They're sleek, slick, dependable, with twice the horses under the chrome that the old-timers had.

By E. F. Lindsley

Look What They've Done to Motorcycles

Then Old-time cyclists had to be a rugged, wrench-wise lot. Above, sports-writer Hamilton M. Laing rode this 1914 Harley, with acetylene light and exposed valve rods.

MY FIRST motorcycle, a roaring, smelly, kidney-kicking mechanical bronc, was a 1921 Harley-Davidson. Don't guess my age from that. The bike was older than I was. But it taught me, as such seventh-hand motorbikes taught thousands of American boys, what made gas engines go.

Sporting a 61-cubic-inch motor with naked push rods and rocker arms, this job was once advertised to have "all the speed

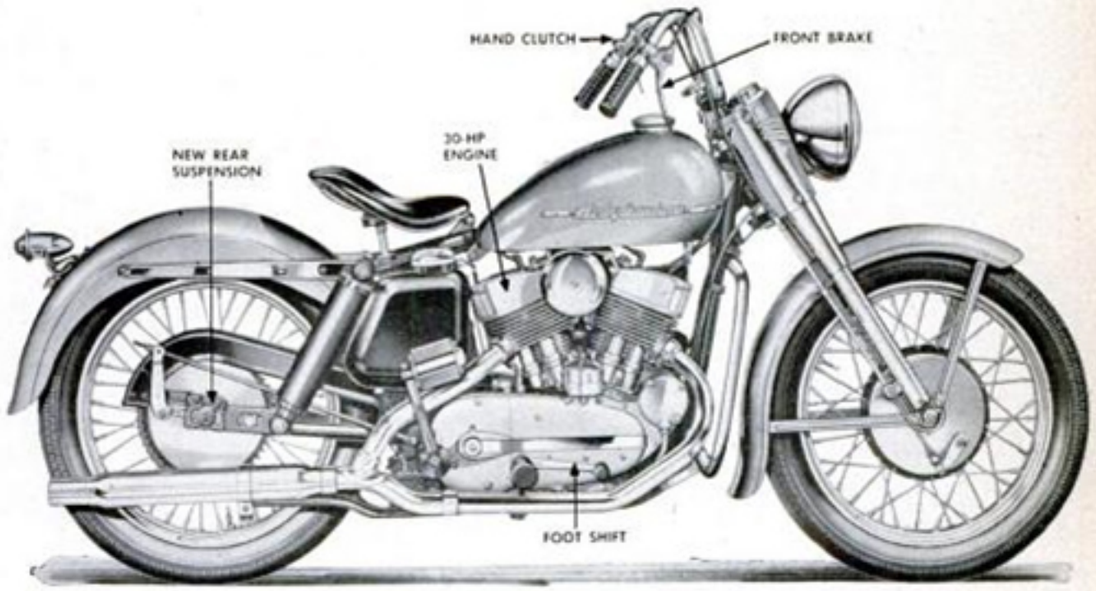
EDITOR'S NOTE:

Back in 1901 two Milwaukee schoolboys dreamed of putting an engine on a bicycle. With the help of Walter Davidson, a railroad machinist, Bill Harley and Arthur Davidson cast and machined the parts for a three-horsepower engine. Their motorized bike ran, others wanted machines like it and the boys soon found themselves in business.

From that start in a 10- by 15-foot shed workshop, the Harley-Davidson Motor Co. has expanded to three modern factory buildings and built more than 682,000 motorcycles to date.

To learn how a former rider would react to the newest machines, we asked E. F. Lindsley, who hadn't ridden a motorcycle in years, to try the new Harley-Davidson Model K. Here's what he found.

Now This sleek Model K Harley-Davidson, a 45-cubic-inch twin, has twice the power of old machine at left, plus a four-speed, foot-shifting transmission, hand-operated clutch, swinging-arm rear suspension, hydraulic shocks and complete battery-generator electric system. You don't have to be a bronco buster-mechanic to ride nowadays.



anyone could desire." So it had; your yen for seat was tempered by the spine-jolting ride it delivered. What finish was left on it had once been (the catalogue said) an attractive olive drab.

Without getting out of my four-door sedan, I could tell that today's motorcycles are chrome-and-color beauties. But I had to get one between my knees to find that the real difference just starts there.

The one I tried out was the new Model K Harley-Davidson. This 45-cubic-inch twin is not only miles ahead of that ancient 21-J but far out in front of earlier postwar models.

The factory rolled out a machine for me and I eased into the saddle. They've done marvelous things to that upholstery you steer with (as any rider knows, it's done by the seat of the pants). Foam rubber, two sprung seat posts, and anatomy-wise contouring do the trick.

Where's the Shift?

Looking for something familiar to show I was no beginner, I latched onto a lever grip on each handle bar. "Front and rear brakes, eh?" I said.

Sammy Greco, the Harley man who was checking me out, chuckled at that. "Left one is the clutch. It gives you a faster shift than the old foot type."

My left foot groped speculatively where the clutch used to be. Then it settled down on a comfortable footrest just above a husky pedal. This was the rear brake. The right-hand grip was the front brake.

"What am I supposed to shift with, my teeth?"

Patiently they told me. "Biggest change in years. You shift with your right toe." I looked down and found a pedal I hadn't shoved yet.

"Hook your toe under the pedal and pull up." I flipped my toe and felt the constant-mesh gears do their stuff smoothly.

"You've got four speeds," Greco explained. "The lower gears give better acceleration. Top gear is a honey—a sort of overdrive for cruising."

30 Horses Have Zip

I knew the model K nudged the scales at nearly 450 pounds, so Greco's last words raised my eyebrows. "An overdrive ratio with a 45-cubic-inch engine?"

"Try it," said Chris Spexarth, Harley's assistant chief engineer. "I think you'll find 30 horsepower plenty hot."

"You mean 30 horses stripped down, without accessories, on the test stand?"

"No, sir." he snapped. "We mean 30 horsepower with full accessories, at a 6.5-to-1 compression ratio, on regular gas."

Later I saw the test curves. Horsepower peaked at 30 at 5,200 r.p.m. My old 21-J hit 16 hp. at a screaming 3,250 r.p.m. and fell off after that.

Closing the choke a bit, I retarded the spark (left handle-bar grip), opened the throttle slightly (right handle bar) and turned on the ignition. Then I booted the kick starter, and the engine boomed into a smooth rumble on the first try.

Left hand on clutch, flip into low with right foot, and let in the clutch. Smoothly the K took off. Grip the clutch, flip up right toe into the next gear, and ease in the clutch. The foot shift was fine.

Takes Bumps with No Bounce

I was musing on the nice handling and extra zip in third gear when I found myself almost on a big hummock, where concrete had buckled from the heat. There was no chance to swerve. Instinctively I rose off the seat to soften the jolt.

It came as a ripple. No jolt, no slamming wallop from the rear wheels. This was new, too—automobile comfort with motorcycling zest.

With traffic thin, the four-lane highway west of Milwaukee invited speed. Acceleration was excellent as I opened up, but top speed seemed a bit low and the engine was winding up hard. Then I remembered that fourth gear.

The shift was a revelation. Opening up, I hit top speed (85 m.p.h.) easily, then settled back to the 65-mile speed limit.

A short stretch of gravel roughened by storms again demonstrated the effectiveness of the new rear suspension. Two swinging arms, pivoted on roller bearings, have a full five inches of travel, with coil springs and hydraulic shocks to soak up the bumps. I found no sloppiness or fishtailing.

Back at the plant, chief engineer Bill Harley showed me through the modern testing department that puts machines and accessories through their paces before the riders do. His point—and he convinced me—was that you don't have to be a mechanic to ride a motorcycle these days.

Looking the new machines over, I still find a soft spot for the old 21-J. It was one of a long line of honorable ancestors, and it has some kids it can be proud of. END

Facts on Model K 45 Twin

Engine: two-cylinder, air-cooled, four-cycle V type; piston displacement, 45 cu. in.; compression ratio, 6.5 to 1; bore 2⅜", stroke 3 13/16"; 30 hp. at 5,200 r.p.m.; torque 32 lb. ft. at 4,000 r.p.m.

Weight: 446 lb. (no load); per hp., 14.9 lb.

Transmission: four-speed constant-mesh; sliding-dog clutches.

Gear ratio: 4.77 to 1 (in high gear).

Clutch: multiple dry-disk type.

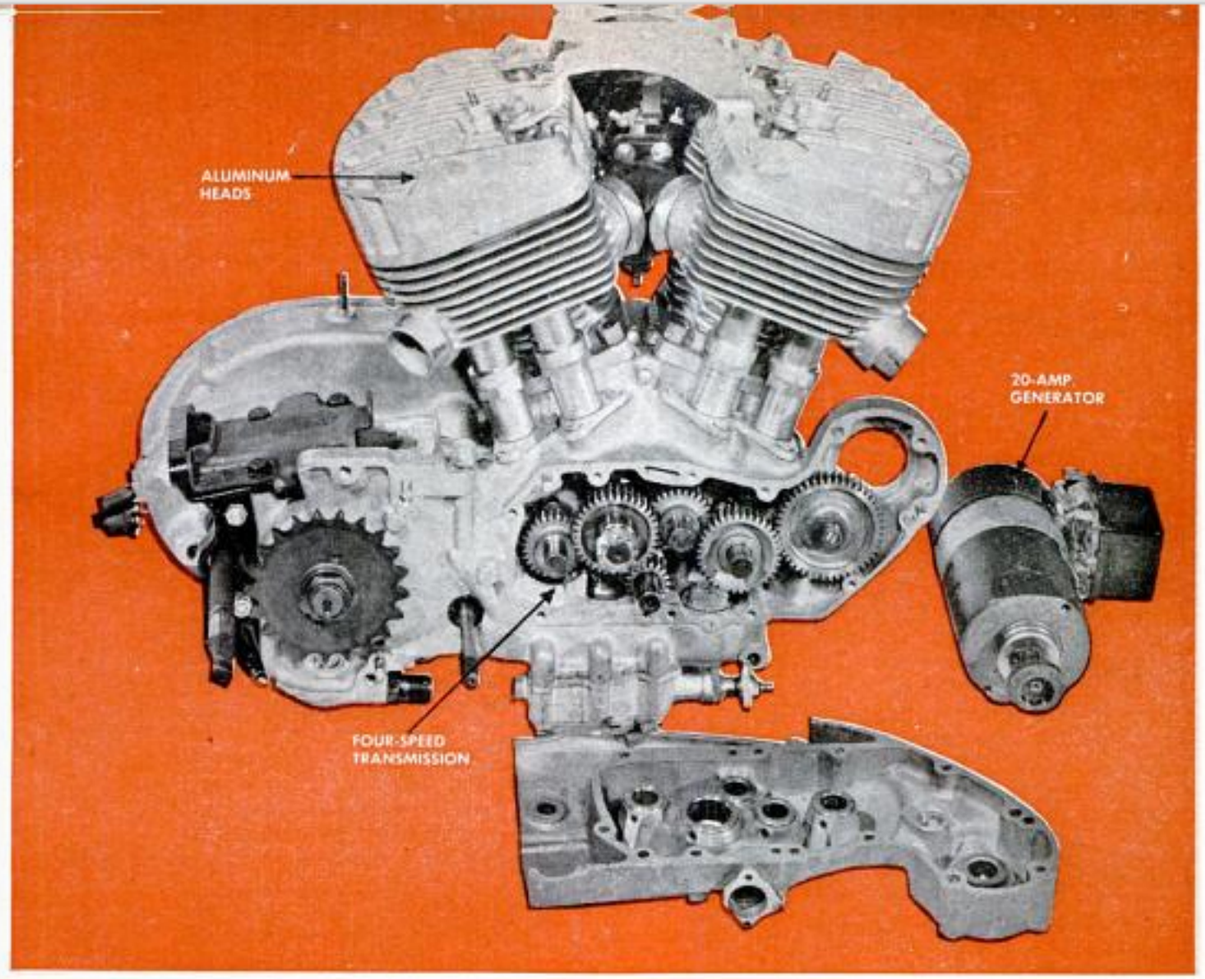
Drive: motor to transmission, ⅜"-pitch triple chain; transmission to rear wheel, ½"-pitch single-row chain.

Rear suspension: swing arms pivoted on preloaded Timken bearings.

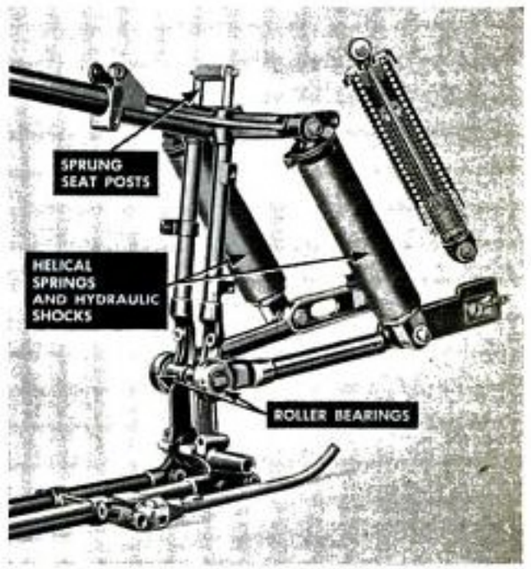
Front fork: load transmitted by long helical springs, hydraulically damped.

Top speed: 85 m.p.h.

Tire size: 3.25 by 19.



NEW ENGINE develops 30 hp. Open crankcase above shows integral constant-mesh four-speed transmission. Cylinder walls are oiled by .040-inch jet. Generator gives 20 amps.



REAR SUSPENSION, a rigid fork on old machines and a sliding mount with 1½-inch travel on later models, now consists of two roller-bearing pivoted arms.