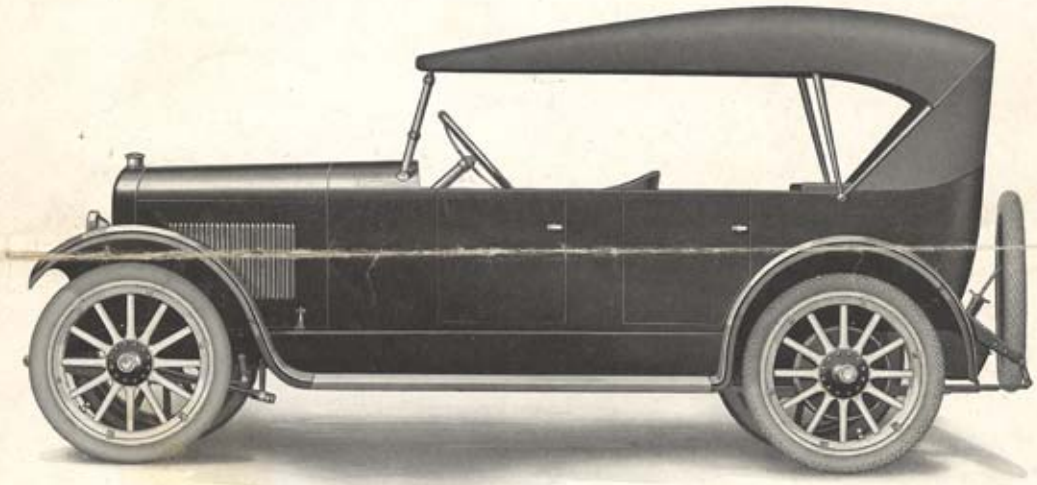
The Coats Steam Car



THE Coats steam car is considered to be the only really successful moderately priced automobile operating on steam. The success of this car is assured because of its design, simplicity of construction, ease of operation, fuel and lubricating oil economy, luxurious appearance, easy riding qualities and low price.

COATS STEAMERS, Inc.

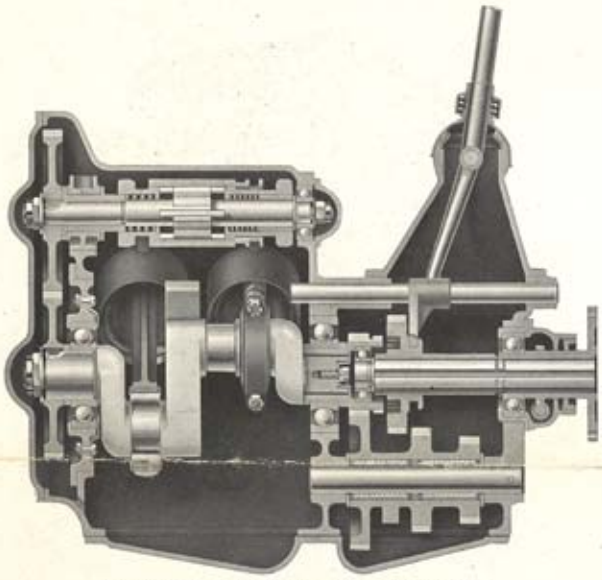
Indianapolis, Indiana

THE COATS

General Description, Simplici

THE operation of the Coats car is surprisingly simple, safe and economical. One electric switch on the dash controls the entire heating apparatus. The turning of this switch starts a small electric motor, which drives the fuel pump and the air fan for the forced draft. The fuel is sprayed into the fire box through an atomizing jet and is ignited by an electric spark plug. The forced draft of air insures perfect combustion. The water and fuel supplies are automatically controlled. A device cuts off or renews the fuel supply according to the variation of the steam pressure from normal (600 lbs).

Kerosene is used for both starting and running; every trace of flame is completely enclosed in the combustion chamber; there is no pilot light. Combustion is so complete that no soot will be deposited on the boiler tubes.

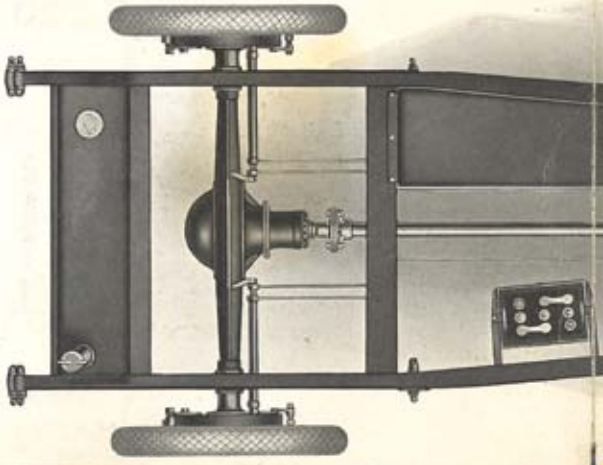


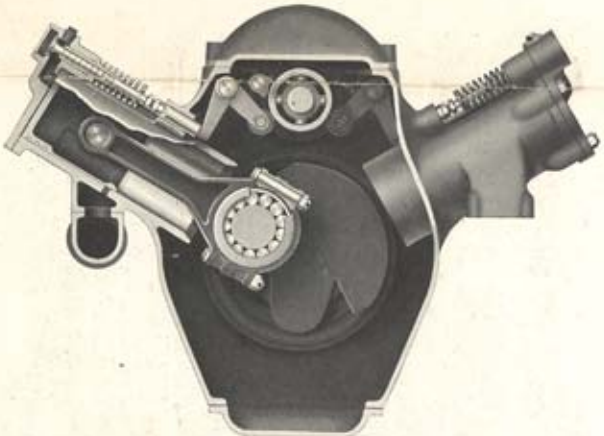
One Side of V Engine and Operation of Gear Shift in Transmission

Description of Engine and Transmission

THE engine used in the Coats car is exceedingly simple and has less than twenty moving parts. It is a three-cylinder, single-expansion, single-acting, semi-uniflow, poppet valve, 120° V-type engine with a 3⅛" bore and a 4" stroke. Careful designing and the use of high-grade material insure a minimum of wear. The lubrication is a combined splash and forced feed system.

The transmission has direct drive, low and reverse, also a neutral position which will permit the running of the engine for pumping water.





End View of V Engine, Showing Connecting Rod, Piston and Valve Action

SPECIFI

ENGINE—Three-cylinder, single-acting, single-expanding. 3⅛" bore, 4" stroke.

VALVES—Inlet, poppet. Relief, poppet. Exhaust ports uncovered by pistons.

VALVE GEAR—Sliding cam type.

CRANKSHAFT—One-piece, counter-balanced. 1¾" diameter.

COMBUSTION SYSTEM—Forced draft atomizing type. Electric ignition.

LIGHTING SYSTEM—Electric (storage battery and generator).

FUEL—Kerosene.

FUEL TANK—18 gallo
der pressure).

WATER PUMP—Ecce
pump.

WATER TANK—25 gall

CONDENSOR—Cellular t

STEAM PRESSURE—600

WHEEL BASE—112".

TREAD—56".

WHEELS—Standard—W
able rims. Optional

COATS STEAMERS,

THE COATS STEAM CAR

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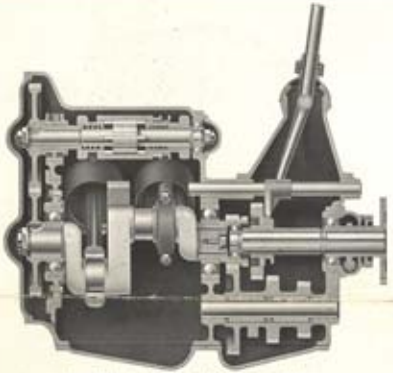
The Coats steam car is controlled by a single throttle on the steering wheel. It is provided with a two-speed and reverse transmission, but it is not necessary to shift gears when starting. When the transmission is in neutral the engine can be used for pumping water.

The Coats car should prove to be the most economical car in all services. The cost per mile is extremely low because of the cheap fuel, great mileage and small consumption of lubricating oil.

There is no danger of fire from the Coats car, as there is no exposed flame. It is safe to operate under all ordinary conditions in places where automobiles are now operated.



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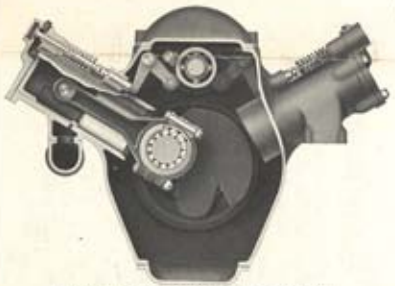
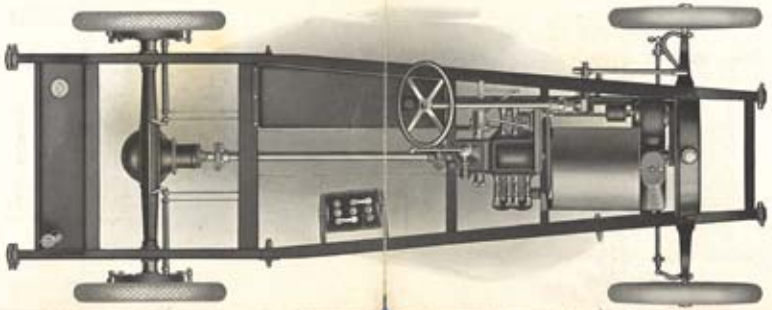


End View of V Engine, Showing Connecting Rod, Piston and Valve Action



SPECIFICATIONS

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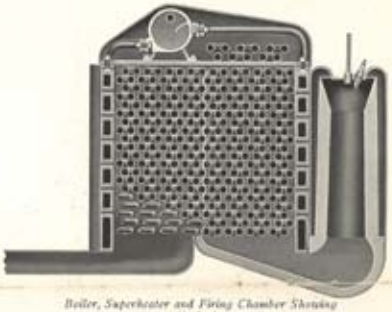
VALVES—Inlet, poppet. Relief, poppet. Exhaust ports uncovered by pistons.
VALVE GEAR—Sliding cam type.
CRANKSHAFT—One-piece, counter-balanced. 1¼" diameter.
COMBUSTION SYSTEM—Forced draft atomizing type. Electric ignition.
LIGHTING SYSTEM—Electric (storage battery and generator).
FUEL—Kerosene.
FUEL TANK—18 gallons capacity (not under pressure).
WATER PUMP—Eccentric-driven plunger pump.
WATER TANK—25 gallons.
CONDENSOR—Cellular type.
STEAM PRESSURE—600 lbs. maximum.
WHEEL BASE—112".
TREAD—56".
WHEELS—Standard—Wood with demountable rims. Optional—Wire or disc.
AXLES—Front—Drop forged—tapered roller bearings. Rear—three-quarter floating. 3 to 1 ratio.
TIRES—32 x 4".
DRIVE—Left-hand. Gear and brake lever center.
SPRINGS—Front, 34 x 2—semi-elliptic. Alloy main leaf. Rear, 54 x 2—semi-elliptic. Alloy main leaf.
FRAME—Pressed steel 7" deep.
WEIGHT—2,250 lbs.
BODIES—Five-passenger touring, three-passenger roadster.

COATS STEAMERS, Inc. INDIANAPOLIS

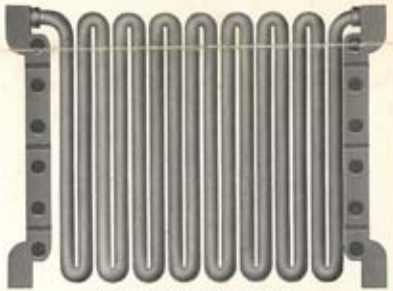


Boiler, Superheater and Firing Chamber Showing Air Jacket

Description of Boiler and Fire Box

THE boiler is of the water tube type, consisting of twenty ¾" seamless cold-drawn steel tubes 17⅝" long; two headers and a steam drum. The headers are built of pressed steel ¾" thick. The tubes are held in the boiler headers by forged steel clamps and bolts and can be easily removed. The boiler casing consists of sheet steel lined with asbestos.

The fire box is a conical, vertical, refractory lined steel oven surrounded with a circulating air jacket. The fuel is completely burned in this oven and only hot gases strike the boiler tubes.



Water Tube Connected to Headers

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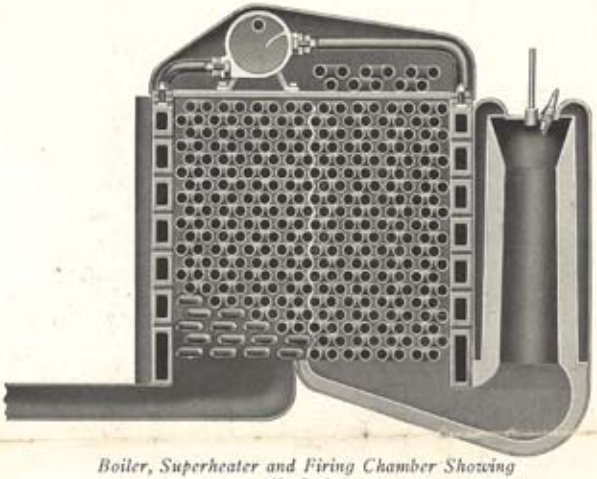

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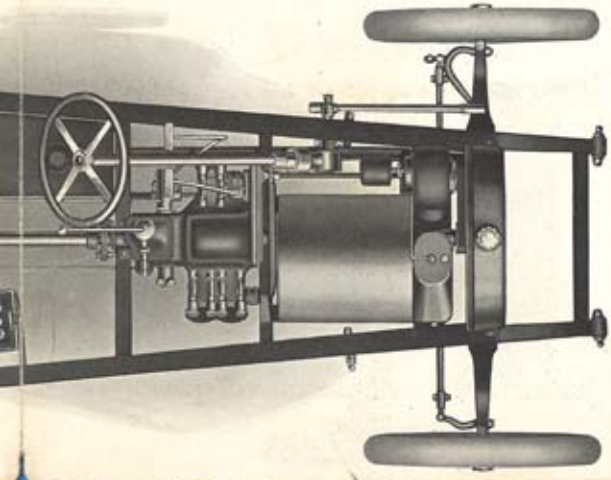

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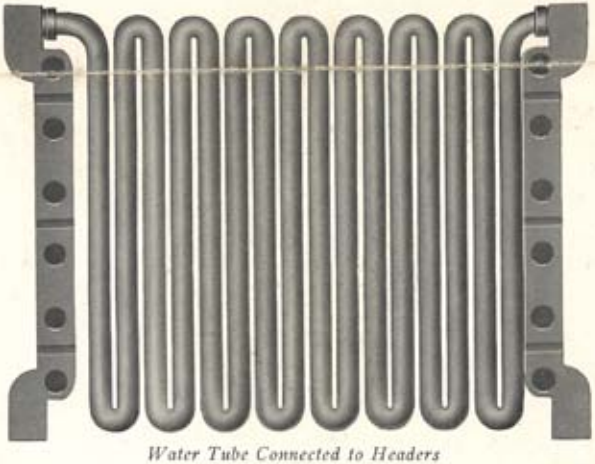

Water Tube Connected to Headers

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Tires—32 x 4".

Drive—Left-hand. Gear and brake lever center.

Springs—Front, 34 x 2—semi-elliptic. Alloy main leaf. Rear, 54 x 2—semi-elliptic. Alloy main leaf.

Frame—Pressed steel 7" deep.

Weight—2,250 lbs.

Bodies—Five-passenger touring, three-passenger roadster.

Inc. INDIANAPOLIS

Advantages of the Coats Steam Car

THE Coats car is so designed that it embodies all of the luxurious appearance and comfort of a gasoline car and the exceptional economy, simplicity, flexibility and dependability of a steam-driven vehicle.

The experience of the world's commerce for generations proves that steam is the most economical, the most efficient, the most dependable, and the most powerful and flexible motive energy adaptable to all kinds of transportation.

In the Coats car steam and electricity are combined in such a manner that great efficiency is obtained with the least possible effort on the part of the driver. Practically everything operates automatically. The fuel, water, air and lubricating oil are all controlled by automatic devices and do not require constant manual regulation.

On account of the flexibility and latent power of steam the Coats car can be entirely operated and controlled with the steam throttle. It is not necessary to race the engine or shift any gears to start the car, and its speed when running is controlled by the one throttle lever.

The Coats car runs without noise and vibration. This can be readily understood when the fact that there are so few moving parts, that the power is constant and that there are no explosions is fully considered.

The Coats car is a thoroughly safe vehicle. The entire absence of gasoline or other explosive vapor practically eliminates all danger from fire and should make possible the operation of these cars on wharves, docks and other places now practically excluding gasoline vehicles.

The Coats steam car, because of its simplicity, durability, ease of operation, and the steady, continuous pull of the steam power, will reduce service and maintenance expenses to a minimum.

COATS STEAMERS, Inc.

Indianapolis, Indiana