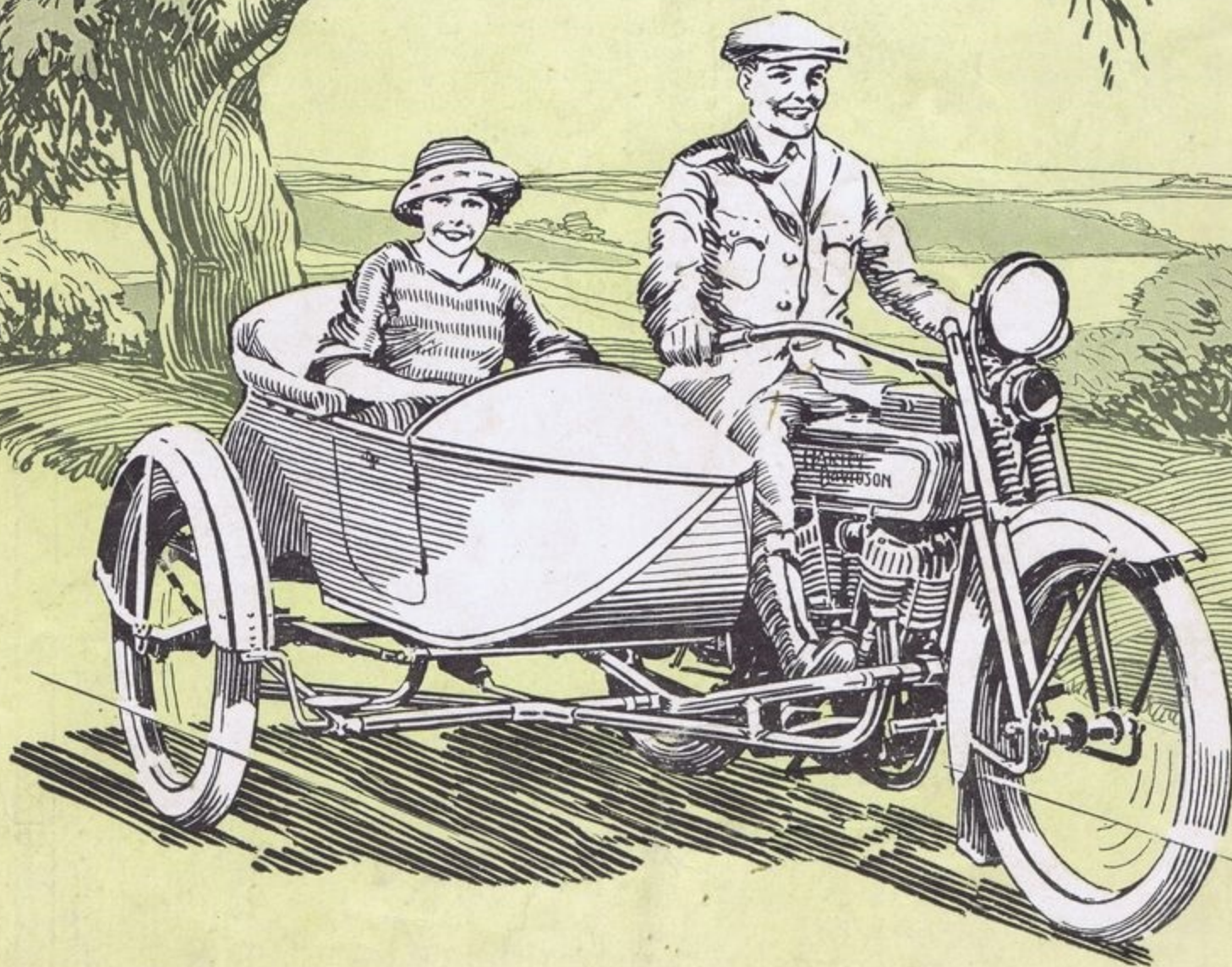
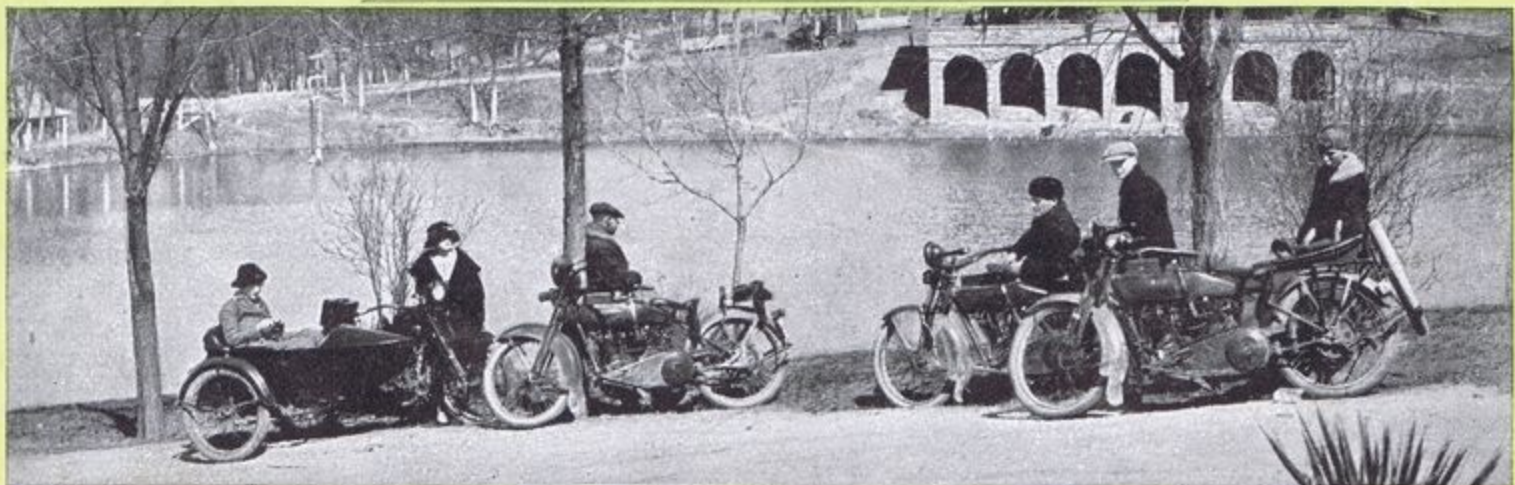
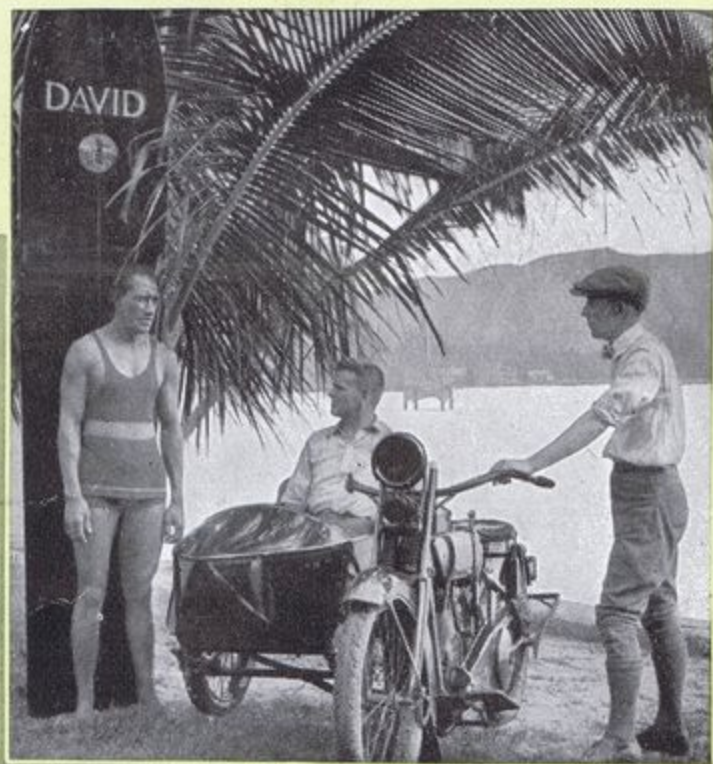
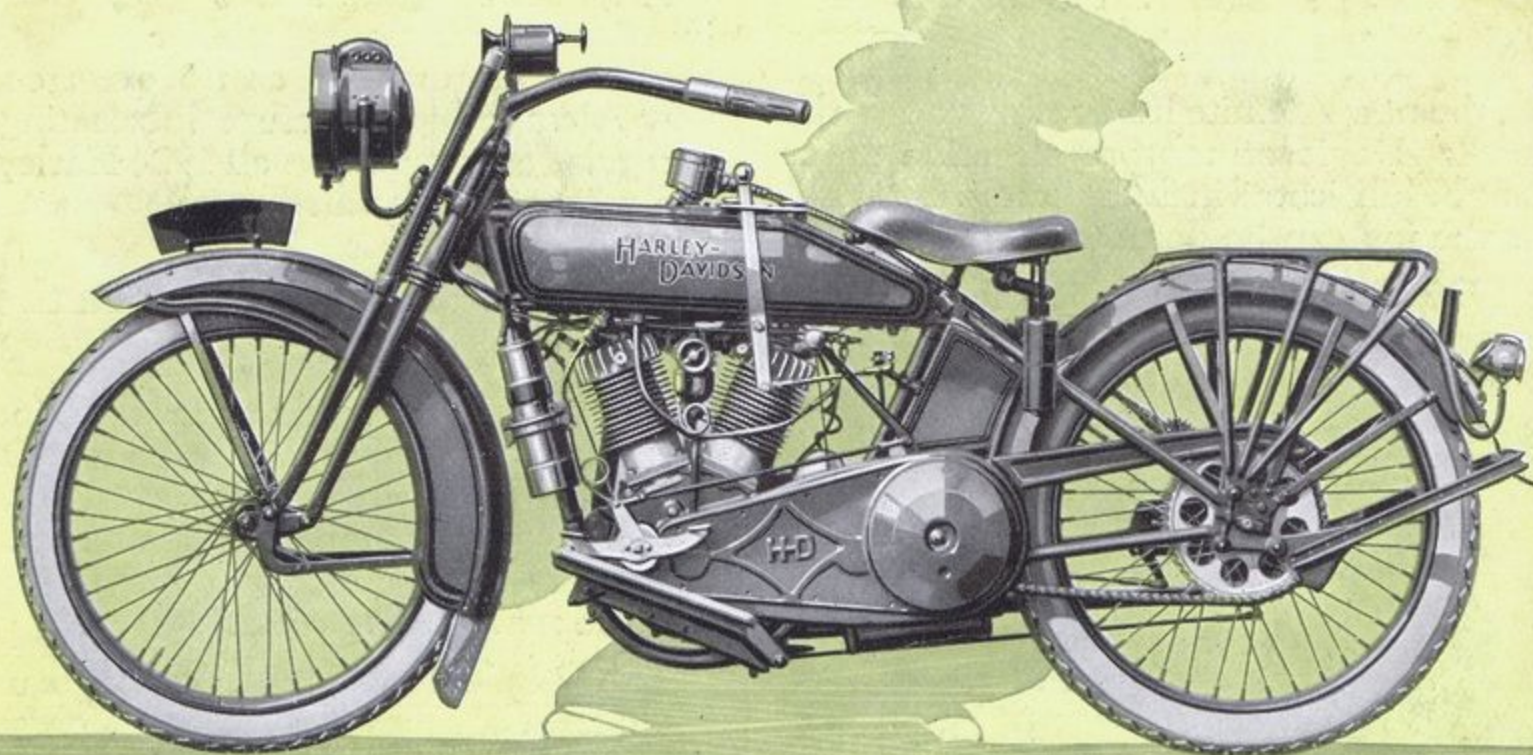


HARLEY- DAVIDSON



HARLEY-DAVIDSON





The 1924=1000 c. c. Magneto Model



NEW Alemite lubricating system, a new aluminium alloy piston motor and a new color—a real outdoor Olive Green with a smart Maroon stripe—are the three notable new features of this 1924 Harley-Davidson 1000 c. c. magneto model.

The new aluminium alloy piston motor cuts vibration in half, reduces wear, has greater acceleration, greater maintained speed and longer life. Note the full page illustration of the new motor on page six of this booklet, followed by a complete description.

Lubricating this 1924 Harley-Davidson is now easily and quickly done with the new Alemite system. Just hook the cap of the Alemite gun over the fitting. Give the Alemite gun a turn and it shoots the lubricant right where it is needed under 500 pounds pressure. Then give the Ale-

mite gun a half turn back and slip the cap off the fitting. The next fitting is just as easy.

The lively new color will find big favor with outdoor sportsmen. The attractive Olive Green color is set off by a Maroon stripe and makes this new color combination one that is sure to attract favorable attention.

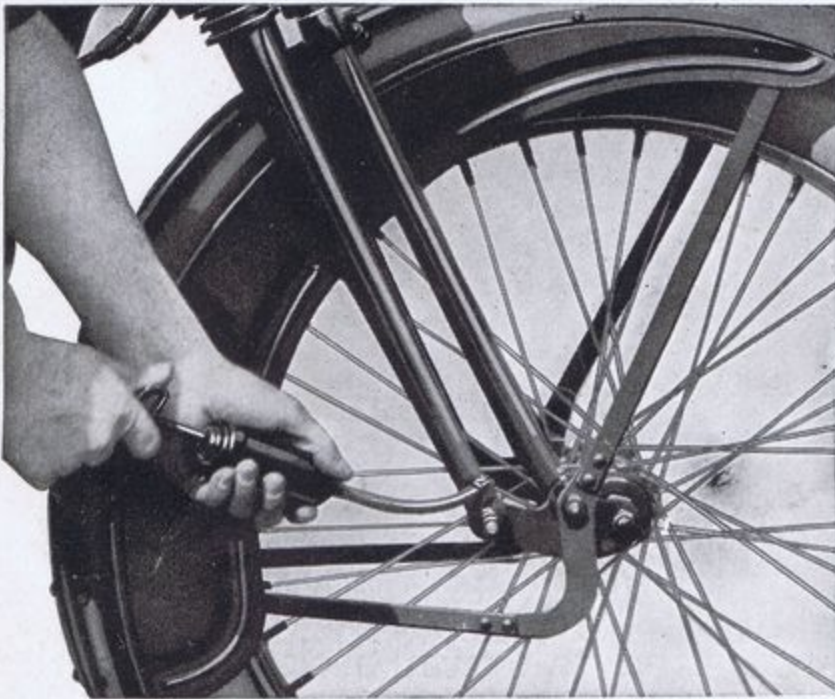
Other new improvements on this model are a 100 per cent larger muffler, a three inch wider spread of the handlebars and a starter that turns the motor over faster and is positive in action.

Ignition is supplied by Bosch magneto. This model, as well as the 1200 c. c. magneto model shown on page 11, can be equipped with gas headlight and tail light, gas tank for lights, Klaxon hand operated warning signal, speedometer, luggage carrier, extra heel brake and front stand.

Lubricating is now an easy job on the 1924 Harley-Davidson

With the new Alemite lubricating system the 1924 Harley-Davidson motorcycle and sidecar can easily be lubricated in five minutes. By working fast the job can be done in even less time.

The 1924 Harley-Davidson is the first Alemite equipped motorcycle and sidecar.



It is only necessary to hook the cap of the Alemite lubricating gun over the fitting and turn the handle. The lubricant is forced right where it is needed under five hundred pounds pressure. A half back turn of the handle releases the pressure and the gun is then slipped off ready for the next fitting. The entire operation takes only a few seconds.

There are twelve of these Alemite fittings on the motorcycle and eight on the sidecar. Such important parts as the front and rear hub of the motorcycle and the inlet rocker arms of the motor are now easily, quickly and thoroughly lubricated with this new Harley-Davidson Alemite system.

Dirty old grease and oil cans can now be thrown into the discard. No more screwing down of grease cups. This high pressure Alemite lubricating system in addition to saving time, gives a far better and more thorough lubrication. Better lubrication increases the life of the motorcycle and sidecar.

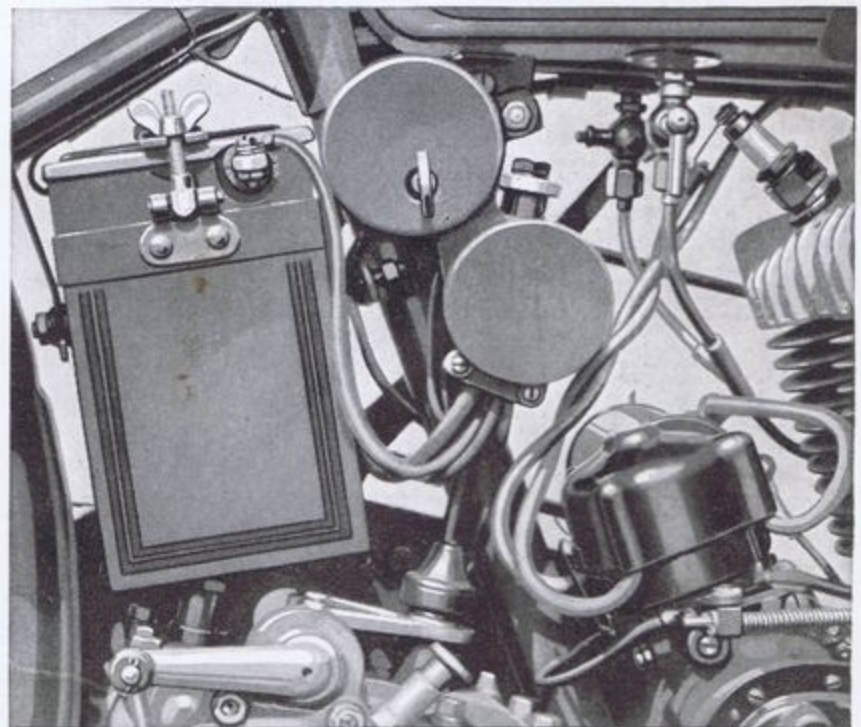
An Alemite gun and a good size can of lubricant are included with all 1924 Harley-Davidson motorcycles at no extra cost. The new Alemite high pressure lubricating system is regular equipment on all 1924 Harley-Davidson motorcycles and sidecars.

Many new improvements in the 1924 electric system

The new improvements in the single unit electric system on the 1924 Harley-Davidson are in keeping with the other 1924 improvements such as the new Alemite lubricating system, the new aluminium alloy piston motor and the new Ful-Floteing sidecar.

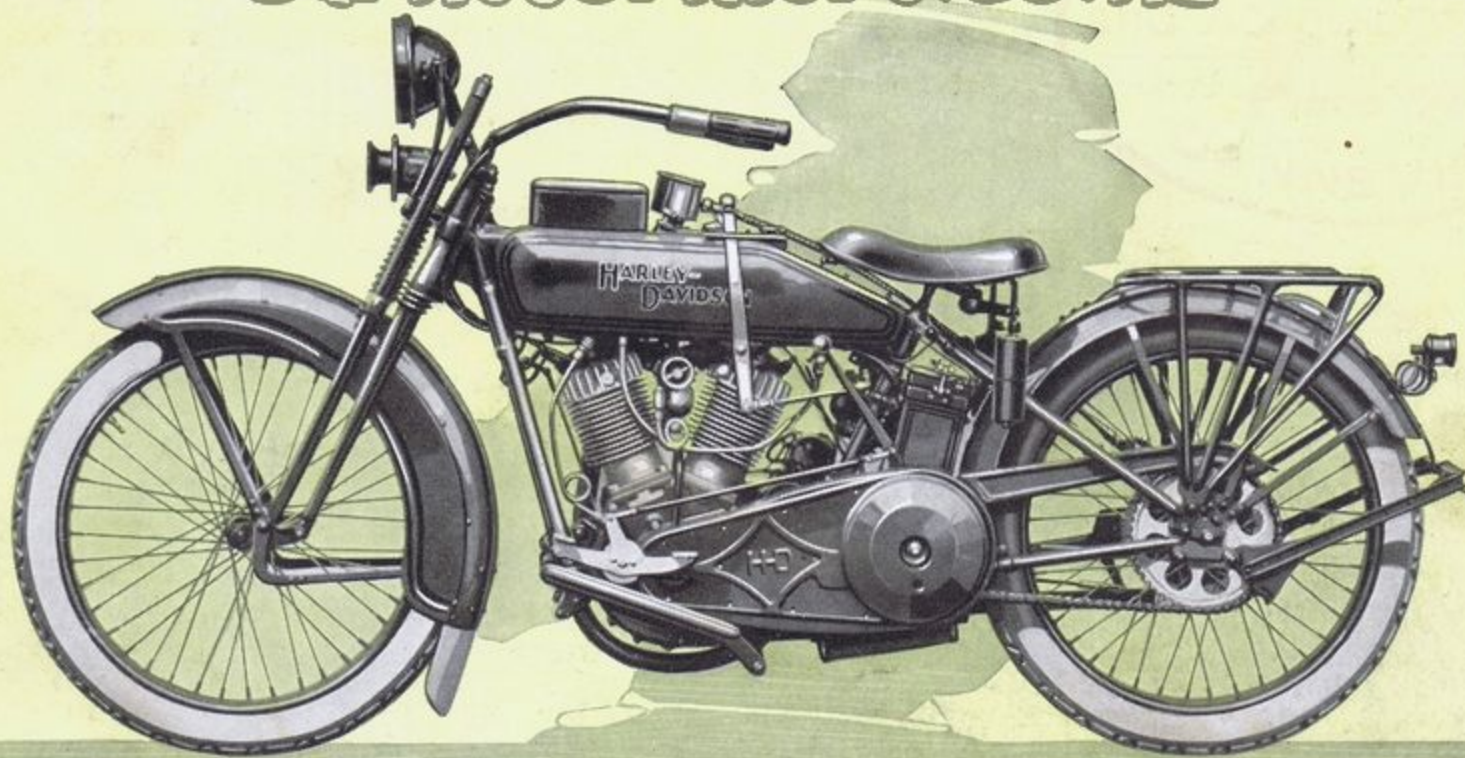
This simple and dependable single unit electric system consists of a six volt generator-ignition unit, a storage battery, headlight, tail light, motor driven horn, a manual switch with automatic warning alarm and all the necessary wiring. The entire single unit system is protected by fuses.

The storage battery box, manual switch, fuse box, timer, and part of the coil and generator of the Harley-Davidson single unit system are shown in the photo below.



Most important among the 1924 improvements on the electrical system is the stronger and larger storage battery. This new battery is the result of three years research and tests.

(Continued on page 10)



The 1924=1000 c. c. Electric Model

THIS model has the same motor as the 1924 Harley-Davidson 1000 c. c. magneto model, pictured and described on page three, but it is equipped with the Harley-Davidson single unit or generator-ignition electric system.

One of the big features of this popular model is the new Alemite lubricating system that is illustrated and described on the opposite page.

A better constructed and 40 per cent greater capacity storage battery is an important improvement on this 1924 Harley-Davidson electrically equipped 1000 c. c. model. All the terminals on the battery are on the outside of the case and are corrosion proof. The new, larger fuse box is equipped with a third fuse for use as a spare or for a spotlight. The brushes on the generator have been made wider

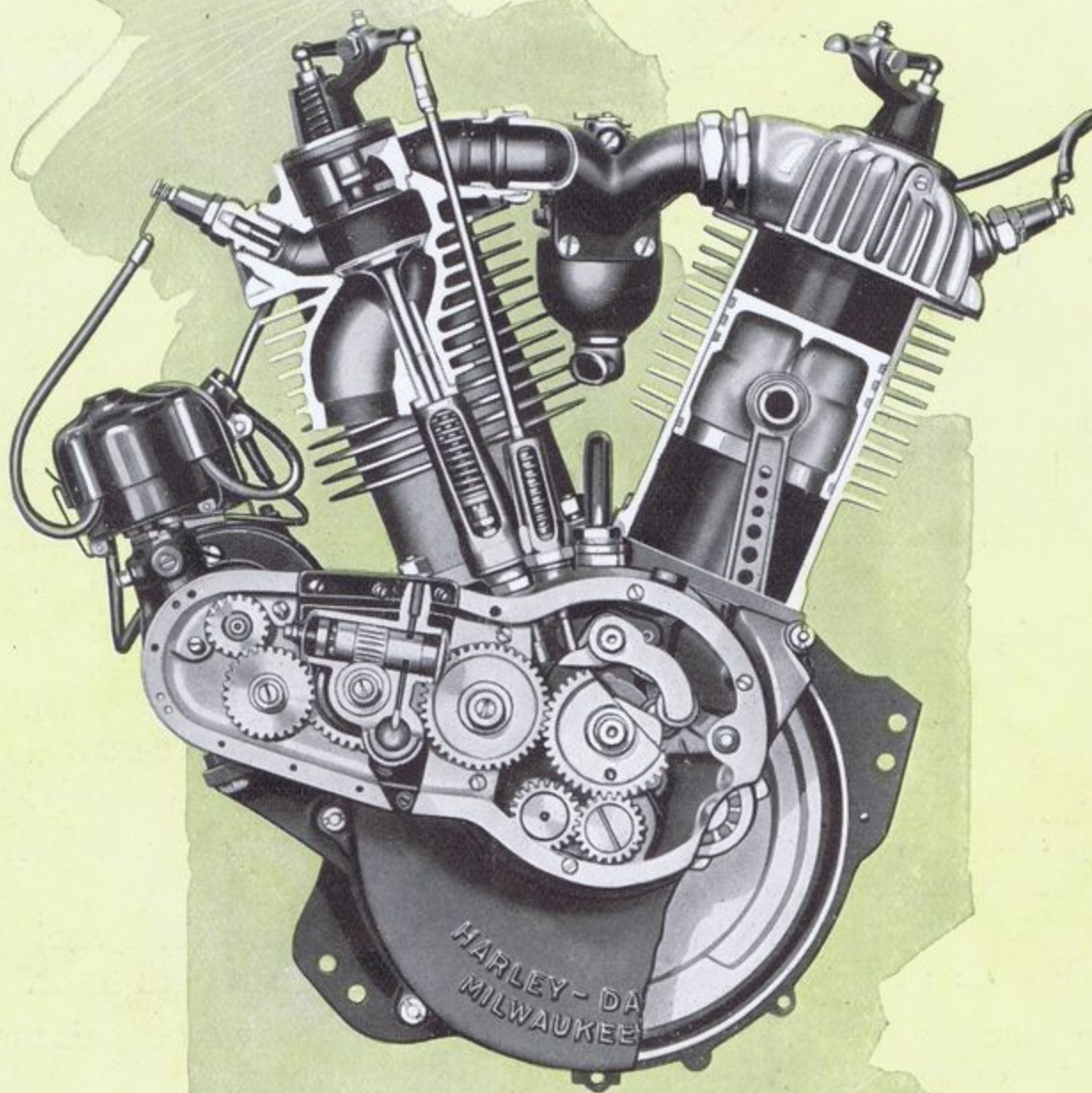
and stronger and are now $\frac{5}{16}$ in. square.

Electric equipment on this model includes headlight, motor driven warning signal, generator, storage battery, manual ignition switch with warning alarm and a spring mounted tail light.

The new motor on this model with its aluminium alloy pistons cuts vibration in half, reduces wear, has greater acceleration, greater maintained speed and longer life. The greatly decreased vibration of this new motor adds to the long life of the entire motorcycle.

The color scheme of this machine is the new outdoor Olive Green with Maroon stripe. This color combination is standard on all 1924 Harley-Davidsons.

An ammeter, speedometer, additional heel brake, luggage carrier and front stand can be furnished if desired as extra equipment.



The 1924 Harley-Davidson
Aluminium Alloy Piston Motor

The 1924 Harley-Davidson Motor cuts vibration in half and reduces wear



THE development of this new 1924 Harley-Davidson aluminium alloy piston motor dates back nine years to 1915. It was first used in our racing motors. Aluminium alloy pistons played a big part in the success of the Harley-Davidson in track and road races all over the world. Two years ago they made their first appearance in a limited number of stock machines.

Their performance demonstrated the practicability of using aluminium alloy pistons in standard motorcycles. Two more years were devoted to further improvements and refinements. Now we are featuring the new aluminium alloy piston motors in both the 1000 c. c. and the 1200 c. c. stock 1924 models, confident that they are the best power unit Harley-Davidson has ever offered the riding public.

This new Harley-Davidson motor is remarkable for its reduction in vibration, higher maximum and average speeds, cooler running and longer life and less wear on motor parts.

Vibration Cut in Half

The aluminium alloy pistons in this new Harley-Davidson motor together with drilled connecting rods and lightened reciprocating parts reduce vibration by one half over the former cast iron piston motor. This great reduction of vibration assures the rider new motorcycling pleasures. No longer does the rider get that played out feeling after an all day ride.

Greater Acceleration

A twist of the throttle and the response of the new four ring aluminium alloy piston motor is quick and eager. Its lighter pistons and drilled connecting rods make this new motor more responsive to the throttle. A new sporting thrill awaits the rider of the new Harley-Davidson motor.

Greater Maintained Speed

The new metal, together with the special piston and ring construction, provides a much better path for the dissipation of heat. This makes a much cooler running motor and enables the rider to maintain greater speed without fear of overheating the motor. The special design of the pistons and rings absolutely prevents the pumping of oil.

Less Wear and Longer Life

This cooler running aluminium alloy piston motor requires less oil, reduces carbon and greatly lessens wear on rings, pistons and bushings. The new pistons will outwear any cast iron pistons.

A new floating, ring locked, gudgeon pin, 30 per cent larger in diameter makes for longer wear. The fourth ring located at the bottom of the piston eliminates piston slap and adds to the long life of the motor.

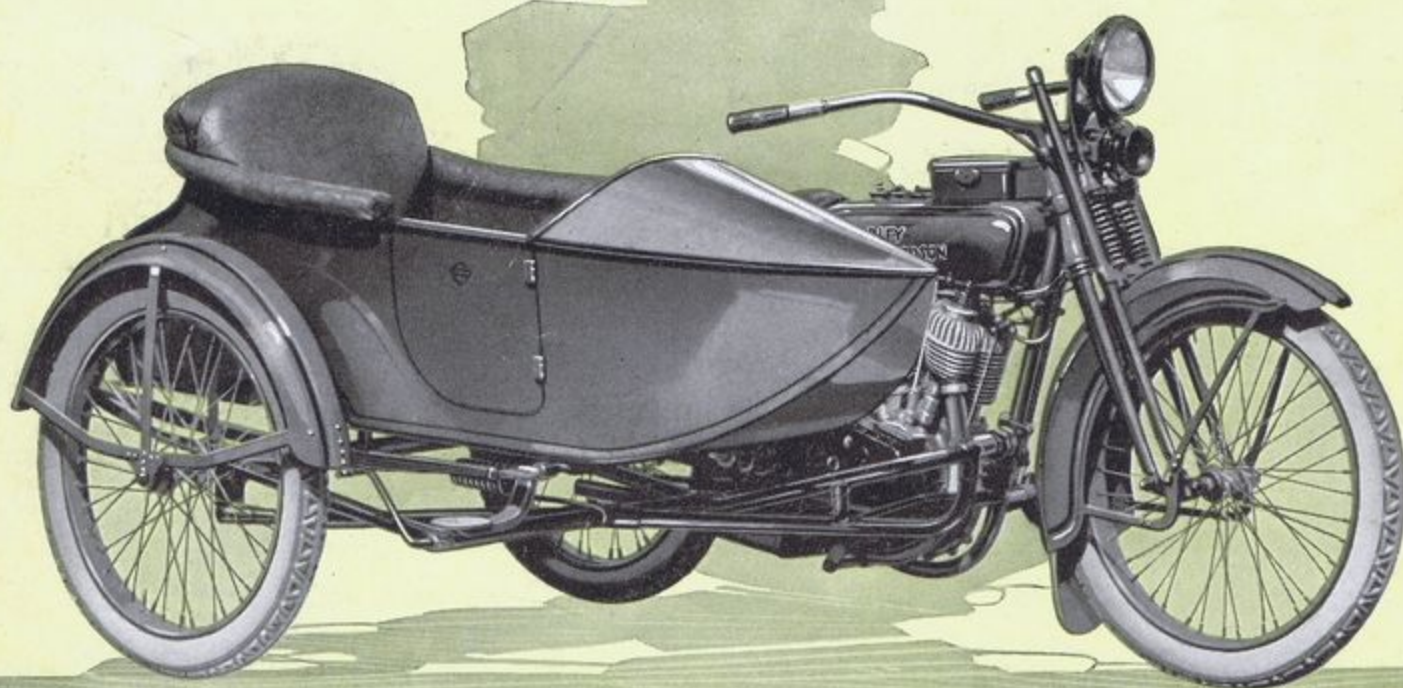
Most of all, the greatly decreased vibration and smoother running of this 1924 Harley-Davidson aluminium alloy piston motor adds to the life of the entire motorcycle from the tail lamp to the front fork springs.

Other Improvements on the 1924 Motor

Outside adjustment on the upper end of the inlet push rods makes it easy to keep these rods in proper adjustment at all times.

The manifold, inlet passages and inlet valves are all larger on this new Harley-Davidson aluminium alloy, piston motor.

An average increase in speed of five miles per hour with sidecar and ten miles per hour riding solo over the former cast iron piston motors can be expected from this new aluminium alloy piston motor.



1200 c. c. Electric with Right Hand Sidecar

FUL-FLOTEING exactly describes the riding qualities of this 1924 Harley-Davidson sidecar. The new, extra long spring suspension is just as great an advance in motorcycle sidecar design as the new Alemite lubricating system on the 1924 Harley-Davidson is in motorcycle design.

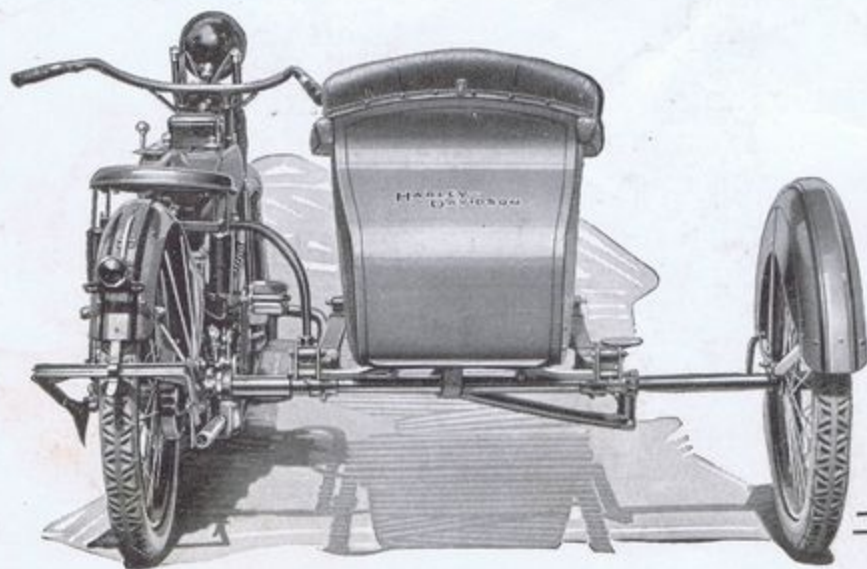
The sidecar floats on two 49 inch springs, each mounted on a base just in front of the sidecar axle. These springs are semi-elliptic and much longer

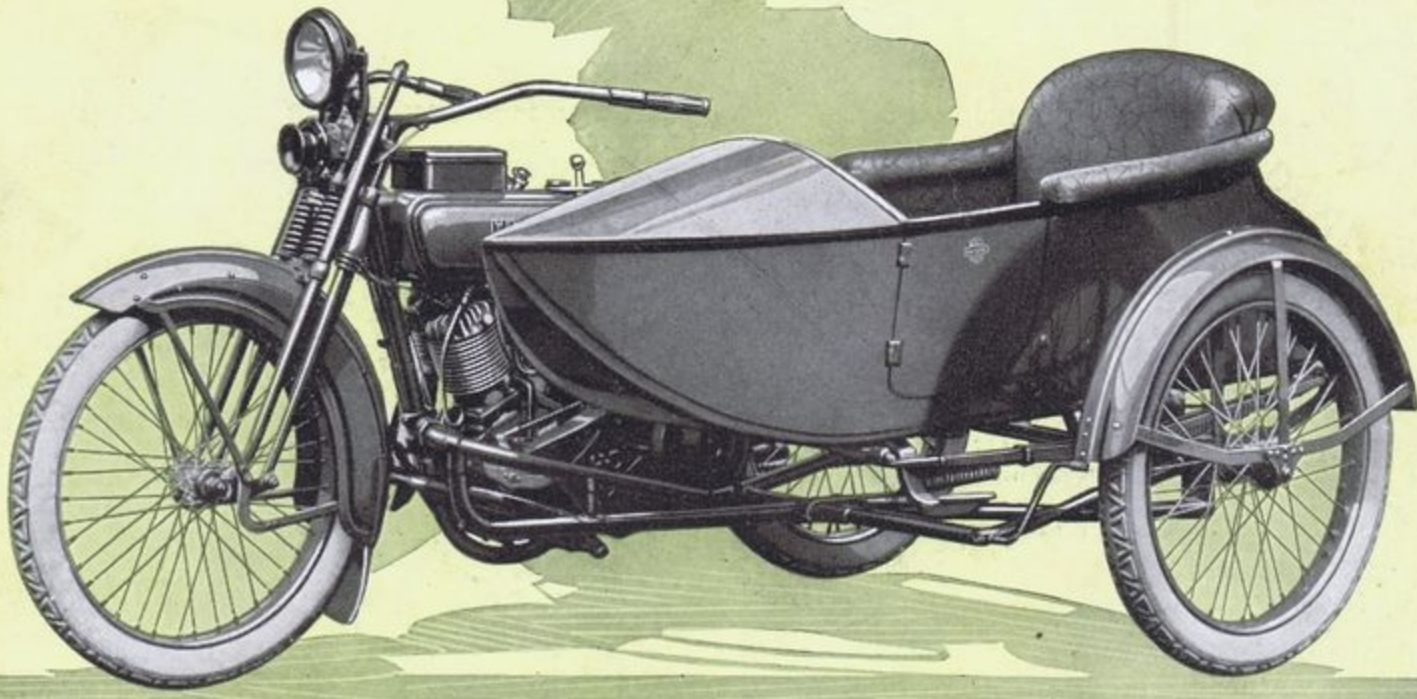
than the springs on the average motorcar.

A new, easily adjusted snubber strap checks the rebound and adds to the easy riding qualities of this Ful-Floteing sidecar.

There is ample room under and in back of the seat to carry touring luggage. The new Grey upholstery is in harmony with the smart new Olive Green with Maroon stripe color combination on the sidecar and motorcycle.

The extension axle which can be adjusted from a 44 to a 56 inch road tread is standard equipment on the Harley-Davidson Ful-Floteing sidecar, both right and left hand models. Easily and quickly extended when road conditions require. The mudguard extends with the wheel and protects the sidecar passenger from being splashed by mud and water. The illustration at the left also shows the smart stream lines of the rear of this 1924 sidecar.





1200 c. c. Electric with Left Hand Sidecar

IN addition to giving the sidecar passenger greater riding comfort, this Ful-Floteing sidecar increases the riding comfort of the motorcycle rider. The extra long, semi-elliptic springs absorb all the road jars and jolts and do not transfer them to the handlebars of the motorcycle.

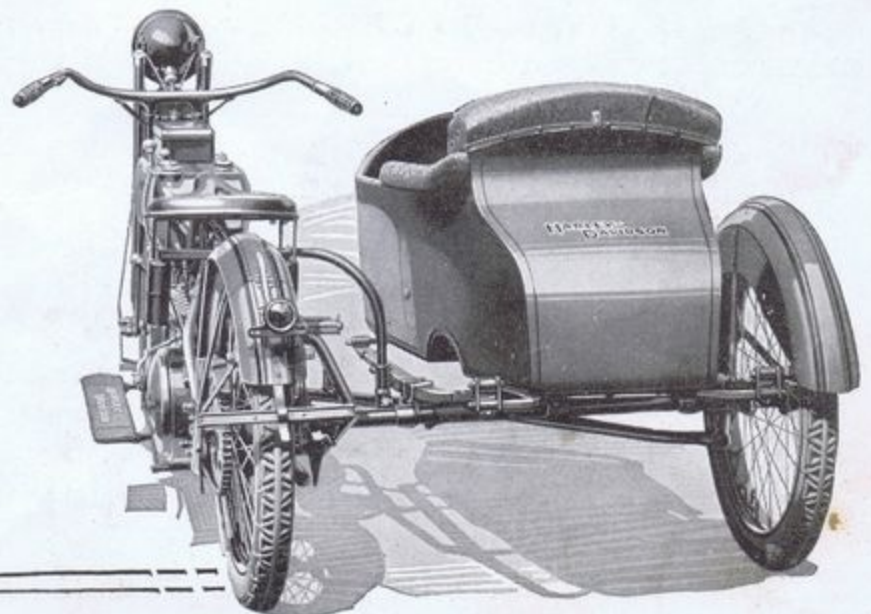
This Ful-Floteing sidecar actually doubles motorcycling pleasures. It makes much easier riding for the sidecar passenger and there is no tug or pull on the handlebars for the motorcycle rider.

Because of this new, extra long spring design and the new snubbers, there is none of the usual sidecar pitching or diving with this Ful-Floteing sidecar.

The easy riding qualities and the long life of this sidecar are further increased by the new Alemite lubricating system. Eight Alemite fittings are incorporated

on the new 1924 Ful-Floteing sidecar.

The illustration below shows the two 49 inch, semi-elliptic springs on the 1924 Harley-Davidson Ful-Floteing sidecar. There are six through leaves and an extra half leaf in front. The springs are mounted at only one point on strong bases just in front of the sidecar axle. This view of the new sidecar gives an idea of the length of these springs in proportion to the length of the sidecar.



The new battery has 40 per cent greater capacity than the old type storage battery. There are four plates in this new battery—two positive and two negative plates with the necessary insulators in each of the three cells.

This greatly increased battery capacity means that it will now be possible to operate the generator with a lower current output and at the same time have the electrical system completely balanced. This insures efficient lighting and easy starting.

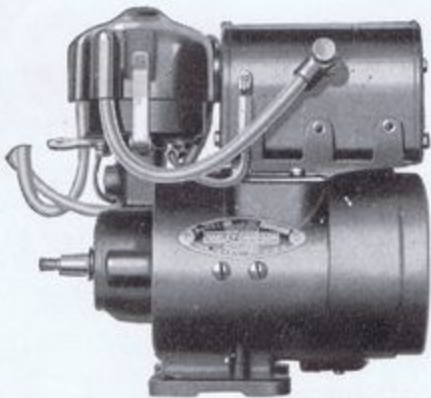
The plate connector posts have heavier threads and are provided with sealing nuts which are over 100 per cent longer and therefore stronger. The battery jar cover is heavier and is reinforced to accommodate the new sealing nuts. The terminals are now extended to the outside of the battery box where they are in plain view and accessible. Grooves in the terminals filled with vaseline prevent the creepage of electrolyte and subsequent corrosion of connections.

The battery box can be easily and quickly removed from the motorcycle. The battery can be removed from the box by loosening the two wing thumb nuts (see the photo of battery box on page 4) and lifting off the cover.

The battery rests in the box on a thick, sponge rubber mat and is held securely at the sides by paraffin treated wood liners. A sponge rubber mat is also placed over the top of the battery. This new, larger battery is so securely wedged in the box that it cannot vibrate or jar loose.

The Generator-Ignition Unit has also been improved

Fifty per cent larger brushes, a wider commutator and greater accessibility feature the 1924 Harley-Davidson designed and built generator.



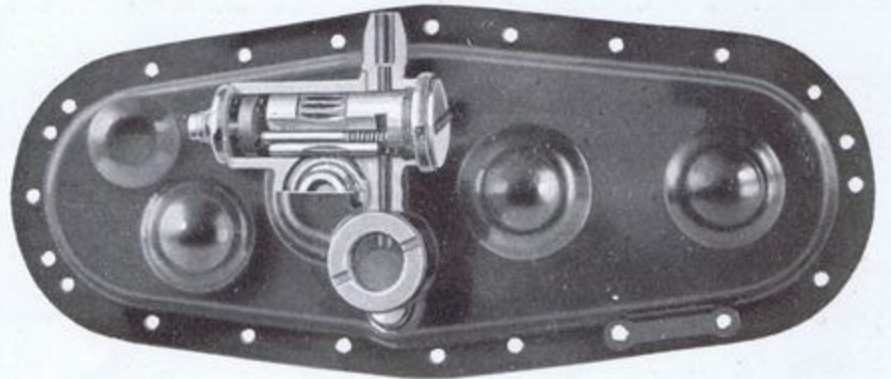
Flexible wire cables are attached to the brush holders to insure positive electrical connections between the brushes and external circuits.

All the main current feed wires of the Harley-Davidson single unit system now terminate in the fuse box. An extra fuse is provided for a speedometer light or a spotlight. In case of emergency the spare fuse may be used to replace a lighting or warning signal fuse.

The generator-ignition system on the Harley-Davidson has been successfully used for nine consecutive years. Today, over seventy-five per cent of all Harley-Davidsons are electrically equipped. The superiority of the single unit system is further attested by the fact that this type system is standard equipment on the leading American and European motor cars.

The Harley-Davidson Oiler is reliable and trouble-free

This simply constructed oiler will never give trouble. The adjustments are easily and quickly made by adding or taking out washers under the head of the conveniently located adjusting screw. This easy adjustment provides a larger

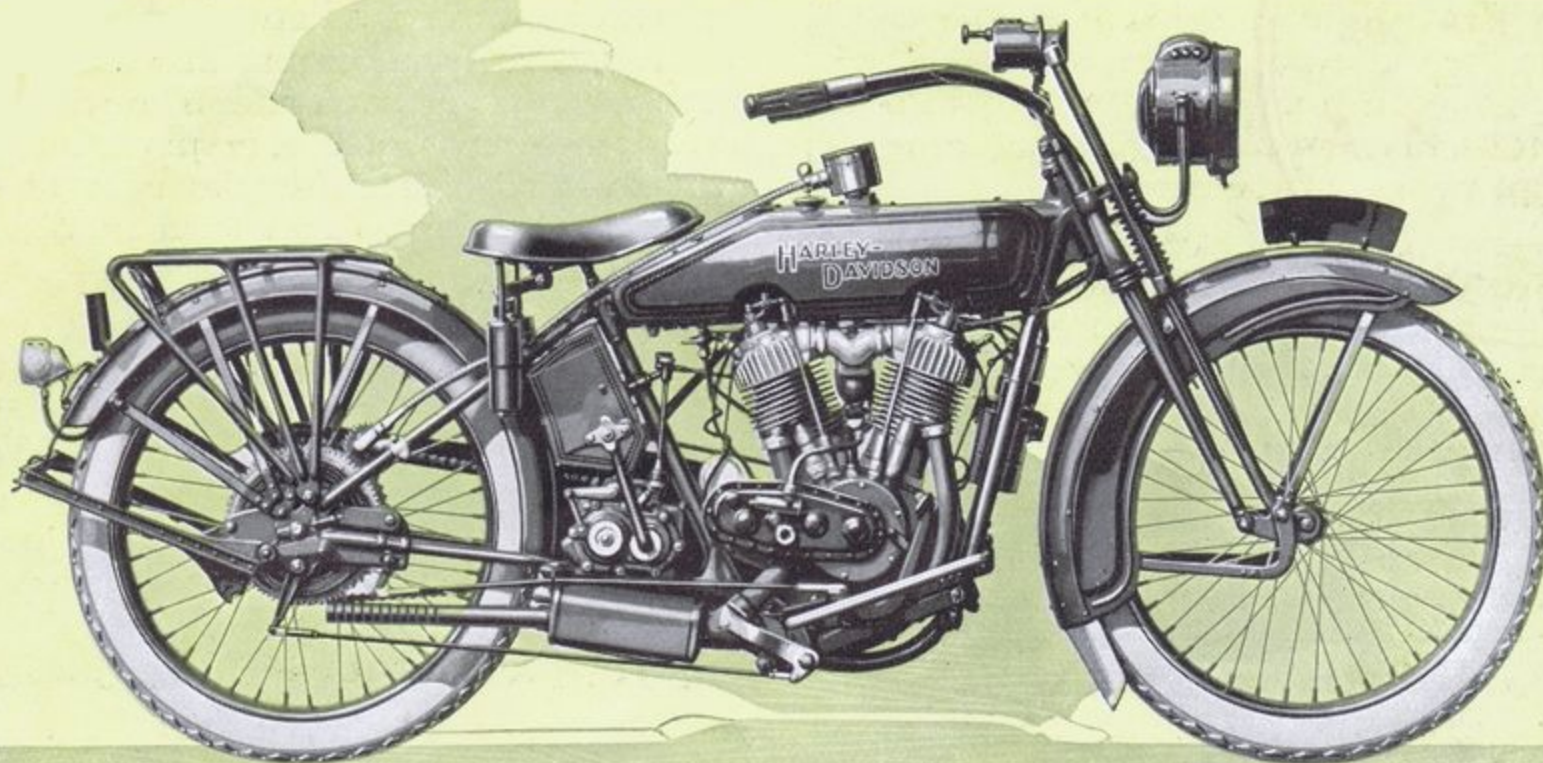


range of control and assures just the right lubrication for all conditions of motor service. This oiler has few parts and large bearing surfaces. It is designed as a separate unit and can be removed from drive gear case cover when desired. The two plungers of the Harley-Davidson oiler assure safe, proper lubrication at all times.

1924 Larger Muffler makes a cooler running motor

The muffler used on the 1924 Harley-Davidson has double the capacity of the old muffler. This greatly reduces the back pressure in the exhaust pipes, assures a cooler running motor and eliminates the necessity of opening the cutout. The cutout which is still provided is located at the rear of the muffler and takes away the

(Continued on page 12)



The 1924-1200 c. c. Magneto Model

SPORTSMEN who ride solo and like the thrill of speed and sidecar motorcyclists who want a superabundance of power are enthusiastic about the Harley-Davidson 1200 c. c. model.

The big twin motor has that certain willing power that makes motorcycling outdoors' greatest sport on wheels.

Long, steep hills and hard going are made easy with this powerful model. Riding comfort is amply provided.

This magneto equipped 1924 Harley-Davidson 1200 c. c. model is for those riders who prefer magneto ignition. It can be equipped with gas headlight, tail light, carbide generator and hand warning signal. Ignition is furnished by Bosch magneto.

The electric 1200 c. c. model is shown

on pages eight and nine. It is equipped the same as the 1000 c. c. electric model but of course has the larger motor with correspondingly greater power.

Unlike the 1000 c. c. models which are all equipped with the aluminium alloy piston motors, these 1200 c. c. magneto and electric models can be had with either cast iron piston motors or with aluminium alloy piston motors.

The Harley-Davidson world wide reputation has been built on cast iron piston motors and we are still offering them in the 1200 c. c. class to riders who may prefer the differential in price to the added speed, power and acceleration the aluminium alloy piston motors afford.

Both the magneto and electric models can be equipped with front stand, luggage carrier, speedometer and additional heel brake at extra cost.



ler bearings, carried on an intermediate sleeve which in turn has a bearing on a spherical surface to take care of deflection. The roller bearing driving hub on all 1924 Harley-Davidsons is now equipped with an Alemite fitting as shown in the photo below. Periodical lubrication is



all this hub requires. The braking surfaces are positively protected from oil seepage.

Change Speeds easily with this three speed transmission

The rider shifts gears with ease on the 1924 Harley-Davidson motorcycle. So silent is the operation of this three speed transmission it is sometimes difficult to tell which speed — low, second or high — is being used.

All gears are of chrome nickel steel and the transmission box is made of aluminium. Lubrication of gears and bearings is taken care of automatically.

A new spring clamping device on the clutch side of the transmission now makes it easy to loosen the clamp nuts in order to adjust the front chain.

Improvement makes the starter positive in action

Twelve tooth starter clutches or dogs are now used on the rear stroke mechanical starter on all 1924 Harley-Davidsons. This insures a full effective stroke of the starter and turns the motor over faster.

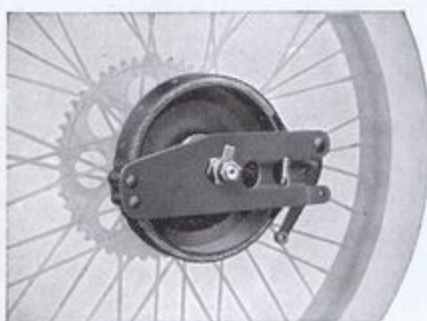
A backward and downward stroke of the foot starts the motor. At the end of the stroke, a spring returns the pedal to its original position. The pedal folds up out of the way when not in use. Starting gears are enclosed and protected from mud, sand and water.

A rigid one piece malleable iron starter cover with a removable bronze starter crank bushing are other new improvements on the starter.

noise from the sidecar passenger. The muffler tail pipe is quickly taken off for cleaning or inspection by the removal of only one bolt.

The double-acting contracting brake is dependable

The brake on the 1924 Harley-Davidson is simple, strong, durable and is positive in action. It consists of two separate bands, hinged at the rear and is actuated in front to make it hold as well when going backward as forward.



There are no sliding parts to bind. This brake is free when not in use. It does not drag and the rider gets the full power of the motor immediately upon release of the pedal.

Every inch of this brake actually takes hold when the brake is in action. The pedal is conveniently located at the top of the right side foot board. The brake rod runs direct from the pedal to the brake. Every ounce of foot pressure applied to the pedal is brought to bear immediately on the brake bands. The rider knows that his braking power is in direct ratio to the pressure he puts on the brake pedal.

Little if any attention, care or adjustment is required by this brake and it will last for years.

Harley-Davidson Rear Hub runs on Roller Bearings

This hub does away with all possibilities of cracked, split or chipped ball bearings locking the wheel and chewing up the hub, with consequent heavy replacement expense. The load is carried on two sets of exceptionally wide rol-

Riding comfort is built in the 1924 Harley-Davidson

The front fork springs with the auxiliary buffer springs, the air cushion saddle and the patented Ful-Floteing seat post assure the rider of the 1924 Harley-Davidson real riding comfort.



Auxiliary center cushion springs and emergency buffer and recoil springs are now regular equipment on all 1924 Harley-Davidsons. The fork

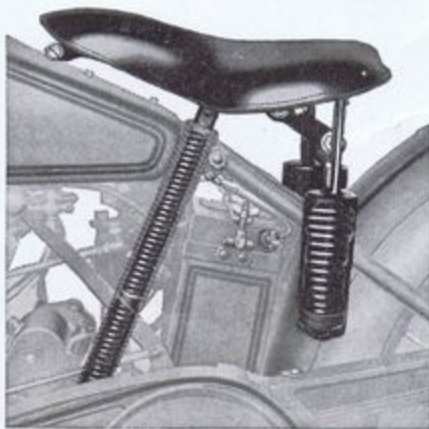
side and large center spring provides a resilient combination for ordinary road conditions. In rough going the heavy inside buffer springs come into play and as a final safety factor positive stops are provided.

To make for still greater riding comfort, the handlebars on all 1924 models are made three inches wider. They now have a spread of thirty five inches and add to the ease of handling the machine. Closed end rubber grips are fitted and save wear on gloves and prevent oil from soiling hands or clothing.

On the electric models the warning signal button is placed closer to the handlebar grip. This enables the rider to keep his hand on the grip at all times and thus retain full control of the machine. This small refinement will be especially appreciated by solo riders.

The Ful-Floteing seat post is an exclusive and patented Harley-Davidson feature that has now been in successful use for twelve years. The springs in this Ful-Floteing seat post can easily be adjusted to the weight of the rider.

A large, roomy, form fitting well padded air cushion saddle adds to the riding comfort of the 1924 Harley-Davidson.



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 103 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 1200 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 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.

1924 Harley-Davidson Specifications

Motor—V-type twin cylinder, air-cooled, four stroke cycle. See pages 6 and 7. 1,000 c.c. 7/9 HP models; bore 84.1 millimeters ($3\frac{5}{16}$ inches), stroke 88.9 mm ($3\frac{1}{2}$ inches), piston displacement 988.83 cubic centimeters (60.34 cubic inches).

1,200 c.c. 10/12 HP models; bore 86.97 mm ($3\frac{7}{16}$ inches), stroke 101.60 mm (4 inches), piston displacement 1207.956 c.c. (74 cubic inches).

For sidecar use motors are fitted with $\frac{1}{8}$ inch compression plates.

Transmission — Harley-Davidson designed and built three speed progressive sliding gear. See page 12. Transmission reduction: $1\frac{1}{2}$: 1 for second gear; $2\frac{1}{4}$:1 for low gear.

Lubrication—Harley-Davidson non-circulating force and splash for the motor and transmission. See page 10.

All other parts where necessary lubricated by Alemite lubricating system.

Ignition — Harley-Davidson generator-battery on electrically equipped models. Bosch magneto on magneto models. See page 10.

Electrical Equipment— (On electric models only) Harley-Davidson generator, coil and timer, four plate storage battery (See page 4), Klaxon motor driven warning signal, two bulb headlight, "Staylit" tail light and manual ignition switch with automatic warning alarm.

Starter—Harley-Davidson backward stroke. See page 13.

Clutch—Harley-Davidson multiple dry disc.

Handlebars—Harley-Davidson one piece, one inch tubular double stem with closed end grips.

Controls— Grip, double-acting wire controls entirely enclosed within the handlebars.

Frame—Harley-Davidson extra heavy gauge, high carbon steel seamless tubular loop, rigidly reinforced.

Driving Chains—Roller, $\frac{5}{8}$ inch pitch and $\frac{3}{8}$ inch width.

Brakes—Harley-Davidson external contracting. See page 12. $7\frac{1}{2}$ inch drum; $1\frac{1}{4}$ inch by $\frac{1}{4}$ inch lining.

Saddle — Mesinger suspension air cushion. See page 13.

Tires—Standard make 28" x 3".

Wheelbase—60 inches.

Tanks — Gasoline capacity, $3\frac{1}{8}$ gallons. Lubricating oil, 1 gallon.

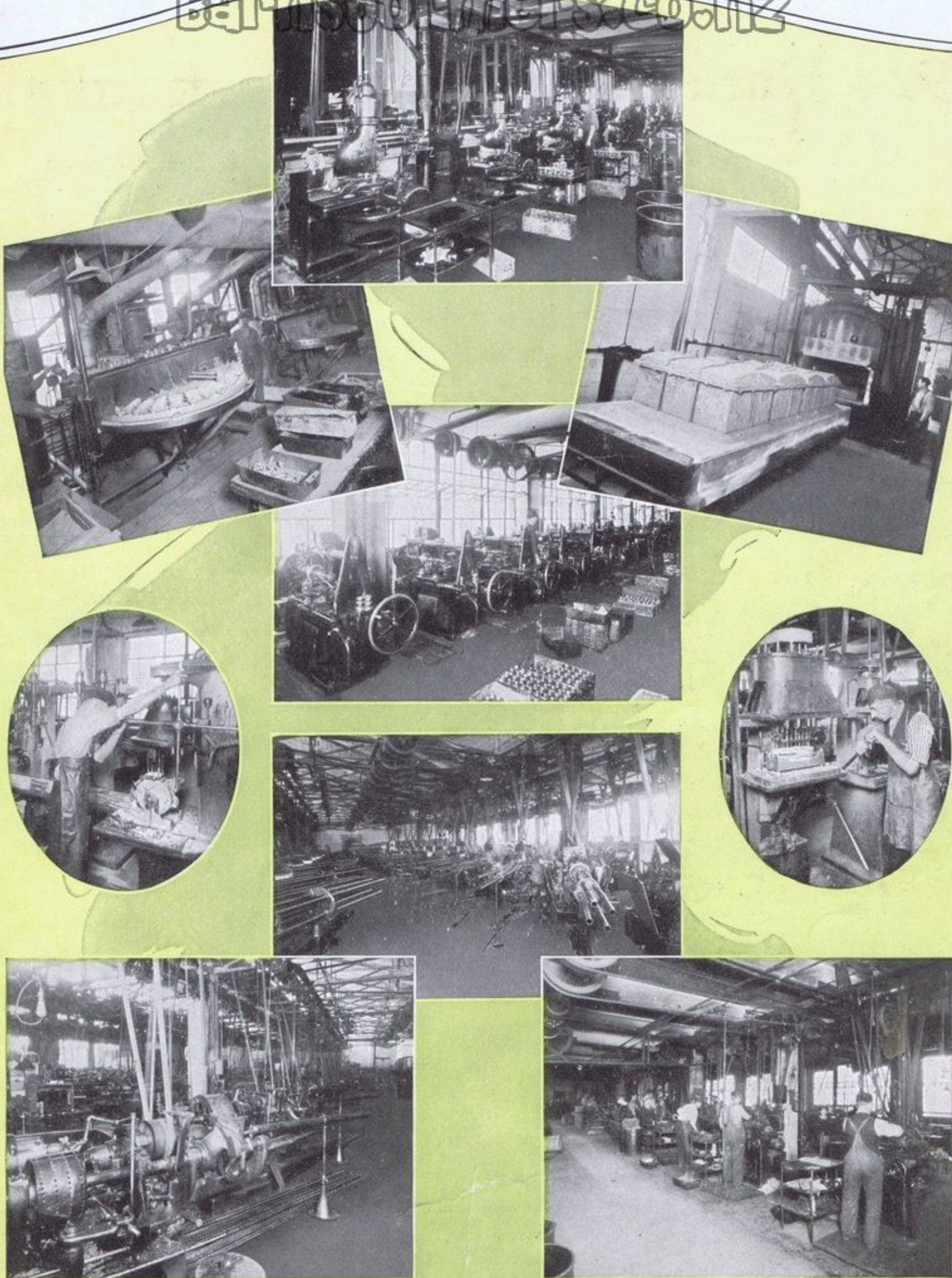
Mudguards—Harley-Davidson pressed steel, wide and substantial.

Tool Equipment—Complete tool and tire repair kit.

Finish—Harley-Davidson Olive Green with Maroon stripe with gold center and edged in black.

HARLEY-DAVIDSON MOTOR COMPANY, MILWAUKEE, WIS., U. S. A.

Cable Address, "Hardavmocy, Milwaukee"



Interior Views of the Harley-Davidson factory
at Milwaukee, Wis., U. S. A.

HARLEY-DAVIDSON

