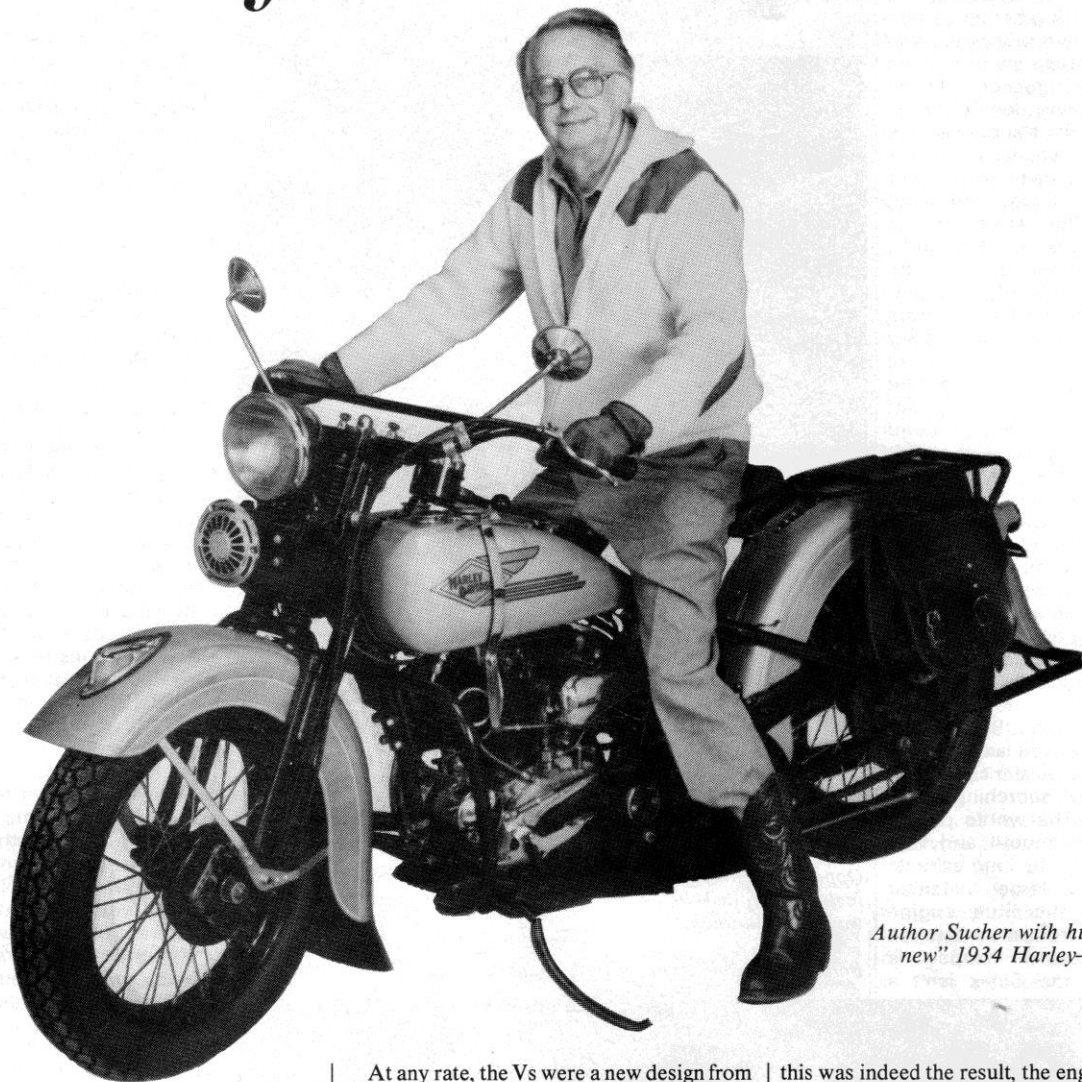


Harry V. Sucher recalls the mixed fortunes
of Harley-Davidson's V series,
and reports on a "brand new" example.

V for VARIABLE



Author Sucher with his "brand-new" 1934 Harley-Davidson VL.

THE V and VL series big twin Harley-Davidsons represent a significant but perhaps less well known segment of the company's history. Produced in rather small numbers during a time of reduced sales caused by a very severe world wide economic depression, they were also overshadowed by the long running J series that preceded them (1914-1929), and the more recent and familiar EL and FL series, the latter produced in but slightly updated form until 1984.

The V series came into being as a development of the J series, which although slightly modified from time to time, was becoming somewhat dated in appearance when compared with the Excelsiors, Indians, and Hendersons which by 1930 had assumed the more popular streamlined appearance. Then, too, the intricately shaped cylinders with integral heads were expensive to cast, and there were many rejets.

At any rate, the Vs were a new design from the ground up, and with a lowered silhouette were of much more pleasing appearance. The initial output, however, was not too well received by some enthusiasts, as in side-valve form the engine developed only about the same power output as the J, and was nearly 100lbs heavier. They also lived in the shadow of the small production but high priced 1928-1929 J "two cam" models which with engines in racing tune could still nicely outperform the new model. It was said by some that Harley-Davidson's designers changed to the side-valve form in imitation of Indian, who had had much success with the type after dropping Oscar Hedström's inlet-over-exhaust engine, which, like the earlier Js, owed much to the pioneering days of De Dion and Bouton.

A more serious problem with the new model was a technical one. Harley-Davidson, hoping for enhanced law enforcement sales, had installed light flywheels to induce what was hoped to be vivid acceleration. While

this was indeed the result, the engine ran out of steam at about 50mph, at which point a tooth-loosening vibration set in that was completely unnerving. I can attest to this, for as a young man I was able to take a demonstration ride on one of the first editions. Not only did many buyers demand their old machines back, but numbers of law enforcement buyers cancelled their contracts after sampling the first shipments.

The company instituted a round-the-clock crash programme to correct matters, and in a few weeks were able to offer revised bottom ends and crankcases to suit. The dealers were shipped these parts at no charge, but were offered no recompense for shop time, a fact that was to cause lingering ill-feeling with the trade for some time to come.

At any rate, the corrected models proved satisfactory, and as the top-of-the-line model, the V was produced in moderate numbers until the late summer of 1936. It was this model that brought Harley most of their now strong penetration of the law enforcement

RIGHT: Speedometer was a \$15.00 extra – just one of many options which bumped up the price of the Harley.

market, and numerous state and municipal police departments bought substantial numbers of them.

For the 1934 sales season, the mudguards were pleasingly contoured to conform to the current automotive practice, along with several modern and attractive colour options. At the same time, the factory price now reflected the seriousness of the times – being just \$310.00 at the factory gate. In California, their area of best sales, one would add \$27.00 for freight, \$2.00 for the side stand, \$1.25 for the mandatory stoplight mechanism, plus \$3.00 for the state licence fee – a total of \$343.00, assuming you didn't need the speedometer which was \$15.00 extra! In any case, a family of five could be fed quite adequately for a year for \$343.00 in those far off days – hence the paucity of sales.

In 1933, the late Joe Petrali, Harley-Davidson's sole professional rider as well as technical consultant, in company with young William J. Harley, altered the rake and trail of the forks, which immeasurably enhanced the handling.

As a non-shareholding employee, Petrali's depression wages were \$40.00 per week.

The models were offered as the V (low compression commercial engine), VL (standard compression solo), VLD (high compression sports), and VLS, a sidecar model with adjusted forks and a reverse added to the standard three speed transmission.

A later fault noted in the VLD was blown head gaskets upon high speed running. Harley did not get around to correcting matters until 1936, when they offered a nine stud cylinder head in place of the former seven stud item. In 1936, an 80 cu. in. model, the VLU was added to the range, along with an improved four-speed gearbox. From 1930 until the end, all wheels, including the sidecar, were quickly detachable and interchangeable, a decidedly modern feature well in line with some British big twins.

In 1930, Alfred Rich Child, then in charge of Harley's Japanese export market, paid the company \$75,000 for the manufacturing rights of the V series in Japan, which later was known as the Rikuo (Rickuo). He once told me that he had made the deal at the factory after seeing the prototype. His initial shipment of 25 machines had to await their replacement flywheels and new crankcases for six months! These machines were later ordered without rear wheels and mudguards and in most cases were fitted with locally made rear cars as commercial carriers. The torque of the big side-valve engines appeared ideal for this work.

The accompanying photographs of my own machine illustrate a rather unique situation, as it is actually brand new! During the time I was criss-crossing the United States researching domestic motor cycle history, a number of old time dealers offered sufficient old stock parts to build up a complete machine. It was then a case of selecting the correct colour option for the paintwork, although the plated parts, very shopworn after fifty years, required replating. The work was completed by ace mechanic Johnny Eagles, of Orange, California, renowned for his interest in old motor cycle restoration. A surprise sequel to this work was that as



sequential parts, they did not fit together as anticipated. It took much hammering, sawing, drilling (and cursing) to get the cycle parts together. It appears that production techniques since 1934 have come a long way!

At the end, a sorrowful fact came to light – everything in the engine was new except the valve gear, consisting of one main drive pinion and four cam pinions. These were obviously not new, and in fact were very badly worn, the cam lobes being grooved, and the pinion teeth well rounded off.

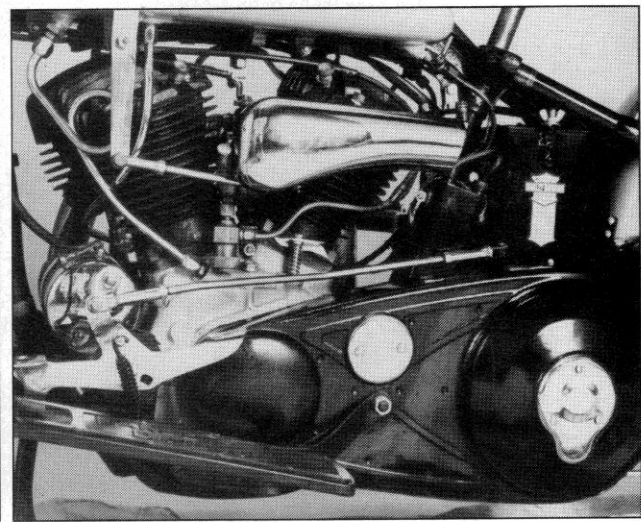
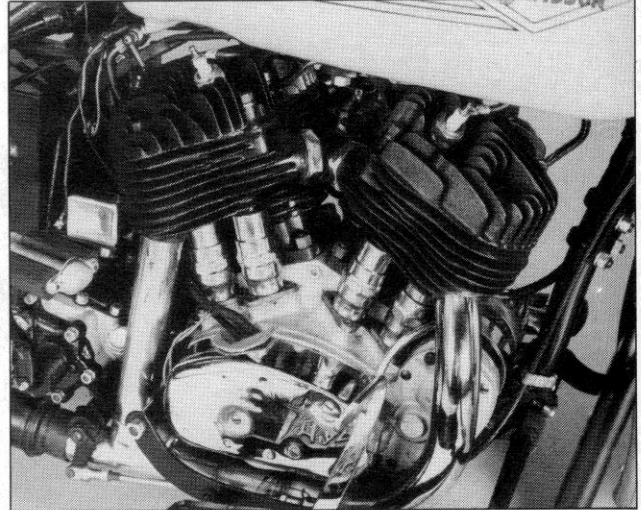
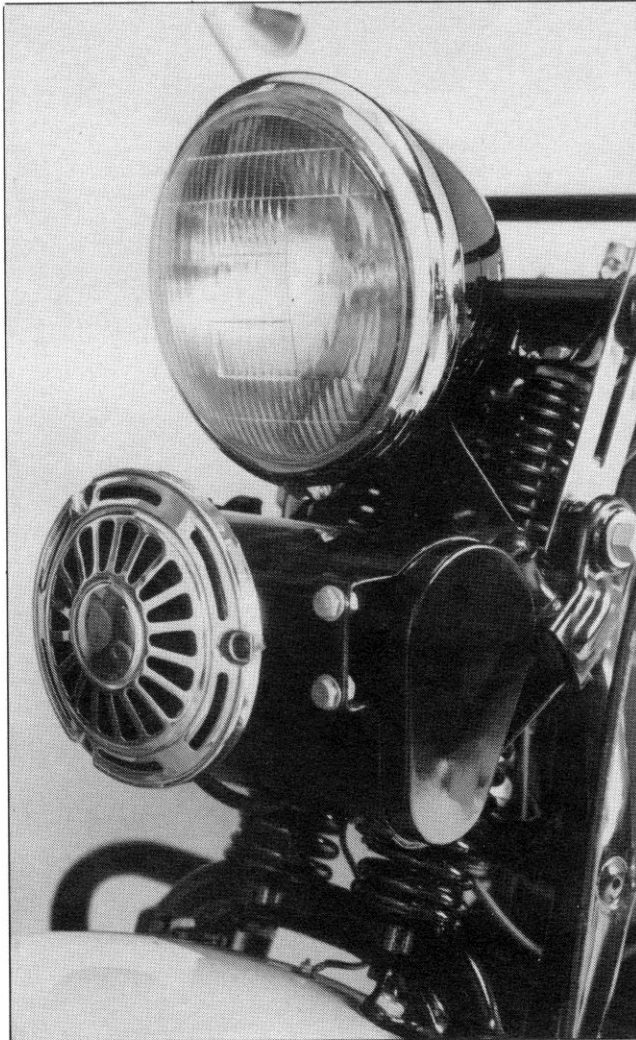
In consequence, the backlash prevented a proper timing of the valves, and in running, if unevenly, the engine sounded like a chaff cutter. A frantic search for new or at least useable cams proved futile, and the machine spent the year of 1984 as a static display in a local Harley-Davidson agency, where it attracted much interest from enthusiasts who did not know of its perished internals. In a freak stroke of good luck, I located a set of nearly new cams at a swap meet (autojumble)

and the engine was soon running as quietly as a new engine should after a short run-in period.

I have been told by numerous enthusiasts that the old (new) VLD could well be a 100 point machine at a concours d'elegance. However, this is not to be. In culling over the parts, it was decided to fit 1936 cylinder barrels and heads with the nine stud fittings to avoid possible gasket blowing, although it would take a veteran enthusiast with a keen eye (and memory) to spot the updated heads. Anyway, it's more fun to ride an old H-D than it is to attend a concours!

In spite of the solid rear end, the machine is very comfortable in freeway travel, thanks to the contoured saddle and patent spring seat post. The low riding position gives a sense of security, and one can always put both feet flat on the ground. Without such sophistication as hydraulic forks, rear springing, overhead valves, radio, short wave CB, or a myriad of electronic gear, the VLD represents basic motor cycling.

V for VARIABLE



These old side valvers were said to run forever, or maybe longer, with an occasional set of \$3.00 ignition points in the distributor. Minus points are a small fuel capacity (the engine runs at a thirsty 35 miles per gallon) and an oiling system that requires watching, as it is of the total loss type and the excess runs out of the exhaust pipes. As the last Js and the whole VL series utilized the total loss system that was interconnected with the throttle, a bit too much of the latter on a long downhill run can easily oil up the spark plugs.

Most Harley-Davidson enthusiasts have admired the machine as it is, but a purist accused me of heresy when noting the nine stud head. Another nitpicker faulted the silencer, as the catalogues of that year show an upswept drainpipe type tail pipe. However, several veteran H-D fans have related that many buyers of the original specified the preceding year's fishtail type as being better looking, and many of the latter of that year's production were so fitted. Anyway, there is always a nitpicker to puncture one's ego!

The V series gave way to the 61 cu. in. ohv EL series in 1936, which merged with the 74 cu. in. U1 and 80 cu. in. ULH for 1937. The 74 cu. in. EL type ohv series started the FL series, which ran on with modifications until 1984.

LEFT: The old stock making up Sucher's motor cycle required painting and replating, which accounts for its pristine looks.

TOP RIGHT: Initial engine design proved slow and vibratory, but extensive reworking resulted in a much better unit.

BOTTOM RIGHT: Tuning has made this engine exceptionally smooth, and allows comfortable cruising up to 65mph.

In reference to the VLD's performance, it may well be said that it is surprisingly good, but at the same moment, the engine was subjected to some extensive tuning. In its assembly, Johnny statically balanced the flywheels, connecting rods and piston assemblies, not forgetting the clutch mechanism. This latter procedure has been overlooked by some mechanics, but it does represent a substantial rotating mass, together with the fact that the housing is a rather crude forging, and an off-balance clutch can well nullify extensive efforts applied to the engine only.

As a result, the engine is actually smoother than my 1983 FHT whose engine is flexibly mounted and whose footboards are set to float on a spring base to isolate what the factory now terms "drive train feedback"

from the rider. While this attention adds considerably to the costs of such restorations, the result appears to be well worth the effort.

The VLD can cruise smoothly and comfortably at speeds up to 65mph on freeways. Starting up can invariably be effected by three kicks on the pedal: two to prime the cylinders with the choke on full with the switch off; then the starting kick with the choke down to one notch and the switch on.

With but three speeds, the high torque of the engine gives a broad power band. Running through dense suburban areas can be done unobtrusively in second gear with a bit of judicious juggling of the spark control and slipping the massive clutch, which was designed for just such use.

Given the universal presence of smooth paved highways and roads upon which to travel, the old VLD gives up nothing in the way of a comfortable ride. What with expert assembly, it truly represents a brand new machine. This presents the question: how far has motor cycle engineering progressed in fifty years? Such opinions may well be based upon how much electronic and electric gadgetry the rider thinks necessary. At the biblical age of three score and ten, I, as a lifelong motor cyclist, wonder about this also!