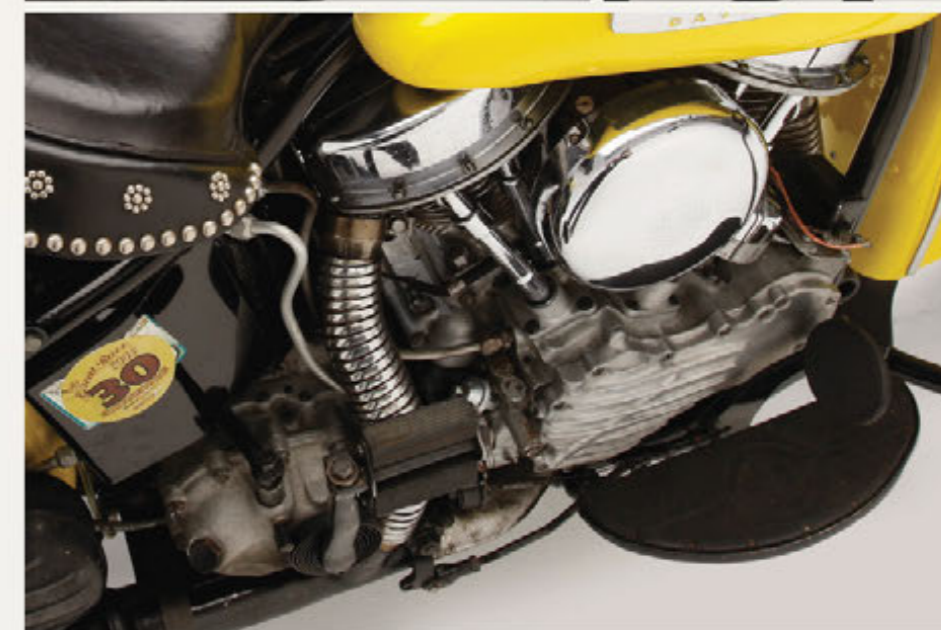
The bike shown here is a three-owner example with 29,000 miles on the clock. Harley didn't offer any new colours for '48, the options of Flight Red, Skyway Blue and Black all featuring in previous years. It seems the second owner of this example loved yellow, so with the original Flight Red as an undercoat, yellow it became.

Still, Harley also had a thing for yellow in 1948. The owner's manual cover and the conchos on the 'deluxe package' seat and saddlebags were all finished in that colour. Just before Harley City purchased this bike some 10 years ago, it was photographed for Greg Fields' book, *Original Harley-Davidson Panhead*, now considered to be the bible for all things related to the Pan. The bike arrived at Harley City fitted with a later seat so the original seat pan was recovered in the correct style, with matching, correct-for-1948 saddlebags.

The handlebars were exchanged for period Hollywood-style 'bars and it was serviced. Then the bike was ready for use. Since then it has participated in two Great Race reliability trials and has been used on many Melbourne commutes. It performs faultlessly, starting with a couple of prods of the bicycle-style kicker.

Cruising is a treat and its handling, with 1947/48 offset springer fork, is a delight. Acceleration is crisp and as for the brakes, well – let's just say they're typical Harley.

62 years on, this original 1948 Panhead still delivers a very enjoyable riding experience. ■



# LIGHT MY FIRE

H-D ARCHIVES STATE  
THERE NEVER WAS A FIRE  
DEPARTMENT MODEL BUT TRY  
TELLING YOUR EYES THAT!

MODEL 1954 PANHEAD





**K**en Dolby had a stock 1954 Hydra-Glide. It wasn't particularly special but Ken wanted to transform it into a fire department H-D. Between 1934 and 1942 there were many three-wheeled fire department Servi-cars in operation throughout America – little fire trucks, if you will. However, Ken wanted a two-wheeled version, a model that Harley-Davidson had never actually built!

The first exercise was dismantling and re-building the original 74 cubic inch engine and gearbox, using only genuine H-D components. The frame was stripped of all paint and powdercoated in black. At the same time the fenders, fuel and oil tanks were removed and given a new lease on life care of many coats of Signal Red paint. Finally, genuine Milwaukee Fire Brigade badges were sourced from the internet and affixed to the fuel tanks.

The frame was enhanced with crash bars at the front and rear as well as original H-D Police Special flashing lights fitted with red lens. The handlebars are an original 1952 bend running an internal throttle.

The original rims were powdercoated and re-laced with new spokes, shod with Coker whitewall tyres and fitted with re-furbished drum brakes, front and rear.

The seat was trimmed in black leather and bumperettes fitted to the rear, after chroming.

However, the item which really adds to the illusion is an



*"... the item which really adds to the illusion is an original H-D siren, courtesy of a 1952 Panhead Police Special."*

original H-D siren, courtesy of a 1952 Panhead Police Special. Mounted to the front fender in the correct style, it looks as if it was made to be there – which in a way it was! The hatchet fitted onto the left side of the bike at the rear was found in London, also via the internet. And finally, the brass fire extinguisher was located and purchased at a trash 'n' treasure market.

Everything on this Hydra is genuine Harley-Davidson – either new or rebuilt. The Fire Special is a great take on a classic H-D that never actually existed but you could be forgiven for thinking it came direct from the factory, even if the theme and appearance is a far cry from the bike that originally rolled off the MoCo production line decades ago.

And really, there can be no better praise than that! ■



# TIMELESS IRON

COOL RED JDH SPANS  
THE DECADES ...

## MODEL 1928 JDH

In its day, the Harley-Davidson JDH, better known simply as the Two-Cam Harley, was the fastest road bike the company ever offered to the public and likely the fastest bike on the streets period. Reportedly it could attain speeds of 85mph and could even be coaxed to 100mph with tuning. Only the Henderson KL would have been capable of fending off a fast Two-Cam.

The Two-Cam engine had earned a lasting reputation for its power and acceleration in racing. Harley-Davidson then provided the ultimate road motorcycle by joining the specialised racing engine with the chassis of their standard JD street motorcycle. Records show around 24,000 motorcycles were produced by Harley-Davidson in 1929 and over 10,000 of those were 74ci JD's, yet probably less than 100 of these very special H models were ever built. There weren't even enough for each dealer to receive one. If you could locate one to purchase, the buyer had to be ready to plunk down \$370 for the privilege. A lot of money in those days, this price was \$50 over the value of a regular JD. (Research states that 2/3 of families earned less than \$2500 per year.) So a JDH would cost the average household two months wages.

Excepting the unique motor, the 1928-29 JDH was identical to the standard JD model. The JD was the first Harley-Davidson





*“Probably less than 100 of these very special H models were ever built...”*

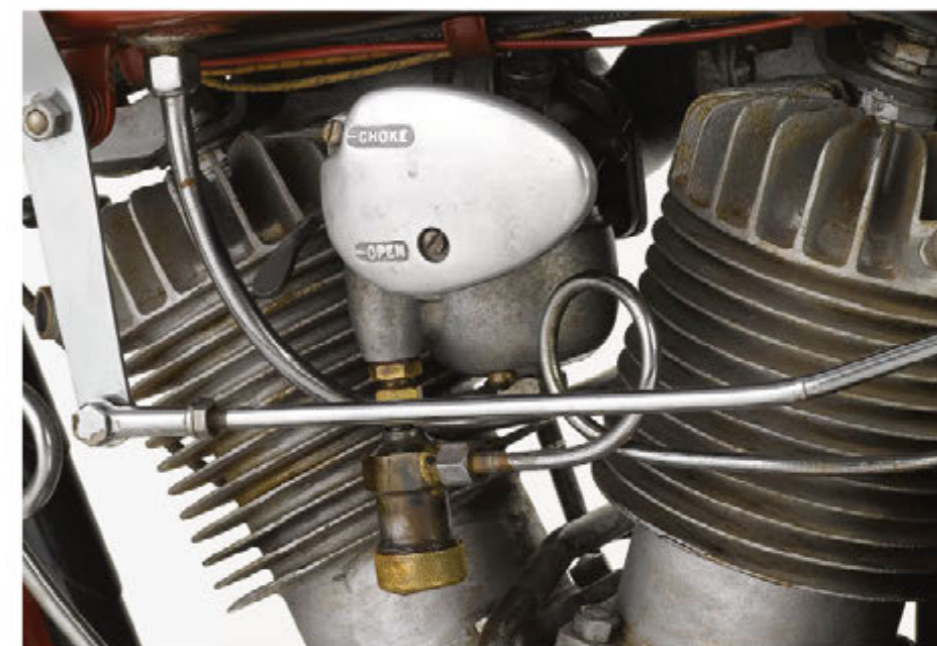


that took on the appearance of a modern motorcycle, mostly through styling changes such as larger fenders and gas tank. (More than likely, the earlier guards on this bike were an attempt by a previous owner to return a race bike back to road going trim.)

The bike rolled on 18in wheels that minimised the 'antique' look. New for 1928 were front brakes, for both Indian and Harley, and new for 1929 were twin bullet headlights. While not very effective, they were definitely trendy. A new instrument dash with the machine's switches and ammeter modernised the bike as did covering the oil pump on the side of the timing case.

This may have been a move by the factory to protect the oil pump and controls.

Social responsibility was just as important in 1929 as today, and the motorcycle featured quiet 4-pipe mufflers which proved to be unpopular with the masses. Carried over from 1928, a front brake became standard equipment.



above: Two-Cam motor was a powerhouse back in the day. The JDH would run close to the magic 'ton' - 100mph.





## SPECIFICATIONS

### GENERAL

Model: 1928 JDH  
 Owner: Peter Thorburn

### ENGINE

Type: 84ci V-Twin air cooled  
 Cases: JDH (85 year old survivors!)  
 Crank: Standard  
 Barrels: Stock, with stroker plates  
 Pistons: Stock, with stroker flywheels (w/ve VI flywheels)  
 Ignition: Electric total loss spark  
 Carburetion: Schebler  
 Exhaust: Stock

### TRANSMISSION

Type: 3-speed  
 Clutch: Dry Plate standard JD  
 Drives: Chain

### FRAME & SUSPENSION

Type: 1925 JDH  
 Front: Springer  
 Rear: Rigid  
 Seat: Spring seat post with half seat pan

### WHEELS & TYRES

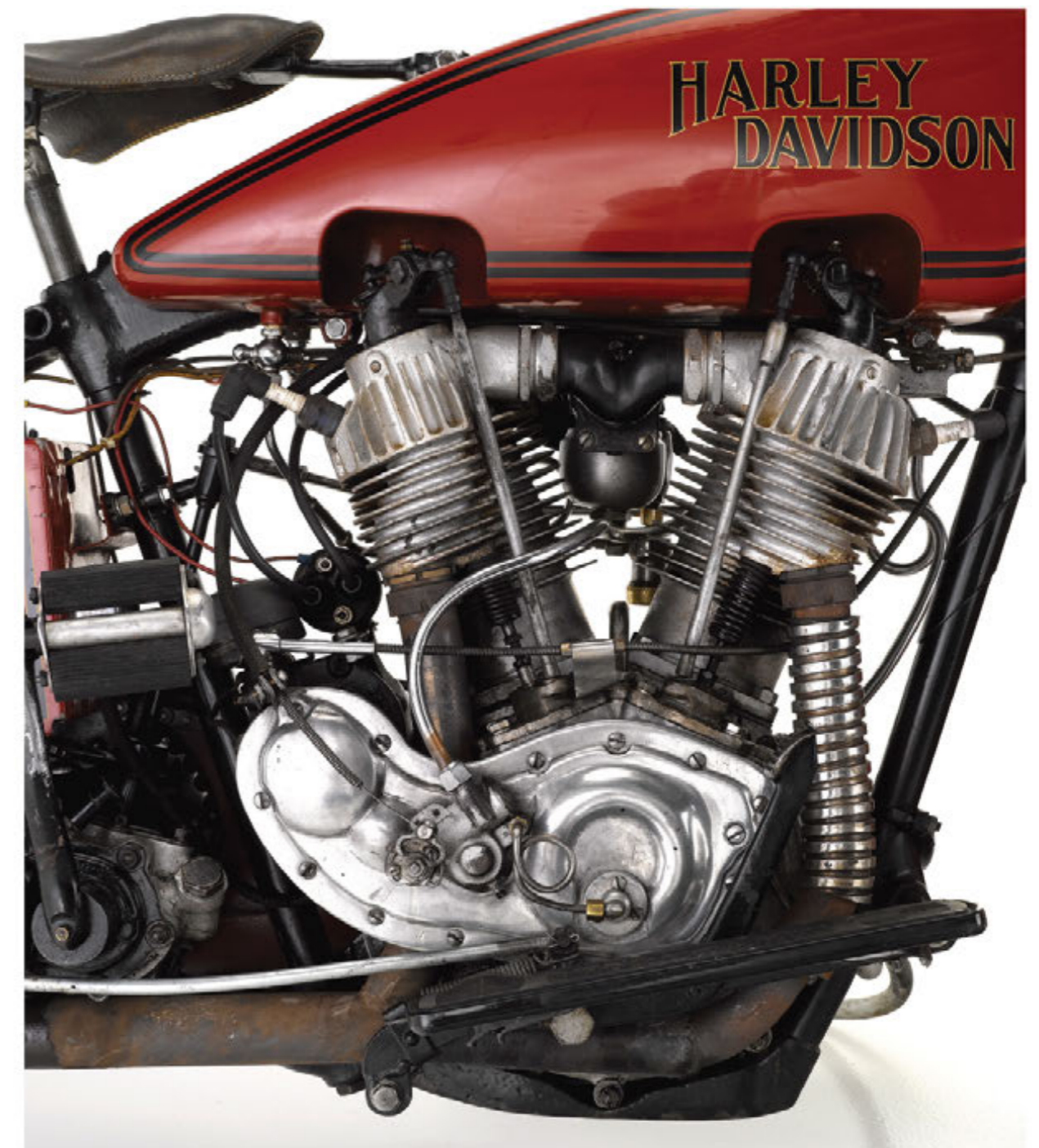
Rims: 18" drop centres  
 Tyres: 4x18 Finestone Deluxe  
 F brake: First front brake on Harley-Davidsons  
 R brake: Band operating on drum  
 Brake lines: Rods and cable

### CONTROLS

Bars: Stock, but narrowed  
 Grips/levers: Stock  
 Footpegs: Foot boards  
 Gearchange: Hand shift, foot clutch  
 Headlight: Single

### GUARDS & FINISH

Guards: Pre-1925  
 Fuel tank: Stock  
 Oil tank: In front section of left tank  
 Painter: Ron Keed  
 Paint: Alfa Red (as its the closest to Harley Red of the time)  
 Upholstery: Seat by Graham Cole at Ridin'-Hide Leather Goods



The Two-Cam motor had its heritage in racing. Using two camshafts allowed the valve train to be smaller and lighter, thus enabling the motor to spin faster than stock JD engines. However, reliability suffered as the exposed valve assemblies were noisy and prone to excessive wear from predominately dirt roads. (Woodward Avenue in Detroit, Michigan, carries the designation M-1, so named because it was the first paved road anywhere. That was 1931.)

Like the JD, the JDH was the final gasp of the 74ci F-head engines produced by Harley-Davidson. The following year, the side-valve motor was fitted to all models and the industry would have to wait until 1936, and the introduction of the Knucklehead, to cause the same kind of excitement with riders.

This particular example was reportedly ridden by the great H-D racer Joe Petrali and owned by Bob Wood of Motorcycles Only. It was featured in the official Harley-Davidson Calendar of 2006. ■



MODEL 1929 TWO CAM TWIN

# TWO CAM CLASSIC

IN THE LATE TWENTIES, THE  
JDH 'TWO CAM TWIN' WAS  
THE ROCKET OF ITS DAY ...

**W**hen Harley-Davidson released the 1200cc JDH Two Cam Twin, the advertising blurb said, "Just the motorcycle for the rider who simply must have the fastest thing on wheels."

The Two Cam engine was a direct descendant of Harley's record-breaking FH racers, which saw the light of day back in 1920. Harley disbanded the 'Wrecking Crew' Race Team back in 1923 but continued to supply favoured dealers,

*"1928 was the year Harley introduced the front brake on its entire model line-up, so you had some chance of slowing down your JDH..."*





including some in the Antipodes, with FH models in road racing, board track and hill climb guise.

In 1928, as the venerable JD family of road-going twins were getting towards their use-by date, Harley decided to regain the company's performance reputation by releasing the Two Cam JD series.

The 1200cc JDH and 1000cc JH had their Two Cam engines installed with mostly regular JD cycle parts. Fortunately, 1928 was the year Harley introduced the front brake on its entire model line-up, so you had some chance of slowing down your JDH, which in racing trim was capable of 100mph. It was also decided that the Two Cam would have smaller diameter wheels and smaller gas tanks – an American tradition that continues to this day. The regular-size items often specified by buyers were listed as options!

The regular 3-speed transmission and generator with coil ignition were also retained from the road bikes. How many of these Two Cams were built is not documented, but an educated estimate is 2000 over the course of 1928 and 1929.

The year 1930 was to see the introduction of the side-valve VL series, which would develop into very reliable machines. They were, however, nearly 40kg heavier than the JD models and were never to eclipse the performance of the JDH. In fact, in 1936 the American Motorcycling Association banned the JDH from competition, as it continued to beat more modern bikes available!

The regular olive green 1929 JDH shown here, from Melbourne's Harley City collection, has the optional larger-capacity gas tanks. This particular bike was for many years in the Bud Ekins collection. Bud was best known as the stunt rider in that classic movie *The Great Escape*, as well as driving the Ford Mustang in some of the memorable moments in *Bullitt*, with Steve McQueen (both Ekins and McQueen rode for the

American International Six Day Trials Team). Ekins amassed a large collection of antique bikes, many of which were hired for movie studio use. The Walt Disney Movie, *The Rocketeer*, featured this very Two Cam. A Two Cam back in 1928 would set you back \$370.

About 20 years ago, Bud sold this bike to the Otis Chandler Vintage Museum in Oxnard, California. There it was restored by then museum curator, Glenn Bator. In 2002, our Two Cam was to leave the Chandler collection and via Italy it would eventually end up in Melbourne.

The 2011 Great Race – the 20th Anniversary of the Aussie reliability trial for Harley-Davidson and Indian motorcycles – saw the first time entry of a Two Cam Harley. ■



MODEL 1945 U MODEL

# SHORE PATROL

THE US NAVY SHORE PATROL  
RODE A RARE BEAST...





## SPECIFICATIONS

### ENGINE

Type: .....80ci Flathead  
 Carburetion: .....M58 Linkert  
 Air cleaner: .....Houde Oil Bath (military)  
 Exhaust: .....2-in-1, single muffler

### TRANSMISSION

Type: .....4-speed, 23-tooth engine  
 .....sprocket, 3.90 to 1 ratio  
 Clutch: .....Dry friction disk type  
 Primary drive: .....Double roller chain  
 Rear drive: .....Single roller chain

### FRAME & SUSPENSION

Type: .....Steel Cradle  
 Seat: .....Solo, horse leather cover  
 Front: .....Springer  
 Rear: .....Rigid

### WHEELS & TYRES

Rims: .....16 x 3"  
 Tyres: .....Firestone 16 x 5"  
 Brakes: .....Internal drum

### CONTROLS

Bars: .....Buckhorn  
 Grips/levers: .....Rubber hand  
 Headlight: .....6-volt Cyclery  
 Taillight: .....H-D beehive type

### GUARDS & FINISH

Guards: .....Sheet metal military profile  
 Paint: .....Acrylic lacquer  
 Colour: .....1945 US Navy Hull Grey  
 Type: .....PPG  
 Murals: .....US Navy 1945  
 Other finishes: .....All parts other than grey tanks/fenders and frame/oil tank are finished with Corakote (spray on ceramic)

*"It's a big job - if you want to do it properly, which is what I like to do. Hundreds of hours..."*

**A**lan Magarry's stunning ... actually, no, stunning doesn't cover it ... perfect restoration of a 1945 Harley-Davidson Military U model 'Big Twin', in genuine US Navy Shore Patrol livery, is indeed a desirable motorcycle.

This 'Big Twin' has the front brake on the left and the clutch is heel and toe operated - and not sprung. It has to be manually engaged/disengaged - and it has a tank shift gearbox.

"It's one of 262 units built for the US Navy," said Al. "Half were built with sidecars. Half without. They were used by the Shore Patrol - Military Police - on bases in continental USA. And they came out in two versions, 74ci and 80ci. This is an 80. The difference in power from the 80 cube motor is 'quite noticeable' when compared to the standard WLA".

This bike had been converted to civilian use and the previous owner kept it for 20 years. He also kept all of the parts. Its history from the war to then is unknown.

"Although some of the military components were hard to source, now it's all original. Even the Firestone tyres are correct for the period," added Al. "Down to every bead-blasted nut and bolt and ceramic coated component." Comprehensive is another word that comes to my mind.

"It's a big job - if you want to do it properly, which is what I like to do. Hundreds of hours."



The engine number designates a 1945 U model. The two small anchors above signify US Navy production.

The interesting thing about this bike, apart from the very small numbers built, is the unique engine number designation. Genuine US Navy bikes had two small anchors stamped into the left side crankcase, right above the engine number. Only genuine SP bikes had them. ■





MODEL 1925 JE STREAMLINE

# STREAMLINER

FROM A GRAND OLD TIME BACK WHEN ...

## 1925 JE STREAMLINE ORIGINAL SPECIFICATIONS

### MOTOR

V-type, twin cylinder, air cooled, 4-stroke.

61ci (1000cc) model: bore 3 5/16", stroke 3 1/2"

74ci (1200cc) model: bore 3 7/16", stroke 4"

Both models fitted with lightweight iron alloy pistons with three deep, narrow, slot cut rings at the top. Motors are fitted with 1/8" compression plates for sidecar service.

### CARBURETTOR

Schebler model H Zenith or optional Schebler Deluxe.

### TRANSMISSION

Harley-Davidson designed and built 3-speed sliding gear. Transmission box fitted with drain plug.

### LUBRICATION

Harley-Davidson non-circulating force and splash for motor and transmission. All other parts where necessary lubricated by Alemite lubricating system.

### IGNITION

Harley-Davidson generator-battery on electrically equipped models. Bosch magneto on magneto models.

### ELECTRICAL EQUIPMENT

(On electric models only) Harley-Davidson generator, coil and timer, four plate storage battery, Klaxon motor driven horn, two bulb headlight, tail light and manual switch with automatic warning alarm.

### STEP STARTER

Harley-Davidson rear stroke.

### CLUTCH

Harley-Davidson multiple dry disc.

### HANDLEBARS

Harley-Davidson one-piece, 1" tubular double stem with closed end grips.

### FRAME

Strongly reinforced heavy gauge high carbon seamless tubular steel with wide crucible steel trussed loop.

### CONTROLS

Grip, double-acting wire controls entirely enclosed within the handlebars except compression relief which is operated by foot lever.

### BRAKE

Harley-Davidson external contracting rear wheel. 7 1/2" drum, 1 1/4 x 1/4" lining.

### DRIVING CHAINS

Roller, 5/8" pitch and 3/8" width.

### SADDLE

Large, form fitting Mesinger cushion suspension number 3 top.

### TYRES

Goodyear, Firestone or United States 27 x 3 1/2"

### WHEELBASE

60"

### TANKS

Gasoline capacity four gallons, three pints. Lubricating oil one gallon, one pint.

### MUDGUARDS

Harley-Davidson pressed steel, wide and substantial.

### TOOL EQUIPMENT

Complete tool and tire repair kit.

### FINISH

Harley-Davidson Olive Green with Maroon stripe with gold centre and edge black.

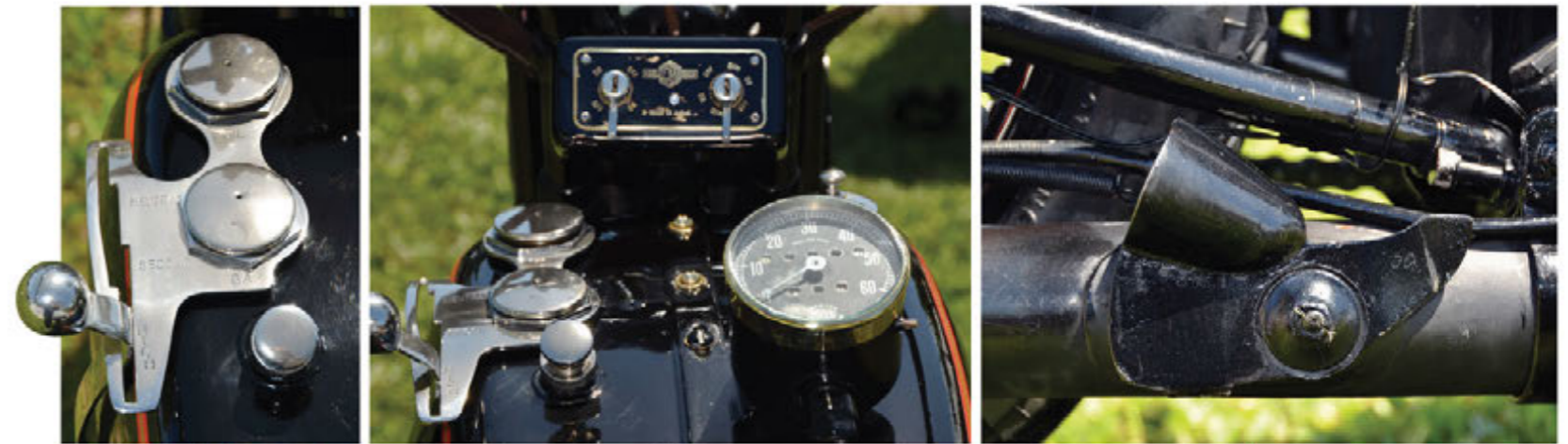
Harley's press release read, "The 1925 'Streamline' Harley-Davidson Motorcycle is the finest we have ever built". It may have been a bold statement but one that was well warranted according to Maarten Zuehorn or "Zuey" as he is better known, owner of this immaculate 1925 JE Streamline.

Zuey admits he has had a fascination with old bikes since he was an apprentice.

"My apprentice master had a collection of beautiful old Indian motorcycles which I used to admire," Zuey recalled. "About eight years ago I was browsing through eBay when I spotted a photo of this bike and I was instantly attracted to it. But it didn't meet the reserve and was withdrawn from sale.

"A few months later, I was back on eBay and discovered a 1925 brochure," Zuey continued. "I was lucky enough to win the auction and when it arrived I read that brochure from cover to cover and was so impressed with the model. I thought they were such a quantum leap forward in motorcycle design for that period.

"I found an email address for the owner of the 1925 Streamline I'd seen on eBay a few months before and dropped him a line to ask if it was still for sale.



ABOVE: The 42in muffler featured a clever foot operated flap that opened up the exhaust for a more 'sporting' note outside city limits.

LEFT: The JE required extra oil when exceeding 40mph. The rider simply depressed the plunger mounted on the tank, to force oil onto the crankshaft.

The fuel cap doubles as a primer to aid starting.



"It was," Zuey smiled. "The next weekend I picked it up."

H-D claimed 27 improvements to the 1925 1000cc JE model, which included the new "J-frame" that lowered the saddle three inches compared to earlier years. H-D also moved to larger and rounded teardrop gas tanks and added wider but smaller diameter tyres to give the 1925 models a huskier look and improved handling. Mind you, colour choices still hadn't changed since 1917 – the customer could have anything they wanted as long as it was Olive Drab although this particular bike was painted black by a previous owner and Zuey intends to keep it that way. All in all the new models looked much more modern than their predecessors. Improvements to the frame included a loop design, which cradled the motor. An improved method of fastening the motor to the frame made it easier to remove and install the engine. The J-frame also retained H-D's patented cushion seat post.

The new speedster muffler boasted not only good looks but added functionality and it came in a black rust-proof finish. The 42-inch long pipe carries exhaust gases, "way back where it is deflected and no exhaust oil can touch and ruin the tire," the brochure reads. The exhaust pipe also features a foot-operated flap that allows the rider to open the pipe before the muffler for a sportier ride out of the built up areas, it could then be easily closed once back inside the city limits.

The double acting outside brake, fitted to the rear wheel only, consists of two separate bands hinged at the rear. The simplicity of the braking system meant they required little adjustment.

In 1925, Harley-Davidson offered the JE, JES Sidecar, JDCB and JDCBS Sidecar motorcycles. The JE (1000cc) models retailed for \$315 and sold 4,114 motorcycles. The larger displacement JD (1200cc) series price was \$335 and H-D sold 9,506 of them.

"My bike was in pretty good mechanical condition when I purchased it," Zuey explained. "Mind you the bike has been well used in the 87-years since it left the H-D Milwaukee factory back in 1925 as the wear is very apparent on some parts," Zuey added. "I have since learnt that it did spend a bit of time in a museum in Bundaberg before being purchased by the fella who gave it a major restoration then it was sold to the guy that I bought it from.

"In the time I've had it, most of the work has been to bring it back to original condition," Zuey continued. "I've also got the original side-car frame, however it is missing the boat. It even has the 1/8th-inch shims to reduce the compression when the side-car is fitted.

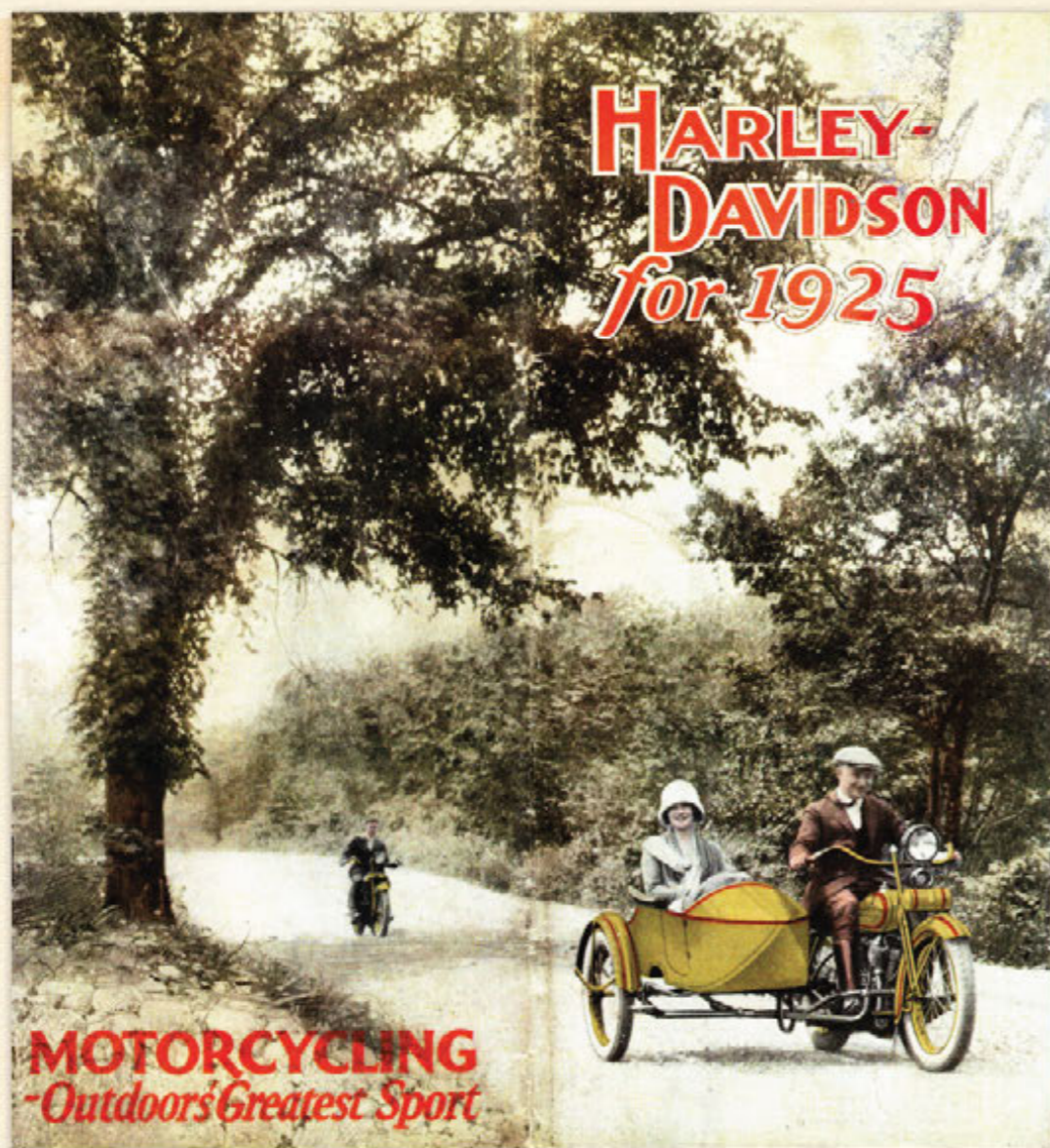
"I've been collecting 1925 H-D brochures for years," says Zuey. "They have very detailed pictures which makes re-creating missing parts achievable. I've been able to make new brass fuel lines from these brochures to replace the rubber hoses that were on it and I'd like to build the side car boat myself one day."

The service manual states that the 1925 'Streamline' is equipped with a self-oiler. "It works quite well," Zuey explained. "However if you exceed 40 mph you need to manually give it a little more oil. It's pretty simple really, just lift the plunger, located behind the oil filler cap on the left hand side of the tanks, and push it down to force more oil down onto the crank."

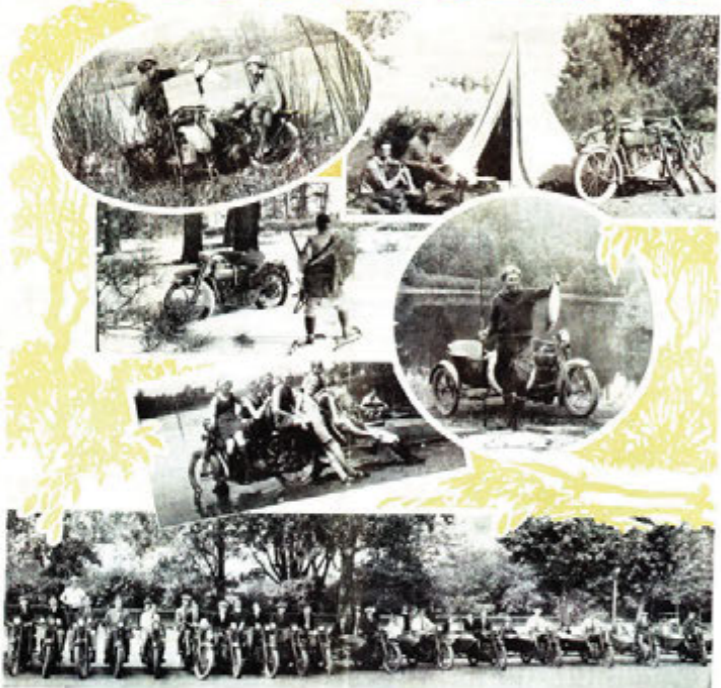
The 61 cubic-inch F-Head engine received a few upgrades for 1925 to improve reliability and longevity, which included lightweight iron alloy pistons with three deep slot cut pistons rings at the top that effectively hold compression and give long wear. The sprocket side crankcase has been strengthened and a sprocket shaft and bearing fitted to increase service life.

## Seven Important Facts About Harley-Davidson

1. More Harley-Davidsons are sold today than any other motorcycle in the world.
2. Harley-Davidson motorcycles and sidecars are now sold and used in 110 countries.
3. Harley-Davidson motorcycles and sidecars are built in a factory that has 12 acres of floor space and employs 1800 people.
4. Harley-Davidson motorcycles are now used by over 1700 police and sheriff departments in the United States.
5. More dealers sell Harley-Davidsons than any other motorcycle in the world.
6. Harley-Davidson motorcycles are backed by twenty-one years of success.
7. Walter Davidson, President; William Davidson, Vice-President; William Harley, Chief Engineer; and Arthur Davidson, Secretary — the original founders of the Harley-Davidson Motor Company are still directing the affairs of the company.



## MOTORCYCLING



## Outdoors' Greatest Sport

**J**UMP in the saddle, give her the gas and you're on your way. You dodge in around and through traffic. You pass 'em all up and lead the parade. Who said hills? A twist of the throttle grip and your motorcycle zooms up the hills like a prairie wind storm. Like to hit trails and paths? They are easy for your motorcycle. You can go where roads don't go with your powerful, dependable motorcycle. Like to breeze along on the open road? You get speed thrills aplenty with a motorcycle. Man, that's Motorcycling — Outdoors' Greatest Sport. Touring, fishing, hunting, camping or a big day's fun with the bunch — a motorcycle opens a new and bigger world of outdoor sport. Now you can take more fishing trips and get out to use lakes in double quick time with your motorcycle. Or chuck your gun in the sidecar, take your pal along and go out for a week-end hunting trip with your motorcycle. You smile at miles now when you take such trips on a motorcycle. Touring and camping, too, have a real kick when you ride a motorcycle. There's none of that caged in or boxed up feeling on a motorcycle. Motorcycling is the red blooded outdoor sport for fellows who like to live. Come on, throw your leg over your 1925 Harley-Davidson and let's go!



Economy too. Outdoors' Greatest Sport Costs You Only 2¢ a Mile—\$1 for 50 Miles With a Harley-Davidson — Gas, Oil, Tires and all

## The Men and Factory Behind the Harley-Davidson Motorcycle



YOU'VE read about Motorcycling—Outdoors' Greatest Sport—and the 1925 Harley-Davidson. Now you may be interested in these seven facts about the Harley-Davidson:

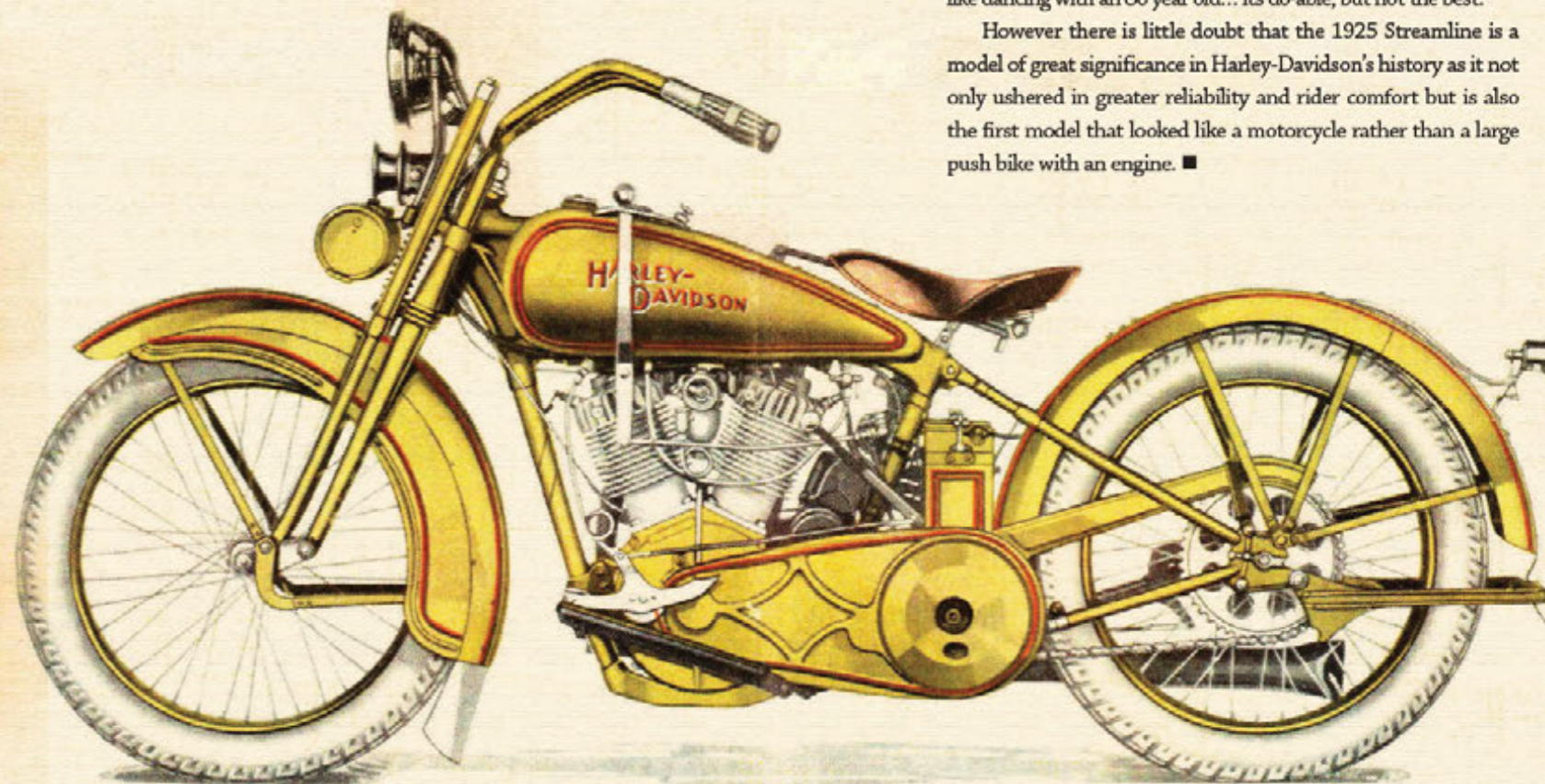
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HARLEY-DAVIDSON MOTOR COMPANY  
MILWAUKEE, WISCONSIN

BAKER'S CYCLE SUPPLY  
Harley-Davidson Motorcycles  
Bicycles and Accessories  
325 CHARTERS AVENUE,  
NEKEEN, ILL., PA.



ABOVE & LEFT: Promotional material of the day was comprehensive. H-D was not shy in proclaiming themselves as the premier motorcycle manufacturer in the world. Some things don't change!



The F-Head engine retained the Schebler model-H Carburetor used on earlier models. It was also commonly fitted to most American made bikes at the time largely because it was one of the first so-called 'automatic carburetors', allowing single cable control, for motorcycles and it was an immediate success.

Both the three-speed transmission and engine use the same oil that is both forced and splash fed and was non-circulating, (total loss system). "It does have a sort of sump which the rider would drain each week if the bike was ridden daily," Zuey explained. "After draining the sump you have push the plunger twice to circulate oil around the internals."

The fuel cap came with a primer, which is used to fill each cylinder with a small amount of fuel to aid starting. To operate, simply raise the plunger to fill the primer with fuel, then unscrew the fuel cap and place the primer tube into the primer port on the cylinder head then push the plunger in which delivers the fuel.

The handlebars are internally wired with the throttle on the right hand side and distributor advance and retard on the left. "The brake lever on the right hand side is not a factory original fitment," Zuey pointed out. "It actually works the back brake, front brakes didn't appear on Harleys until 1928. At this stage I'm intending to leave it on as it works well and is handy if you need to do a hill start because it has foot clutch as well as the standard foot brake, which makes it somewhat difficult to hold the bike upright when both feet are required to get it rolling. It does have hand lever which works the clutch as well."

The length of the rear mudguard was increased to prevent mud being thrown on the rider and it was hinged to enable quick removal of the rear wheel.

In its day it was widely praised as the 'most comfortable motorcycle in the world' and that was largely due to the improved cushion seat post, the front fork springs with auxiliary buffer springs, large roomy saddle and new design handlebars.

When asked what it was like to ride, Zuey smiled and said, "I think its best summed up the way it was explained to me. It's a bit like dancing with an 80 year old... its do-able, but not the best."

However there is little doubt that the 1925 Streamline is a model of great significance in Harley-Davidson's history as it not only ushered in greater reliability and rider comfort but is also the first model that looked like a motorcycle rather than a large push bike with an engine. ■



MODEL 1942 WLA

# RE-ENLISTED

AN OLD WARHORSE SENT BACK TO THE FRONT LINE ...

This bike has undergone quite a transformation. “The bike was pretty poor – but all there – when I bought it,” said owner, Al Magarry. “It had been in a shed for 16 years and was covered in fine surface rust”.

It had also been converted from military to civilian use and painted red, while a number of components had been chromed. “The cables were seized and it hadn’t been started in all that time. Once I got it home, sprayed the cables and loosened it up however, it started first kick, which was amazing. It was blowing smoke though, so we decided to strip it down.”

Looking at the quality of the restoration it’s not hard to understand that Al makes a living building high quality military replicas but this WLA is all genuine (old stock) and the attention to detail is, well, perfect – even down to the helmet, period clothing and replica M1 Carbine rifle.

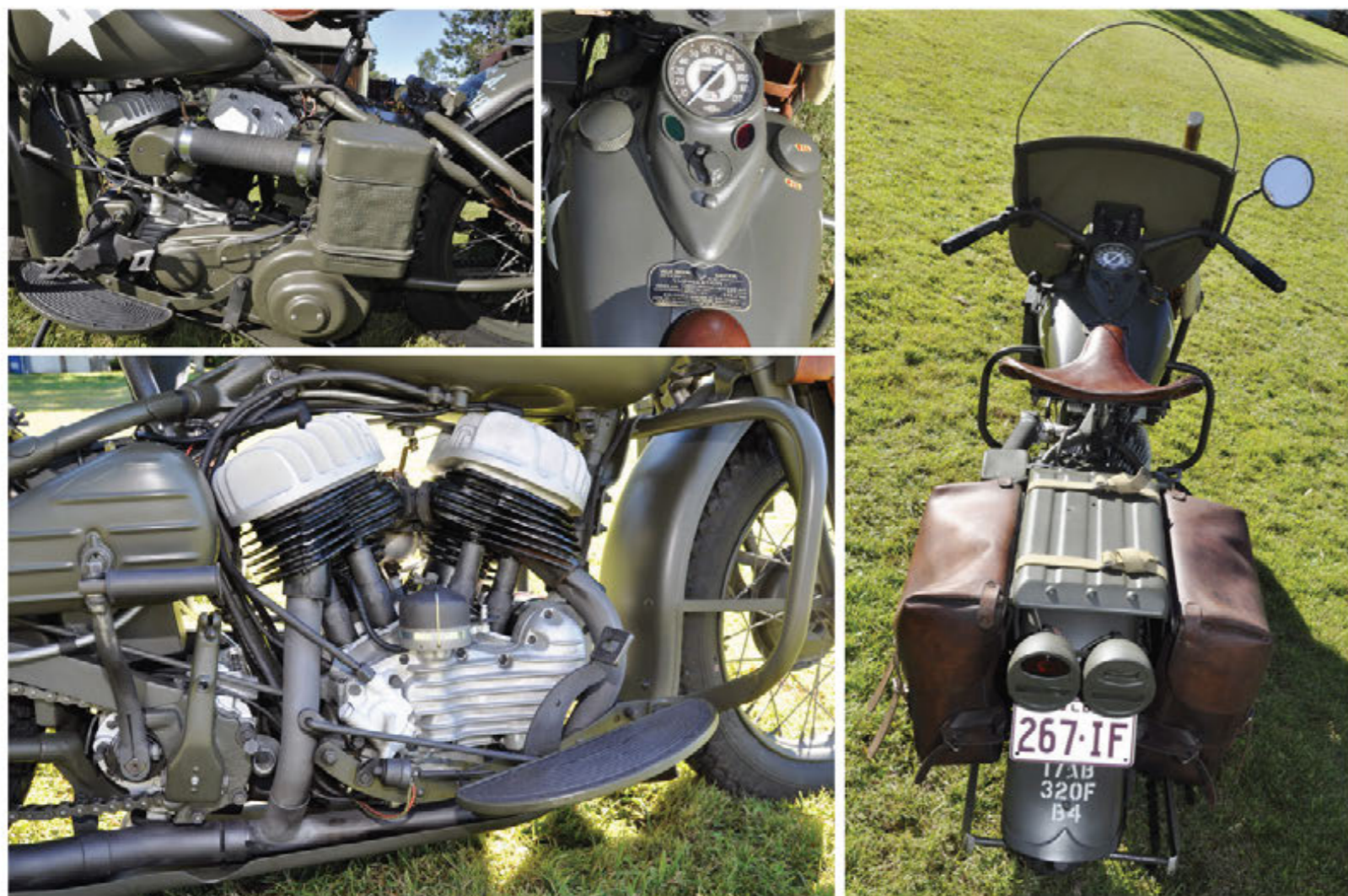
“I zero-timed the motor and stripped the bike down to nothing, every nut and bolt, then restored or replaced every component with genuine parts imported from Holland.

“It still has the original heads, but we replaced the flywheel and all the internal parts, bearings, crank, conrods, pistons and the barrels. In fact, we fully rebuilt the whole bike back to factory specs,” he said.

Al didn’t want the bike to look brand new, so a fair bit of time was spent ageing the saddle and saddlebags and giving it a really genuine period look.

The bike sounds as good as it looks and the result is a stunning restoration. It’s fascinating to read the service instructions embossed into various parts of the bike and check the badges and military insignia. “They were originally developed from a 1936 model civilian bike and then developed by the US military seeking more rapid





troop transport than their existing vehicles offered. When the war broke out production was ramped up and the bike became the '42 WLA, and the start of the series.

"Mine is a Series Three WLA. Although they were made over a number of years, all models are referred to as 42 WLA. The series number designates the model's year. Production ceased around 1946 and then was re-introduced for the Korean war, so you can get up to a Series Seven, which was made in the '50s – that was the last of the 42 WLA."

So, what does it ride like?

"Well, it's different. The running joke amongst WLA owners is, 'Brakes? What brakes!'"

Then there are the differences in the basic operation of its controls, compared to modern-day machines.

Those who are used to walking up to a Harley with a security key-fob, turning the key, hitting the button and going will find the WLA very different.

"First you undo the fuel breather on top of the tank. This lets gravity fill the carburettor bowl. You have to wait a while for this to happen – it's not ideal for a quick getaway," Al joked.

"Then you have to make sure the gearshift is in neutral, and engage the clutch (otherwise it won't engage the kick starter).

Then it's two clicks up on the carburettor-mounted choke. Then it's over to the other side of the bike, lower the kick-starter and kick it over four times with the ignition off to prime the system if cold. (If it's warm or has just been ridden, you bypass this step.) Then switch the ignition on to the first click, manually turn the throttle off and retard the spark via its twistgrip control. Then give it a kick."

It sounded great on start-up.

The manual timing advance also had me intrigued, so I asked Al to run through the 'operation' of the bike. "The right-hand twistgrip is for the throttle, that's pretty standard. The left-hand twistgrip advances or retards the spark – retarded for starting and idling, advanced to make revs while you are moving." Yep, it's a two-handed deal.

The right-hand bar has no levers at all, while that left-hand lever operates the front brake.

The left foot pedal operates the 'unsprung' clutch. "You have to push it both ways – manually engage it and disengage it with the heel/toe lever. The right foot pedal operates the rear brake."

Al kicked it into life one more time and we followed this magnificent bit of two-wheeled history back to base – an outstanding restoration and truly a credit to its owner. ■

## SPECIFICATIONS

### ENGINE

Type: .....45° V-twin sidevalve  
 Bore: .....2.75in  
 Stroke: .....3.8in  
 capacity: .....45 cubic inch (740cc)  
 Compression ratio: .....5.1  
 Carburetion: .....Linkert  
 Air cleaner: .....Oil bath  
 Power: .....23 hp@4600rpm  
 Ignition: .....6 volt coil/points

### TRANSMISSION

Type: .....3-speed  
 Clutch: .....Foot  
 Primary drive: .....Duplex chain  
 Rear drive: .....Chain

### FRAME & SUSPENSION

Type: .....Single downtube rigid  
 Fork: .....Leading link springer  
 Wheelbase: .....57.5"  
 Weight: .....540lbs

### WHEELS & TYRES

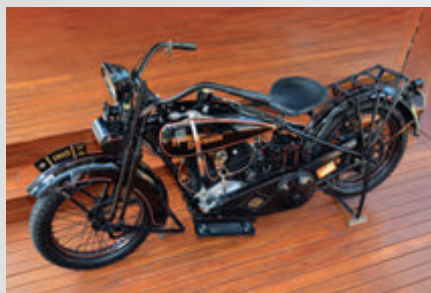
Rims: .....4.00 x 18  
 Seat: .....Sprung  
 Brakes: .....Drum  
 Top speed: .....65mph

*"They were originally developed from a 1936 model civilian bike and then developed by the US military seeking more rapid troop transport ..."*





“Every bike in this book has a history attached to it.”  
– Neale Brumby



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