

The
Petromobile
Company.

A
PERFECT
STEAM
CARRIAGE.

The Petromobile Company.



London Office :
5 Thavies Inn, Holborn, E.C.



CLITHEROE, LANC.—MANCHESTER.—COLNE,
LANC.—KINGSTON-ON-THAMES.

THE PETROMOBILE STEAM CAR.
MODEL NO. 2.



WEIGHT, 500 LBS.

PRICE, £250.



IN the Petromobile Steam Car the effort has been made to reduce the new industry to a sound, practical basis. This can only be accomplished on the lines of merit and natural growth.

Really successful vehicles must be durable, safe and substantial. They must be good for hard, continuous service over all kinds of roads for a long term of years with need of but few repairs.

Only the best possible design, material and workmanship are suitable. Such a motor vehicle, for two passengers, should not weigh, it is believed, less than one thousand pounds.

After a thorough investigation in America, France, Germany and at home, of the five leading forms of motive power available, viz., Electric Storage, Compressed Air, Stored Hot Water, Gas or Hydro-Carbon Engines and Steam, the latter we have accepted as being far the best for all around service. It is simple, powerful, noiseless and reliable. Its water and fuel supply can be obtained almost anywhere.

As applied in the Petromobile No. 2, the objections to steam are practically eliminated.

The generator is more than six times stronger than necessary to resist the utmost pressure to which it is subjected in use.

Safety is not in the least endangered by the failure of either water or fuel supply.

The burner is without smoke or objectionable odour, and is under automatic control by the steam pressure. It cannot be extinguished by gales.

An invisible condenser prevents all objectionable vapour in the atmosphere and there is no sound of escaping steam.

The heat of the exhaust is utilized for heating the feed water, effecting an important economy in fuel.

All sprocket wheel and chain methods of power transmission are discarded. The engines, mounted on easy riding springs, transmit the power by durable, noiseless gear direct to the rear axle. No ball bearings are used.

All machinery is securely mounted on a strong, steel, tubular frame, independent of all woodwork.

The carriage is first started by burning a few spoonfuls of spirit in a small heating cup. It is then ready for either intermittent or continuous use without other attention than proper lubrication, water and fuel supply.

Successful management is easily acquired in a short time by anyone capable of the intelligent use of a horse. These cars are made under the supervision and from designs and patterns of Mr. Wellington P. Kidder.

Our readers who desire a technical description of the Petromobile No. 2 are referred to the following Specifications.

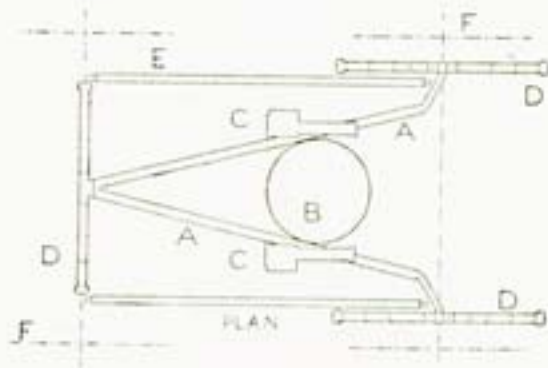
SPECIFICATIONS.

THE PETROMOBILE MODEL NO. 2.

(KIDDER PATENTS.)

The Running Gear.

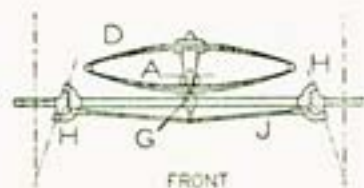
A triangular braced and trussed seamless drawn steel tubular frame, A, on which the boiler, B, horizontal engines, C, and other mechanism are mounted, carried on three elliptical easy riding springs, D.



Reaches, E, hold front and rear axles parallel. Wheels, F, of wood, 30 in. diameters. Special metal hubs, $1\frac{1}{4}$ in. rear and $1\frac{1}{8}$ in. front, have a 52 in. track, 60 in. wheel base.

Rocker pivot, G, under front spring D, provides for uneven ground without wrenching.

Inclined pivotal hub steering, H, insuring easiest possible control.



Steel tubular front axle, I, with truss, J, similar to main frame construction, insuring utmost strength and lightness.

SPECIFICATIONS.

THE PETROMOBILE MODEL NO. 2.

The Boiler.

Upright tubular, 16 in. diameter, 18 in. high, best open hearth fire box, steel boiler plate 7-32 in. thick, tensile strength 60,000 lbs. test, tested to over 1,200 lbs. pressure to the square inch, limited to 200 lbs. in use. The steel of which this boiler is made successfully withstands the test of being heated red hot, plunged suddenly in cold water until cold, and then suddenly bent short, double, under the heaviest blows of a trip hammer, without the slightest indication of fracture.

326 Copper tubes, $\frac{1}{2}$ in. diameter, No. 20 Stubbs Gauge, 4000 sq. in. heating surface—6 horse power. Baffle plate, K, insures dry steam to engines. Raised fusible plug, L, prevents less than 2 in. of water in boiler before automatically extinguishing the fire. This plug is renewable if melted, without disconnecting the burner.



All boilers are tested by authorized inspectors.

SPECIFICATIONS.

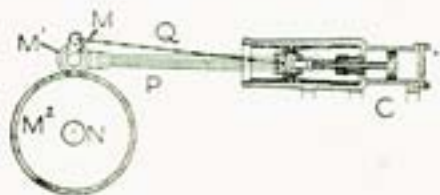
THE PETROMOBILE MODEL NO. 2.

Power Transmission.

The Kidder System of Direct Gear. A pair of $2\frac{1}{2}$ in. \times $3\frac{1}{2}$ in horizontal, reversing engines, C, is carried one on either side of the boiler, on the spring mounted frame, the boiler being hung low for a low centre of gravity in the vehicle, a matter also of great importance.

Only the crank shaft, M, is carried on the rear axle, N, its noiseless steel pinion, M', directly engaging the main differential driving gear, M².

Links, P, maintain correct distance between engines and crank shaft. Perfect provision is also made in this novel and



durable arrangement for torsional action of the springs without friction. The dotted line, Q, represents centre of one crank connecting rod.

SPECIFICATIONS.

THE PETROMOBILE MODEL NO. 2.

The fuel.

Ordinary petroleum spirit is used. 40 lbs. air pressure in the fuel reservoir is automatically maintained by the engines, without hand pumping.

The fuel tank is seamless drawn steel tubular, tested to 300 lbs. pressure per square inch. Thick annealed copper pipe only is used for all fuel and air connections.

Capacity of fuel tank 7 gallons.

The burner, an improved application of the Bunsen principle, is automatically regulated by the steam pressure.

The cylindrical feed water heater $4\frac{1}{2}$ in. \times 17 in. long, with its enclosed coil of 20 feet of feed water pipe, receives the exhaust steam direct from the engines, thence discharging it to the condensers.

Burners are also being fitted for using Petroleum, or common Paraffin.

SPECIFICATIONS.

THE PETROMOBILE MODEL NO. 2.

The Condensers.

These embrace 70 square feet of air cooling surface concealed within the body, and so nearly complete the condensation of steam as to entirely prevent noise, and to permit no objectionable escape of vapour to the atmosphere.

The boiler feed pump is nearly automatic, a by-pass under perfect control returning surplus to the water tank.

An auxiliary hand pump is supplied for filling the boiler whenever desired. The hand pump is easily operated against any boiler pressure up to the maximum.

The water gauge glass is metal encased except a view slit front and rear, well protected from injury.

Automatic valves prevent escape of steam or water in case of breakage of glass. These valves are also opened or closed at any time by hand.

A water column with three gauge cocks is combined with the gauge outside.

The body, our own design, is made, ironed, trimmed and painted (also the

running gear), in the very best style. The machinery is built and assembled in our own works, on the interchangeable plan, our equipment of tools being as complete and perfect as possible.

Electric lights are furnished for examining water gauges, etc., in the dark.

A collapsible rear seat is fitted to all cars. Mud guards, tools and all accessories included in the price.

Our delivery van, Model B, is also ready for the market.

THE PETROMOBILE DELIVERY CAR,
MODEL B.



Weight, 2750 lbs. Price, £325.
Floor space, 16 square feet. Load capacity, over 12 cwt.

SPECIFICATIONS.

THE PETROMOBILE DELIVERY CAR, MODEL B.

The Running Gear.

Rectangular seamless drawn steel tubular frame, on which all of the machinery is mounted.

POWER TRANSMISSION.

The Kidder System of Direct Gear, with divided countershaft added, carrying the differential, the outer ends of the countershaft carrying steel pinions engaging internal gears on hubs of rear wheels, which revolve on a stationary rear axle, the power multiplied 12 to 1. A pair of reversing engines 3 x 4 in. with ample power for hill climbing.

Wood wheels, "New York" or solid tyres, 54 in. track, 66 in. Wheel Base. Pivotal hub steering.

Capacity of fuel tank, thirteen gallons.

In addition to feed water heater and steam condenser an economizer is added over the boiler.

THE PETROMOBILE Co.

London Office :

5 THAVIES INN, HOLBORN.

CLITHEROE, LANCs.

FOR REPAIRS. *Tel. 087 Clitheroe, Nat.*

Depot :

MANCHESTER : 24 YORK STREET.

Telegram : "Mittimus," Manchester. *Tel. 2744, Nat.*

COLNE, LANCs.

Telegram : "Netherheys." *Tel. 43 Colne, Nat.*

FOR REPAIRS.

SURREY : KINGSTON-ON-THAMES.

Telegram : "Kingston Motor Co." *Tel. 37 Kingston, Nat.*

FOR REPAIRS.

