

KOHLER

Automatic POWER and LIGHT 110 volt D. C.



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KOHLER CO

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Kohler Co., *Founded 1873*, Kohler, Wis.
Shipping Point, Sheboygan, Wis.

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KOHLER AUTOMATIC POWER AND LIGHT 110 VOLT DIRECT CURRENT

THE modern farmer is a vital factor in the solution of the world's most pressing problems. But he also has plenty of problems of his own. And considering his important function in the world, those problems have an interest for all of us.

As a business man the farmer has a difficult problem of efficient and economical production. And as the provider of a large part of the world's comforts, he and his family are justly concerned with getting for *themselves* the comforts that other people have long enjoyed.

Electric Power the Solution

To the solution of both these farm problems Kohler Automatic Power and Light offers a contribution that is distinctive and notable.

While no machine or device can make home for you, yet home is not complete and satisfying unless it offers the reasonable comforts of modern life. And scarcely any single thing can do so much for home comfort as an abundance of soft white light and an ample, instantly available flow of power wherever your work requires it.

KOHLER CO.

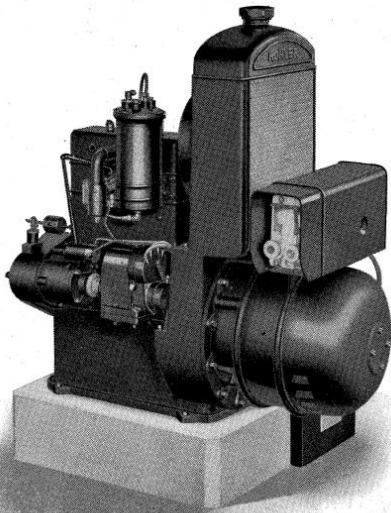
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KOHLER, WISCONSIN

Shipping Point:
SHEBOYGAN, WISCONSIN

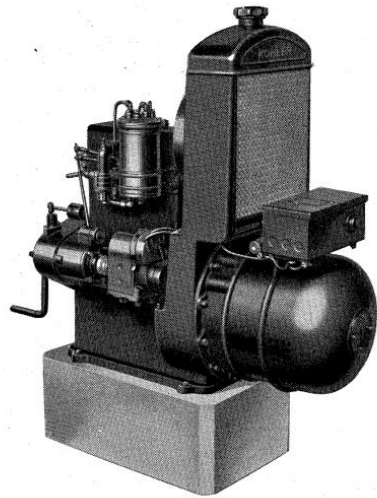
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MANUFACTURERS OF ENAMELED PLUMBING WARE AND
KOHLER AUTOMATIC POWER AND LIGHT 110 VOLT D. C.



*Kohler Automatic Power and Light
110 Volt Direct Current*



*The Kohler Power and Light 110 Volt D. C.
Model C. Manual Control*

The Kohler Manual Control Plant embodies the same features of design and construction as the Kohler Automatic, except that it is minus the automatic switch and starting battery and must therefore be started by hand cranking. It is suitable for schoolhouses, churches, institutions, and all places where a caretaker or janitor is at hand, or where the plant runs for long periods when once started.

Electricity for Light

Electric light ceased years ago to be a novelty or a luxury. Its economy, convenience and safety, as well as its superior illuminating qualities, are universally known. For years you have longed for this convenience, enjoyed by the humblest toiler of the city and far more necessary to you than to him. How wonderful it would be to have, at the mere turn of a switch, a flood of bright, cheerful light in any room of the house, or in the barn, garage or hay loft—and to know that it is SAFE light! To banish the smoke and smell, the fitful and unsteady flare of the kerosene lamp or lantern—and to eliminate their danger—would be a wonderful improvement.

With the Kohler Automatic you are not dependent upon the central power station for these benefits. You can have a power station of your own, with real power capacity, sturdy and reliable, ready to respond instantly, day or night, at the turn of any switch or lamp.

The Uses of Power in the Home

Nor does the benefit end with the furnishing of light. The current from the Kohler Automatic is available for a water system and makes it possible for you to enjoy the advantages of modern plumbing. A bath room will add immensely to your comfort, particularly after a

hot day in the field; while a kitchen sink with running water available at the turn of a faucet will lighten the drudgery of house work, contributing to the health and contentment of the woman in the home.

At a cost of a few cents the heavy weekly washing can be done by electrical power. The same power will permit the use of an electric iron, away from the hot stove, lightening one of the most burdensome parts of the work of the house. In fact, whether it be a vacuum cleaner, an electric toaster or other modern power utility that is desired in the home, the Kohler Automatic points the way to your convenience and comfort. Electric Power is the master convenience which all the others follow.

A Modern Home for Your Family

Are not your wife and children deserving of the same conveniences that city people have long enjoyed? The time has gone by when rural life need be deprived of the simple comforts that go with electric current. The Kohler Automatic makes them all possible, and at a modest cost.

Are your children proud of their home, or are they waiting to get away to the city? The modern farm should be fascinating to young people. It offers them opportunity and wholesome life. With the conveniences that are com-

KOHLER AUTOMATIC POWER AND LIGHT
110 VOLT DIRECT CURRENT



Life is often a mockery to the overworked, discouraged farm wife, whose work literally never is finished. Her workshop—the kitchen—needs modern equipment as well as the workshop of her husband. What a real pleasure it would be to work and plan in a real kitchen, fitted with electric lights, a beautiful big sink, running water, a flat iron, and—well, wouldn't it be wonderful?

KOHLER AUTOMATIC POWER AND LIGHT
110 VOLT DIRECT CURRENT

monplace elsewhere, the farm can be made so attractive that children will desire to be at home.

These comforts and conveniences, which make for a real home, are easily procurable by the farmer of average means. For the Kohler Automatic, built as a real power unit and paying its own way through labor saved, furnishes light practically as a by-product of power. In other words, the Kohler Automatic is a machine designed to act practically as another man on the farm, to save your strength and time—to pay for itself in work accomplished, and at the same time furnish you with an abundance of light throughout the premises.

The Problem of Farm Help

One of the acute problems of the modern farmer is labor. Like the manufacturer, the farmer must rely upon equipment to do a good part of his work. What better combination could he desire than a well-built, economical, automatic power unit, ready to respond at the turn of any switch, and at the same time affording electric light for the house, barn and yard?

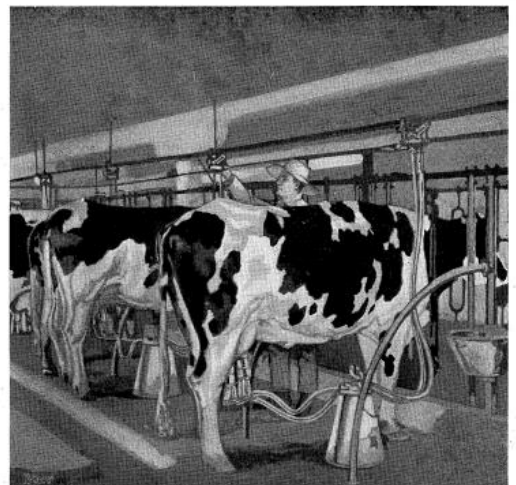
The Kohler Automatic will operate your milking machine, separator or churn, pump water, grind feed and do numerous other tasks requiring power. It is capable of handling in some cases three or four of these operations at the same time. Should you chance to overload the generator, no damage whatever can result.

KOHLER AUTOMATIC POWER AND LIGHT
110 VOLT DIRECT CURRENT

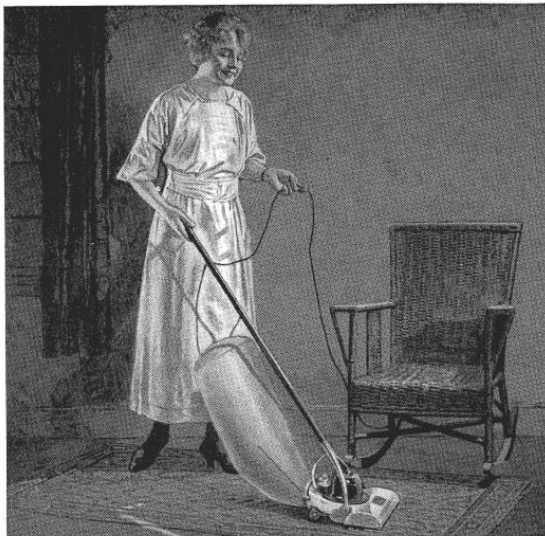


Modern plumbing is an important factor, not in comfort alone, but in physical fitness and self-respect. The country home that is equipped with Kohler plumbing fixtures and with a Kohler Automatic to furnish energy for pumping has the same conveniences that make city life attractive.

KOHLER AUTOMATIC POWER AND LIGHT
110 VOLT DIRECT CURRENT



Electric current multiplies the farmer's ability to accomplish, shortens and lightens his tasks and relieves him of drudgery, that he may devote himself to planning and managing.



And in the farm home modern equipment electrically operated means better housekeeping and lightens immeasurably the burdens formerly resting upon the farm woman.

line is turned on, whether in the house, barn, garage or yard, the engine responds at once and a flood of light or a flow of power is the result.

It matters not whether you are hundreds of yards away or only a few feet from the engine, it makes no difference what switch you turn on, you get the same response. And whenever you turn off the last switch or light, the engine stops automatically.

Automatic Control

This wonderful feature is due to a switch—our own patent and found on no other unit—connected with a small automobile-type starting battery. Sealed up in a metal switch box, this extraordinary automatic device is protected from accident and good for a lifetime of unflinching service. It saves you the time and trouble required in making frequent visits to the unit, and it makes it unnecessary for children or careless and inexperienced help to touch your power plant.

Current Direct from Generator

The current generated by the Kohler Automatic does not go through a bank of storage batteries, but comes to you direct from the gen-

Kohler Automatic a Productive Investment

The Kohler Automatic has a capacity of 1,500 watts or 1½ K.W. — two electrical horse-power. It would scarcely pay you to invest your money in a mere lighting plant. The Kohler Automatic is more than a lighting plant. It is a sturdy power plant, capable of carrying a real load. It is poor economy to buy a plant limited to a thousand watts or less and liable to be ruined by overload. It is advisable to make your purchase an *investment* of the money, to be returned to you, not in light alone, which is chiefly a non-productive convenience, but in power-for-work. When it is known that an ordinary electric iron requires 600 watts, the inadequacy of the less powerful plants is self-evident.

Superiority of Kohler Automatic

This remarkable unit is able to deliver a steady, adequate and economical flow of current because of superiorities that are unique and worth noting. It embodies valuable features that are found in no other unit on the market.

A special trip to the plant to start or stop the engine is not necessary. Nor is it necessary to push a special button or throw in a special switch. Whenever *any* lamp or switch in the

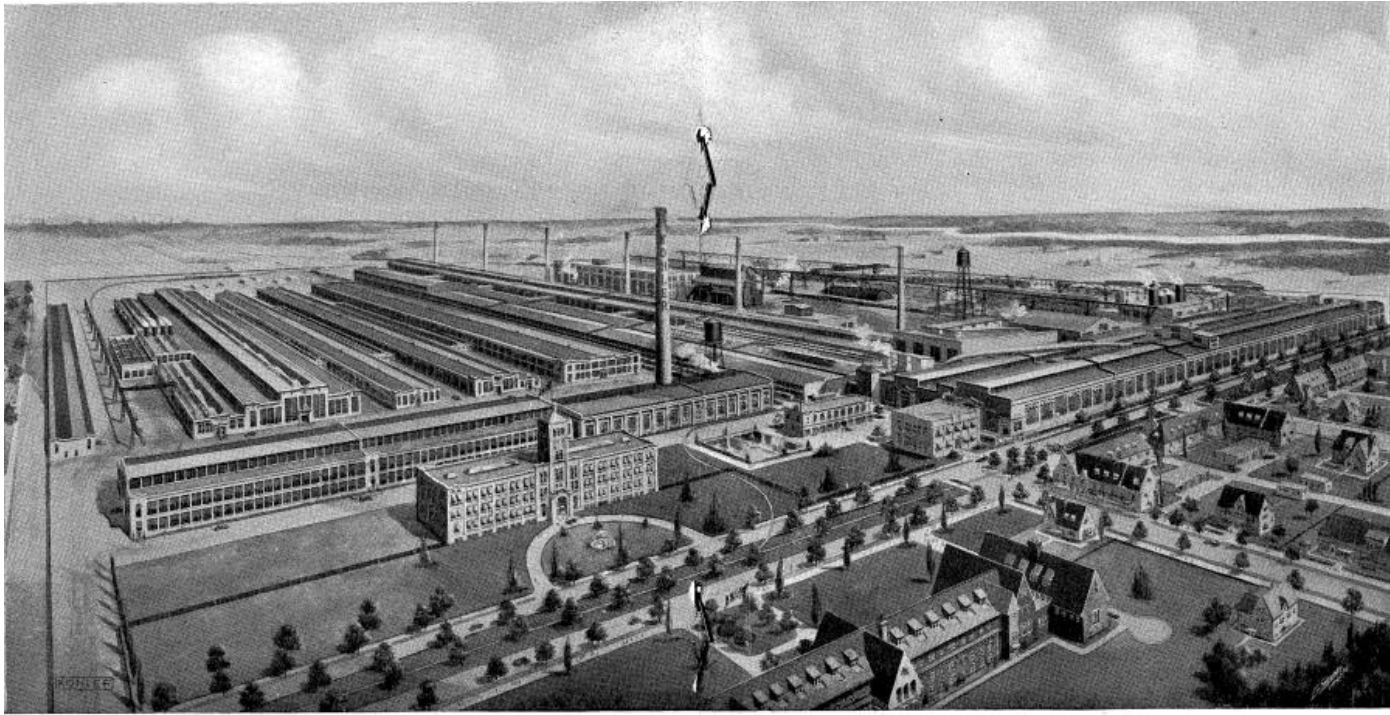
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erator. The only battery used on the Kohler Automatic is a small 24-volt starting battery which is automatically charged from the generator.

The advantages of this feature are easily seen. The storage battery is a wonderful device, but it has limitations that make it imperfectly suited to power purposes. The finest storage battery, even when new, does not return the amount of current that is put into it. A new bank of storage batteries is usually about 80 per cent. efficient. And there is a steady deterioration, still further reducing the efficiency, often to 50 per cent. or less after a few months, and making replacement necessary in a few years, at the longest.

Aside from ordinary depreciation, there is always the danger of ruin from overload. Switching an electric iron on imperfectly charged batteries may result in irreparable damage, while an automatic water system is a constant source of danger.

The Kohler Automatic gives you current direct from the generator—*all* the current produced is available for work. The original bat-



*Birdseye View of Factory and Home Office, Kohler Co., Kohler, Wis.
In this great factory, representing 49 years of steady development and ripe experience, are manufactured Kohler Automatic Power and Light 110 Volt D. C. and the Famous Kohler Enameled Plumbing Ware.*

KOHLER AUTOMATIC POWER AND LIGHT 110 VOLT DIRECT CURRENT

tery cost, the renewal cost, and the waste of current—all are saved and delivered to you in the form of economical energy, ample power.

110 Volt Current

By eliminating the storage battery, the Kohler Automatic produces current of 110 volts—the kind of current you would get from a big central station. 110-volt current has four times the penetration of the ordinary low voltage kind, making possible a large saving through the use of a smaller wire and with no noticeable drop in voltage. Moreover, the Kohler Automatic can send its power far out on the line, if necessary, instead of a few hundred feet.

The use of 110-volt current enables you to buy standard motors and fixtures anywhere that electrical goods are sold, and to get them at the lower prices of standardized, quantity-produced goods. This in itself is a distinct advantage.

The production of 110-volt current from batteries would require a bank of 56 cells. The economy of taking current direct from a 110-volt generator is evident from this no less than from the tendency of batteries to deteriorate and give trouble.

KOHLER AUTOMATIC POWER AND LIGHT 110 VOLT DIRECT CURRENT

Why the Superiority?

That the Kohler Automatic is able to deliver 1,500 watts of electricity at the mere contact of any switch is convincing evidence of merit. But purchasers rightly demand even more than this. An ingenious mechanism is often annoying and wasteful because of "trouble" that may develop.

The Kohler Automatic embodies the time-tried and scientific features of the most successful gas engine and electrical design. It is the result of careful research, experiment and test, by highly trained engineers. It is manufactured by an organization where skill and enthusiasm are balanced by experience, conscientious workmanship, and a tradition of effective co-operation. The result is a product reliable and free from trouble.

An Efficient, Trouble-Free Engine

The very heart of the Kohler Automatic is its engine. Four cylinders of small bore and four-cycle operation make for a continuous flow of power. Tested under water pressure for defects, and carefully machined to secure efficient compression, the four cylinders work smoothly and economically, with a notable absence of vibration.

KOHLER AUTOMATIC POWER AND LIGHT
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The Kohler Automatic runs at 1,000 R. P. M., a low, even speed made possible by the four-cylinder construction. This eliminates the shocks and vibration that slowly shake the average high speed gas engine to pieces.

The valve-in-head engine, such as is found on the Kohler Automatic, is recognized as the most efficient type, and is used on most aeroplanes. The force of the explosion is all directed on the piston, securing a maximum of power from the fuel.

The bearings of the Kohler Automatic are generously oversize, built for continuous operation, and good for long years of service.

Pressure Oil System

The lubrication on the Kohler Automatic is as thorough as that of a high-grade motor car. A plunger pump in the oil base forces strained oil to the crank shaft, cam shaft and rocker arm bearings, while all other bearings are oiled by a splash system. Surplus oil is returned to the oil base. The oil is replenished through an easily accessible oil hole on the top of the motor.

Water-Cooling

The Kohler Automatic is water-cooled by means of a thermo-syphon system, radiator and fan. The cylinders are liberally water-jacketed,

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each cylinder being entirely surrounded by water. At all temperatures the cooling is efficient and sure.

Magneto Ignition

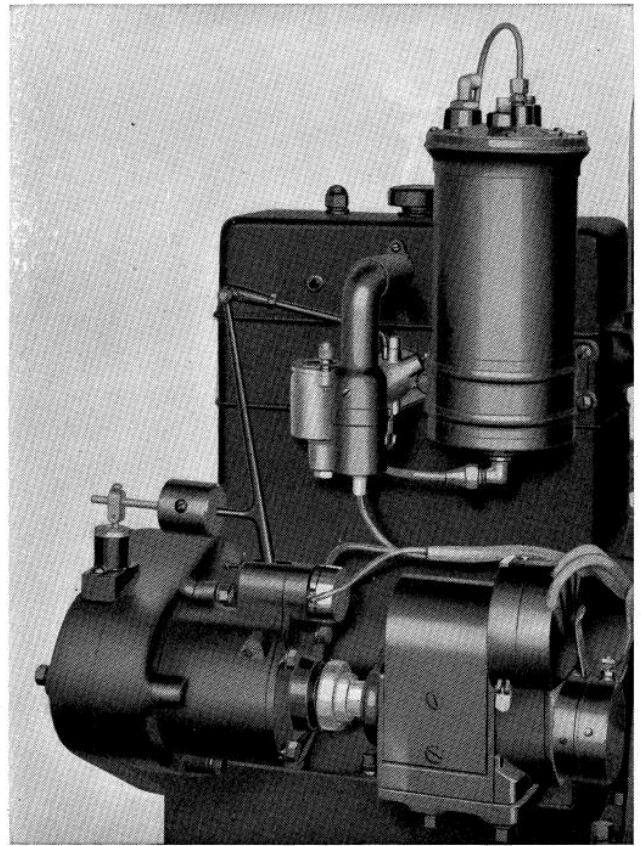
The Kohler Automatic is equipped with a high tension magneto, entirely independent of any battery and yielding a fat, hot spark. The ignition is sure at all times.

In the improbable event that for any reason either the starting battery or the automatic switch did not function properly, the fact that magneto ignition is used would make it possible to run the unit with manual control, starting it as you would start your automobile if the self-starter did not work.

Mechanical Governor

The motor is governed by mechanical throttling. The speed is constant at all loads, maintaining a uniform voltage in the generator and securing the utmost economy of fuel consistent with the load that is being carried at the time. As the load is diminished, the consumption is automatically cut down by the mechanical governor.

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Detail View of Working Side of Kohler Automatic, Showing Vacuum Tank, Carburetor, Automatic Choke, Magneto and Governor

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Fuel Supply System

A vacuum tank enables you to connect the Kohler Automatic with your outside gas tank and saves you the trouble of constantly re-filling a "less-than-a-gallon" tank on the machine. Only about one pint of fuel is actually in the tank at any one time, yet the supply is renewed as fast as used. The unit is equipped with a carburetor of proved efficiency and economy in the use of fuel and specially designed for this machine.

The Generator

A four-pole, compound-wound generator, of sturdy design and generously over-size, is an integral part of the Kohler Automatic. This generator furnishes 110-volt Direct Current.

A Serviceable Power Plant

The Kohler Automatic embodies the best engineering practice of the day and is built to give service, save trouble and promote your convenience. A visit to the plant about once a month, in order to insure a sufficient supply of oil and water, is all that is ordinarily required. There is no large bank of batteries requiring attention. And the operation of the plant is entirely automatic.

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Any man who is at all familiar with an automobile, truck, tractor or gas engine is fully competent to understand and care for this simple and sturdy machine. Indeed, it would be very rarely that any knowledge of mechanical matters would be needed. The whole purpose in the manufacture of this remarkable unit has been to produce a machine of adequate capacity, free from troublesome complications and practically capable of taking care of itself.

The remarkable ability of the Kohler Automatic to give you service, save you trouble and pay for itself is due to features that are unique and exclusive. Kohler Automatic Power & Light is fully protected by patents registered in the United States Patent Office.

Two-Handed Farming Pays

The way of the past was to grope in the darkness with a smoked-up kerosene lantern over one arm and a fork or bucket over the other; to turn a grindstone with one hand and sharpen tools with the other; to use the valuable time of a man to turn a separator or churn. The way of the future is to do these things, and many more, in a cheaper and better way — by electric power.

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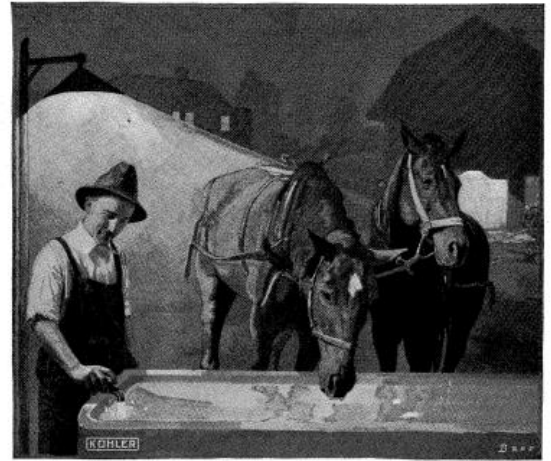
The value of electric light on the farm is well known and generally recognized. But the multitude of uses to which electric power can profitably be put is still not everywhere understood. Nor is it always appreciated that a real power plant can be made to *earn* its way on the farm.

The Kohler Automatic marks a new era in the development of isolated power and light plants, the advent of a superior plant powerful enough to pay its own way and so convenient in its operation that it requires practically no labor or time for its care and maintenance.

Kohler Automatic Has Many Uses

The capacity, the automatic features, and the elimination of sources of trouble make the Kohler Automatic the logical plant for many other uses than those of the farm. Add to these features the fact that it generates 110-volt current, and you have the ideal plant for summer resorts, hunting lodges, Y. M. C. A. and Boy Scout camps, country garages, stores, churches and schools, yachts, moving picture theatres, dredges, construction canals, aquas, carnivals, cheese factories, hotels, and in fact, any place not already served by the standard electric current.

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When darkness gives way to cheerful, bright electric light, and monotonous drudgery is relieved by the magic of electrical power, then does farming become a joyous and wonderful occupation. For marvelous is the transformation which man-made machines have wrought in history's oldest and most important profession.

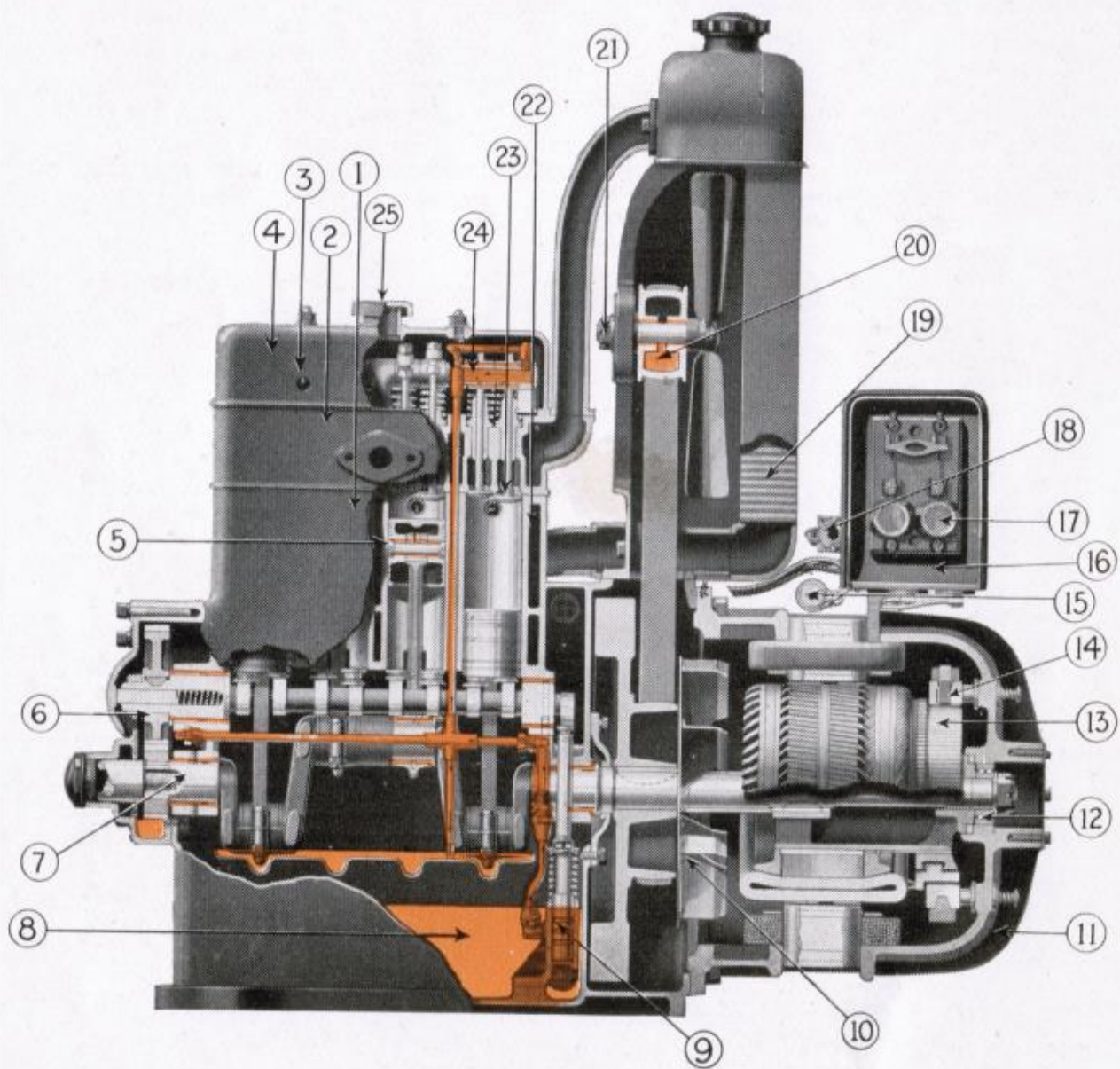


Specifications in Brief

- ENGINE — Valve-in-head, four cylinder, four cycle, bore 2", stroke 3".
- PISTONS — accurately ground, fitted with three piston rings, carefully balanced with connecting rod assembly.
- SPEED — 1,000 R.P.M.
- GAS ENGINE HORSE POWER — 3½.
- ELECTRICAL HORSE POWER DEVELOPED — 2.
- CYLINDER HEAD — detachable.
- CRANKSHAFT, CAMSHAFT, ROCKER ARMS AND CONNECTING RODS — drop forged special steel, heat treated.
- LUBRICATION — pressure pump, oil under pressure to crankshaft, camshaft and rocker arm bearings, splash to all other bearings.
- COOLING — water cooled, each cylinder entirely surrounded by water, insuring perfect cooling.
- IGNITION — high tension magneto.
- GOVERNOR — mechanical throttling, tapering fuel used to load carriage.
- FUEL SUPPLY — Vacuum tank.
- GENERATOR — four pole, compound wound, 1,500 watt, 110 volt, commutator 7" in diameter, brushes 1" wide, ¼" thick.
- CARBURETOR — standard construction.
- BATTERY — 24 volts, for starting only, and kept automatically charged.
- AUTOMATIC SWITCH — our own patented switch.
- MEASUREMENTS OF UNIT — Length, 33½ inches; height, 34¾ inches; width, 14 inches.
- WEIGHTS — Unit crated, 580 pounds; battery crated, 125 pounds.

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KOHLER AUTOMATIC POWER AND LIGHT 110 VOLT DIRECT CURRENT



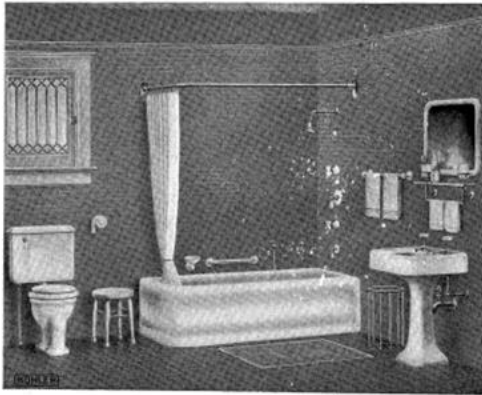
Sectional View of Kohler Automatic. (See Explanation on opposite page.) Oiling System Shown in Red

KOHLER AUTOMATIC POWER AND LIGHT
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1. Four cylinders, cast en bloc; perfect and permanent alignment of bearings, insuring smooth operation and long life.
2. Easily removable cylinder head.
3. Oil sight hole; a stream of oil is visible when unit is in operation.
4. Dust-proof cylinder head cover, enclosing valve mechanism.
5. Piston pin securely locked by piston ring, yet free in its bearing.
6. Extra wide face helical gears.
7. Extra large bearings, insuring long life to engine.
8. Large oil base, holding eight quarts of oil.
9. Simple, effective, self-priming plunger pump, submerged in oil, forcing oil under pressure through copper tubes to bearings.
10. Generator cooling fan; keeps a constant circulation of cooling air through generator, maintaining an efficient operating temperature.
11. Generator dust and water-proof cover with ventilating holes.
12. Generator ball-bearing—SKF double race, self-aligning.
13. Large commutator, 7" in diameter with 1 3/4" face.
14. Large brushes — 1" wide by 3/4" thick.
15. Simple resistance coil for maintaining constant voltage at all loads and under all conditions.
16. Patented automatic starting switch control, simple yet positive in its action.
17. Safety fuses for protection of plant.
18. Starting battery charging coil, maintaining a positive charging rate for starting battery and keeping battery always charged and ready for use in starting engine.
19. Effective honeycomb radiator, 85% copper alloy, insuring effective use in alkali waters—capacity of cooling system, six quarts.
20. Self-oiling fan bearing.
21. Accessible adjustment and permanent lock for fan belt.
22. Liberal water jackets and passages; perfect circulation of cooling water.
23. Overhead valves, insuring efficient combustion chamber.
24. Hollow rocker arm tube, providing oil under pressure to rocker arm bearings with return to oil base, insuring lubrication and no waste.
25. Convenient and accessible oil filler hole.

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KOHLER ENAMELED PLUMBING WARE



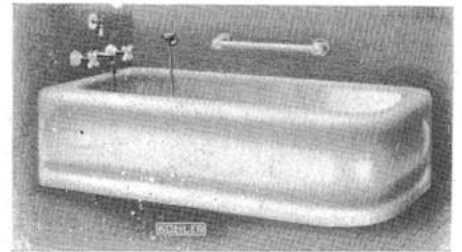
MODERN PLUMBING

Scarcely anything can contribute more to wholesome and healthful living than an installation of modern plumbing fixtures. More than a luxury, more than a convenience, more than a comfort, good plumbing makes for good health, a clear head, and a wholesome self-respect.

Kohler Ware has long held an enviable place in the estimation of discriminating people who realize the significance of unvarying high quality and who demand the best. Whether bath tub, lavatory or kitchen sink, Kohler fixtures are as notable for durability and service as they are famous for their exquisite whiteness and beauty.

Further information will gladly be sent on request.

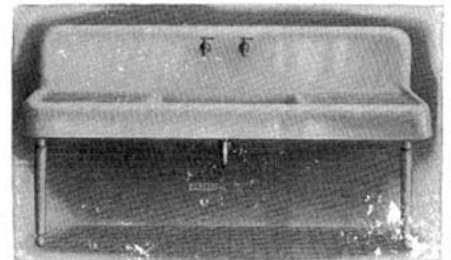
KOHLER ENAMELED PLUMBING WARE



The Kohler "Viceroy" Built-in Bath

Kohler products reflect standards of workmanship and ideals of service that are recognized in the preferences of quality-loving people the world over.

Into the enamel of every Kohler fixture is glazed the Kohler name, inconspicuous but permanent, a modest symbol of pride of workmanship, a mark of achievement, a guarantee of quality, an assurance of worth.



Kohler One-piece Double Drain-board Kitchen Sink