

Indian

MOTORCYCLE

1917



Jord
C. J. CLOTT
SOLE
TIMOR ST.

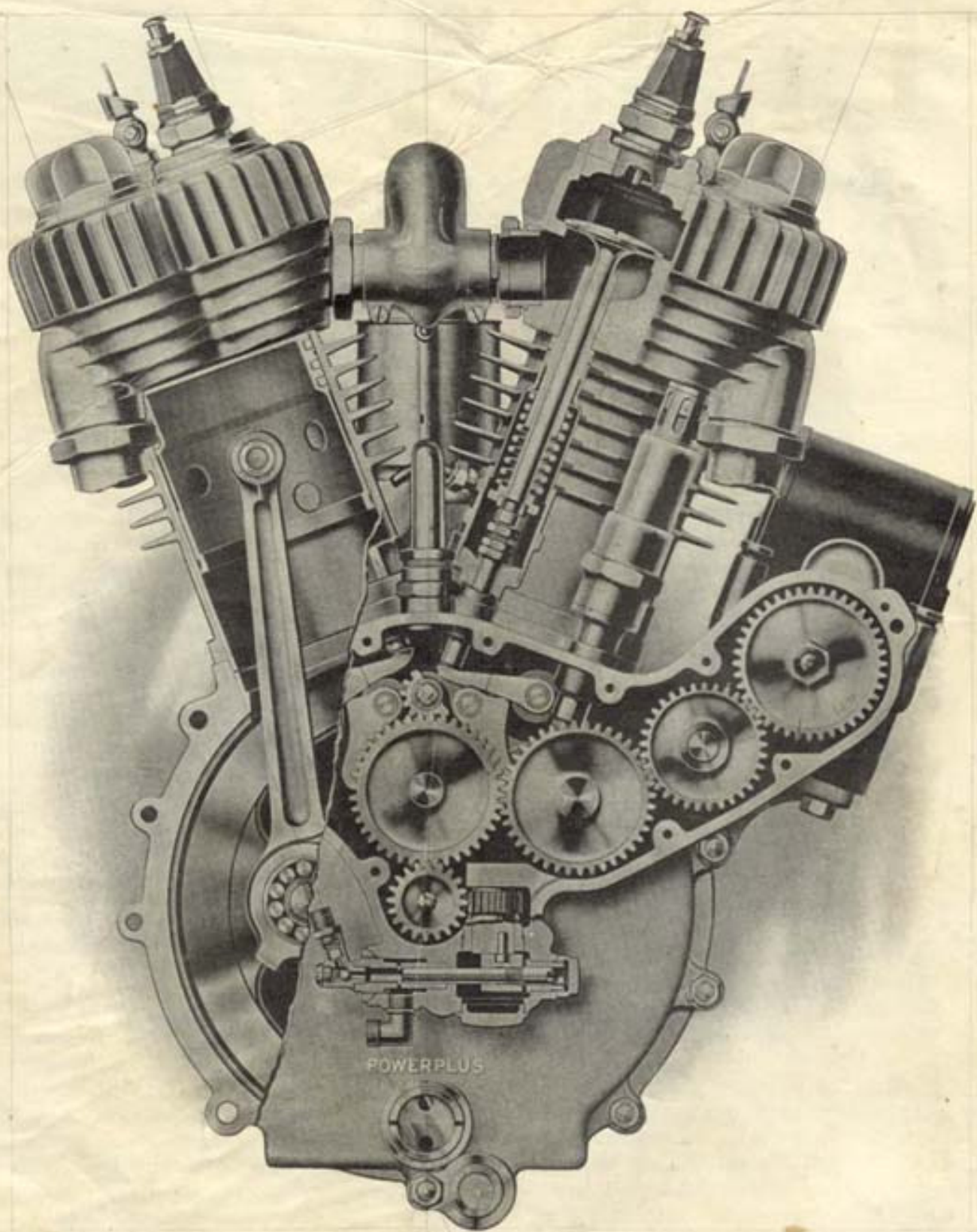
Indian

MOTORCYCLE

1917

HENDEE
MANUFACTURING
COMPANY
SPRINGFIELD MASSACHUSETTS



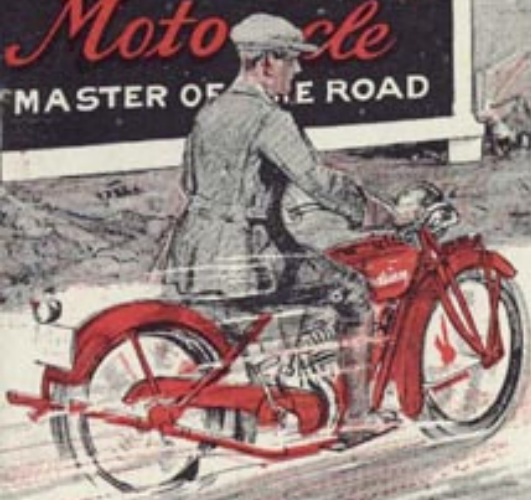


Sectional View of 1917 Indian Powerplus Motor

Indian Motocycles

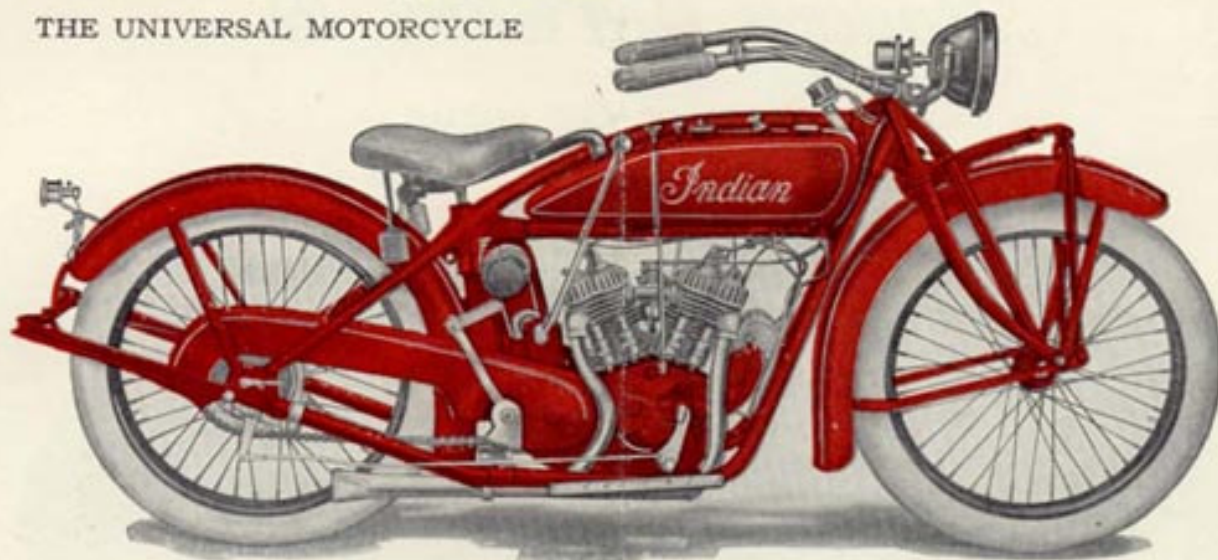
Standard
of
The World

Indian
Motorcycle
MASTER OF THE ROAD



Indian Scout

THE UNIVERSAL MOTORCYCLE



We now offer the famous little INDIAN SCOUT with brand new front fork construction, which greatly improves the riding comfort and ease of control. A new thrust bearing in the clutch, an improved brake lever and stud, together with many other refinements, place this little thoroughbred on the pinnacle of mechanical perfection.

The INDIAN SCOUT, a distinctive INDIAN conception, was offered to the motorcycle public in 1920 as a model which combined the speed and power demanded in motorcycling with *greatest economy, light weight and ease of control*. Since that date it has so thoroughly entrenched itself in the hearts of motorcyclists that today it registers on a par with its bigger brothers from a standpoint of sales in the INDIAN line.

DETAILED SPECIFICATIONS

BRAKE: INDIAN internal expanding band type. Has a range of action and braking surface greatly in excess of every ordinary requirement so as to positively and quickly take care of any emergency. Diameter 6", width 1".

CARBURETOR: INDIAN Schebler, automatic, compensating type model H. Has variable air and fuel adjustments, gives dependable power and remarkable flexibility in operation.

CLUTCH: Multiple disc. Alternate steel and raybestos discs, operating in oil.

CONTROL: Throttle, left grip; and spark, right grip; by INDIAN "Twist-of-the-Wrist," with wire cables enclosed in handle bars. Exposed cable covered with leather. Brake pedal on right side, clutch pedal on left side. Valve lift compression release by push rod on right side of tank.

DRIVE: Primary drive, helical gears, insuring constant adjustment, connecting motor and transmission, completely enclosed, running in oil bath.

Final drive: $\frac{5}{8}$ x $\frac{5}{8}$ roller chain.

Gear ratio: Solo 4.89 to 1 on high; Service Car 5.99 to 1 on high.

ELECTRIC SYSTEM: Electric current for head light, tail light, and horn, furnished through Splittdorf generator and Wico 6 volt, 12 ampere hour battery acting entirely independent of ignition. Head and tail lamps controlled with switch. Ammeter mounted within easy view of the rider on frame top tube.

FINISH: INDIAN Red with gold striping.

FOOT BOARDS: Folding type with rubber mats.

FORK: INDIAN triple stem type. Leaf spring suspension.

FRAME: INDIAN double tube type, reinforced and constructed with special tubing. Construction insures extremely low saddle position.

GUARDS: Pressed steel one piece construction.

HANDLE BARS: Heavy service type integral with head bracket. Triple connection to fork.

IGNITION: Splittdorf high tension Magneto; frame is of die cast aluminum. Sparks perfectly at 40 R.P.M., insuring easy starting.

LUBRICATION: Automatic, adjustable pressure feed and auxiliary hand pump.

MOTOR: 2 cylinders 42 degree, "V" type, air cooled, bore $2\frac{1}{4}$ " stroke $3\frac{1}{8}$ ", 36.38 cu. in. piston displacement.

Cylinder: L-Head.

Valves: Indian side by side valve construction. Poppet, right hand side, valve mechanism enclosed and efficiently lubricated.

Piston: Cast iron, two (2) rings, pin— $\frac{1}{8}$ " diameter.

Conn. Rod: Selected drop forged steel, specially heat treated.

Bearings: Crank and main bearings roller.

MUFFLER: INDIAN Tubular type.

STAND: INDIAN hinge type with spring latch.

STANDARD EQUIPMENT: Combination dim and full electric head lamp, tail lamp, ammeter, horn and push button, tool box and tool kit.

STARTER: INDIAN gear and sector type. Sector acting on ratchet pinion mounted on mainshaft of transmission.

TANK: One piece, forming fuel and oil compartments. Gasoline capacity, 3 gallons. Oil capacity, 3 quarts.

TIRES: 26" x 3",—Firestone, Goodyear, or U. S. Traxion Tread, optional.

TRANSMISSION: Mounted in unit with motor. Three forward speeds, progressive type, direct acting shift lever. Makes for instant gear shifting.

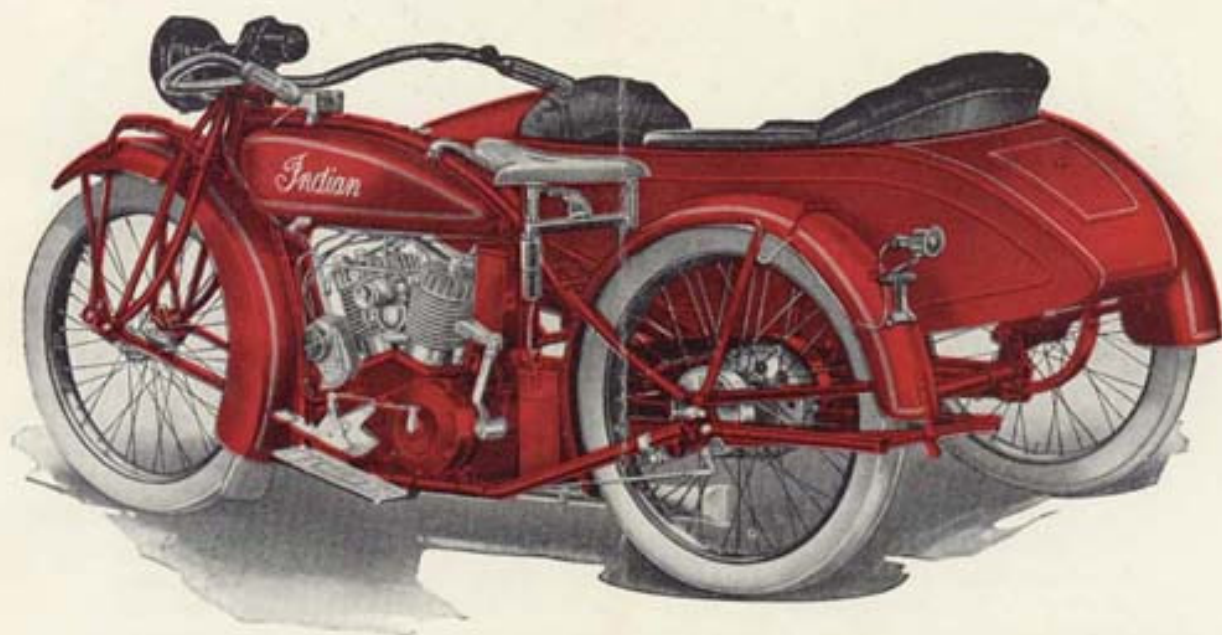
WEIGHT: Ready to ride, 340 pounds.

WHEELS: 26" in diameter, wire, front and rear, C. C. type steel rims, knockout axles.

WHEEL BASE: 54".

Indian Big Chief 74

"MASTER OF THE ROAD"



The larger brothers of the INDIAN SCOUT are known as the BIG CHIEF 74 and the CHIEF 61. In general design and construction these two models are larger editions of the INDIAN SCOUT. The BIG CHIEF 74 and the CHIEF 61 are identical in design and construction with the exception of a super power-plant in the BIG CHIEF 74. The numerals themselves indicate the power capacity, the BIG CHIEF 74 having a piston displacement of 74 cubic inches, while the displacement of the CHIEF 61 is 61 cubic inches. These two models fit into the niche of the motorcyclist's desires where maximum speed and power are required.

The BIG CHIEF 74, the acknowledged leader in the side car class, is designed particularly for heavy duty side car service, but it is nevertheless ideally adapted to solo work, especially police service where maximum speed is required. With Princess side car attached, this model blends itself into one sturdy, pleasing unit which typifies its worthy title of "Master of the Road."

In every form of comparative tests this model has consistently proved its superiority and it is accepted universally as the last word in motorcycle construction from the standpoint of maximum speed, power and strength.

The Princess side car which forms a part of the BIG CHIEF 74 unit has been redesigned to insure greater riding comfort and more pleasing lines. The body length has been increased and the seating capacity is broader and deeper. Another illustration of the Princess side car which more fully illustrates its improved design will be found on page 9.

These two models, like their smaller brother, the INDIAN SCOUT, are offered with a complete new front fork construction, improved thrust bearing in the clutch, improved kick starter lever and change in starting ratio which insures much easier starting, a stronger and improved stand and numerous other refinements.

DETAILED SPECIFICATIONS OF BIG CHIEF 74 AND CHIEF 61 MODELS

BRAKE: INDIAN extra heavy, internal expanding. Has a range of action and braking surface greatly in excess of every ordinary requirement so as to positively and quickly take care of any emergency. Diameter $6\frac{1}{4}$ ", width $1\frac{1}{4}$ ".

CARBURETOR: INDIAN Schebler, automatic, compensating type, model H-1 $\frac{1}{4}$ ". Has variable air and fuel adjustments, gives dependable power and remarkable flexibility in operation.

CLUTCH: Multiple disc. Alternate steel and raybestos discs, operating in oil.

CONTROL: Throttle, left grip; and spark, right grip; by INDIAN "Twist-of-the-Wrist," with wire cables enclosed in handle bars. Exposed cable covered with leather. Brake pedal on right side, clutch pedal on left side. Valve lift compression release by push rod on right side of tank.

DRIVE: Primary drive, helical gears, insuring constant adjustment, connecting motor and transmission, completely enclosed, running in oil bath.
Final drive: $\frac{1}{4}$ x $\frac{3}{4}$ roller chain.
Gear ratio: Solo—4.58-1; side car 5.09-1.

ELECTRIC SYSTEM: Electric current for head light, tail light, and horn, furnished through Splittdorf generator and Wico 6 volt, 20 ampere hour battery acting entirely independent of ignition. Head and tail lamps controlled with single switch. Ammeter combined in casing with switch mounted within easy view and reach of the rider on frame top tube.

FINISH: INDIAN Red with gold striping.

FOOT BOARDS: Folding type with rubber mats.

FORK: INDIAN triple stem type. Leaf spring suspension.

FRAME: INDIAN double tube type, reinforced and constructed with special tubing. Construction insures extremely low saddle position.

GUARD: Pressed steel, one piece construction, rear guard hinged.

HANDLE BARS: Heavy service type integral with head bracket. Triple connection to fork.

IGNITION: Splittdorf high tension Magneto; frame is of die cast aluminum.

LUBRICATION: Automatic, adjustable pressure feed and auxiliary hand-pump.

MOTOR: Big Chief 74: 2 cylinder 42 degree "V" type, air cooled, $3\frac{1}{4}$ " bore, $4\frac{1}{8}$ " stroke 73.62 cubic inches piston displacement.

Chief 61: $3\frac{1}{4}$ " bore, $3\frac{5}{8}$ " stroke, 60.88 cu. in. piston displacement.

Cylinder: L-Head.

Valves: Poppet, right hand side, valve mechanism enclosed and efficiently lubricated.

Piston: Cast iron, three (3) rings, pin— $\frac{3}{4}$ " diameter.

Conn. Rod: Selected drop forged steel, specially heat treated.

Bearings: Crank and main bearings roller.

MUFFLER: INDIAN Tubular type.

STAND: INDIAN hinge type with spring latch.

STANDARD EQUIPMENT: Combination dim and full electric head lamp, tail lamp, ammeter and switch, motor driven horn and push button, tool box and tool kit, Mesinger air cushion saddle with auxiliary spring seat post.

STARTER: INDIAN gear and sector type. Sector acting on ratchet pinion, mounted on mainshaft of transmission.

TANK: One piece, forming fuel and oil compartments. Gasoline capacity, $3\frac{1}{2}$ gallons. Oil capacity, $3\frac{1}{2}$ quarts.

TIRES: 28" x 3",—Firestone, Goodyear, or U. S. Traxion Tread, optional.

TRANSMISSION: Mounted in unit with motor. Three forward speeds, progressive type, direct acting shift lever. Makes for instant gear shifting.

WEIGHT: Ready to ride, 425 pounds, side car, 198 pounds.

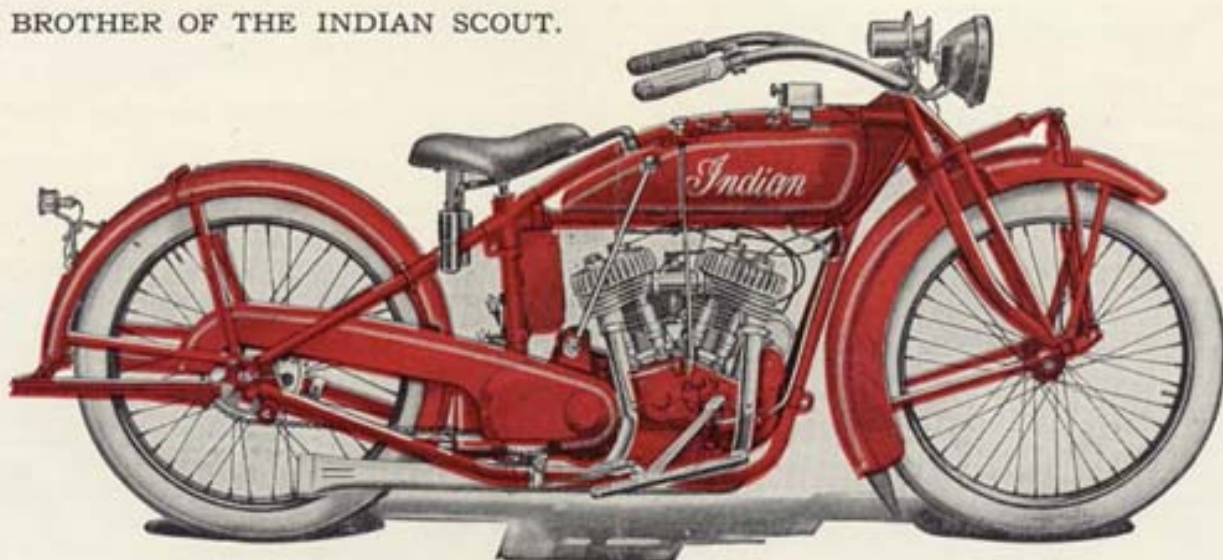
WHEELS: 28" in diameter, wire, 40 spokes, front and rear, C. C. type steel rims, knockout axles.

WHEEL BASE: 60 $\frac{1}{2}$ inches.

x Actual Piston Displacement represents the only difference in the detailed specifications between Big Chief 74 and the Chief 61 models.

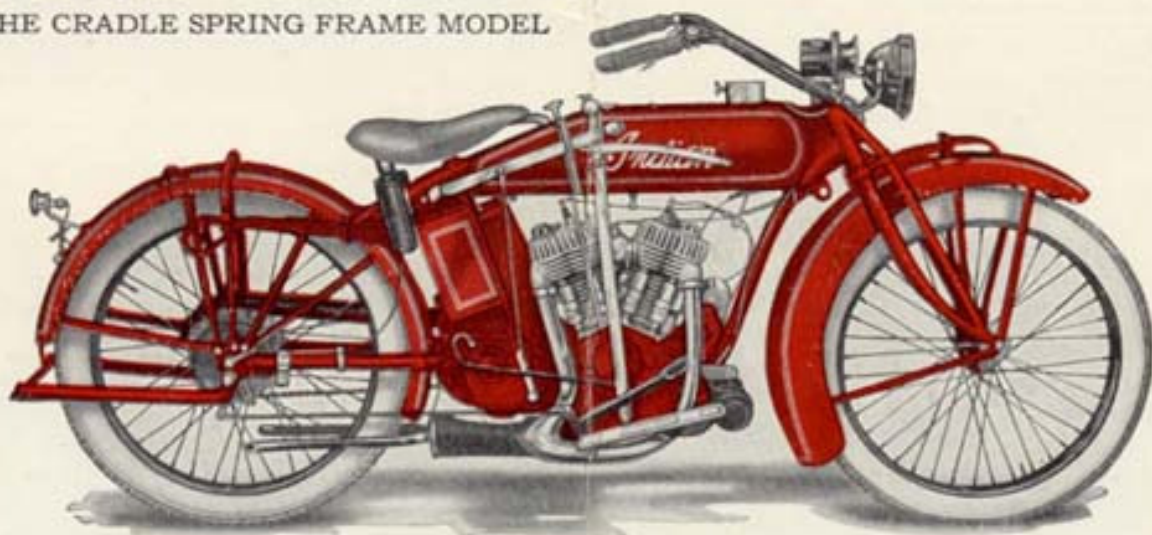
Indian Chief 61

BIG BROTHER OF THE INDIAN SCOUT.



Indian Standard

THE CRADLE SPRING FRAME MODEL



Now in its eleventh consecutive year of popular approval the old standby, INDIAN STANDARD Cradle Spring Frame model maintains its place as a powerful, safe, clean limbed model of big time stability.

There's not a corner of the world where motorcycles are ridden that the famous Cradle Spring Frame model has not earned and held the unwavering appreciation of its exponents. There is no rider or dealer who is not thoroughly conversant with its ability to absorb the shocks of rough, rutty, rocky roads and prolong the life of the machine of which it is such an integral part.

BRAKE: INDIAN band type, internal expanding. Has a range of action and braking surface greatly in excess of every ordinary requirement so as to positively and quickly take care of any emergency. Diameter 6", width 1".

CARBURETOR: INDIAN Schebler, automatic, compensating type, model H 1 1/4". Has variable air and fuel adjustments, gives dependable power and remarkable flexibility in operation.

CLUTCH: INDIAN heavy duty type. Alternate steel and friction lined discs. Smooth and positive in operation.

CONTROL: Throttle, left grip; and spark, right grip; by Indian "Twist-of-the-Wrist," with wire cables enclosed in handle bars. Exposed cable covered with leather. Brake pedal on right side, clutch pedal on left side. Valve lift compression release by push rod on right side of tank.

DRIVE: 5/8 x 3/4 roller chain, motor to transmission and transmission to rear wheel.
Gear Ratio: 4.08 to 1 on high.

ELECTRIC SYSTEM: Electric current for head light, tail light, and horn furnished through Splitdorf generator and Wico 6 volt, 15 ampere hour battery acting entirely independent of ignition. Head and tail lamps controlled with single switch. Ammeter combined in casing with switch mounted within easy view and reach of the rider on frame top tube.

FINISH: INDIAN Red with gold striping.

FOOT BOARDS: Folding type with rubber mats.

FORK: INDIAN triple stem type. Leaf spring suspension.

FRAME: INDIAN "Cradle spring" type. Spring members consist of 16 vanadium steel spring leaves, eight on each side. Insures comfort and easy riding on all road conditions.

GUARDS: Pressed steel, one piece construction, rear guard hinged.

HANDLE BARS: Heavy service type integral with head bracket. Triple connection to fork.

IGNITION: Splitdorf high tension Magneto; frame is of die cast aluminum.
LUBRICATION: Automatic, adjustable pressure feed and auxiliary hand pump.

MOTOR: 2 cylinder 42 degree "V" type, air cooled, 3 1/4" bore, 3 1/2" stroke 60.88 cu. in. piston displacement.

Cylinder: L-Head.

Valves: Poppet, right hand side, valve mechanism enclosed and efficiently lubricated.

Piston: Cast iron, three (3) rings, pin—5/8" diameter.

Conn. Rod: Selected drop forged steel, specially heat treated.

Bearings: Crank and pinion shaft bearings roller. Wrist pin and drive shaft bearings special bronze bushings.

MUFFLER: INDIAN expansion type; single chamber twin tail pipes.

STAND: INDIAN hinge type with spring latch.

STANDARD EQUIPMENT: Combination dim and full electric head lamp, tail lamp, ammeter and switch, motor driven horn and push button, tool box and tool kit, Mesinger air cushion saddle with auxiliary spring seat post.

STARTER: INDIAN gear and sector type. Sector acting on ratchet pin ion, mounted on main clutch member.

TANKS: Two unit fuel tank separate compartments. Total capacity 3 1/4 gallons. Oil tank on rear tube of frame. Capacity 3 quarts.

TIRES: 28" x 3"—Firestone, Goodyear, or U. S. Traction Tread, optional.

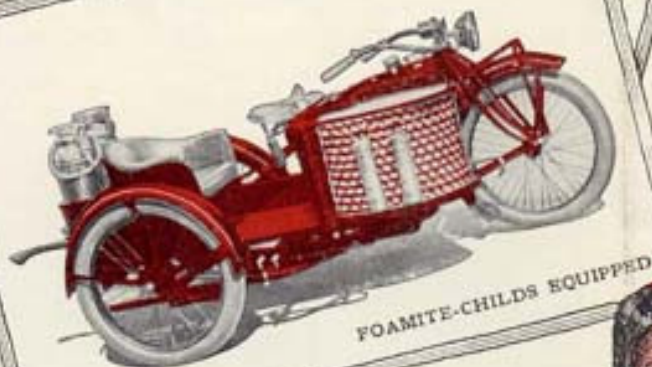
TRANSMISSION: Mounted on frame hanger bracket. Three forward speeds, progressive type.

WEIGHT: Ready to ride, 410 pounds.

WHEELS: 28" in diameter, wire, 40 spokes, front and rear, C. C. type steel rims, knockout axles.

WHEEL BASE: 59 1/2 inches.

Indian Fire Patrol



The INDIAN FIRE PATROL is illustrated on this page to show another important application of the INDIAN MOTOCYCLE in the utility field. It is not offered as a substitute for any vehicle now in general use, but has been conceived and perfected as an indispensable auxiliary to the equipment of fire departments everywhere.

Indian Service Car



The INDIAN SERVICE CAR illustrated above is one of several body designs which round out a complete line of commercial vehicles offered as a positive solution to the serious traffic and parking problem which now exists as well as the most economical motor driven vehicle in existence for light delivery and general service work.

This page is intended to point out in the very briefest way possible other applications of the use of INDIAN MOTOCYCLES in addition to their universal use for sport and pleasure. Upon request the Indian Motorcycle Company or any INDIAN dealer will furnish special literature featuring the INDIAN FIRE PATROL the INDIAN COMMERCIAL VEHICLE and the INDIAN MODELS FOR POLICE SERVICE.

The INDIAN line has been prominently identified in police service for the past twenty years. The motorcycle is now recognized as a positively indispensable part of every police department equipment. When police departments buy INDIANS they are not merely buying a motorcycle, but from the INDIAN line they can select the models particularly adapted to their exacting requirements. INDIAN police business during the past twelve months increased 41 per cent over the previous twelve months. That is proof of INDIAN'S popularity in police service.



NO chain is stronger than its weakest link. By the same token the strength, power and efficiency in motorcycle design is gauged by its important units which go to make up the machine as a whole.

We invite your attention to a few of the exclusive features and important units found in INDIAN construction. Each has a decided bearing on the general performance of the machines.

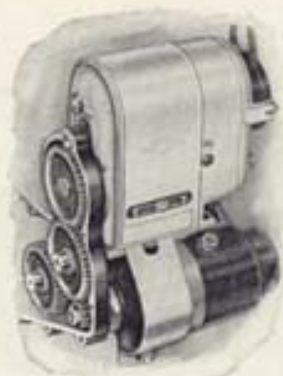
NEW INDIAN FORK



We mention this feature first by virtue of the fact that the fork we are offering this year is new in design throughout. While the general principle of the INDIAN triple stem type has not been changed, the action, the strength and the general resiliency represent a marked improvement over any previous design. By new design of the side links in relation to the bell cranks, greater and

smoother spring action has been obtained. By the use of special material in the spring leaves and by adopting a new combination of leaves the resiliency of this new fork has proved a revelation. In addition to these two important factors the tubular construction of the fork has been strengthened and the fork crown itself is heavier and improved in design. The new fork carries with it a new designed front mud guard which insures greater protection to the riders from road splashing. The new fork is regular equipment on all Chief and Scout models.

TWO UNIT ELECTRICAL SYSTEM

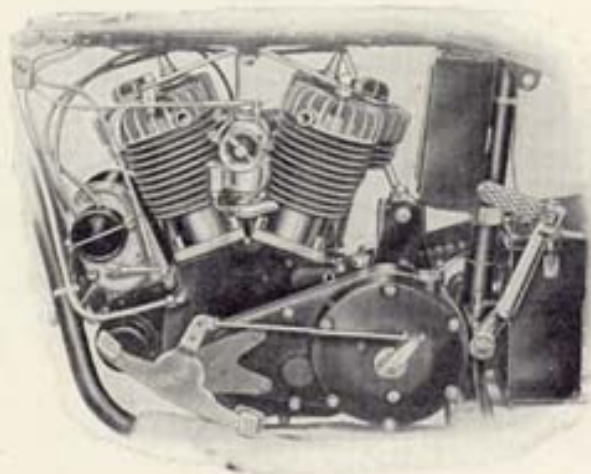


The two unit electrical system which means independent units controlling both ignition and lighting represents a manufacturing cost considerably greater than the single unit battery type.

However, it is correct in principle and necessary in motorcycle design.

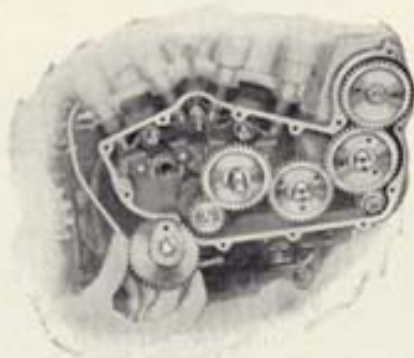
Consequently is regular equipment on all electrically equipped INDIAN models.

UNIT POWERPLANT



The elimination of the troublesome short chain and incorporating the unit powerplant is a particular advantage found in the Chief and Scout models. This construction unites the engine, clutch, gearbox and primary drive in permanent never-varying adjustment. Its advantages and unusual accessibility can be seen at a glance.

TIMING MECHANISM

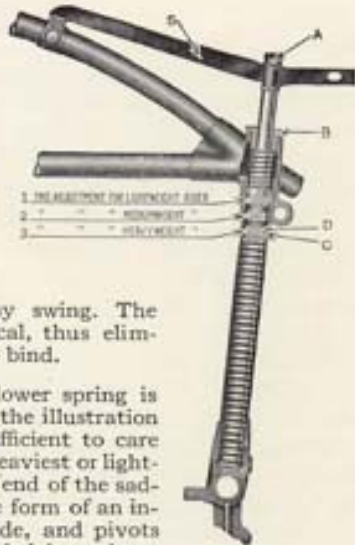


Note the exceptionally skillful design, fine workmanship and rugged construction represented in the INDIAN timing mechanism. Two cams are fitted, one for each cylinder, which provides positive accuracy in timing. Each cam operates both the intake and exhaust valves through a simple arrangement of the lift levers imparting a smooth, positive and silent action to the valves.

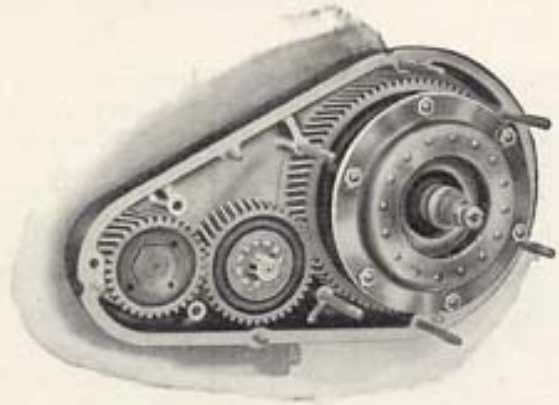
SPRING SEAT POST

The spring seat-post provided on the CHIEF and SCOUT is a superior mechanism of its kind. The large diameter of the seat-mast permits the use of large resilient springs. The saddle is pivoted at a point well forward of its nose so that up and down motion becomes a long easy swing. The seatmast is nearly vertical, thus eliminating any tendency to bind.

The tension on the lower spring is adjustable as shown in the illustration and affords a range sufficient to care for the weights of the heaviest or lightest riders. The forward end of the saddle arm is shaped in the form of an inverted U 2½ inches wide, and pivots on a 7-16 inch bolt carried in a drop-forged lug which is brazed integral with the top tube of the frame. The width of this pivot prevents side motion.



CLUTCH AND HELICAL GEAR DRIVE



The helical gear drive supersedes all other means of transmission. Ineffective transmission is the biggest source of trouble and waste in motorcycles today. In addition to eliminating the troublesome short chain, the helical gear drive is the cleanest and most positive ever produced. The clutch is of the multiple disc type, using alternate steel and raybestos discs and operates in a bath of oil. Sixteen discs are used, eight steel and eight raybestos, providing 34 working surfaces and a total of 129 square inches.

AMMETER AND SWITCH



No electric system is complete without an ammeter which detects instantly the slightest irregularity.

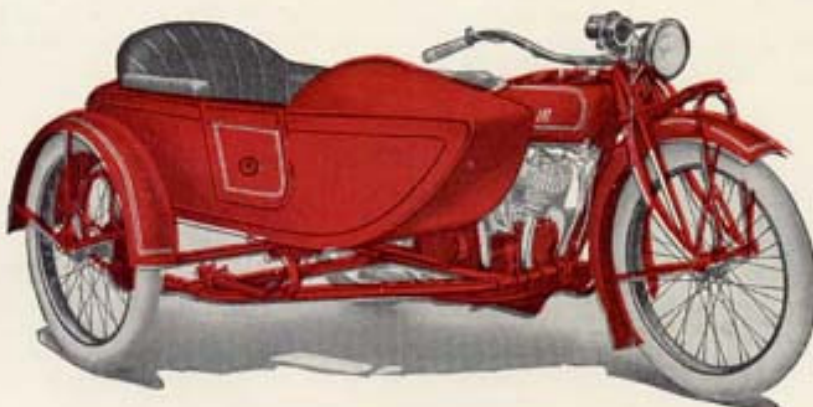
The ammeter casing and switch are furnished on all of the electrically equipped INDIAN Standard and Chief models.

CLUTCH THRUST BEARING



As a distinctive improvement to the clutch action we are illustrating improved thrust bearing which is now regular equipment on all Chief and Scout models.

Indian Chief with Princess Sidecar



This view of the Princess Side Car shows the new stream line design of the body. In addition to this marked improvement in appearance, the new side car carries other important refinements including deeper back rest and larger seating capacity.