15

Willys - Garford Sales Co.

Garford

ONE AND ONE-HALF TON

MOTOR TRUCK

Garford

THE GARFORD
ONE AND ONE HALF TON
MOTOR TRUCK

THE GARFORD COMPANY,
ELYRIA, OHIO

Garford

THE GARFORD ONE AND ONE HALF TON MOTOR TRUCK

THE purpose of this model is express, parcel and light delivery service. The car is designed for a maximum speed of 30 miles per hour with capacity load, and this insures rapid and expeditious handling of light merchandise. Being equipped with pneumatic tires the safe delivery of contents is assured.

In this type of truck two considerations are of prime importance: the driver's seat must be convenient of access and the contents of the fore part of the body must be within easy reach from the driver's seat. To gain these results it is imperative that the seat be placed as low as possible, therefore the motor is placed directly in front of the driver.

MOTOR The motor is cast in pairs with offset intake and exhaust valves on opposite sides. Cylinders are bored and ground, 4¾ bore, 5¼ inch stroke. The pistons are made from a special grade, uniform grain cast iron, and are machined to make them light as possible. They are provided with four eccentric rings, three at upper and one at lower end. The wrist pins are a special grade of steel, case hardened and ground. The connecting rods are made of nickel steel drop forgings, carefully machined and heat treated. The crank shaft runs in three substantial and ample bearings made of Parsons' White Brass and is a drop forging of 35 OH steel, heat treated and ground to size. Valves are made of nickel steel, are interchangeable and have a forty-five degree seat, which wears longer and keeps tighter than any other construction. Valve lifters are adjustable for wear.

The cooling of the motor is by means of a radiator of ample size and a carefully developed

GARFORD LYDIA, OHIO

circulating system. Water from a large size centrifugal pump enters the cylinders under the valves and leaves at the top, the point of highest temperature. All the water passages are of sufficient and ample size to facilitate circulation.

The cams and cam shaft are made of high carbon steel. All bearings and cam surfaces are hardened and ground. The helical timing gears are of cast iron on cam shaft and steel on crank shaft. They are absolutely noiseless and more durable than raw hide or fiber gears.

The crank case consists of two aluminum castings of sufficient weight to give the motor great rigidity. The upper half is provided with brackets, by which the motor is suspended to subframe of chassis. The lower half is designed to facilitate the withdrawal of the connecting rods, inspection of bearings, and the cleaning of the crank case.

The fan is a one-piece aluminum stamping, reinforced by means of a heavy wire on the outer edge and a pressed steel spider in the center, and is mounted on ball bearings. The fan is driven by means of a "V" belt.

IGNITION Bosch low tension magnetic plug with dual type magneto. Switch on dash for seat starting.

REAR AXLE The rear axle is of the full floating type, the axle tubes being seamless, and the nickel steel driving shafts having the driving clutch integral with the shaft. The differential is of the bevel gear type and has a malleable cast housing with removable cover. Drop forged spring seats, made in two halves, are located on an extension of the brake support and can be adjusted in case of wear. The chassis is driven through the springs while a torsion

rod takes care of the driving torque. Annular and radial ball bearings of ample size are used throughout. Rear hubs are malleable castings with ball bearings of ample size, and brake drums made from steel stampings are used.

OILING SYSTEM The oiling system of the motor is by means of a force feed oiler to the three main bearings of the crank shaft and by splash from the crank case to pistons and wrist pins. The crank pin bearings are fitted with oil collecting rings which are fed with oil from the main bearings. The cam shafts are oiled by splash. Compression grease cups are provided throughout the chassis to insure proper lubrication of all working parts.

CARBURETOR Float feed, water-jacketed, venturi tube type, with auxiliary air adjustment operated from the seat. Float chamber may be drained by means of a pet cock. Gasoline strainer is placed in a convenient place in the gasoline line.

FRONT AXLE The drop forged front axle is of I beam section heat treated to give it high ductility. The axle is dropped in the center. The spring seats are integral. Steering knuckles of the Mercedes type are made from carefully heat treated steel forgings. The drag link or tie rod is placed in the rear and the steering arm is over the axle. The hubs are malleable castings of an approved design and are equipped with ball bearings of an ample size to withstand all road shocks.

SPRINGS Both front and rear springs are semi-elliptic, the front being 37″ long x 2¼″ wide, the rear 53½″ long x 2¼″ wide. Springs are made from best silico-manganese steel and are of as light design as possible, consistent with strength.

TRANSMISSION The transmission is the selective type having four speeds forward and a reverse. The third speed is the "Direct" with no gears in engagement. The fourth speed is the step-up or high speed gear. Short driving shafts make for rigid construction and noiseless gears. The countershaft is located below the main shaft to prevent oil leakage through main shaft bearings. The main shaft on which the gears slide is provided with six integral flutes. All gears are stubbed toothed, made of special gear steel and are case hardened. All shafts, excepting the reverse, run on imported annular bearings of generous size. The hubs of the sliding trains are long to prevent undue overloading of the engaging gear surfaces, and to insure a small service pressure on the flutes. The gear case is a one-piece aluminum casting. The selective mechanism, with the exception of the hand lever and the tube leading to it is fully enclosed. The three selective rods with forks are held in position by plungers pressed down by springs.

WHEELS The wheels are of wood, artillery type, with 36" x 4½" pneumatic single tires in front and 36" x 4½" dual pneumatic tires on the rear. Timken roller bearings of extra large size are used in both front and rear wheels.

BRAKES On rear axle, internal expanding, actuated by hand lever; external contracting, actuated by foot pedals on same drum.

FRAME The frame is made of pressed cold rolled special carbon steel and is of channel section.

STEERING GEAR The steering gear is of the standard worm and worm gear type, case hardened steel surfaces discounting excessive wear and suitable bearings taking up thrust. Provisions for perfect adjustment are provided throughout and all working parts are enclosed in a grease packed gear case.

Garford

The Driver's Seat and the Position of the Motor

In the One and One Half Ton Garford Truck

THE position of the motor in front of the driver's seat in this model has been determined by two factors; the character of the load and the service in which the truck is to be used. It is essential in a truck of the "sidewalk delivery" type that the driver's seat be of easy access. It is imperative that the fore part of the load be within convenient reach of the driver to permit of rapid handling of contents from the seat. It, therefore, follows that the driver's seat be low and this is made possible by the placing of the motor in front of the driver.

The load is almost entirely over the rear axles.

The traction is greatest—an important consideration where light loads are hauled.

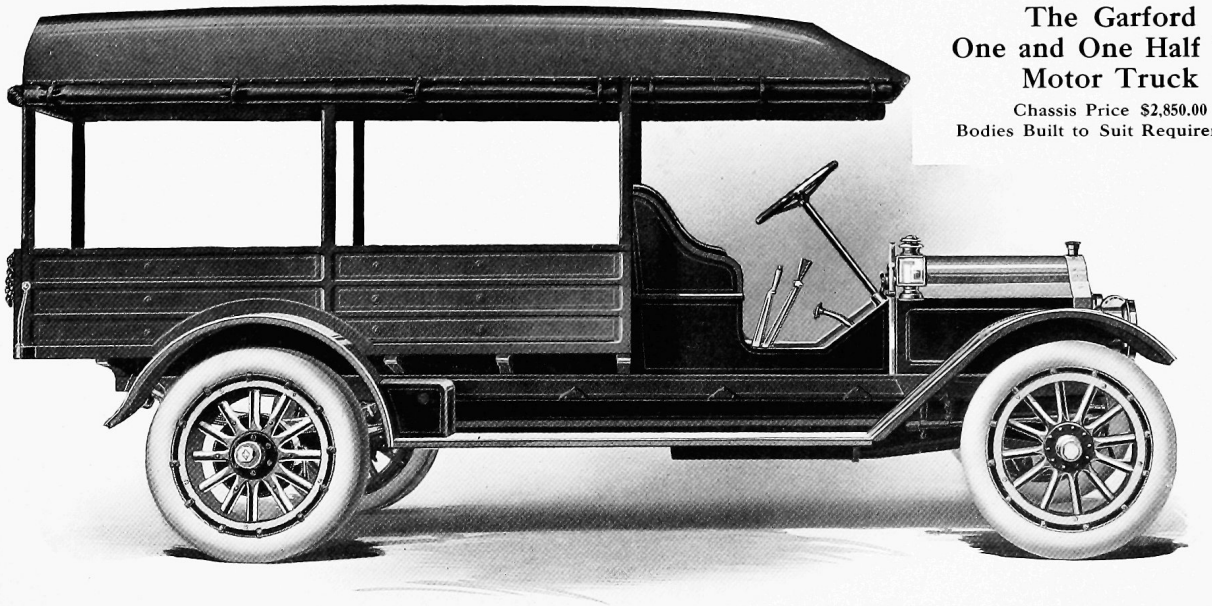
A more powerful action upon the brakes is assured.

There is less chance for skidding and a more complete control of the truck is assured.

There is ample tire equipment on the rear wheels, the increased cost of which is balanced by the smaller tires required on the front wheels.

GARFORD
LYDIA, OHIO

Garford

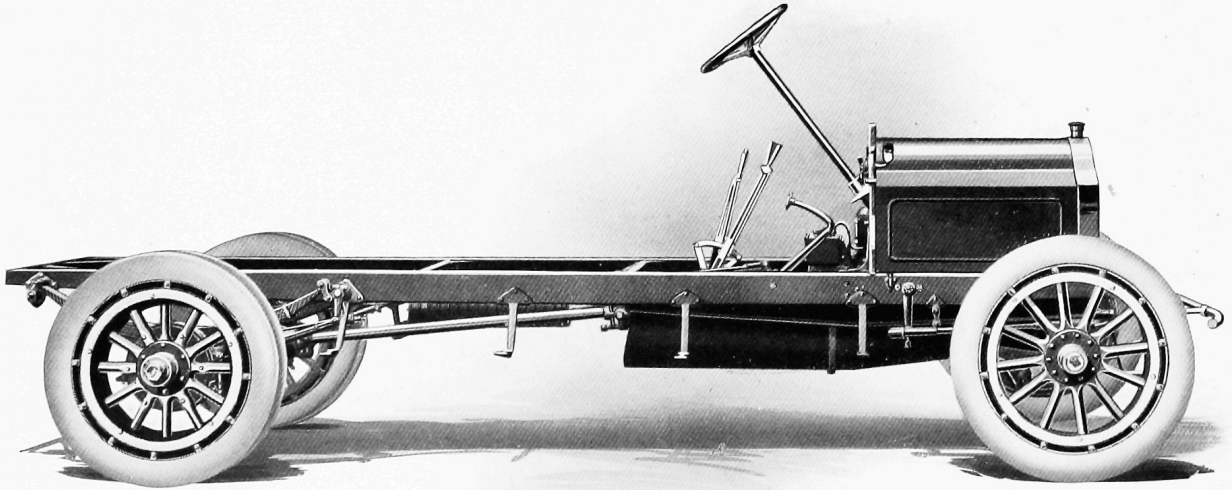


The Garford One and One Half Ton Motor Truck

Chassis Price $2,850.00
Bodies Built to Suit Requirements

GARFORD
ELYRIA, OHIO

Garford

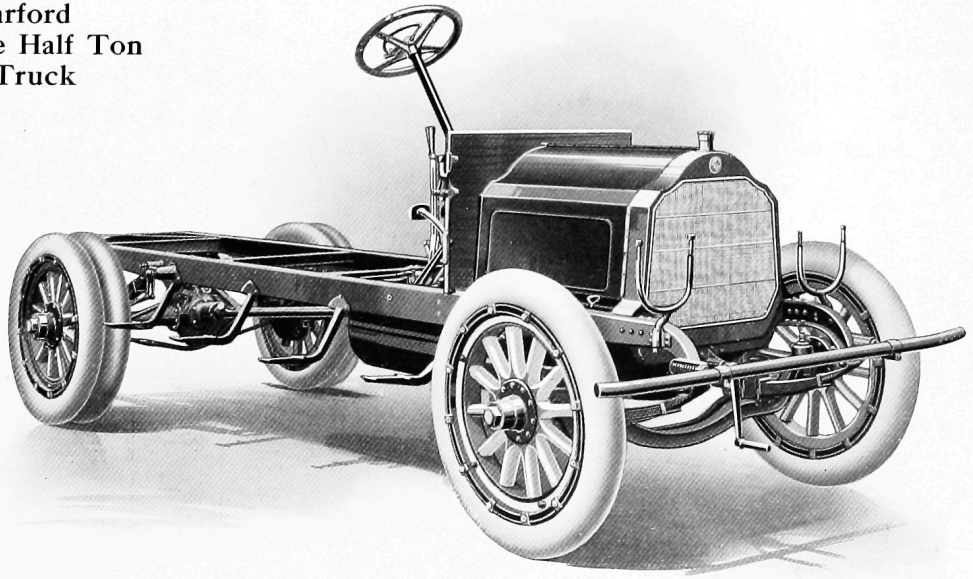


The Garford One and One Half Ton Motor Truck

GARFORD ELYRIA OHIO

Garford

The Garford
One and One Half Ton
Motor Truck

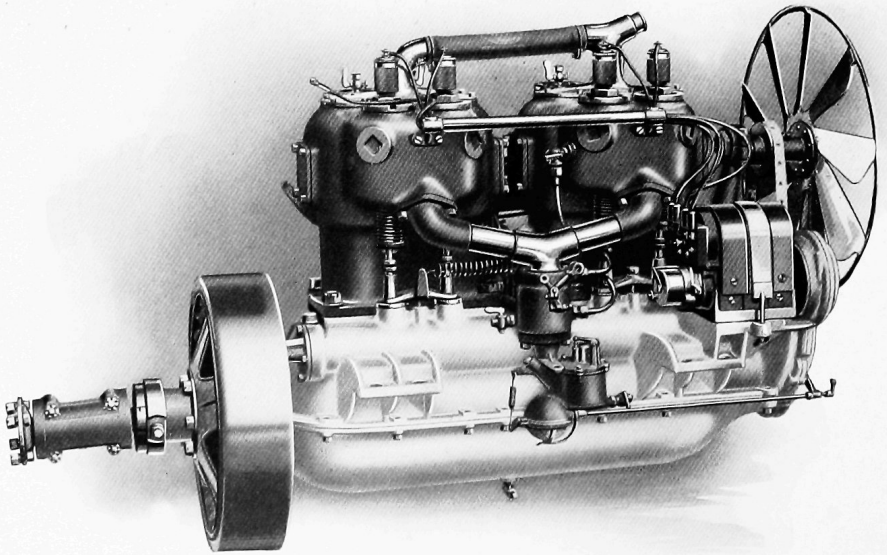


GARFORD
ELYRIA, OHIO

Garford

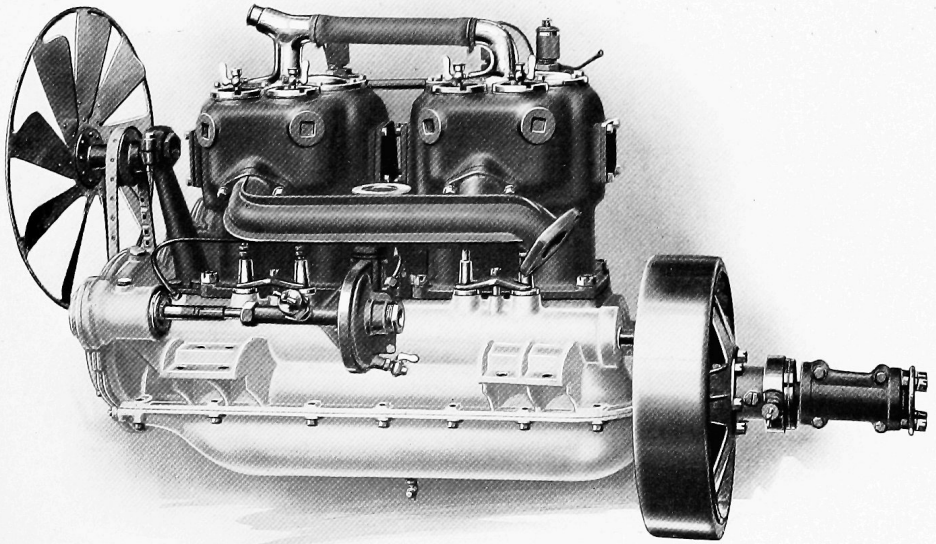
The Garford
One and One Half Ton
Motor Truck

Right Hand Side of Motor



GARFORD
ELYRIA, OHIO

Garford



The Garford
One and One Half Ton
Motor Truck

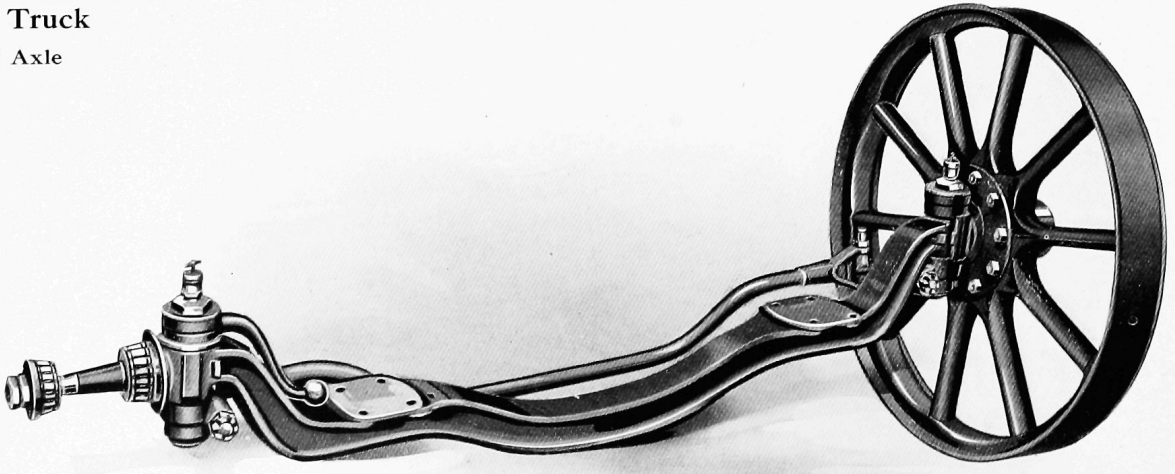
Left Hand Side of Motor

GARFORD
ELYRIA, OHIO

Garford

The Garford One and One Half Ton Motor Truck

Front Axle

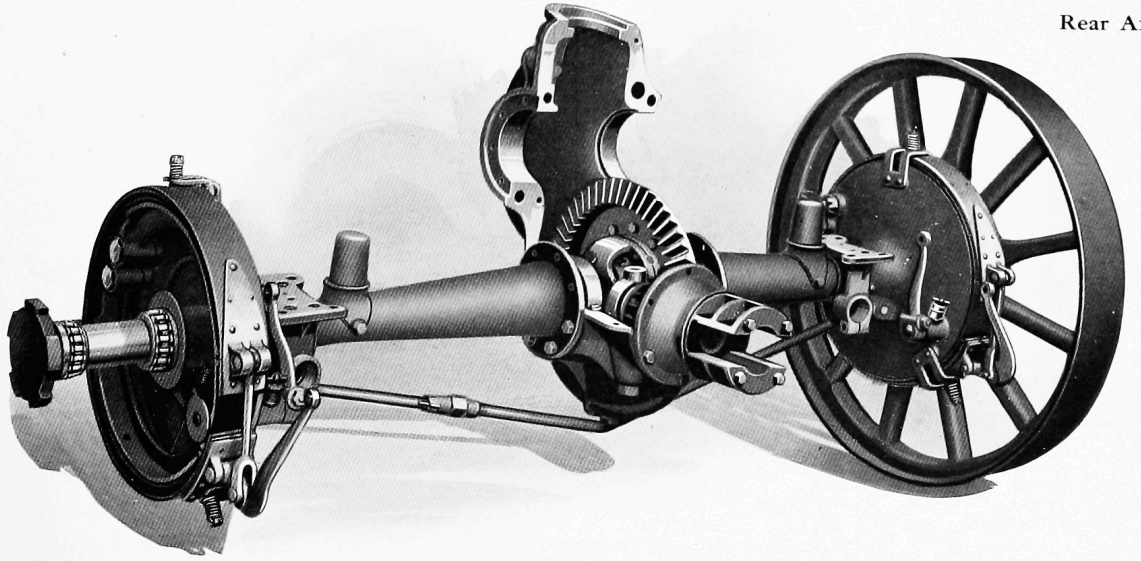


GARFORD
ELYRIA, OHIO

Garford

The Garford One and One Half Ton Motor Truck

Rear Axle

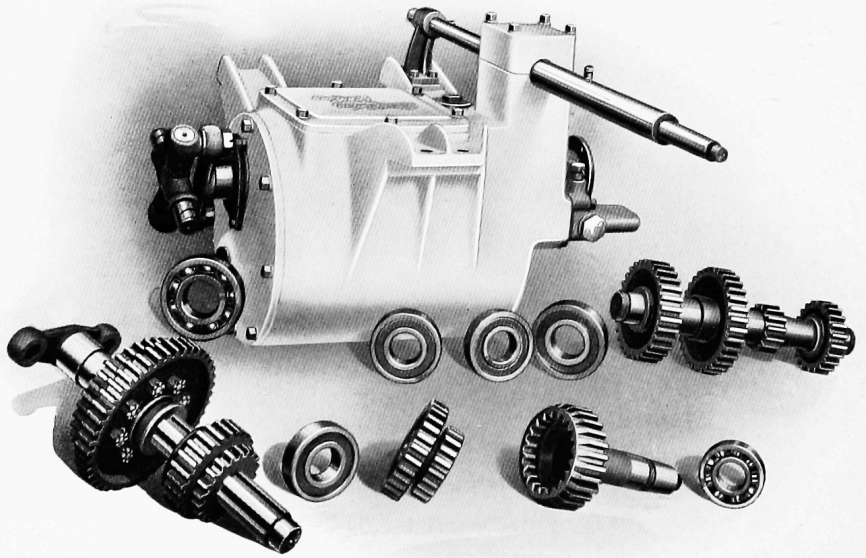


GARFORD
ELYRIA, OHIO

Garford

The Garford One and One Half Ton Motor Truck

Transmission



GARFORD
ELYRIA, OHIO

Garford

SPECIFICATIONS OF GARFORD ONE AND ONE HALF TON MOTOR TRUCK

No. of Cylinders	Four cast in pairs with integral water jackets.
Cylinder Dimensions	4¾ inches bore x 5¼ inch stroke = 36 H-P, A. L. A. M.
Ignition	Bosch low tension, make and break, with magnetic plugs.
Battery Equipment	One storage.
Carburetor	Special automatic. Gasoline gravity feed.
Control	Hand throttle and foot accelerator.
Oiling	Gear driven oil pump to main bearings. Connecting rod and cylinders lubricated by splash.
Transmission	Selective, sliding gears, with four speeds forward and one reverse. Direct drive on third center lever control.
Bearings	Annular ball and roller bearings through chassis. Motor bearings are of Parsons' White Brass.
Springs	Semi-elliptic both front and rear.
Wheels	Wood, Artillery type.
Tires	36 inches x 4½ inches single pneumatic front. 36 inches x 4½ inches dual pneumatic rear.
Brakes	On rear axle, internal expanding, actuated by hand lever; external contracting, actuated by foot pedals on same drum.
Capacity	Gasoline, 23.3 gallons. Water 8 gallons. Oil 1¾ gallons.
Frame	Pressed steel channel.
Wheel Base	145 inches.
Tread	60½ inches rear, 56 inches front.
Speed	30 miles per hour.
Clutch	Cone type. Leather faced with cork inserts.
Steering Gear	Worm and worm gear.
Radiator	Square tube.

GARFORD
ELYRIA, OHIO

Garford

WARRANTY

ALL of the parts of the Garford trucks herein catalogued are warranted by the seller against defects in workmanship and material for one year from date of invoice, as follows:

Upon the return to our factory, Elyria, Ohio, of any defective part within said year, transportation prepaid, the same will be repaired or a corresponding new part will be supplied free of charge, f. o. b. said factory, if, upon inspection by us, the failure of said part we shall have determined to have been due to defect in material or workmanship, and not due to misuse, neglect or accident, and not to have been the result of alterations or repairs made outside of our factory; but we assume no responsibility for any labor or damage of any kind except as above provided.

We make no warranty whatever with respect to tires, rims, lamps or other accessories not manufactured by us.

The purchaser understands and agrees that no warranty of any kind is made in regard to trucks herein described, or authorized to be made by any agent of The Garford Company except as hereinbefore set forth.

The Garford Company

Elyria, Ohio

GARFORD ELYRIA, OHIO