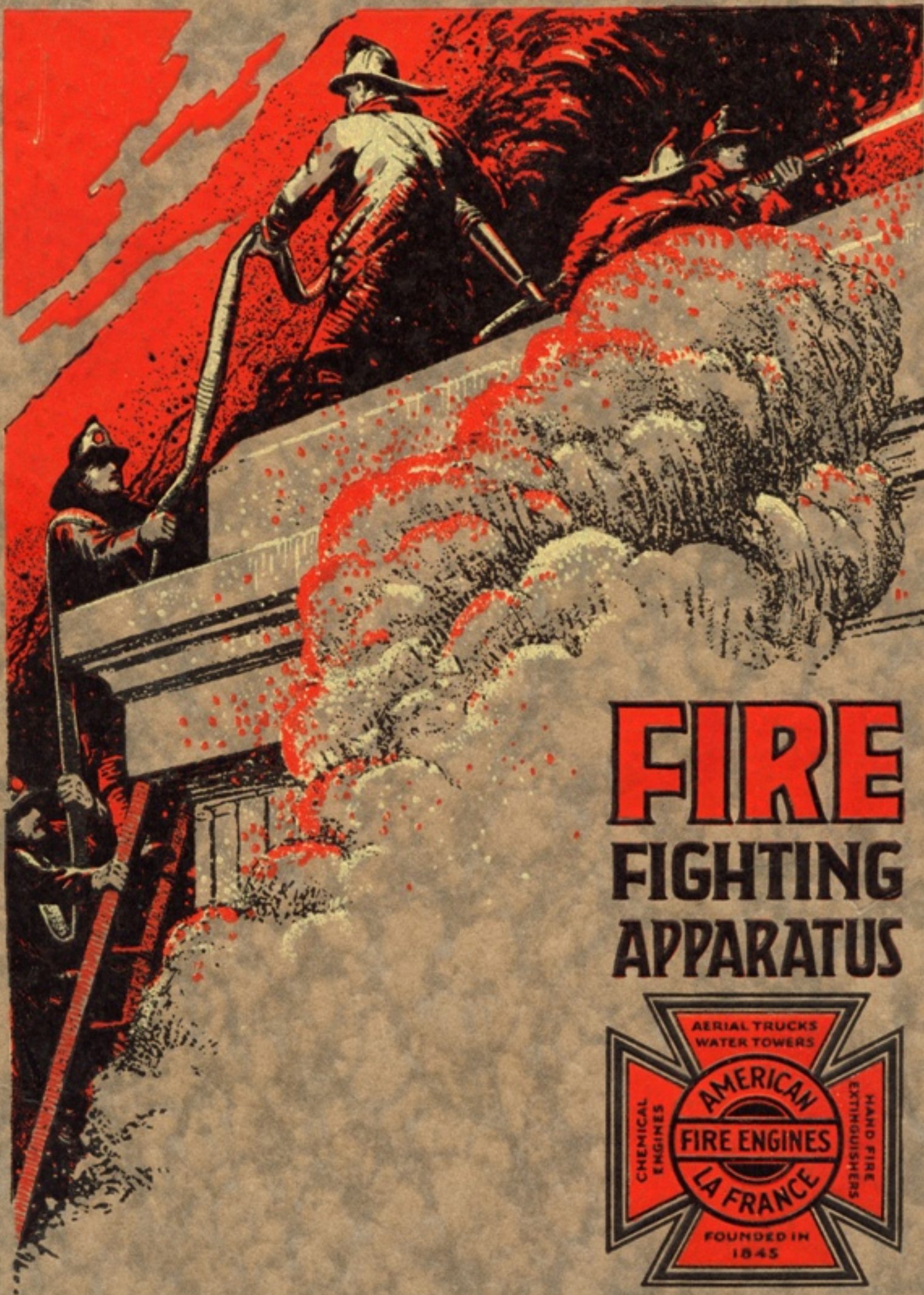




FIRE FIGHTING APPARATUS



CATALOG N°20



FIRE FIGHTING APPARATUS





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Elmira, New York

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FIRE FIGHTING APPARATUS



CATALOG No 20

AMERICAN-LAFRANCE FIRE ENGINE COMPANY, INC.

ELMIRA, NEW YORK, U.S.A.

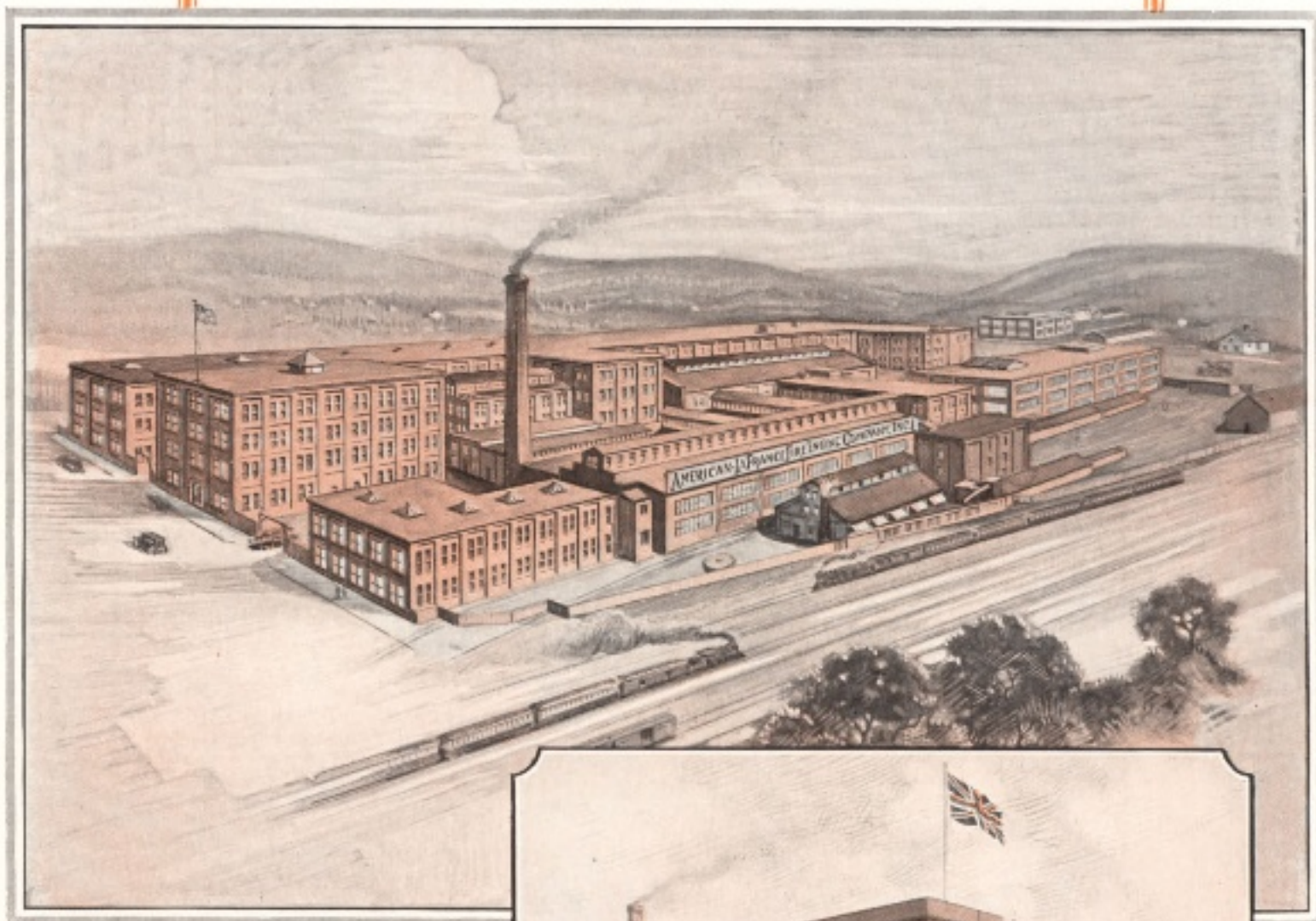
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CANADIAN FACTORY - TORONTO, ONT.

AMERICAN-LAFRANCE FIRE ENGINE COMPANY, INC.

ELMIRA, NEW YORK, U. S. A.

The largest factory in the world devoted exclusively to the manufacture of Motor Fire Apparatus and Fire Fighting Equipment, occupying over seven acres and employing over twelve hundred people, including those of the Canadian Branch Factory.

Within this plant is manufactured all American-LaFrance Motor Fire Apparatus, the apparatus which sets the standard for efficiency in actual fire service the world over.





■ *Our Story* ■



It is nearly eighty years since the organization which has now become the American-LaFrance Fire Engine Company, Inc., first began as a manufacturer of fire apparatus.

During the latter part of the nineteenth century our great metropolitan centers were growing by leaps and bounds and the question of fire protection for their congested areas became a matter of vital importance. From the very beginning this Company recognized the problem as one which called for a keen appreciation of the peculiarities of the service.

A careful study of the needs of fire departments convinced this Company that a successful future lay with the manufacturer of fire apparatus who would seriously and conscientiously devote his energies to the building of a carefully designed and ruggedly constructed product regardless of competition and price. The soundness of this policy is proved by the preëminent position of the American-LaFrance Fire Engine Company, Inc., and the records of its products which are still in use after ten, twenty, and thirty years of service.

What applied in the days of horse-drawn fire apparatus was more than ever true as motor fire apparatus came into use.

With a realization of the superiority of self-propelled equipment for fire department duty, increasingly heavy demands were made upon the motor. Rapidly growing cities called for longer runs, the motive power that propelled the car was soon applied to operate a pump, and one unit of motor fire apparatus was being called on to replace two and three pieces of horse-drawn equipment.

This all meant increased responsibility for the manufacturer. Reliability became a first essential. Reliability was a quality upon which the American-LaFrance Fire Engine Company had always laid particular emphasis. The practice of years now stood them in good stead.



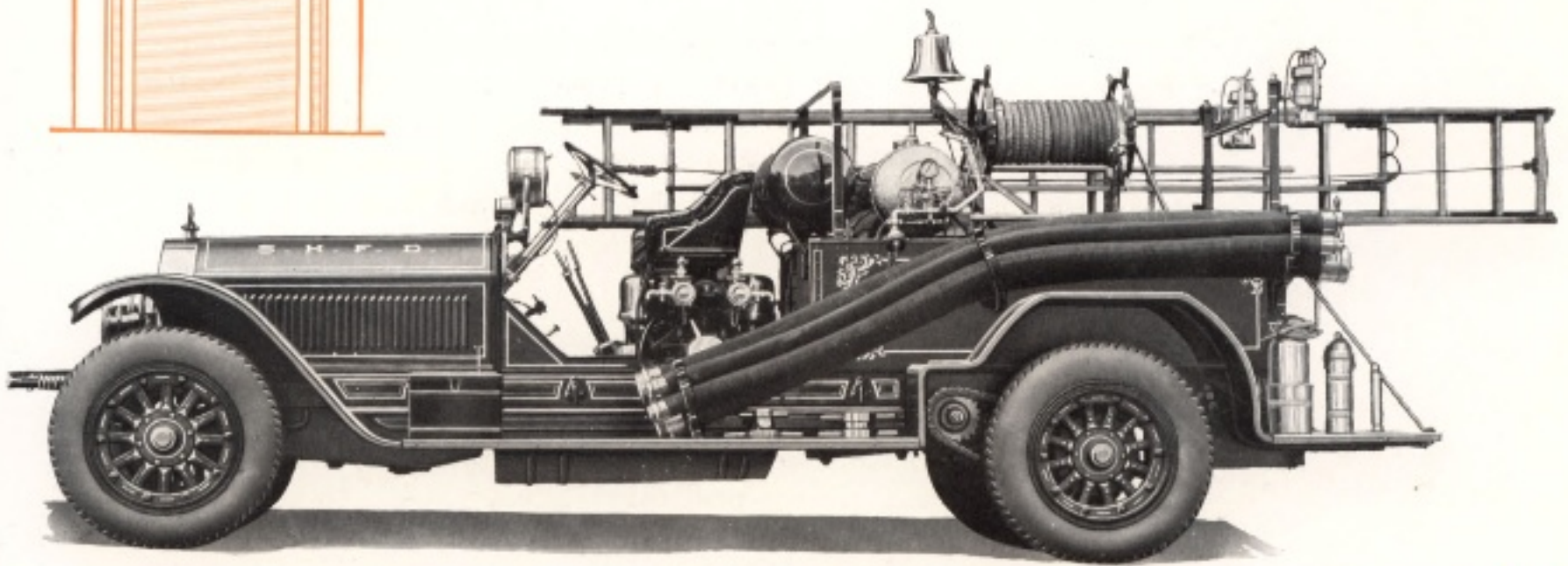


They knew that successful fire apparatus must be manufactured by one organization under the closest supervision, and that every part must be designed for the particular function it is to perform. The adoption of this principle as a policy enabled this Company to control absolutely the quality of the materials employed, and coupled with our expert workmanship, enabled us to go a long way toward our goal of perfection.

It is very evident that the fire department field has recognized the outstanding merit of the fire apparatus built under the policy we have outlined. If it required any proof we would only have to turn to the long list of cars; motor pumpers, ladder trucks, and combinations which have been in daily fire service for the past thirteen years. We should only need to call your attention to that impressive roll of cities where American-LaFrance motor apparatus has been purchased year after year, till at the present time there are one hundred forty-three cities which have in service from five to one hundred ninety-eight pieces of American-LaFrance motor fire apparatus.

The sole test of the merit of fire apparatus is by what it does in actual service. Service records prove that American-LaFrance motor fire apparatus fulfills every claim of performance.





STANDARD TYPE 12

Triple Combination Pumping, Chemical and Hose Car

1000 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 120 Horse Power.	Hose Capacity—1200 feet of 2½-inch hose.
Wheel Base—161⅜ inches.	Chemical Tank—One, 40-gallon capacity.
Wheels—Artillery Type.	Chemical Hose—200 feet of ¾-inch chemical hose.
Tires—36 x 4, single front, dual rear. Hard base cushion. Pneumatic, or any special type of tires furnished at additional cost.	Ladders— One 20-ft. extension ladder. One 12-ft. roof ladder with folding hooks.
Lighting System— Two 12-inch electric headlights. One 12-inch electric searchlight.	Suction Hose—Two lengths, each 10 ft. 6 in. long.
Gasoline Capacity—30 gallons, gravity feed.	Pike Pole—One.
Siren Horn—One, hand-operated.	Play Pipe Cones—Two.
Locomotive Bell—One.	Axe—One, fire department standard.
Tool Box—One.	Lanterns—Two, Dietz fire department standard.
Equipment Box—One, at rear.	Extinguishers—Two, 3-gallon Babcock.
Crowbar—One.	Bumper—Heavy steel with recoil springs.

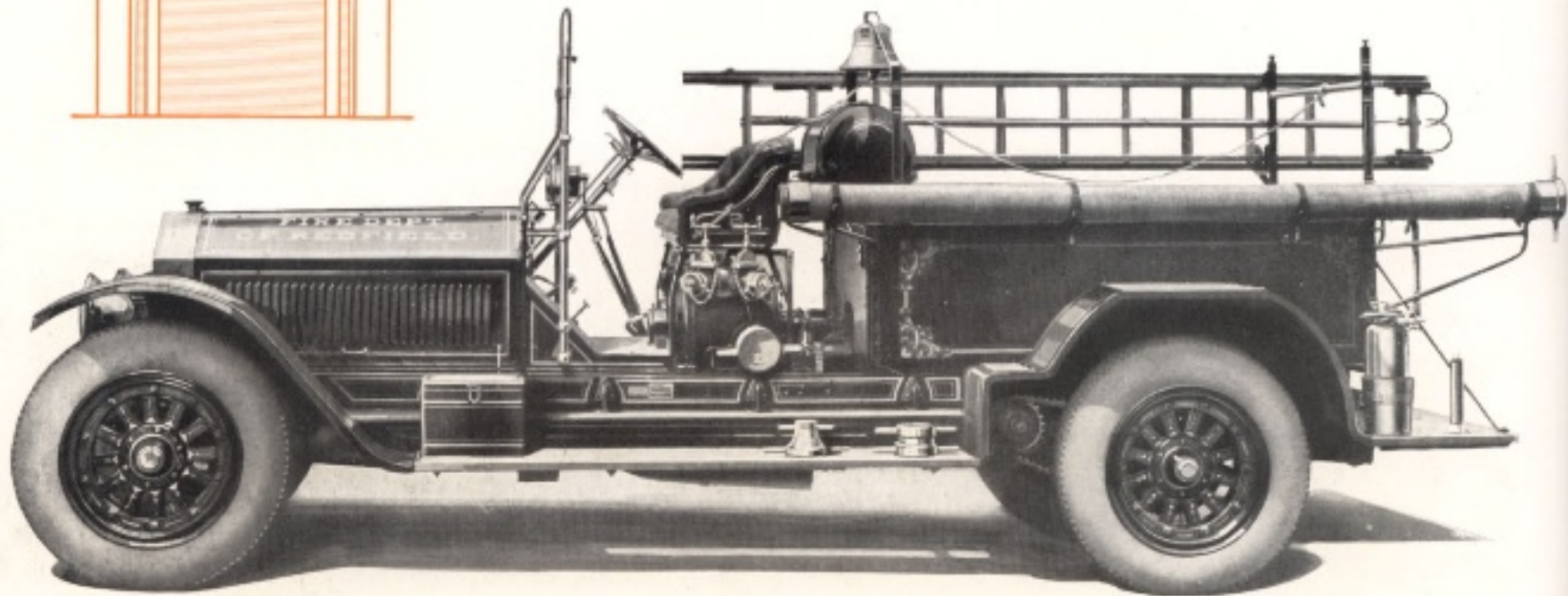
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.

Detailed specifications on request



American-LaFrance is the oldest and largest manufacturer of fire equipment



STANDARD TYPE 12

Combination Pumping and Hose Car

850 Gallons Capacity—Centrifugal Pump

SPECIFICATIONS

Motor—Six cylinders, $5\frac{1}{2}$ -inch bore by 6-inch stroke, 120 Horse Power.

Wheel Base— $161\frac{3}{8}$ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.
One 12-inch electric searchlight.

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One.

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1200 feet of $2\frac{1}{2}$ -inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of $\frac{3}{4}$ -inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Pike Pole—One.

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock.

Bumper—Heavy steel with recoil springs.

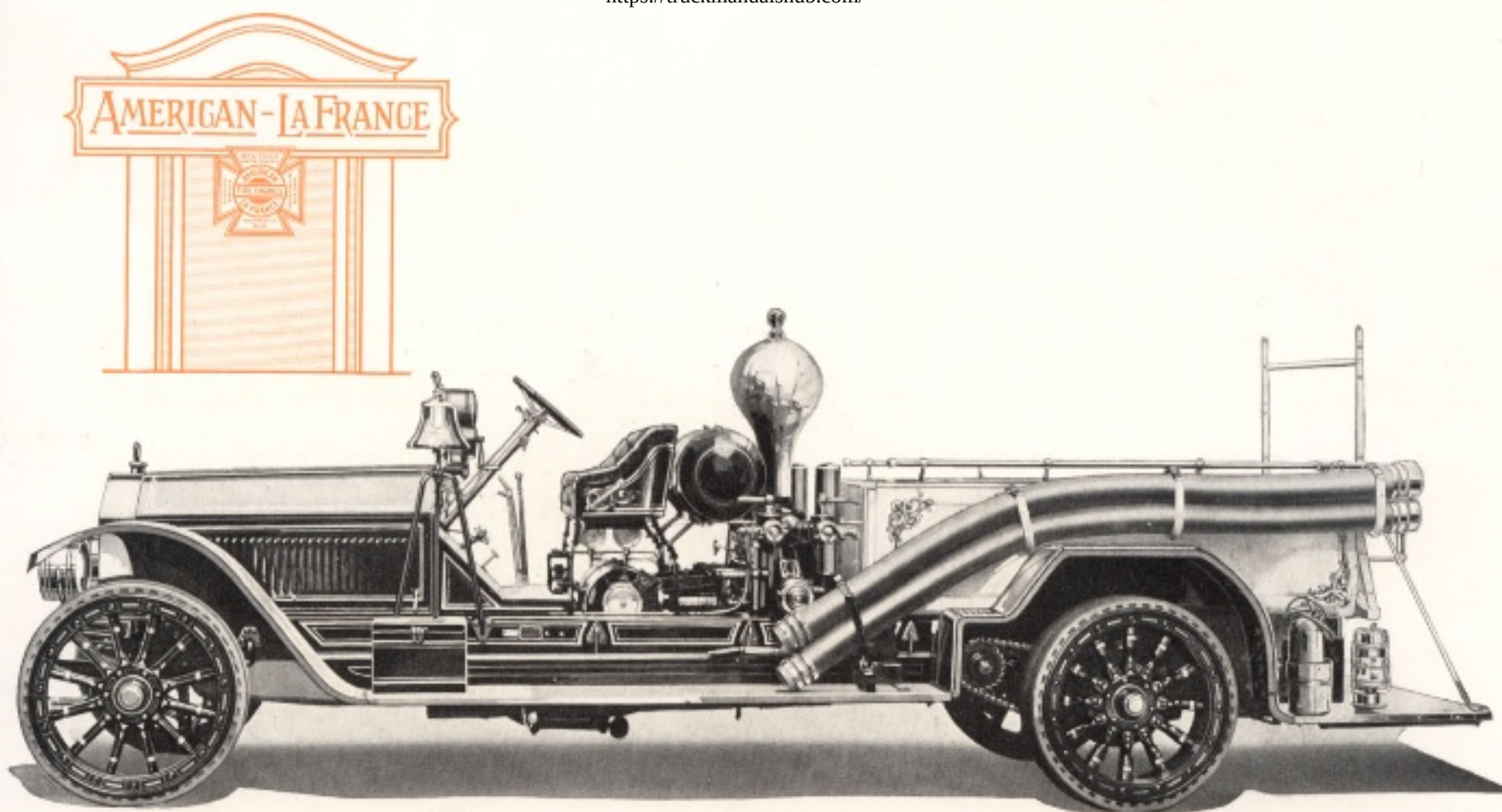
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished with chemical equipment if desired.

Detailed specifications on request



*Seventy-five years have taught us
how to build the best fire apparatus*



STANDARD TYPE 12

Combination Pumping and Hose Car

900 Gallons Capacity—Piston Pump

SPECIFICATIONS

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 120 Horse Power.	Hose Capacity—1200 feet of 2½-inch hose.
Wheel Base—174¼ inches.	Chemical Tank—One, 40-gallon capacity.
Wheels—Artillery Type.	Chemical Hose—200 feet of ¾-inch chemical hose.
Tires—36 x 4, single front, dual rear. Hard base cushion.	Ladders— One 20-ft. extension ladder. One 12-ft. roof ladder with folding hooks.
Pneumatic, or any special type of tires furnished at additional cost.	Suction Hose—Two lengths, each 10 ft. 6 in. long.
Lighting System— Two 12-inch electric headlights. One 12-inch electric searchlight.	Pike Pole—One.
Gasoline Capacity—30 gallons, gravity feed.	Play Pipe Cones—Two.
Siren Horn—One, hand-operated.	Axe—One, fire department standard.
Locomotive Bell—One.	Lanterns—Two, Dietz fire department standard.
Tool Box—One.	Extinguishers—Two, 3-gallon Babcock.
Equipment Box—One, at rear.	Bumper—Heavy steel with recoil springs.
Crowbar—One.	

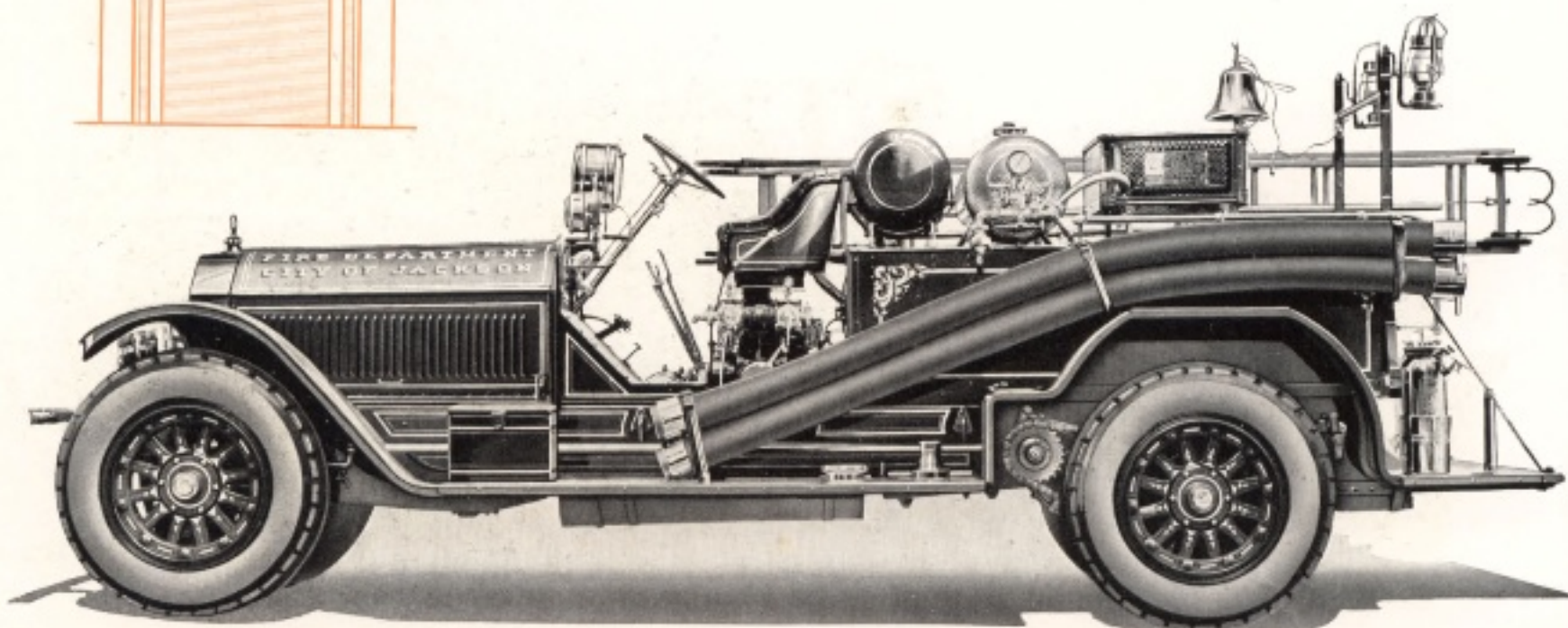
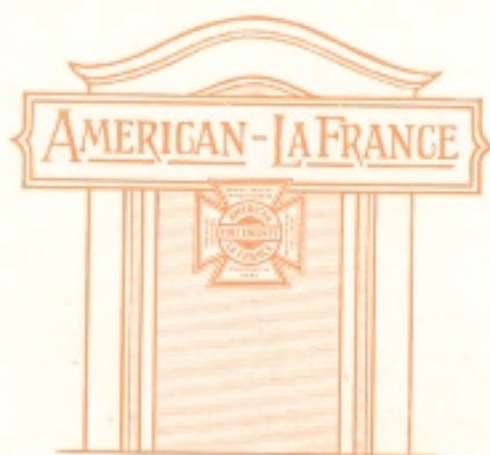
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished with chemical equipment if desired.

Detailed specifications on request



American-LaFrance is the Standard of the Fire Department World



STANDARD TYPE 75

Triple Combination Pumping, Chemical and Hose Car

750 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Six cylinders, $5\frac{1}{2}$ -inch bore by 6-inch stroke, 105 Horse Power.

Wheel Base—156 $\frac{1}{2}$ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.
One 12-inch electric searchlight.

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One.

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1200 feet of $2\frac{1}{2}$ -inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of $\frac{3}{4}$ -inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Pike Pole—One.

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock.

Bumper—Heavy steel with recoil springs.

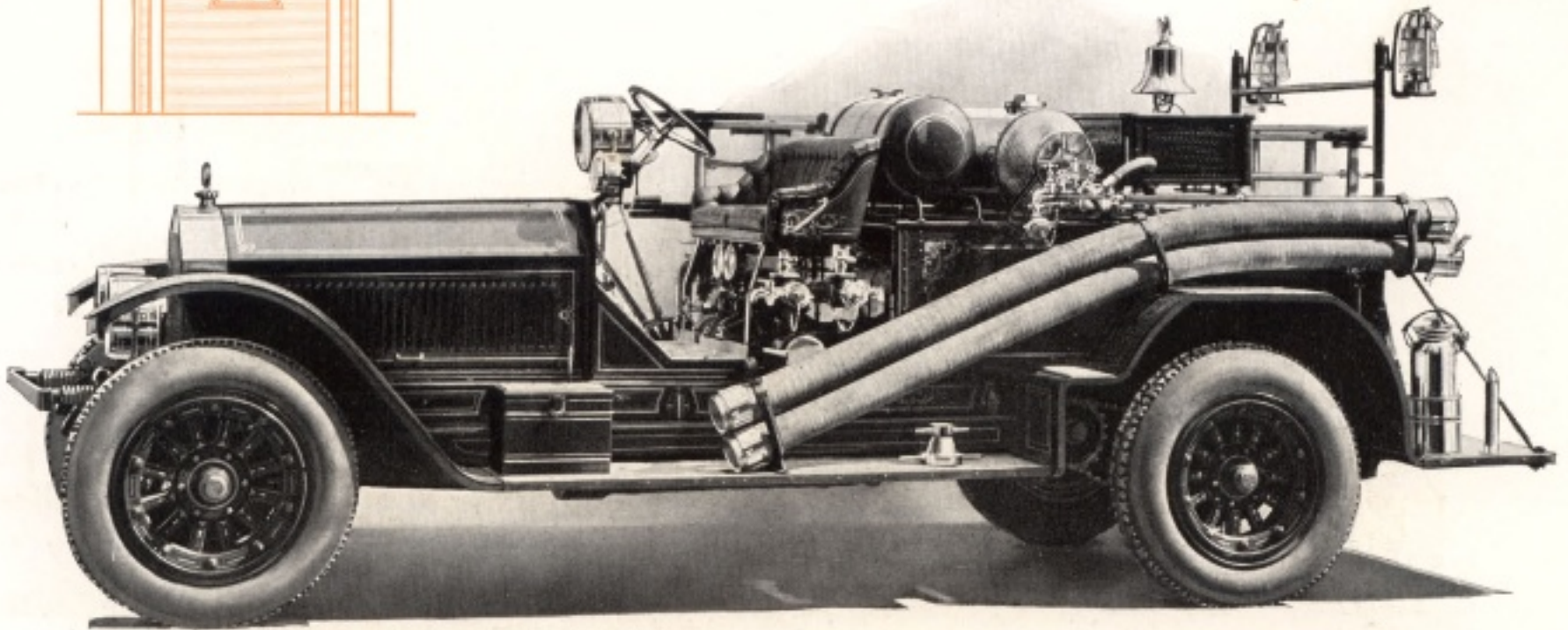
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.



The finest materials, expertly designed, and painstakingly constructed — American-LaFrance

Detailed specifications on request



STANDARD TYPE 38

Triple Combination Pumping, Chemical and Hose Car

600 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Six cylinders, $4\frac{1}{2}$ -inch bore by 6-inch stroke, 75 Horse Power.

Wheel Base—156 $\frac{1}{2}$ inches.

Wheels—Artillery type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.
One 12-inch electric searchlight.

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One.

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1200 feet of $2\frac{1}{2}$ -inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of $\frac{3}{4}$ -inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Pike Pole—One

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock.

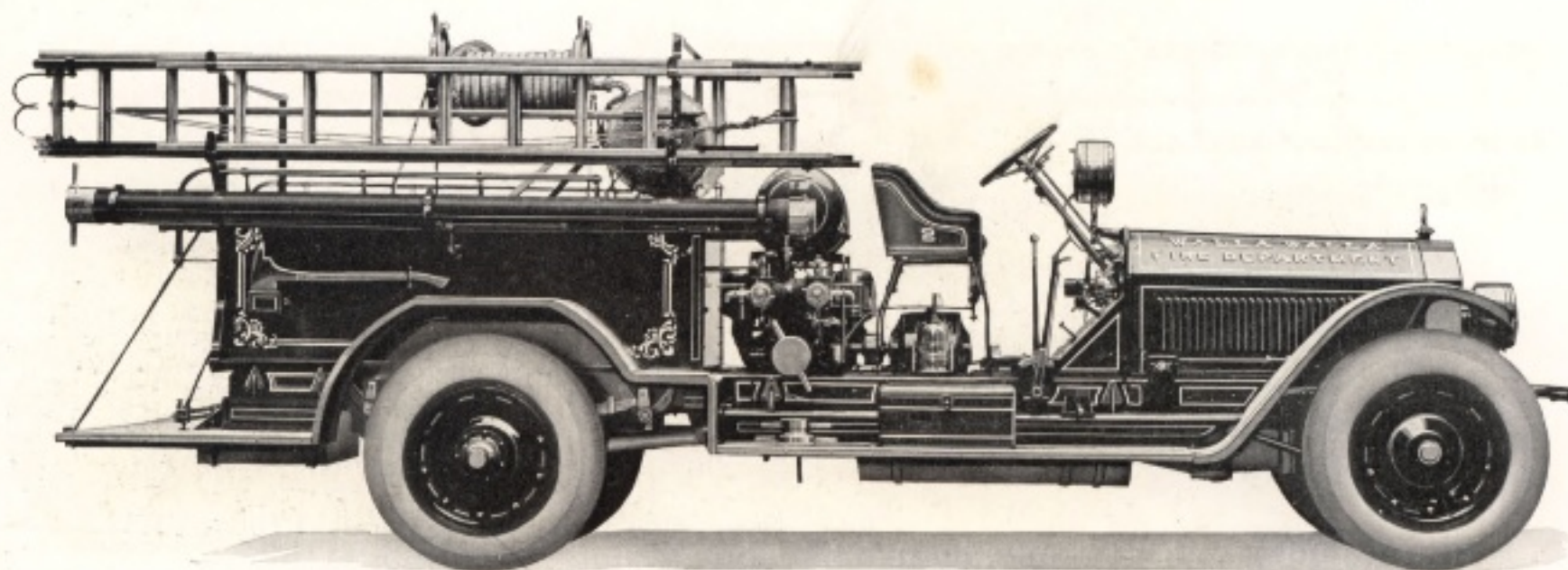
Bumper—Heavy steel with recoil springs.

ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.

Detailed specifications on request

*90% of America's fire departments use
American-LaFrance motor fire apparatus*



STANDARD TYPE 12

Triple Combination Pumping, Chemical and Hose Car

(Worm Drive)

1000 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Six cylinders 5½-inch bore by 6-inch stroke, 120 Horse Power.

Wheel Base—162 inches

Wheels—Cast Steel, solid disc type.

Tires—Pneumatic Cord, 38 x 7, single front; 40 x 8, single rear.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.
One 12-inch electric searchlight

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One, 12 inch.

Tool Box—One.

Equipment Box—One at rear.

Crowbar—One.

Hose Capacity—1200 feet of 2½-inch hose.

Chemical Tank—One, 40 gallon capacity.

Chemical Hose—200 feet of ¾-inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 feet 6 inches long.

Pike Pole—One.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two 3-gallon Babcock.

Play Pipe Cones—Two.

Bumper—Heavy steel with recoil springs.

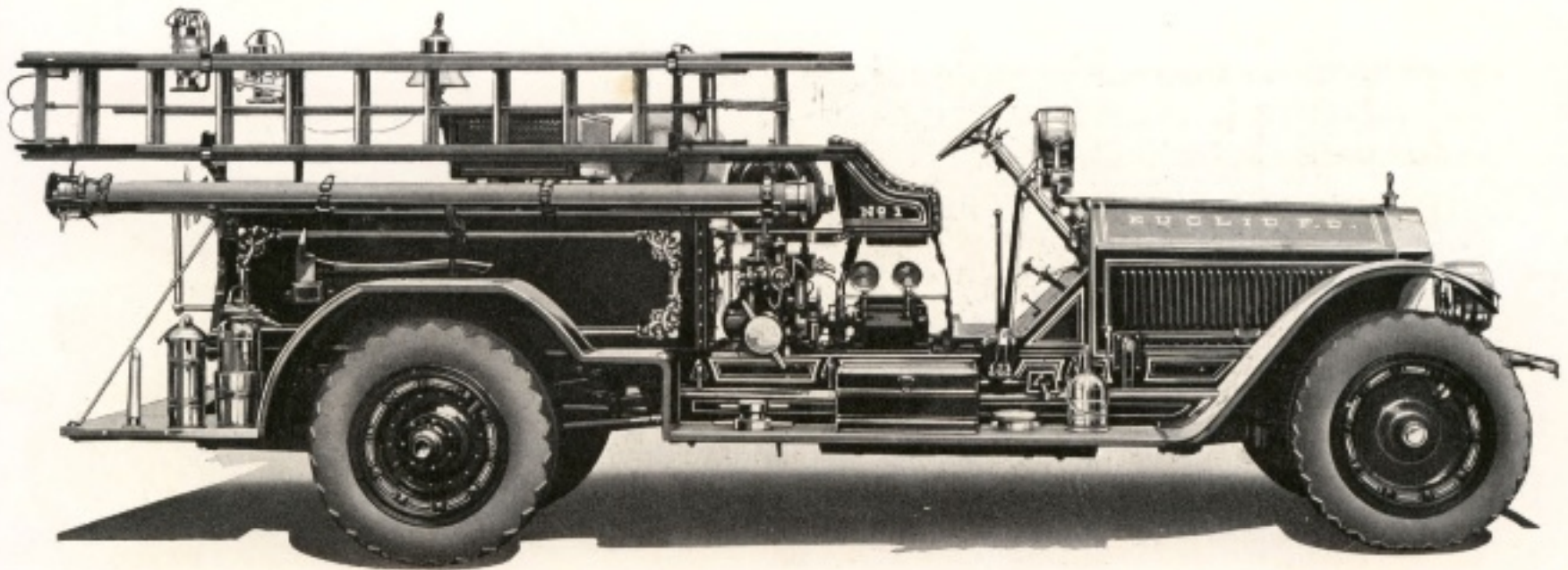
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.

Detailed specifications upon request.



American-LaFrance motor apparatus is designed for strength, lightness, and speed



STANDARD TYPE 75

Triple Combination Pumping, Chemical and Hose Car

(Worm Drive)

750 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 105 Horse Power.

Wheel Base—162 inches.

Wheels—Cast steel, solid disc type.

Tires—Pneumatic Cord, 38 x 7, single front; 40 x 8, single rear. Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—
Two 12-inch electric headlights.
One 12-inch electric searchlight.

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One, 12-inch.

Tool Box—One.

Equipment Box—One at rear.

Crowbar—One.

Hose Capacity—1200 feet of 2½-inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of ¾-inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Pike Pole—One.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock.

Play Pipe Cones—Two.

Bumper—Heavy steel with recoil springs.

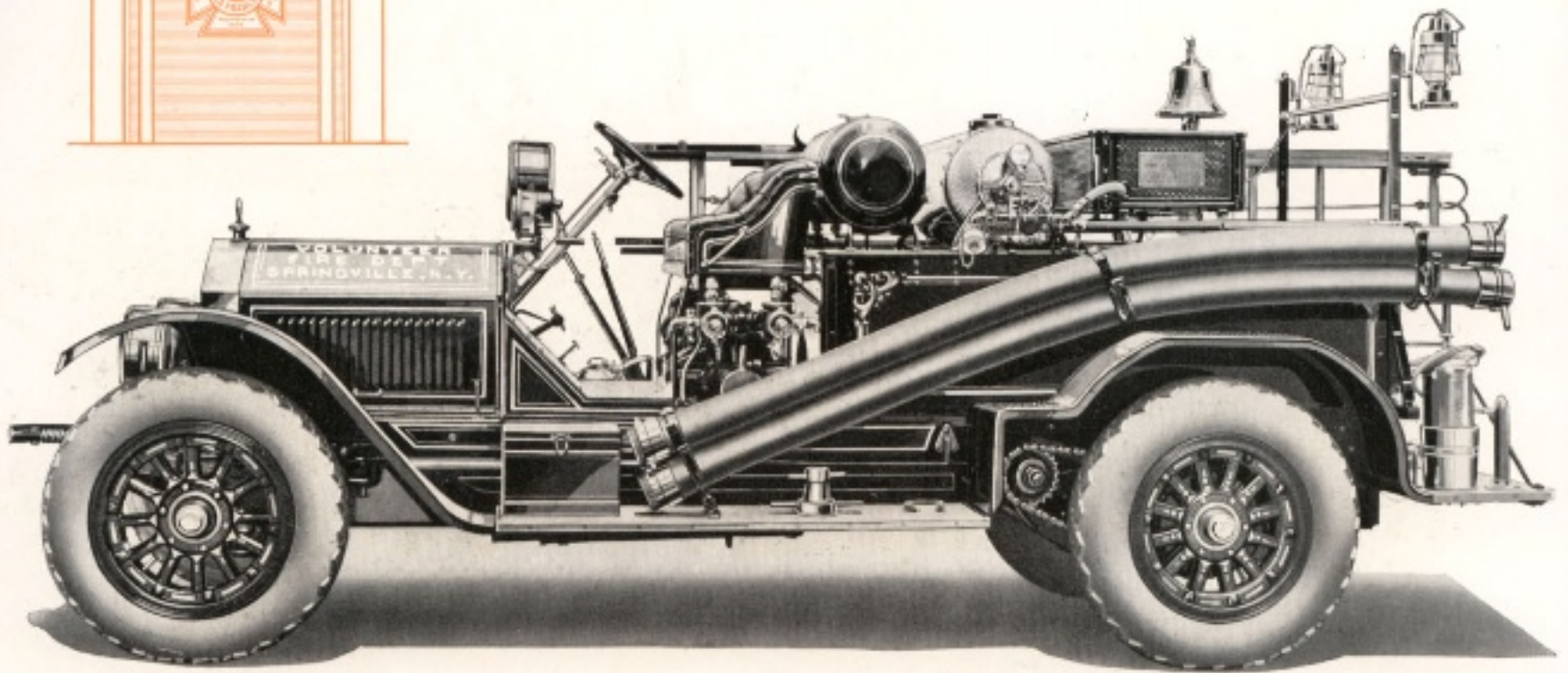
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.

Detailed specifications on request



*American-LaFrance is the first
at a fire over any road or grade*



STANDARD TYPE 10

Triple Combination Pumping, Chemical and Hose Car

600 Gallons Capacity — Rotary Gear Pump

SPECIFICATIONS

Motor—Four cylinders, $5\frac{1}{2}$ -inch bore by 6-inch stroke, 75 Horse Power.

Wheel Base—140 $\frac{1}{2}$ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

One 12-inch electric searchlight.

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One.

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1200 feet of $2\frac{1}{2}$ -inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of $\frac{3}{4}$ -inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Pike Pole—One.

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

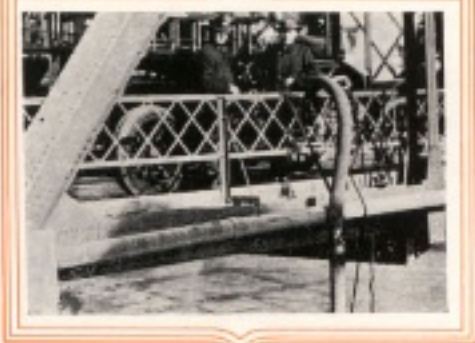
Extinguishers—Two, 3-gallon Babcock.

Bumper—Heavy steel with recoil springs.

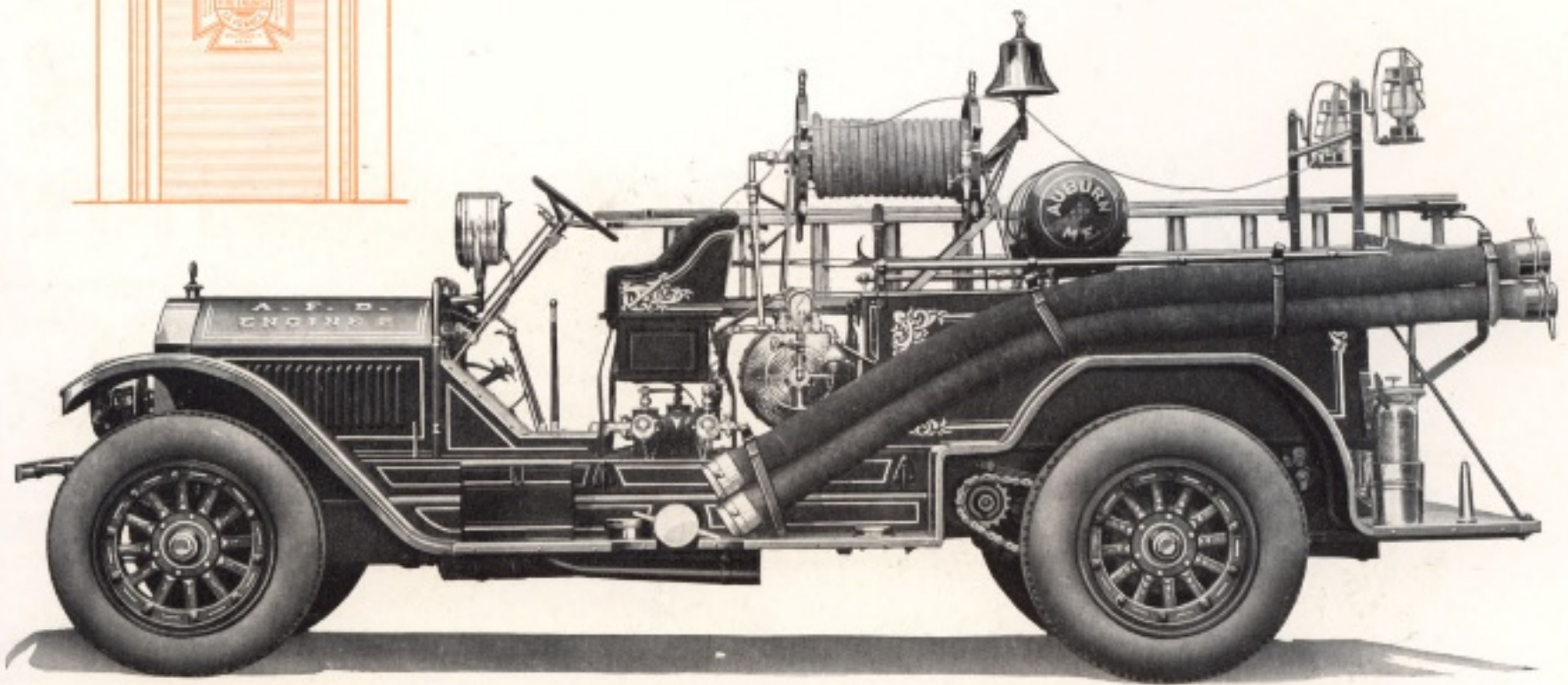
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.

Detailed specifications on request



The American-LaFrance rotary gear pump is simple in construction and efficient in operation



STANDARD TYPE 39

Triple Combination Pumping, Chemical and Hose Car

600 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Four cylinders, 5½-inch bore by 6-inch stroke, 75 Horse Power.

Wheel Base—140½ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

One 12-inch electric searchlight.

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One.

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1100 feet of 2½-inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of ¾-inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Pike Pole—One.

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock,

Bumper—Heavy steel with recoil springs.

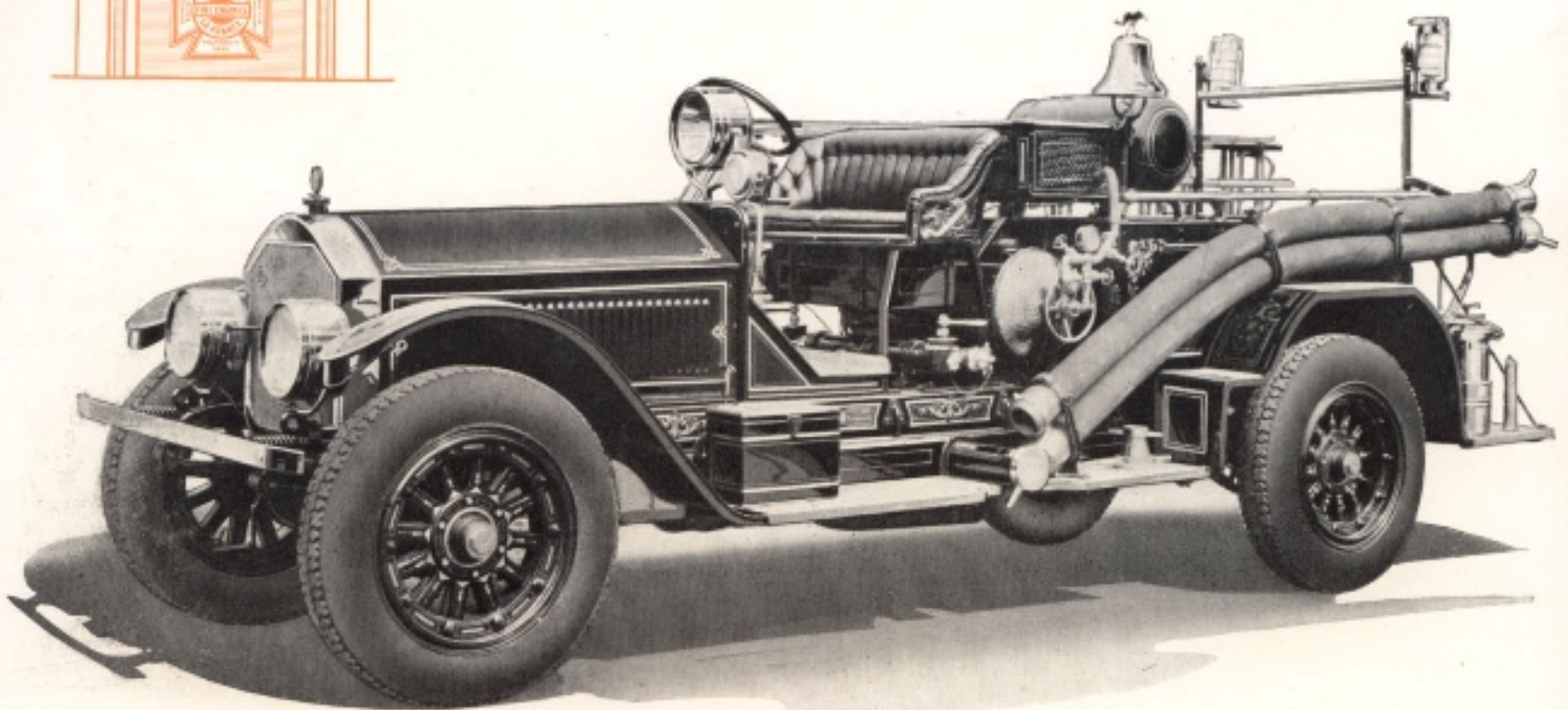
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.

Detailed specifications on request



New York City has a total of nearly two hundred pieces of LaFrance motor apparatus



STANDARD TYPE 38

Triple Combination Pumping, Chemical and Hose Car with Type 39 Pump

600 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Six cylinders, $4\frac{1}{2}$ -inch bore by 6-inch stroke, 75 Horse Power.

Wheel Base—156 $\frac{1}{2}$ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

One 12-inch electric searchlight.

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One.

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1200 feet of $2\frac{1}{2}$ -inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of $\frac{3}{4}$ -inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Pike Pole—One.

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock.

Bumper—Heavy steel with recoil springs.

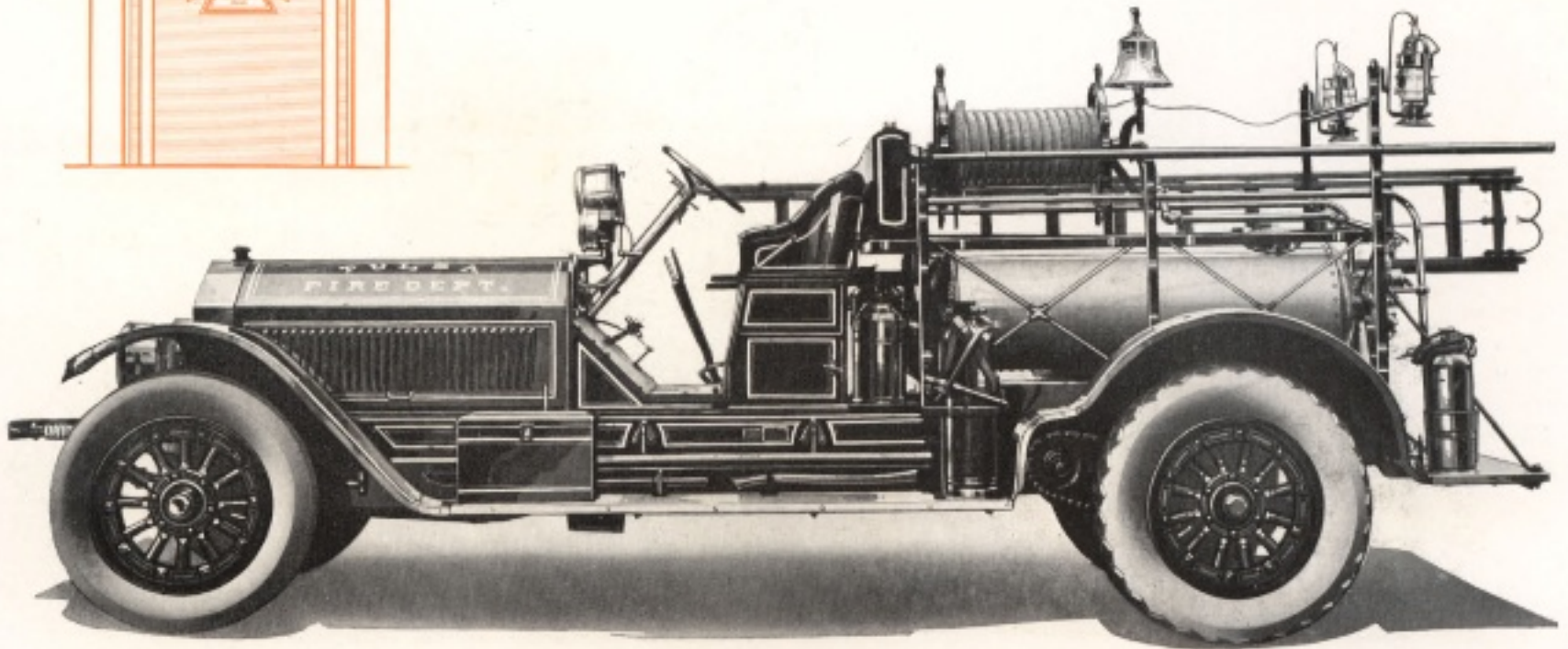
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.

Detailed specifications on request



Philadelphia, Pa., awarded American-LaFrance the largest contract for motor fire apparatus ever recorded, 42 pieces



STANDARD TYPE 75

Chemical Car

SPECIFICATIONS

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 105 Horse Power.	Crowbar—One.
Wheel Base—156½ inches.	Chemical Tanks—Two, each 80-gallon capacity.
Wheels—Artillery Type.	Chemical Hose—200 feet of 1-inch chemical hose.
Tires—36 x 4, single front, dual rear. Hard base cushion. Pneumatic, or any special type of tires furnished at additional cost.	Ladders— One 20-ft. extension ladder. One 12-ft. roof ladder with folding hooks.
Lighting System— Two 12-inch electric headlights. One 12-inch electric searchlight.	Pike Pole—One.
Gasoline Capacity — 20 gallons, gravity feed.	Axe—One, fire department standard.
Siren Horn—One, hand-operated.	Lanterns—Two, Dietz fire department standard.
Locomotive Bell—One.	Extinguishers—Two, 3-gallon Babcock.
Equipment Box—One, at rear.	Bumper—Heavy steel with recoil springs.
Tool Box—One.	

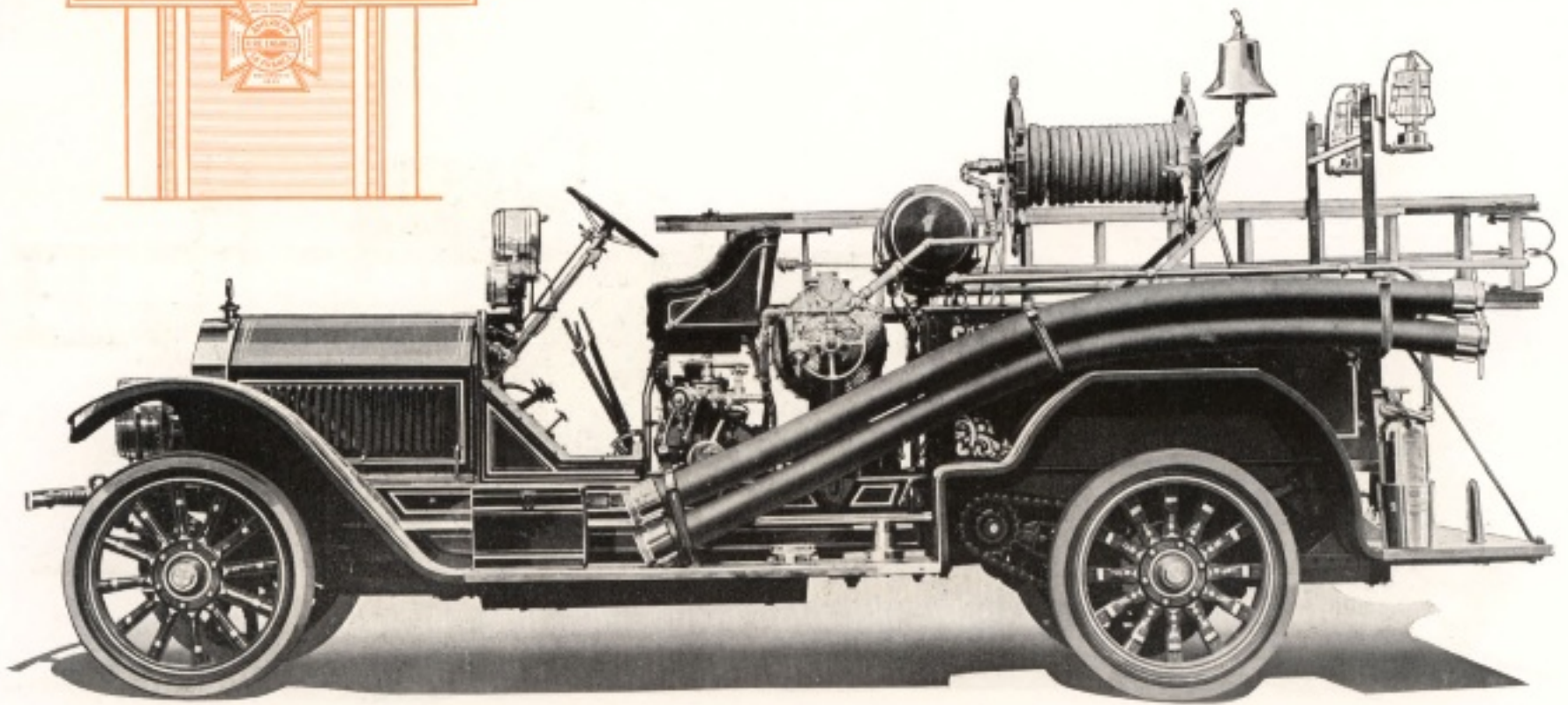
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished with four-cylinder motor, and capacity of chemical tanks may also be varied.

Detailed specifications on request



Notice how many cities near you are satisfied users of American-LaFrance equipment



STANDARD TYPE 40

Combination Chemical and Hose Car with Junior Pump

350 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

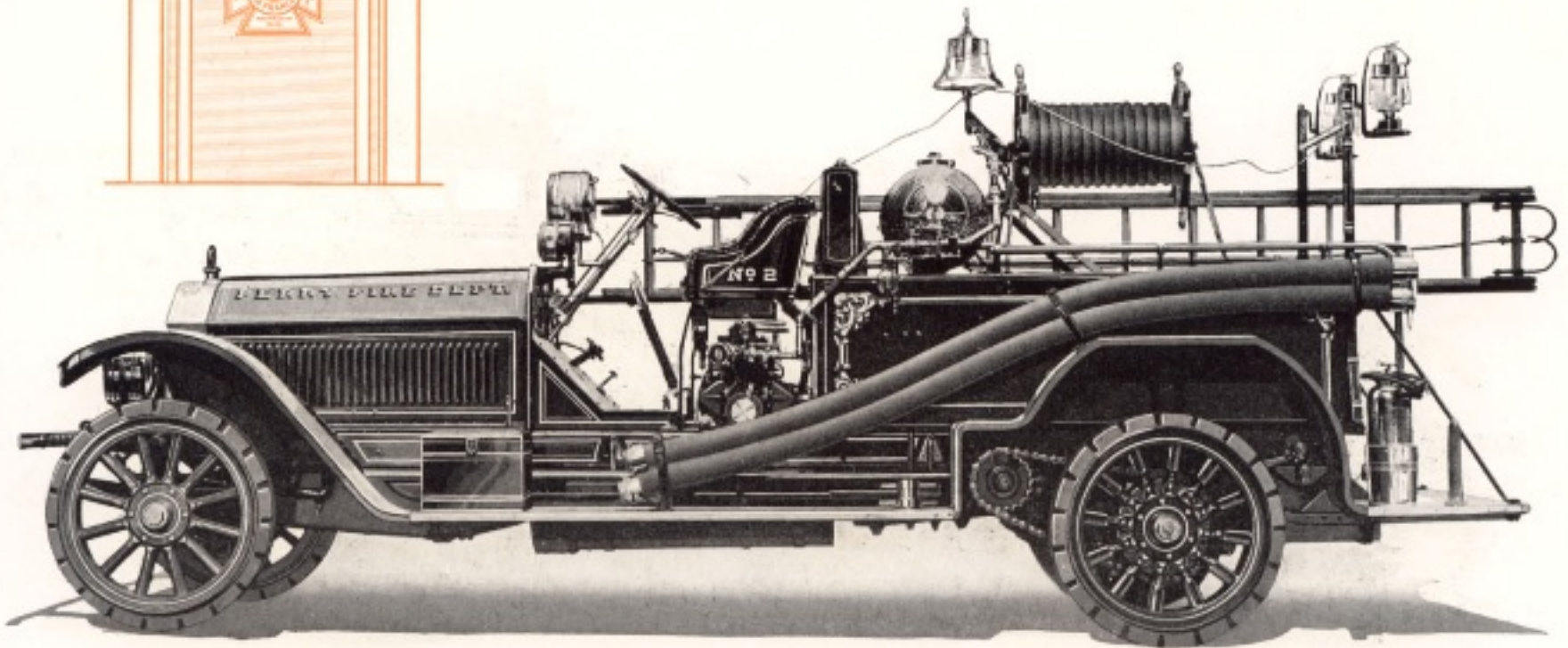
- | | |
|---|--|
| Motor—Four cylinders, 5½-inch bore by 6-inch stroke, 75 Horse Power. | Hose Capacity—1200 feet of 2½-inch hose. |
| Wheel Base—140½ inches. | Chemical Tank—One, 40-gallon capacity. |
| Wheels—Artillery Type. | Chemical Hose—200 feet of ¾-inch chemical hose. |
| Tires—36 x 4, single front, dual rear. Hard base cushion. | Ladders— |
| Pneumatic, or any special type of tires furnished at additional cost. | One 20-ft. extension ladder. |
| Lighting System— | One 12-ft. roof ladder with folding hooks. |
| Two 12-inch electric headlights. | Suction Hose—Two lengths, each 10ft. 6 in. long. |
| One 12-inch electric searchlight. | Pike Pole—One. |
| Gasoline Capacity—30 gallons, gravity feed. | Play Pipe Cones—Two. |
| Siren Horn—One, hand-operated. | Axe—One, fire department standard. |
| Locomotive Bell—One. | Lanterns—Two, Dietz fire department standard. |
| Tool Box—One. | Extinguishers—Two, 3-gallon Babcock. |
| Equipment Box—One, at rear. | Bumper—Heavy steel with recoil springs. |
| Crowbar—One. | |

ALL NECESSARY OPERATING TOOLS

Detailed specifications on request



*During the last six years, New York City
has purchased over 100 LaFrance pumpers*



STANDARD TYPE 75

Combination Chemical and Hose Car with Junior Pump

400 Gallons Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Six cylinders, $5\frac{1}{2}$ -inch bore by 6-inch stroke, 105 Horse Power.

Wheel Base—156 $\frac{1}{2}$ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

One 12-inch electric searchlight.

Gasoline Capacity—30 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One.

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1200 feet of $2\frac{1}{2}$ -inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of $\frac{3}{4}$ -inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Pike Pole—One.

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock.

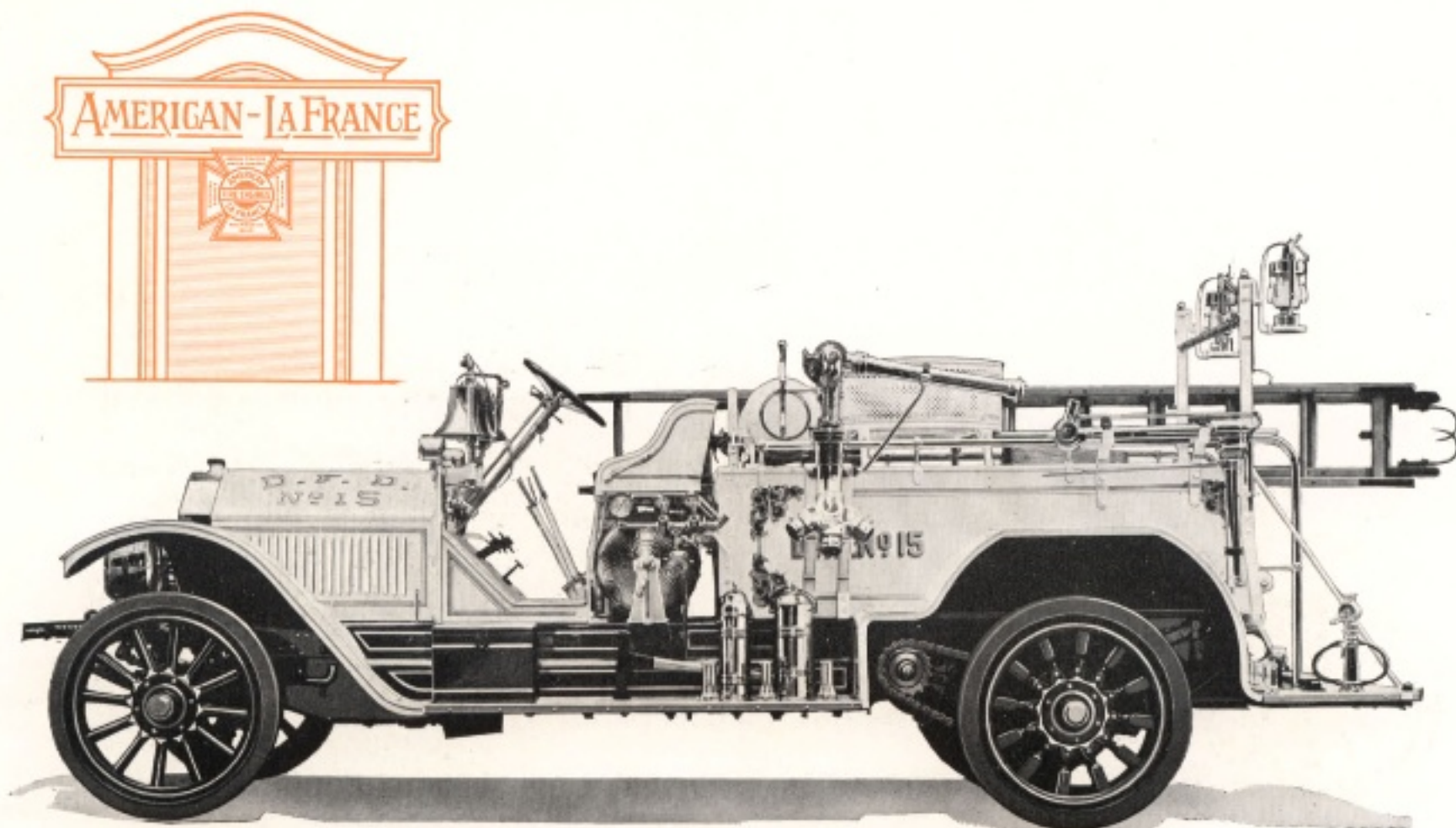
Bumper—Heavy steel with recoil springs.



ALL NECESSARY OPERATING TOOLS

Detailed specifications on request

*Boston, Mass., carefully investigated all leading makes
and standardized on American-LaFrance equipment*



STANDARD TYPE 40

Combination Chemical and Hose Car

SPECIFICATIONS

Motor — Four cylinders, $5\frac{1}{2}$ -inch bore by 6-inch stroke, 75 Horse Power.

Wheel Base— $140\frac{1}{2}$ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

One 12-inch electric searchlight.

Gasoline Capacity — 20 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One.

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1200 feet of $2\frac{1}{2}$ -inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of $\frac{3}{4}$ -inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Pike Pole—One.

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock.

Bumper—Heavy steel with recoil springs.

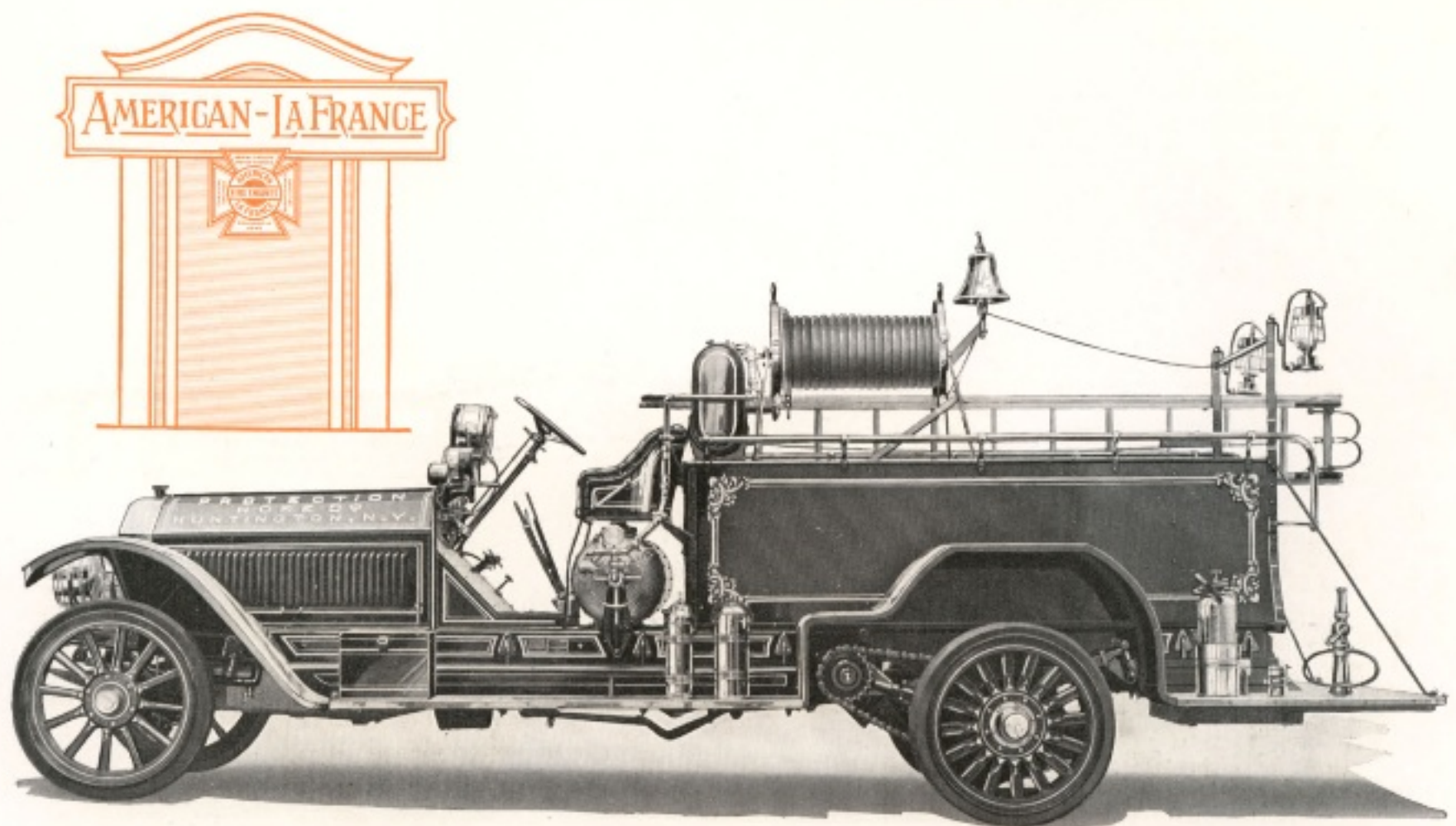
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished with two chemical tanks; or, for use as a straight hose car, all chemical equipment can be eliminated.

Detailed specifications on request



From Alaska to Mexico, from California to Maine, American-LaFrance is making good



STANDARD TYPE 75

Combination Chemical and Hose Car

SPECIFICATIONS

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 105 Horse Power.

Wheel Base—156½ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

One 12-inch electric searchlight.

Gasoline Capacity—20 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One

Tool Box—One.

Equipment Box—One, at rear.

Crowbar—One.

Hose Capacity—1200 feet of 2½-inch hose.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of ¾-inch chemical hose.

Ladders—

One 20-ft. extension ladder.

One 12-ft. roof ladder with folding hooks.

Pike Pole—One.

Play Pipe Cones—Two.

Axe—One, fire department standard.

Lanterns—Two, Dietz fire department standard.

Extinguishers—Two, 3-gallon Babcock.

Bumper—Heavy steel with recoil springs.

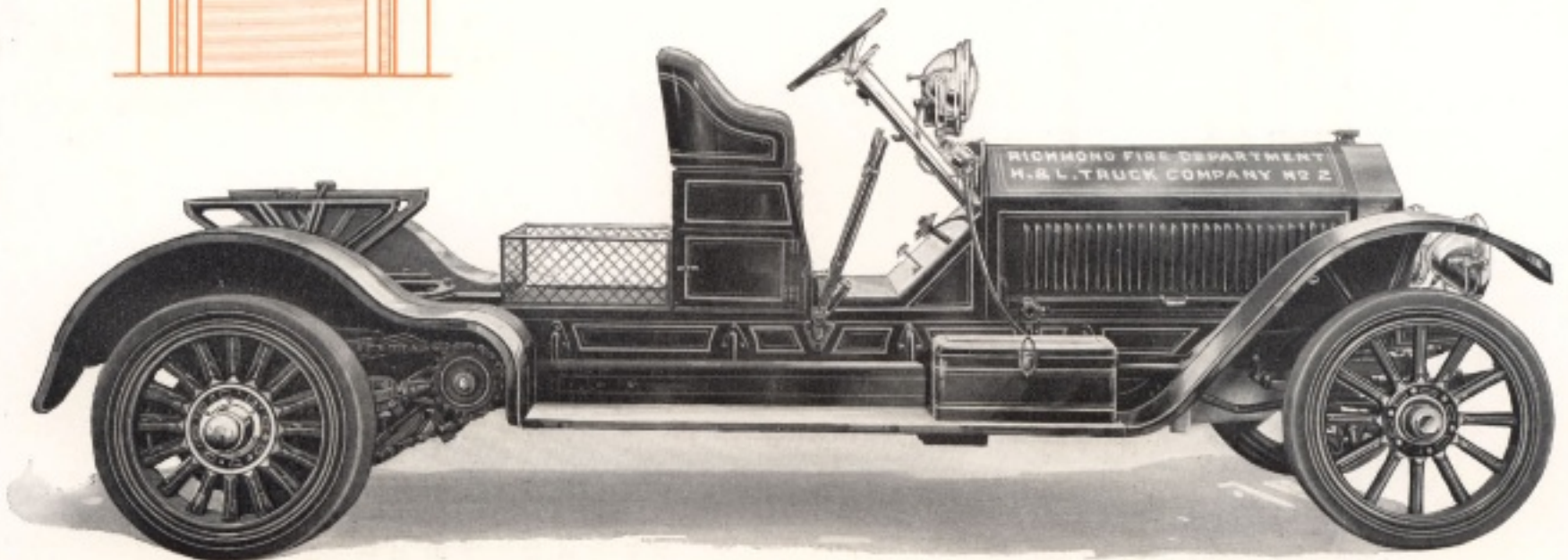
ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished with two chemical tanks; or, for use as a straight hose car, all chemical equipment can be eliminated.

Detailed specifications on request



Cities reorder American-LaFrance fire apparatus when they require additional purchases



STANDARD TYPE 17 Four-Wheel Tractor

SPECIFICATIONS.

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 105 Horse Power.	Locker—One, under seat.
Wheel Base—156½ inches.	Lighting System—Two 12-inch electric headlights.
Wheels—Artillery Type.	Gasoline Capacity—15 gallons, gravity feed.
Tires—36 x 4, single front, dual rear, solid rubber.	Siren Horn—One, hand-operated.
Any special type of tires furnished at additional cost.	Tool Box—One.
Equipment Basket—One, wire mesh.	Bumper—Heavy steel with recoil springs.
	Fifth wheel and attachment brackets.

ALL NECESSARY OPERATING TOOLS

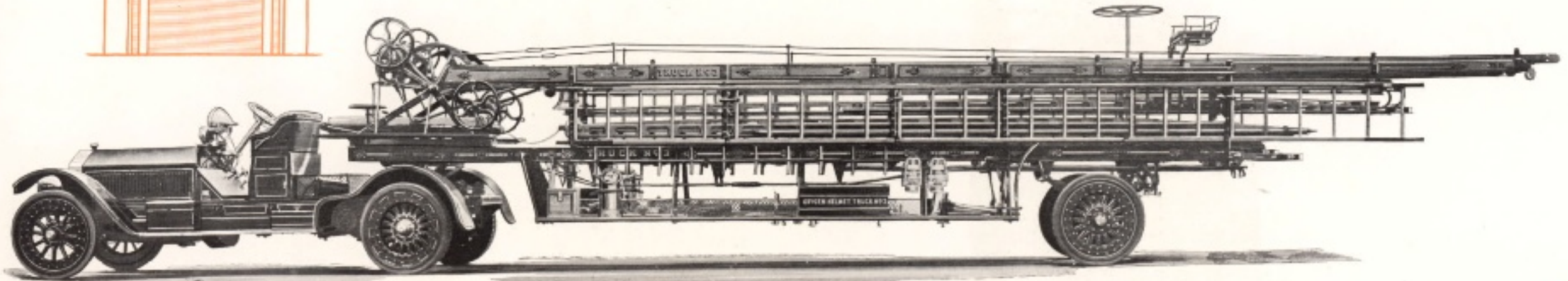
This tractor is designed so that it can be readily placed under present horse-drawn apparatus.

Tractor can be built with four-cylinder motor.

Detailed specifications on request



American-LaFrance rotary gear pumps have established unusually fine records



AMERICAN-LAFRANCE

STANDARD TYPE 17

Tractor-Drawn Aërial Truck

SPECIFICATIONS

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 105 Horse Power.

Wheel Base—From front wheels of tractor to rear wheels of truck—

55-ft. Aërial truck—29 ft. 7¼ in.

65-ft. Aërial truck—33 ft. 7¼ in.

75-ft. Aërial truck—37 ft. 7¼ in.

85-ft. Aërial truck—41 ft. 7¼ in.

Wheels—Artillery type.

Tires—Solid.

Any special type of tires furnished at additional cost.

Lighting System—Two 12-inch electric headlights.

Gasoline Capacity—15 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One, 12-inch.

Miscellaneous and ladder equipment same as for Type 31 Aërial truck on page 21.

ALL NECESSARY OPERATING TOOLS

This truck can also be furnished with a four-cylinder tractor.

Detailed specifications on request

LADDER EQUIPMENT

85-FT. TRUCK

50-ft. extension ladder
32-ft. single ladder
28-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. single ladder
12-ft. roof ladder
Total ground ladder equipment, 182 feet.

75-FT. TRUCK

45-ft. extension ladder
32-ft. single ladder
28-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. single ladder
12-ft. roof ladder
Total ground ladder equipment, 177 feet.

65-FT. TRUCK

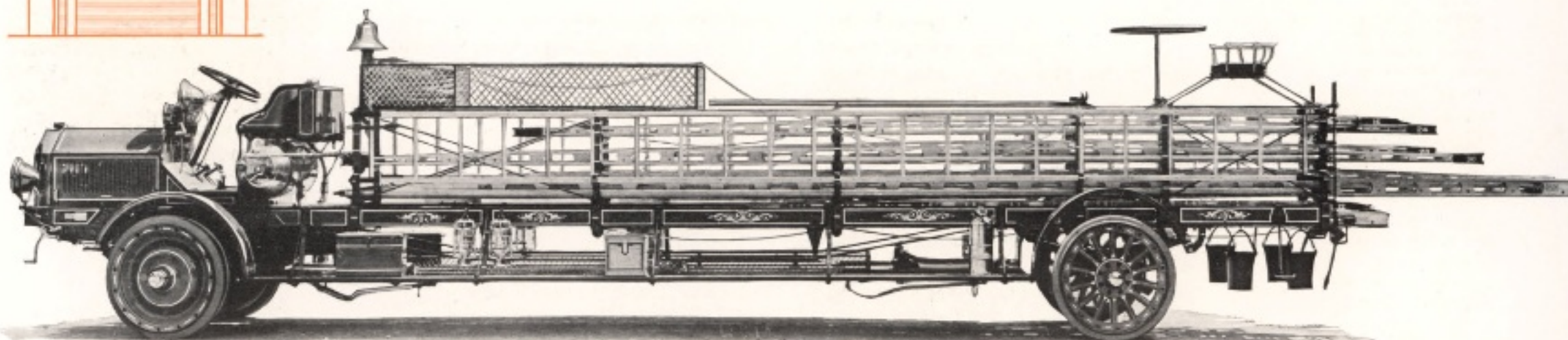
40-ft. extension ladder
28-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. single ladder
12-ft. roof ladder
Total ground ladder equipment, 140 feet.

55-FT. TRUCK

35-ft. extension ladder
24-ft. single ladder
20-ft. single ladder
16-ft. single ladder
12-ft. roof ladder
Total ground ladder equipment, 107 feet.



American-LaFrance motor fire apparatus is famous for its endurance



AMERICAN-LA FRANCE

STANDARD TYPE 33 Front-Drive Service Truck

SPECIFICATIONS

Motor—Four cylinders, 5½-inch bore by 6-inch stroke, 75 Horse Power.

Wheel Base—1st Size—28 ft. 4 in.
2nd Size—24 ft. 4 in.
3rd Size—20 ft. 4 in.

Wheels—Cast steel disc front, artillery type rear.

Tires—Single Giant front, single rear.
Any special type of tires furnished at additional cost.

Lighting System—
Two 12-inch electric headlights.
One 12-inch electric searchlight.

Gasoline Capacity—20 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One, 12-inch.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of ¾-inch chemical hose.

Extinguishers—Two, 3-gallon Babcock.

Lanterns—Four, Dietz fire department standard.

Axes—Four, fire department standard.

Wall Picks—Two.

Crowbars—Two.

Shovels—Two.

Wire Cutter—One, Boston.

Door Opener—One, Detroit.

Tin Roof Cutter—One, LaFrance.

Pitchforks—Two.

Rubber Buckets—Four.

Crotch Poles—Two.

Pike Poles—Six, assorted lengths.

Wire Basket—One, under frame.

Tool Platform—One, under frame.

Tool Box—One.

Charge Boxes—Two.

Ladder Lock—One.

Bumper—One.

ALL NECESSARY OPERATING TOOLS

This apparatus can be furnished without chemical equipment if desired.

Six-cylinder motor can also be supplied.

Detailed specifications on request

LADDER EQUIPMENT

FIRST SIZE

65-ft. extension ladder
45-ft. extension ladder
36-ft. single ladder
Two 32-ft. single ladders
28-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. roof ladder
12-ft. roof ladder

SECOND SIZE

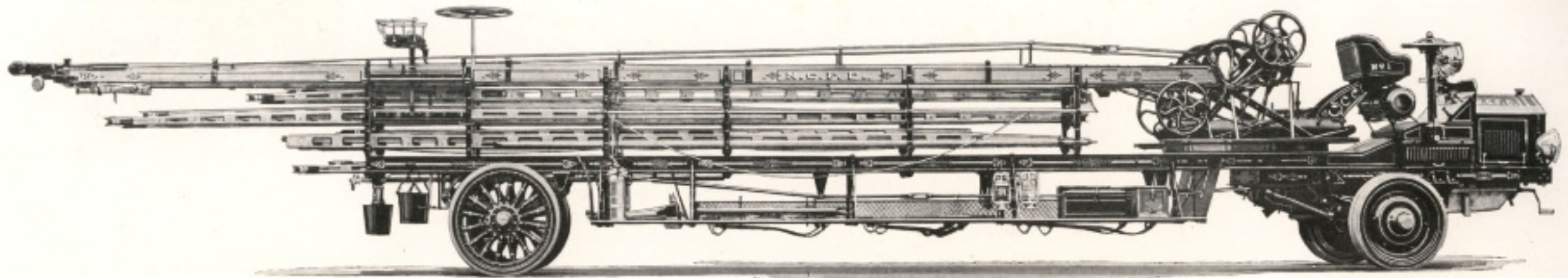
60-ft. extension ladder
40-ft. extension ladder
32-ft. single ladder
28-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. roof ladder
12-ft. roof ladder

THIRD SIZE

55-ft. extension ladder
35-ft. extension ladder
30-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. roof ladder
12-ft. roof ladder



Constant repeat orders prove the general satisfaction given by American-LaFrance equipment



AMERICAN-LAFRANCE



STANDARD TYPE 31 Front-Drive Aërial Truck

SPECIFICATIONS

Motor—Six cylinders, $5\frac{1}{2}$ -inch bore by 6-inch stroke, 105 Horse Power.

Wheel Base—

55-ft. Aërial truck—19 ft. 9 in.
65-ft. Aërial truck—23 ft. 9 in.
75-ft. Aërial truck—27 ft. 9 in.
85-ft. Aërial truck—31 ft. 9 in.

Wheels—Cast steel disc front, artillery type rear.

Tires—Single Giant front, single rear.

Any special type of tires furnished at additional cost.

Lighting System—Two 12-inch electric headlights.

Gasoline Capacity—20 gallons, gravity feed.

Extinguishers—Two, Babcock.

Siren Horn—One, hand-operated.

Locomotive Bell—One, 12-inch.

Lanterns—Four, fire department standard.

Axes—Four, fire department standard.

Wall Picks—Two.

Crowbars—Two.

Shovels—Two.

Wire Cutter—One, Boston.

Door Opener—One, Detroit.

Tin Roof Cutter—One, LaFrance.

Pitchforks—Two.

Battering Ram—One, LaFrance.

Rubber Buckets—Four.

Pike Poles—Six, assorted lengths.

Crotch Poles—Two.

Wire Basket—One, under frame.

Tool Platform—One, under frame.

Tool Box—One.

Charge Box—Two.

Manila rope, tackle, and snatch block.

Ladder Lock—One.

Bumper—One.

ALL NECESSARY OPERATING TOOLS

This truck can also be furnished with a four-cylinder motor.

Detailed specifications on request

LADDER EQUIPMENT

85-FT. TRUCK

50-ft. extension ladder
32-ft. single ladder
28-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. single ladder
12-ft. roof ladder
Total ground ladder equipment, 182 feet.

75-FT. TRUCK

45-ft. extension ladder
32-ft. single ladder
28-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. single ladder
12-ft. roof ladder
Total ground ladder equipment, 177 feet.

65-FT. TRUCK

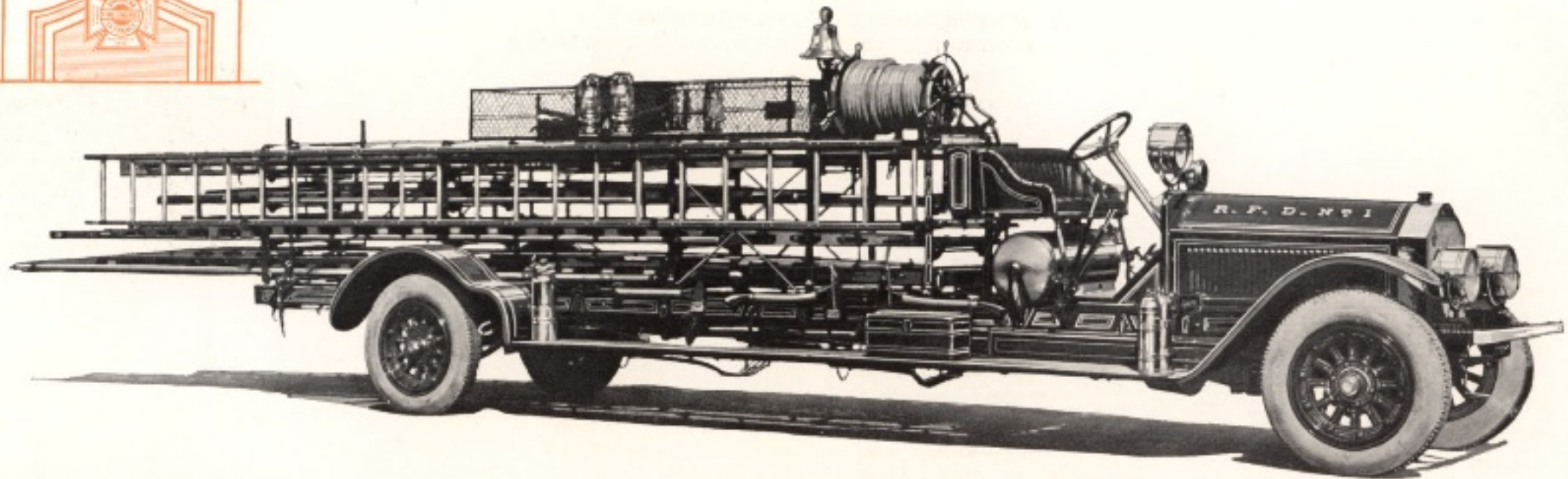
40-ft. extension ladder
28-ft. single ladder
24-ft. single ladder
20-ft. single ladder
16-ft. single ladder
12-ft. roof ladder
Total ground ladder equipment, 140 feet.

55-FT. TRUCK

35-ft. extension ladder
24-ft. single ladder
20-ft. single ladder
16-ft. single ladder
12-ft. roof ladder
Total ground ladder equipment, 107 feet.



More than 50 cities have American-LaFrance fleets of ten or more pieces



AMERICAN-LA FRANCE

STANDARD TYPE 14

Combination City Service Hook and Ladder Truck

SPECIFICATIONS

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 105 Horse Power.

Wheel Base—246½ inches.

Wheels—artillery type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

One 12-inch electric searchlight.

Gasoline Capacity—20 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One, 12-inch.

Chemical Tank—One, 40-gallon capacity.

Chemical Hose—200 feet of ¾-inch chemical hose.

Extinguishers—Two, 3-gallon Babcock.

Lanterns—Four, Dietz fire department standard.

Axes—Four, fire department standard.

Wall Picks—Two.

Crowbars—Two.

Shovels—Two.

Wire Cutter—One, Boston.

Door Opener—One, Detroit.

Tin Roof Cutter—One, LaFrance.

Pitchforks—Two.

Rubber Buckets—Four.

Pike Poles—Six, assorted lengths.

Crotch Poles—Two.

Wire Basket—One.

Tool Box—One.

Ladder Lock—One.

Bumper—One.

LADDER EQUIPMENT

One 50-ft. rapid-hoist rope and pulley extension ladder to extend fifty feet, with supporting poles.

One 35-ft. rapid-hoist rope and pulley extension to extend thirty-five feet.

One 28 ft. single ladder.

Two 25-ft. single ladders.

One 24-ft. single ladder.

One 20-ft. single ladder.

One 16-ft. roof ladder.

One 12-ft. roof ladder.

Total ladder equipment, 235 feet.

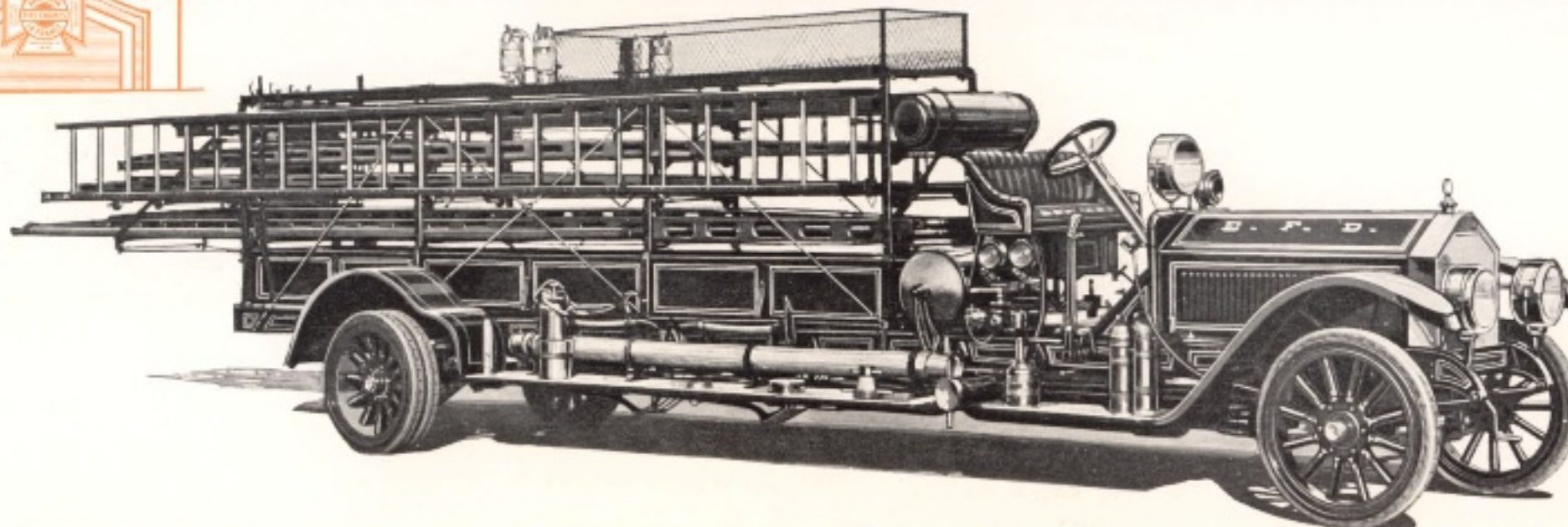


American-LaFrance has many instances of ten years' service—and still going strong

ALL NECESSARY OPERATING TOOLS

This apparatus is built without chemical equipment if desired, and can be furnished with four-cylinder motor.

Detailed specifications on request



STANDARD TYPE 14

Combination City Service Hook and Ladder Truck

600-Gallon Capacity—Rotary Gear Pump

SPECIFICATIONS

Motor—Six cylinders, $4\frac{1}{2}$ -inch bore by 6-inch stroke, 75 Horse Power.

Wheel Base—246 $\frac{1}{2}$ inches.

Wheels—Artillery Type.

Tires—36 x 4, single front, dual rear. Hard base cushion.

Pneumatic, or any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

One 12-inch electric searchlight.

Gasoline Capacity—20 gallons, gravity feed.

Siren Horn—One, hand-operated.

Locomotive Bell—One, 12-inch.

Chemical Tank—One, 40-gallon capacity.

Hose Body—Capacity of 500 or 1000 feet of $2\frac{1}{2}$ inch hose.

Suction Hose—Two lengths, each 10 ft. 6 in. long.

Chemical Hose—200 feet of $\frac{3}{4}$ -inch chemical hose.

Extinguishers—Two, 3-gallon Babcock.

Lanterns—Four, Dietz fire department standard.

Axes—Four, fire department standard.

Wall Picks—Two.

Crowbars—Two.

Shovels—Two.

Wire Cutter—One, Boston.

Door Opener—One, Detroit.

Tin Roof Cutter—One, La France.

Pitchforks—Two.

Rubber Buckets—Four.

Pike Poles—Six, assorted lengths.

Crotch Poles—Two.

Wire Basket—One.

Tool Box—One.

Ladder Lock—One.

Bumper—One.

LADDER EQUIPMENT

One 50-ft. rapid-hoist rope and pulley extension ladder to extend fifty feet, with supporting poles.

One 35-ft. rapid-hoist rope and pulley extension to extend thirty-five feet.

One 28-ft. single ladder.

Two 25-ft. single ladders.

One 24-ft. single ladder.

One 20-ft. single ladder.

One 16-ft. roof ladder.

One 12-ft. roof ladder.

Total ladder equipment, 235 feet.

ALL NECESSARY OPERATING TOOLS

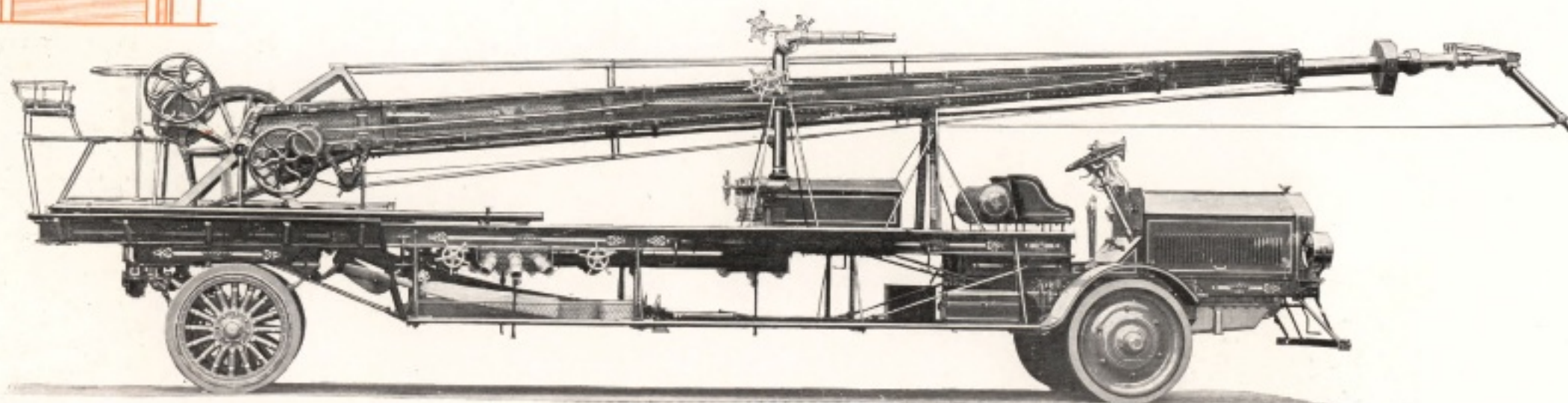
This apparatus is built without chemical equipment if desired, and can be furnished with four-cylinder motor.

Detailed specifications on request.

AMERICAN-LA FRANCE



Wise purchasers don't experiment with motor fire apparatus. They buy American-LaFrance



AMERICAN-LAFRANCE

STANDARD TYPE 31

Front-Drive Water Tower

SPECIFICATIONS

Motor—Six cylinders, 5½-inch bore by 6-inch stroke, 105 Horse Power.

Wheel Base—
55-ft.—288 inches. 65-ft.—288 inches.

Wheels—Cast steel disc front, artillery type rear.

Tires—Single Giant front, single rear.
Any special type of tires furnished at additional cost.

Lighting System—
Two 12-inch electric headlights.
One 12-inch electric searchlight.

Siren Horn—One, hand-operated.

Locomotive Bell—One, 12-inch.

Deck Turret—One, Babcock.

Nozzle Tips—
Three for deck turret, 1½-inch,
1¾-inch, 2-inch.

Three for tower nozzle, 1½-inch,
1¾-inch, 2-inch.

Hose—Suitable length of 4-inch cotton,
rubber-lined hose for tower.

Hose Straps—Four heavy straps for carrying 4-inch hose.

Tool Box—One of hard wood, mounted on platform.

Tool Platform—One, under frame.

Wire Basket—One, under frame, for 4-inch hose.

Lanterns—Two, Dietz fire department standard.

Axes—Two, fire department standard.

Crowbar—One.

Gasoline Capacity—20 gallons, gravity feed.

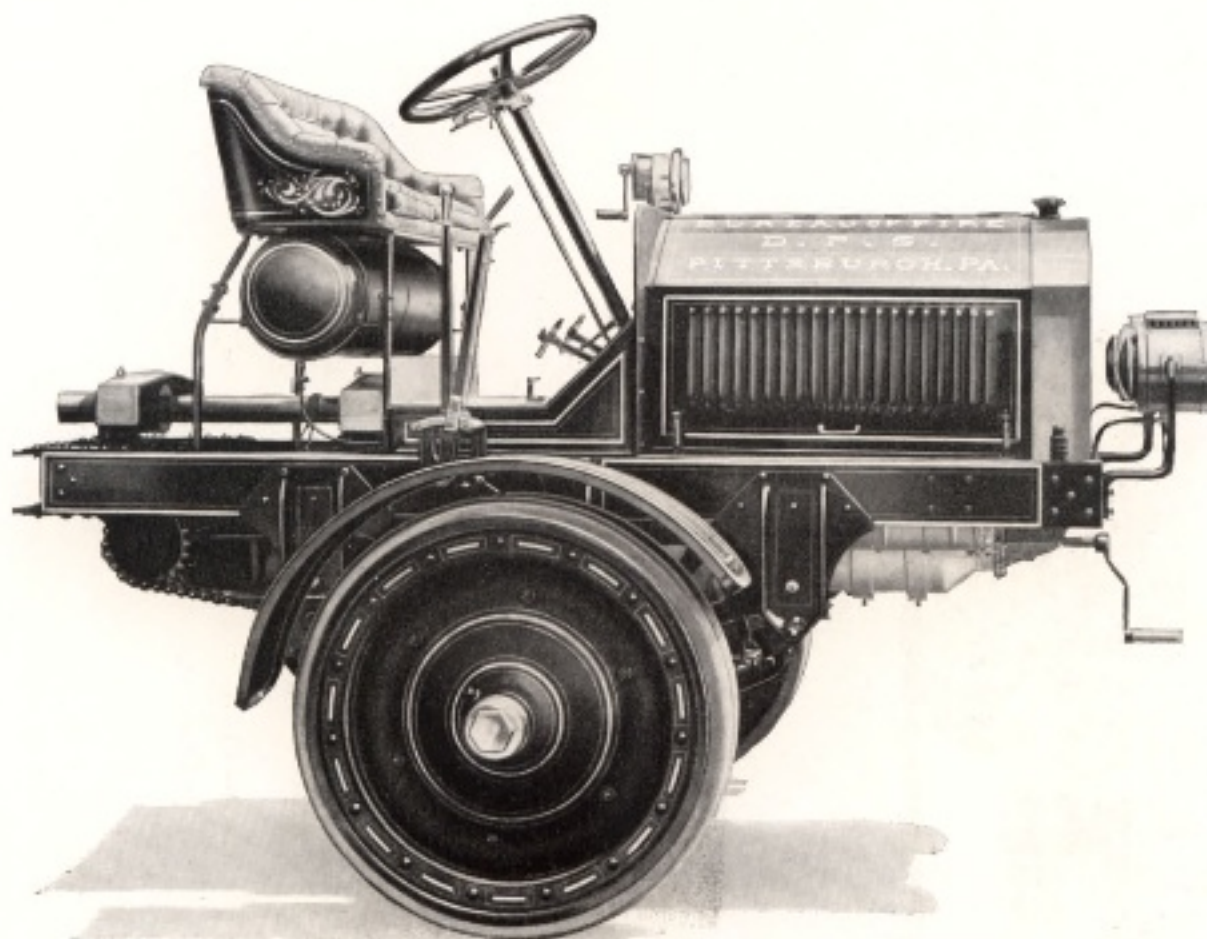
Bumper—One.

ALL NECESSARY OPERATING TOOLS

Detailed specifications on request.



It will pay you to inspect the mechanical features of American-LaFrance



STANDARD TYPE 31

Front-Drive Tractor for Steamer

SPECIFICATIONS

Motor—Four cylinders, 5½-inch bore by 6-inch stroke, 75 Horse Power.

Wheels—Cast steel, solid disc type.

Tires—Solid, Single Giant.

Any special type of tires furnished at additional cost.

Lighting System—

Two 12-inch electric headlights.

Siren Horn—One, hand-operated.

Tool Box—One.

Gasoline Capacity—20 gallons, gravity feed.

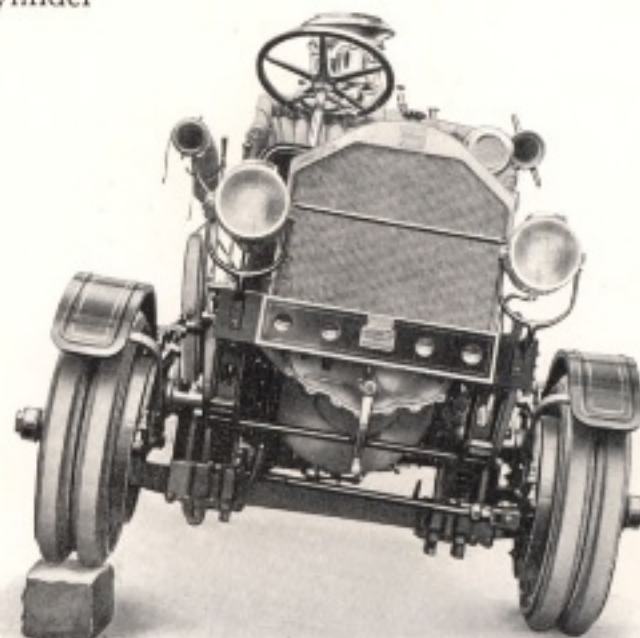
Bumper—One.

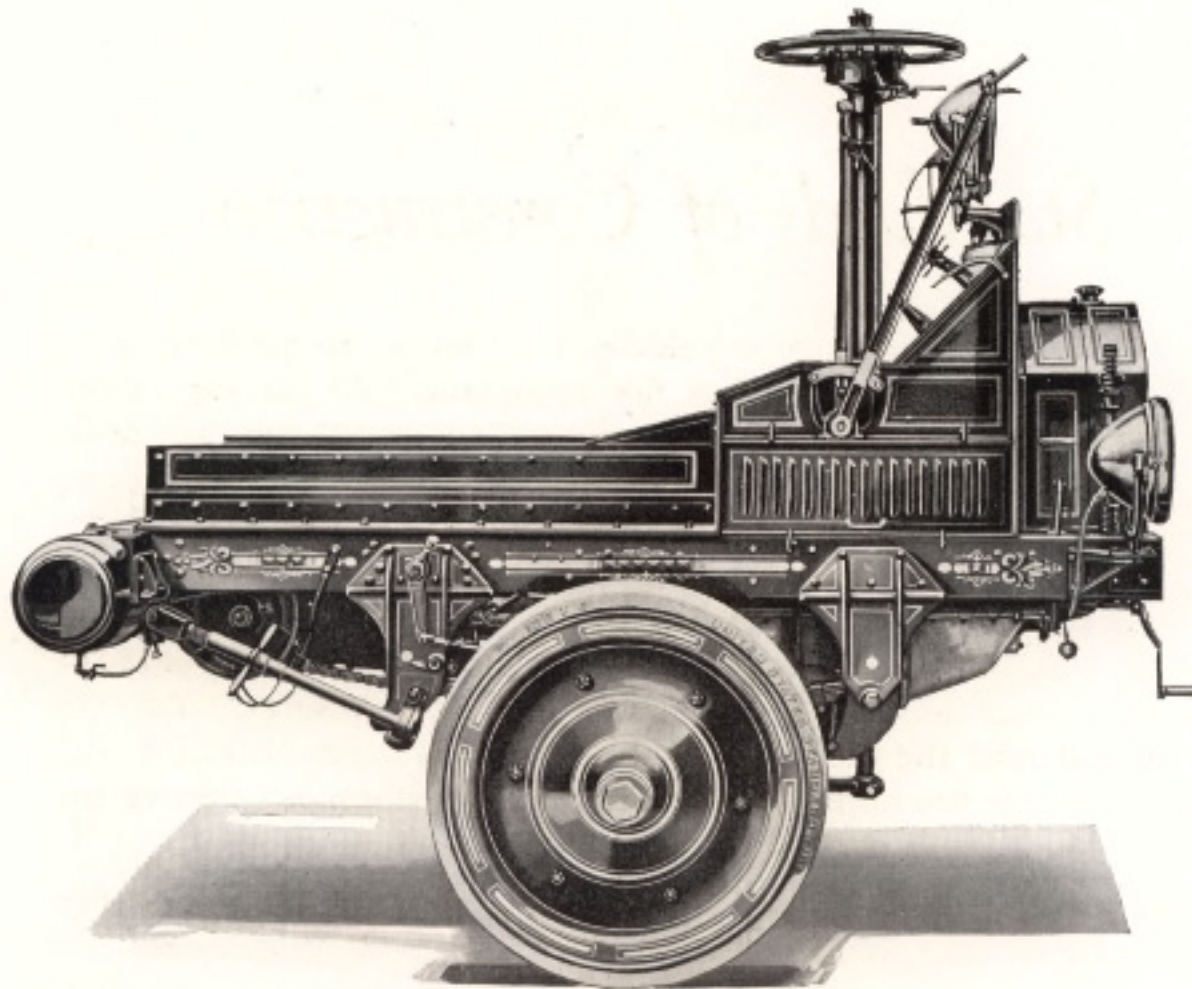
ALL NECESSARY OPERATING TOOLS

This tractor can be furnished with six-cylinder motor if desired.

Detailed specifications on request

Our steamer tractors are provided with oscillating trunnion to provide for sway and strain.





STANDARD TYPE 31

Front-Drive Tractor for Aërial Truck

SPECIFICATIONS

Motor—Four cylinders, 5½-inch bore by 6-inch stroke, 75 Horse Power.

Wheels—Cast steel, solid disc type.

Tires—Solid, Single Giant.

Any special type of tires furnished at additional cost.

Lighting System—Two 12-inch electric headlights.

Siren Horn—One, hand operated.

Tool Box—One.

Gasoline Capacity—20 gallons, gravity feed.

Bumper—One.

ALL NECESSARY OPERATING TOOLS

This tractor can be furnished with six-cylinder motor.

Detailed specifications on request





AMERICAN-LAFRANCE

Standards of Construction



NO type of motor vehicle is called on to perform more severe service than fire apparatus. At the tap of the alarm the motor must respond to the call, over the nearest route without regard for conditions of road, ploughing through snow or mud, and whirling over hills. After hours of standing, with a cold motor, suddenly, without any preparation, the fire truck is called on to deliver its maximum efficiency. On arriving at the fire it may be called upon to pump for hours at a time, delivering full capacity at high pressures. Turn to page 46 and read the most remarkable record ever established in the history of motor fire apparatus. Such actual performances prove the success of American-LaFrance methods.

This kind of service serves to point out the need for motor fire apparatus that can endure without giving way. It emphasizes the point we have always stressed—fire apparatus must be specially designed and built.

American-LaFrance motor fire apparatus is designed and built only for fire duty. Study the details of the motor and chassis. Note the fineness of the design, the excellence of the materials, the finish of the workmanship. Underneath the glossy finish of paint and varnish are the results of years of study and experiment.

Every part of American-LaFrance apparatus is designed to take care of a severe overload, to meet the call of an emergency, but weight and bulk are reduced to a minimum through the use of tough bronze castings, steel forgings, or aluminum.

The crankshaft is of as fine a steel as we can obtain, of ample size to endure any strain of fire duty, but not excessively bulky. The aluminum crank-case is strong, yet light. The axles are of known and tested quality. And so we might go through the list and point out why American-LaFrance motor fire apparatus has been able to establish such remarkable records in service.

These details are all of vital importance if your motor fire apparatus is to deliver constant and faithful service over a long period of years. For this reason we ask that you study the following descriptions carefully.





• The Motor •



AMERICAN-LAFRANCE motors embody throughout, the very highest standards of design, material, and workmanship. Nothing less could endure the rigorous demands of fire department duty.

All the American-LaFrance motors are of the T-head type, with offset inlet and exhaust valves on opposite sides. The cylinders are cast in pairs, of the finest specially selected grey iron, bored and ground. The pistons and rings are also ground and fitted with painstaking care to insure perfect compression.

The water passages are integral with the cylinder castings, and are of ample size. The cooling water is taken in on the exhaust or hot side of the motor and is discharged from the top, over the combustion chamber. The water-jacket covers provide a large space for cooling water, and form an outlet to the radiator. These covers may be removed readily in order to inspect the cylinder castings. The large opening on top of the cylinders gives a better opportunity to support the water-jacket cores, and insures a more perfect casting. It also enables us to clean the core sand from the water passages more thoroughly.

Other features are large valve areas and ample clearance over valves, permitting the gas to flow in and out of the cylinders easily.

*On the following four pages are shown
our four standard motors*

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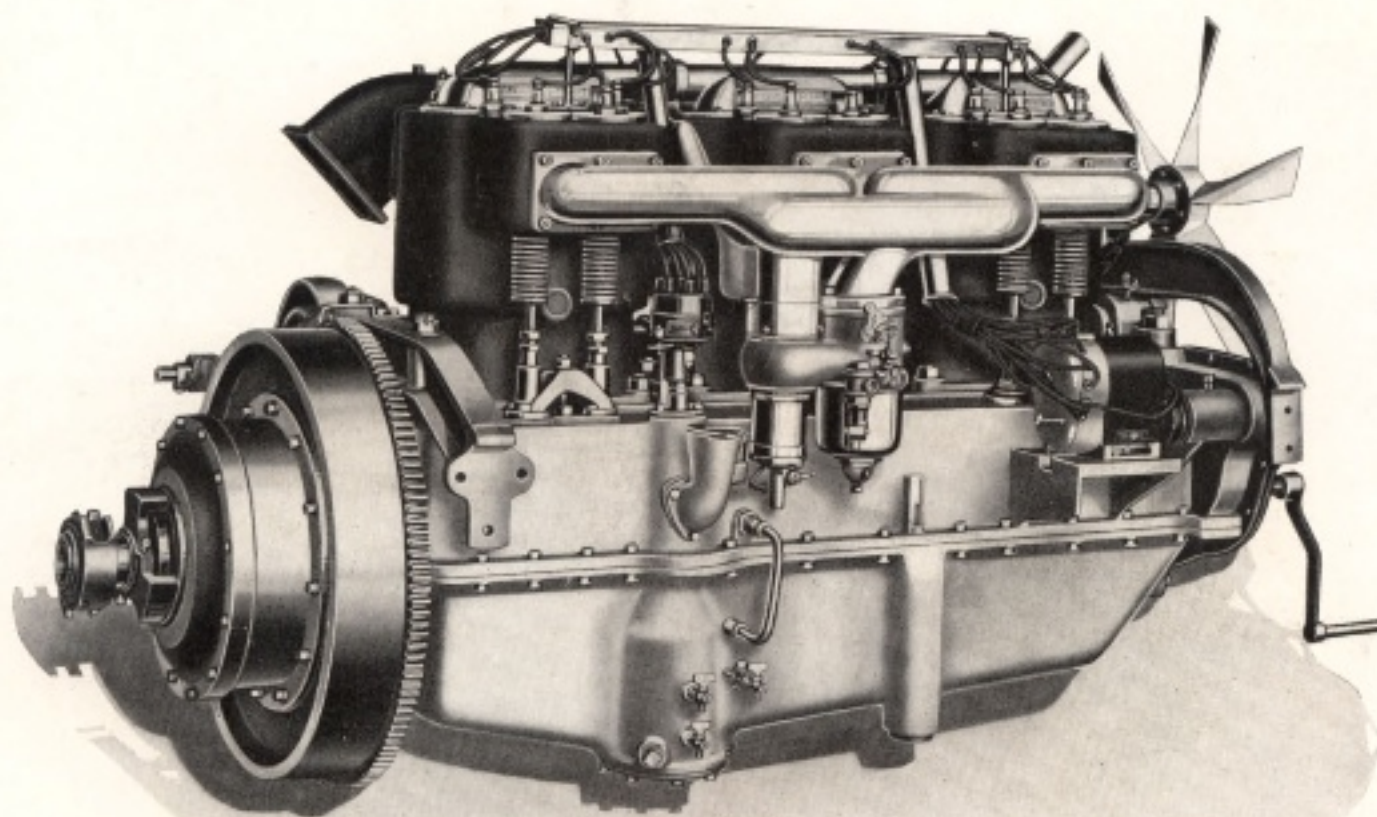
TYPE 12 MOTOR

TYPE 75 MOTOR

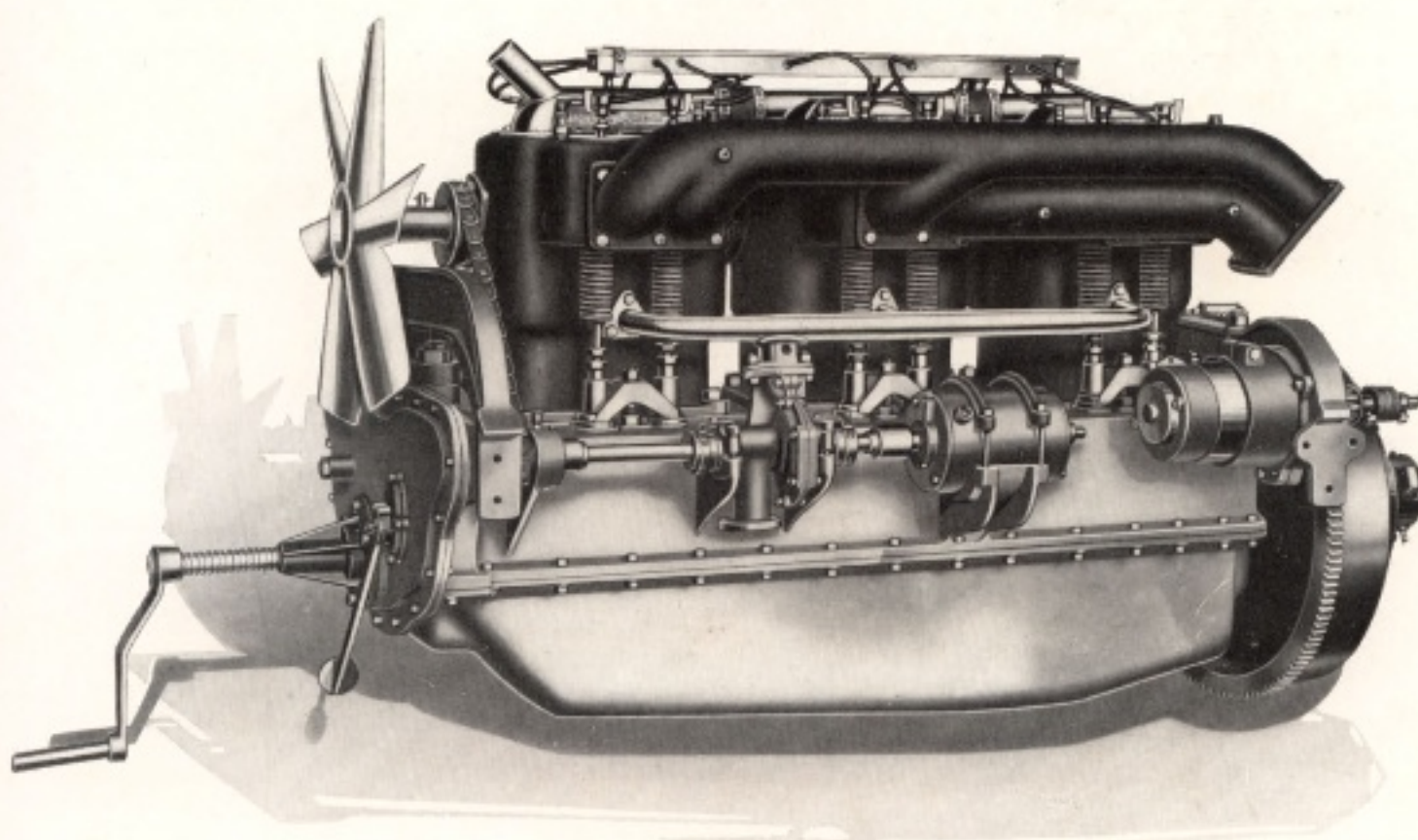
TYPE 38 MOTOR

TYPE 10 MOTOR





Type 12 Motor — Inlet Side

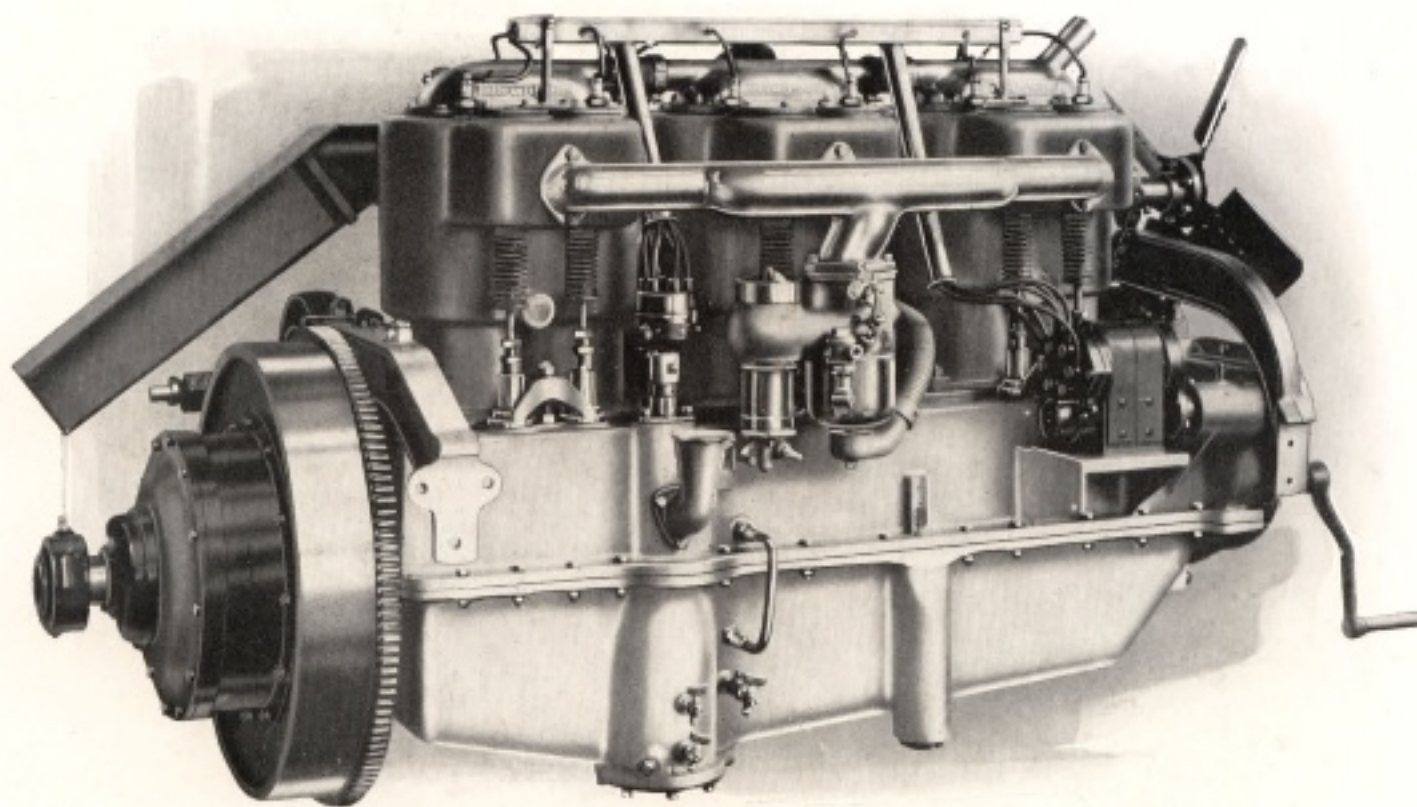


Type 12 Motor — Exhaust Side

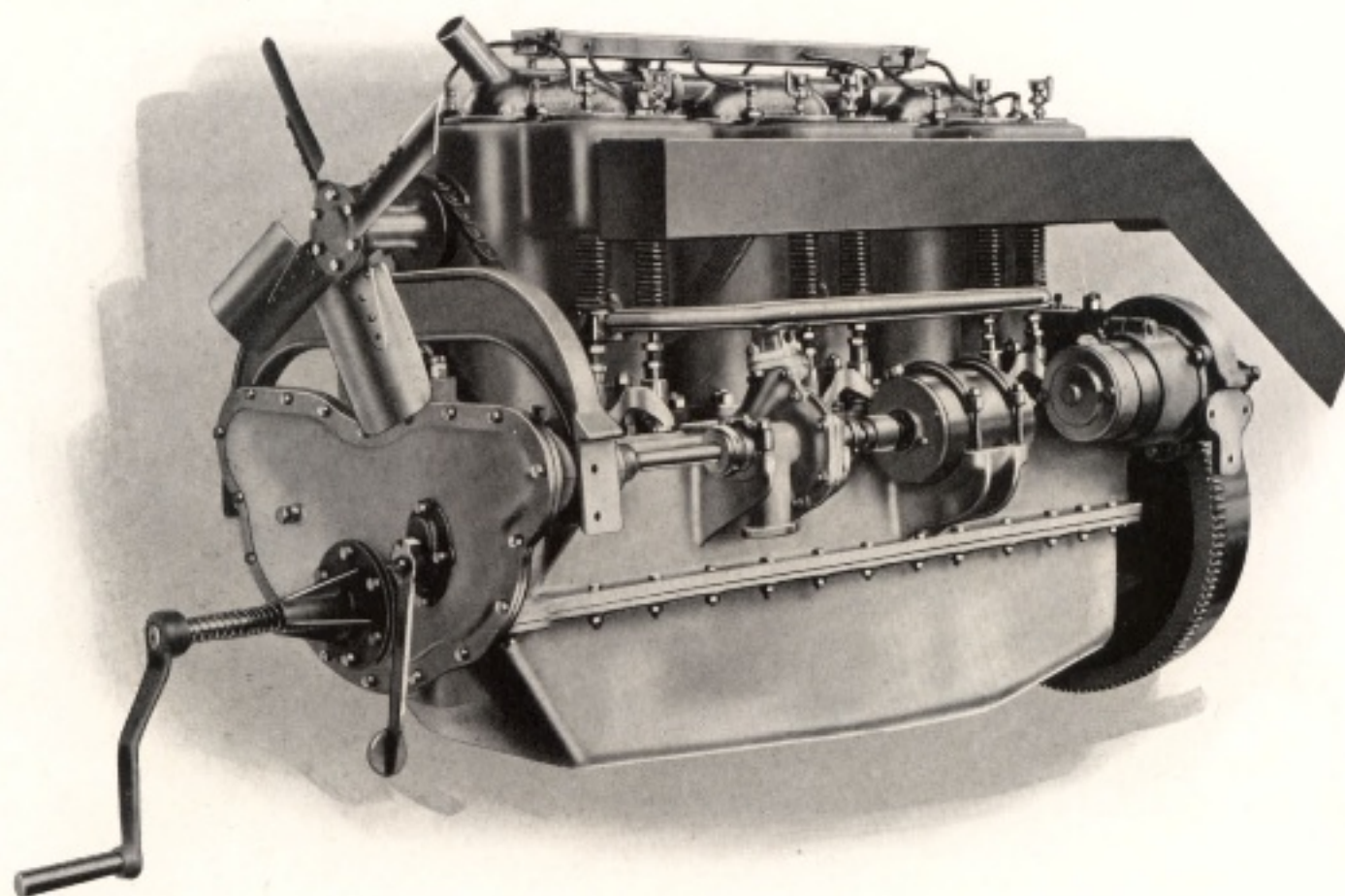
• **AMERICAN-IAFRANCE** •

Type 12 Motor





Type 75 Motor — Inlet Side

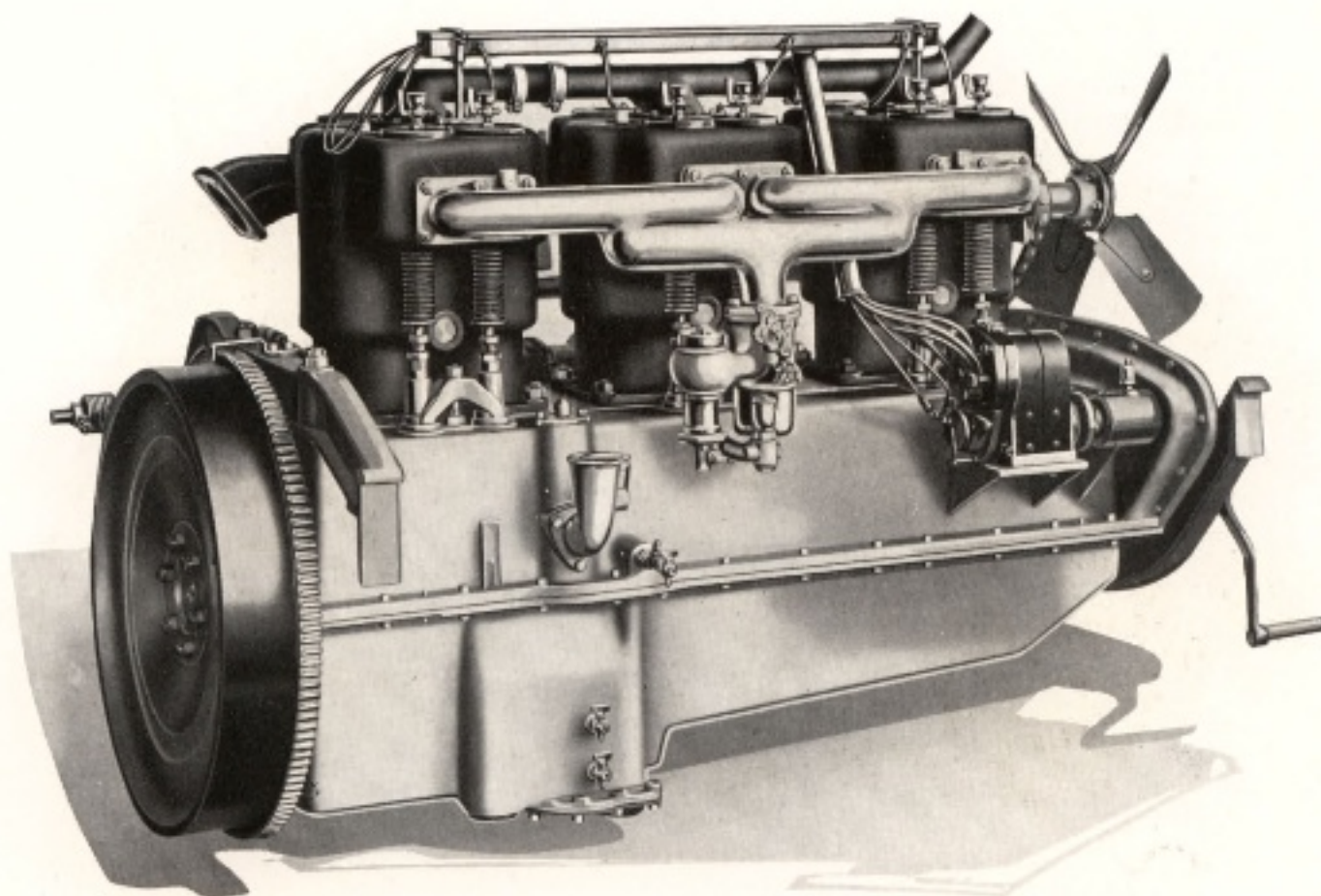


Type 75 Motor — Exhaust Side

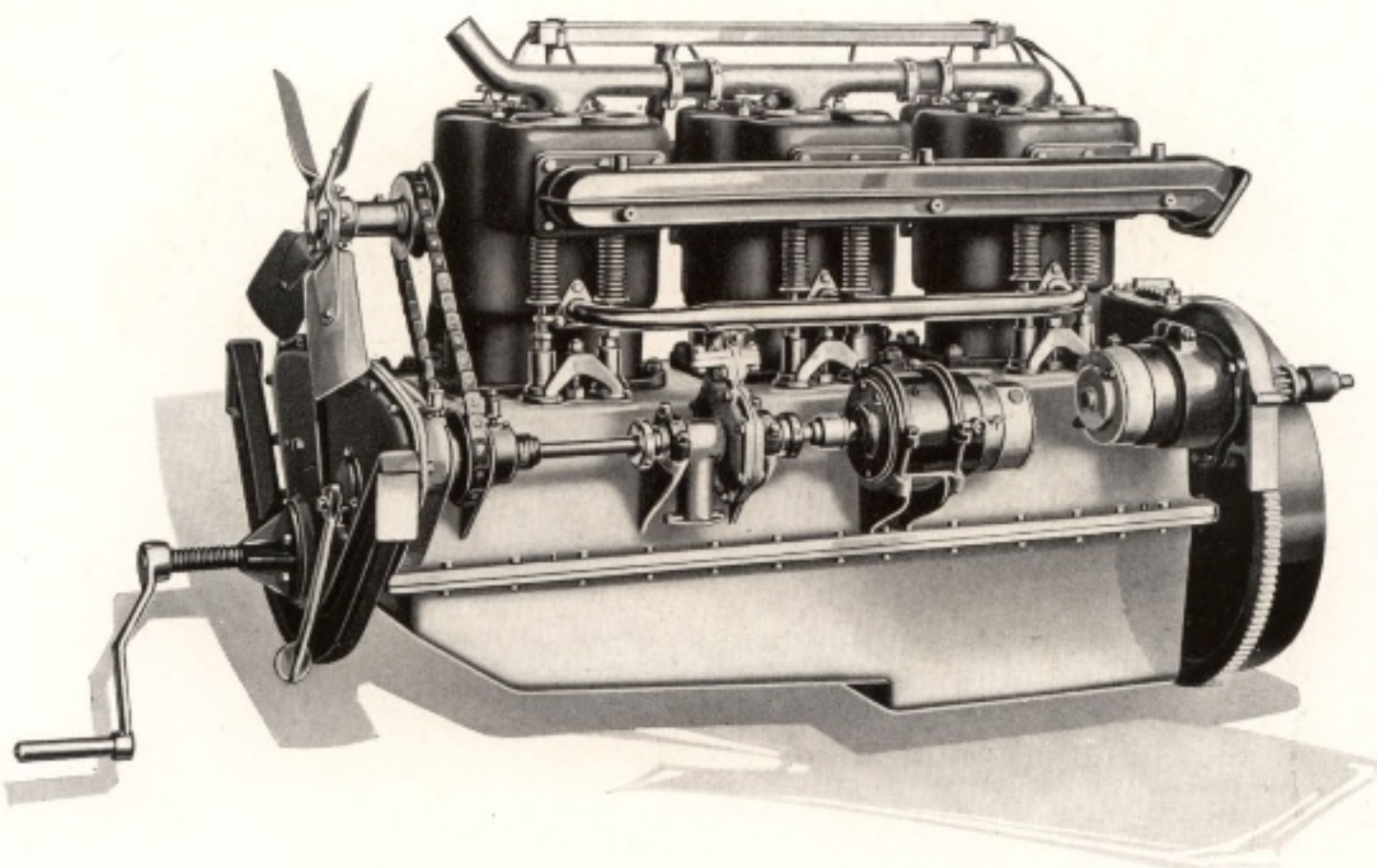
• **AMERICAN-IAFRANCE** •

Type 75 Motor





Type 38 Motor — Inlet Side

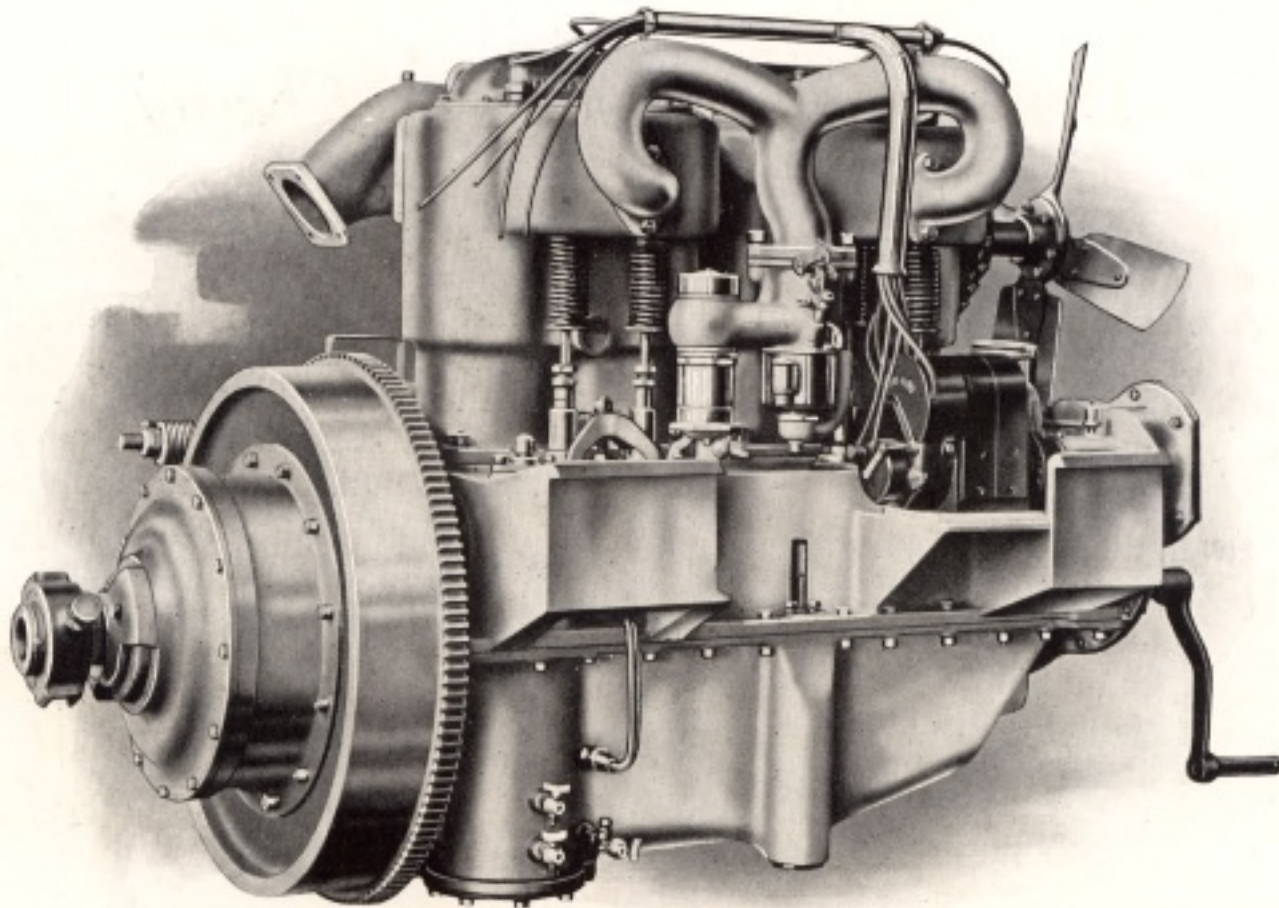


Type 38 Motor — Exhaust Side

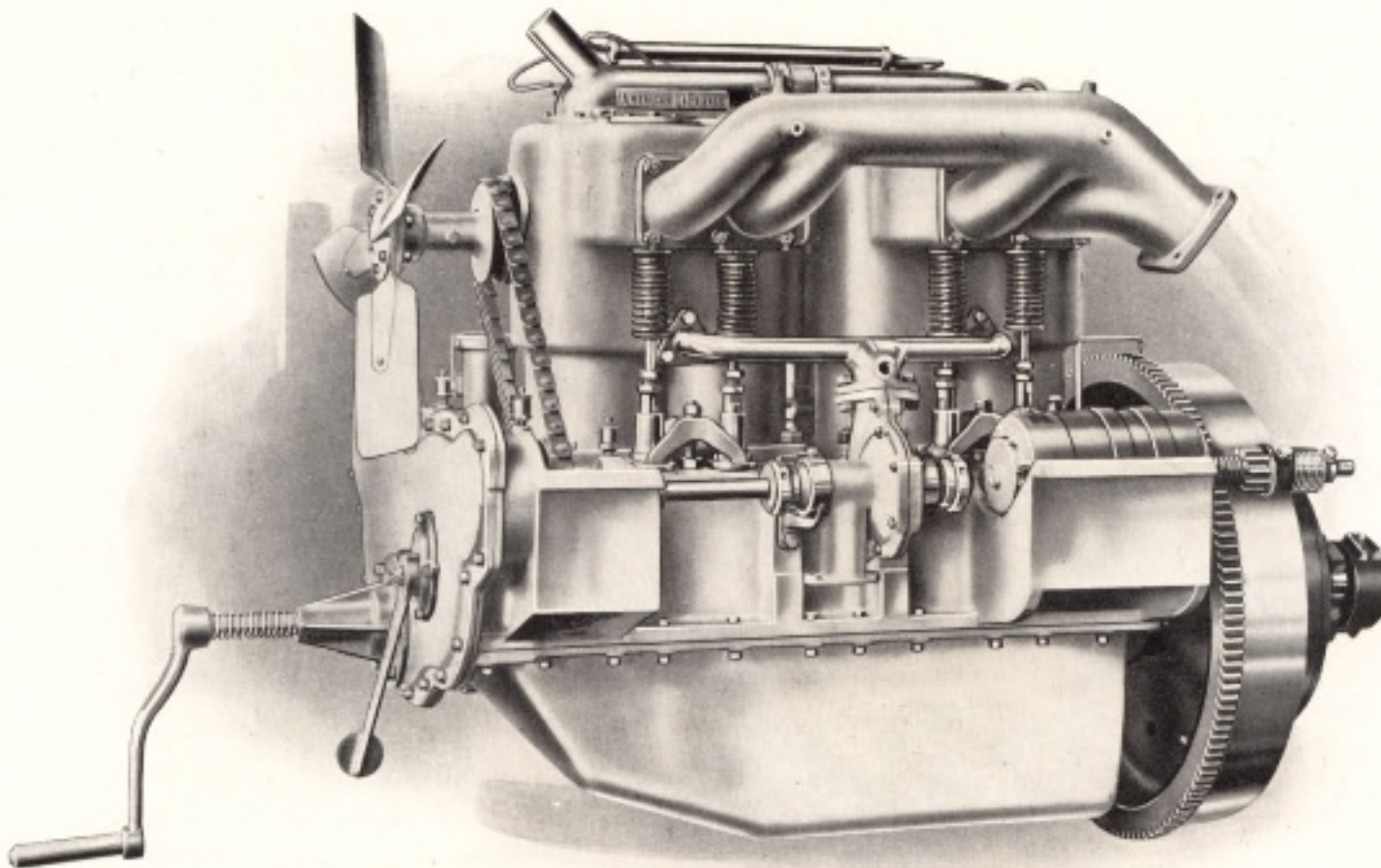
• **AMERICAN-IA FRANCE** •

Type 38 Motor





Type 10 Motor — Inlet Side



Type 10 Motor — Exhaust Side

• **AMERICAN-LA FRANCE** •

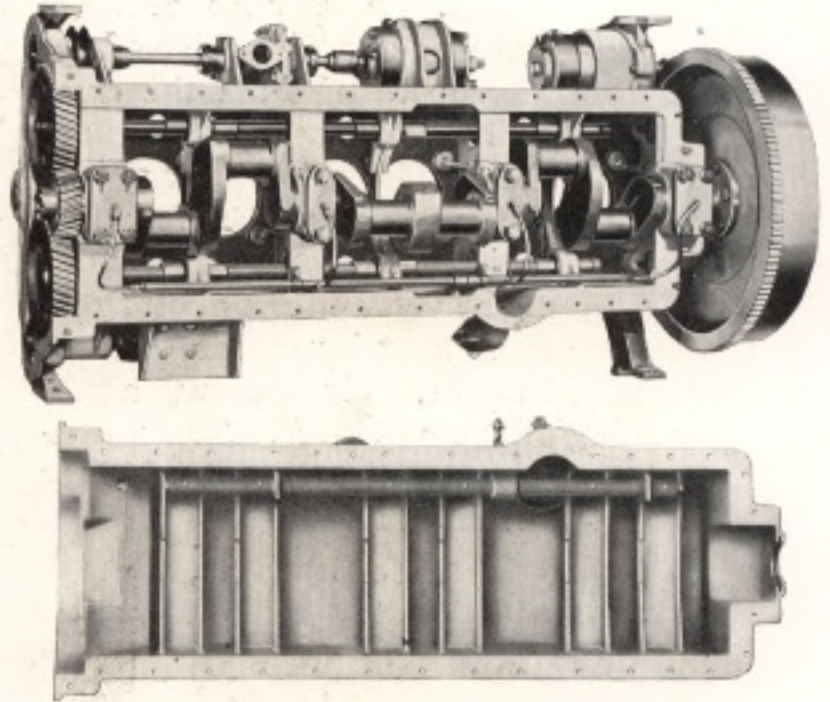
Type 10 Motor





Details of the Motor and Chassis

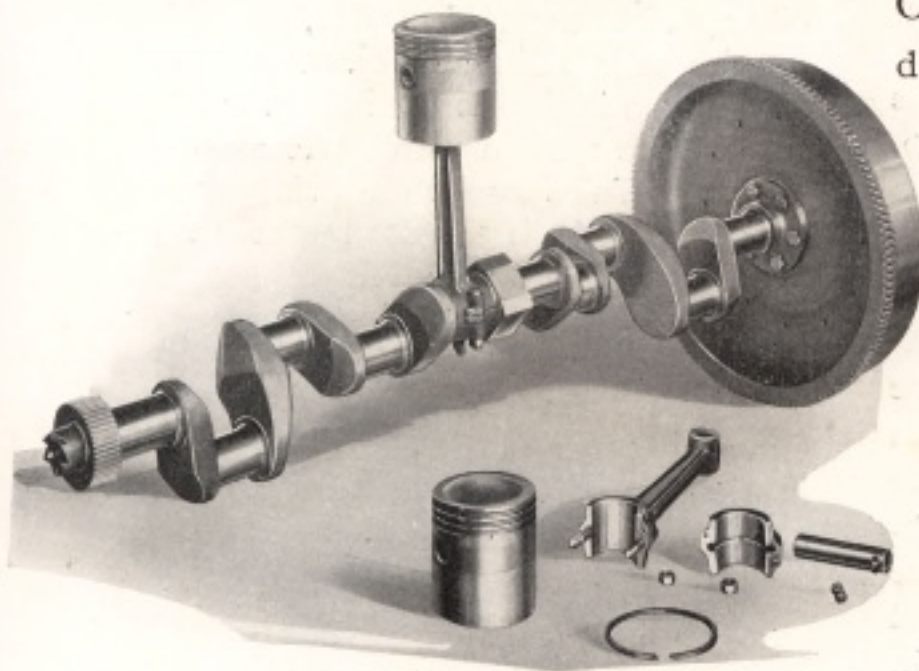
Crank-Case The crank-case is made entirely in one unit, and provided with numerous ribs in order to give added strength without an excess of weight. American-LaFrance six-cylinder motors are hung by three-point suspension. The rear of the case is supported by a drop-forged steel arm which is bolted to the main frame of the car. The front is supported by a drop-forged steel arm with yoke and pin. Our four-cylinder motor is four-point suspension, resting directly upon and bolted to the main frame of the car. All crank-cases are machined throughout from templates and jigs in order to give perfect alignment and interchangeability.



The Crank-Case and Oil-Pan

Crankshaft The crankshaft is machined from a nickel-steel forging, heat-treated, and all bearings are ground accurately to size. The crankshaft and connecting-rod bushings are of special bearing metal and of generous dimensions to afford an ample bearing surface. All bushings are provided with oil grooves to assure constant lubrication.

The crankshaft, with the fly-wheel attached, is accurately balanced, and so



Crankshaft, Flywheel and Piston Assembly

are the pistons and connecting rods. Thus the reciprocating parts of the American-LaFrance motor are perfectly balanced, and vibration and excessive wear are eliminated.

All crankshaft dimensions are required to check within one one-thousandth of an inch, while all bearings must be round and true to size within one-quarter of one-thousandth of an inch, over or under.

Connecting Rods Connecting rods of drop-forged I-section, special heat-treated steel are machined in jigs and fixtures to insure absolute uniformity. The connecting rod cap is drop-forged integral with the rod, the connecting-rod ends are drilled, reamed in jigs, and the cap is then sawed from the connecting rod in a special fixture, which insures all rods being interchangeable. Shims are used in drawing up the cap to a perfect bearing. The design, the proportions, and the material used in our connecting rods are sufficient to withstand any strains that possibly can arise.





Valves Valves are turned and accurately ground to the same size and lapped into taper valve seats. The inlet and exhaust valves are on opposite sides of the motor, and are operated from the camshafts. All valves and valve springs are interchangeable. The valve-lifter guides are of cast iron, and the valve-lifters are of steel, turned, hardened and ground. The design of the valve-lifters allows provision for adjustment by means of a set screw with locknut, which permits a perfect timing of the valve-lift. The valve-lifters and guides are interchangeable for both inlet and exhaust.

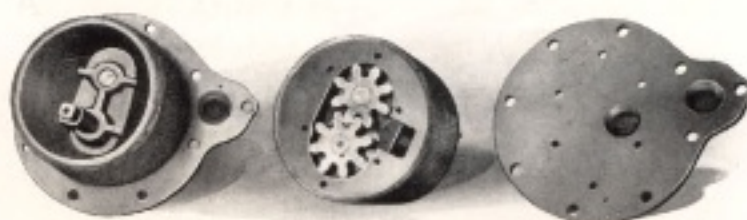
Camshafts and Gears The camshaft is machined from a solid bar with integral cams, hardened and ground to absolute accuracy. The bearings are of banka babbit.

The timing gears have spiral spur-gear teeth with a face width of $1\frac{1}{2}$ inches. This gives a very quiet running gear with a good bearing surface, which insures long wear. The gears which drive the magneto and centrifugal water-pump are located on opposite sides of the motor, and mesh with the half-time gears. The magneto and pump-drive gears are carried on shafts supported on two widely-spaced annular ball-bearings. All gears are enclosed in an oil-tight extension of the crank-case.

Cut integral with the inlet camshaft is a spiral gear for driving the oil pump. The exhaust camshaft is arranged with a compression relief.

Pistons The cast-iron pistons are machined and ground to gauge. They are grooved to take three cast-iron piston rings. The piston rings are ground to the diameter of the cylinder bore and to the width of the piston-ring groove. The piston pins are of hollow steel, hardened and ground. They are held in place in the piston by a locking bolt.

Ignition Ignition is provided by an Eisemann magneto and auxiliary battery system. This system provides battery ignition for cranking and emergency work, and magneto ignition for regular service.



Oil Pump

Motor Lubrication The lubricating system consists of an oil reservoir in the oil pan, a circulating oil pump located in the low point of this reservoir, and a spiral gear-drive off the camshaft to operate the oil pump. The oil is pumped into a distributing header which feeds it by direct piping into each main bearing and into the troughs under each connecting rod. A dipper in the connecting rod splashes oil in the crank-case so that it is carried to all the bearings and the cylinder walls. The oil then drains back into the oil reservoir in the oil pan, and from there it is taken up again by the pump, and the action repeated. A strainer is provided for taking any foreign matter out of the oil. The oil level and quantity of oil pumped have been regulated to take care of any conditions of service, and do not require any adjustments. An oil-pressure gauge indicates that there is a pressure in the system which will show that all parts of the motor are being properly lubricated. This system requires no attention except to pour oil in through the breather when the level in the reservoir is getting low, as shown by an indicator. This oiling system does away with all external pipes and assures plenty of lubrication without the necessity of any adjustment or regulation.

Chassis Lubrication Chassis lubrication is by means of alemite nipples and pressure grease gun.



Cooling System A positive circulating system is provided, with gear-driven centrifugal pump, mounted on motor crank-case. The pump body is cast in two pieces, with cast brass impeller. The radiator has a large frontal area. A fan driven by a laminated leather "V" belt and arranged with belt tightener, is mounted on annular ball-bearings at forward end of cylinders just back of radiator.

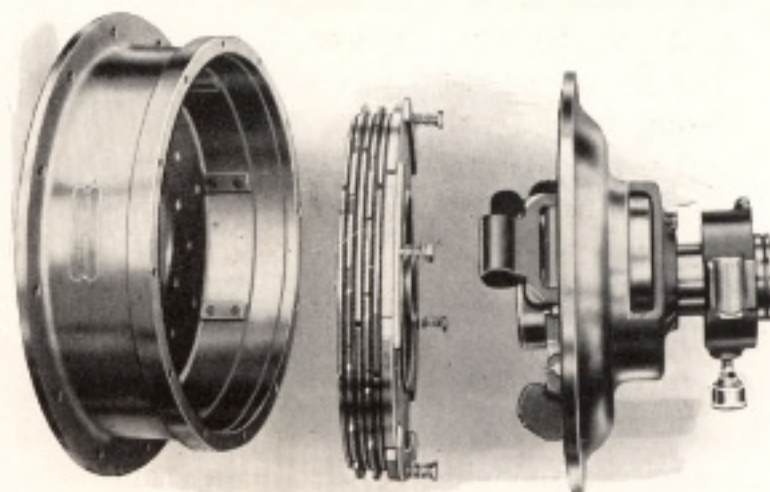
Compression Relief For powerful motors running under high compression a compression relief is necessary for starting. This is accomplished in our motors by shifting the exhaust cam slightly forward and bringing into contact with the exhaust valve-lifters a special cam ground integral on the camshaft, which lifts each valve during the compression period of its respective cylinder, thus opening the valve and allowing some of the compression to escape. The shifting of the camshaft is accomplished by a lever, and after the motor is started, the camshaft immediately shifts into the regular operating position.

Carburetor The carburetor is of the float-feed type with automatic auxiliary air intake. The construction is simple and gives a uniform mixture at all motor speeds. There is a dash air control for starting. A fuel pre-heating device is attached to the carburetor.

Control The throttle valve is controlled by a hand-lever at steering wheel, and by a foot accelerator pedal. The spark advance is controlled by a lever on steering wheel. In both throttle and spark advance controls, the rods are fitted with adjustable

ball-and-socket joints which eliminate any lost motion.

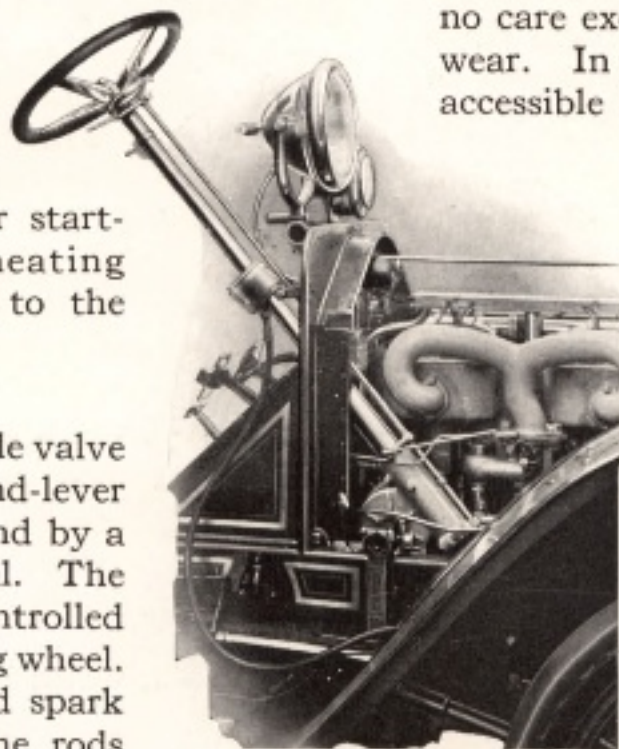
Clutch The clutch is of the multiple-disc, dry-plate type, having asbestos lining on steel for friction surfaces. By means of a cam connection, the pressure of the



LaFrance Clutch

clutch spring on the plates is multiplied several times. This provides a drive with no possibility of slip, and at the same time permits using a clutch spring which is easily released. This clutch gives a gradual engagement, permitting smooth starting without any tendency to grab. The release is positive and without any drag, thus eliminating trouble in shifting the gears. The clutch requires no care except occasional adjustment for wear. In case of inspection, all parts are accessible by simply removing the back cover plate.

Steering Gear The steering gear is of the non-reversible, worm-and-gear type. The steering shaft and worm are of one-piece construction, machined from a solid forging of special steel. The entire mechanism is enclosed in an oil-tight case, and two ball-bearings are provided to take up the thrust from the worm shaft. Adjustment of these bearings is provided to take care of



Steering Gear Assembly

any wear. The gear is drop-forged, integral with its shaft, and the shaft end is splined to take the drop-forged steering lever. The hand-wheel is 18 inches in diameter, wood-covered, with serrated inside edge, giving a firm grip.

Transmission Sliding gear, selective type, three speeds forward and one reverse, direct drive on high speed. A single operating lever controls all gear shifts, and any speed gears may be meshed without passing through other speeds. The gear ratio gives road speeds best suited for service. The speed range is from one to fifty miles per hour.

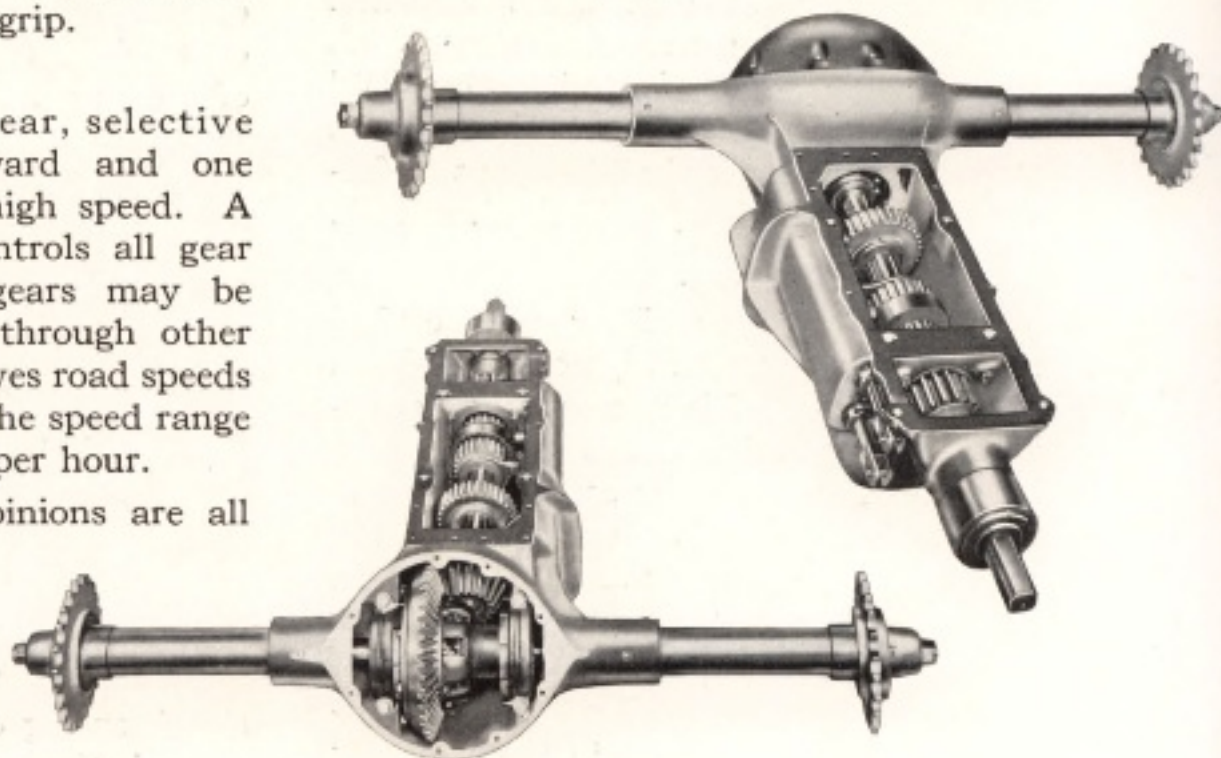
The gears, shafts and pinions are all made of chrome nickel-steel, heat-treated. The shafts are all mounted on annular ball-bearings. The sliding gears are broached and have a sliding fit on the bevel-gear driving-shaft, which is splined, then hardened and ground.

An interlock is provided for the gear-shifting rods, which makes it impossible to move one sliding gear when the other is not in a neutral position.

The transmission case is cast in a single piece substantially reinforced by heavy ribs, housing both the transmission and the differential. It is closed at the top and end by oil-tight covers. A screw plug on top covers furnishes a ready means of supplying lubrication. The case is supported at three points. This arrangement prevents any strain in the

transmission case due to the wearing of main frames.

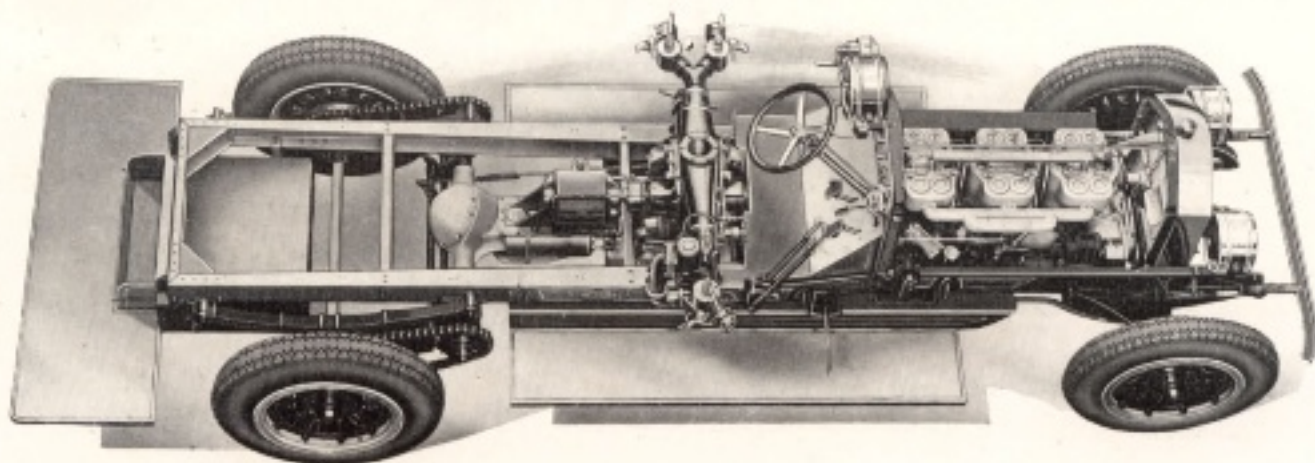
The differential consists of a system of bevel gears and pinions made of chrome nickel-steel forgings accurately machined



Transmission

and hardened. The jackshafts are squared to take the differential bevels and are supported by ball-bearings. Adjustment is provided for taking up of wear between the driving bevel pinion and the large differential bevel gear.

Chain Drive Construction Double side chains from jackshaft sprockets to rear wheel sprockets. The chains are of roller type, made of special steel, and practically noiseless. The driving sprockets are made of finest-grade steel drop-forgings, and splined to fit splined end of jackshaft. The brake drum and rear sprocket, a single rolled-steel forging, is securely



Chain Drive Construction



bolted to spokes of rear wheel by 12 bolts. The radius rods are of steel, supporting the brake cams and pivots, and are adjustable to take any stretch in chain.

Brakes The brakes are of the external-internal type operating on drums on the rear wheels, eliminating all strains from the transmission gears and driving mechanism due to applying the brakes. The service brake is an external contracting band of powerful leverage and large area, to eliminate rapid wear. The emergency brake is an internal expanding ring and is also very powerful. The adjustments on both sets of brakes are very simple and accessible.

Frame The side and cross members are of high-grade S.A.E. steel. Pressed channel section, heat-treated. The spring hangers, both front and rear, are steel forgings.

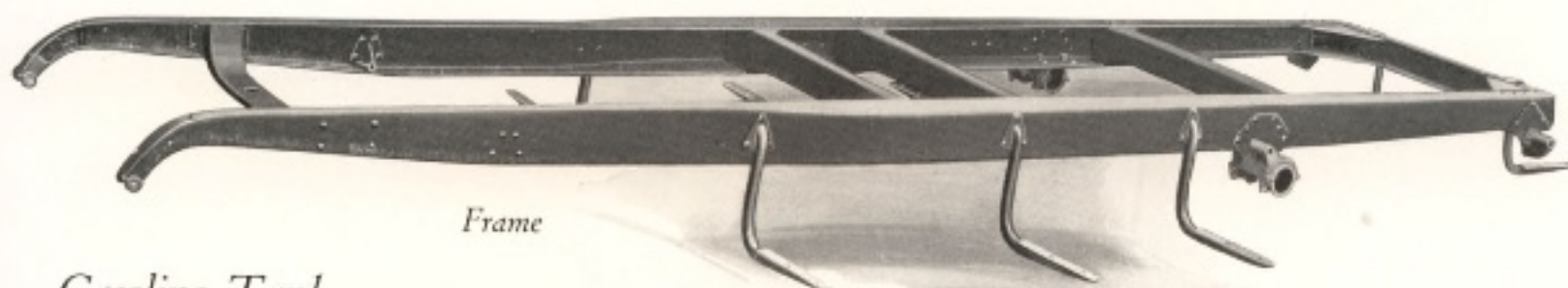
Springs Semi-elliptic front and rear. Front, 2 inches wide by 36 inches long; rear, $2\frac{1}{2}$ inches by $48\frac{1}{2}$ inches long; to have ample carrying capacity, and to be made of special stock, and designed to stand hard fire service. All springs are arranged to maintain alignment. Shackle bolts are provided with alemite nipples.

Wheels Artillery type, especially selected wood. Wheels suitably constructed to withstand the strains incurred.

Tires Front, single tires 36 inches by 4 inches; rear, dual tires 36 inches by 4 inches, cushion or solid. Any special type of tires can be furnished at an additional cost.

Wheel Base In keeping with proper design on each type of apparatus.

Track or Gauge From center to center of tires, front, 62 inches. From



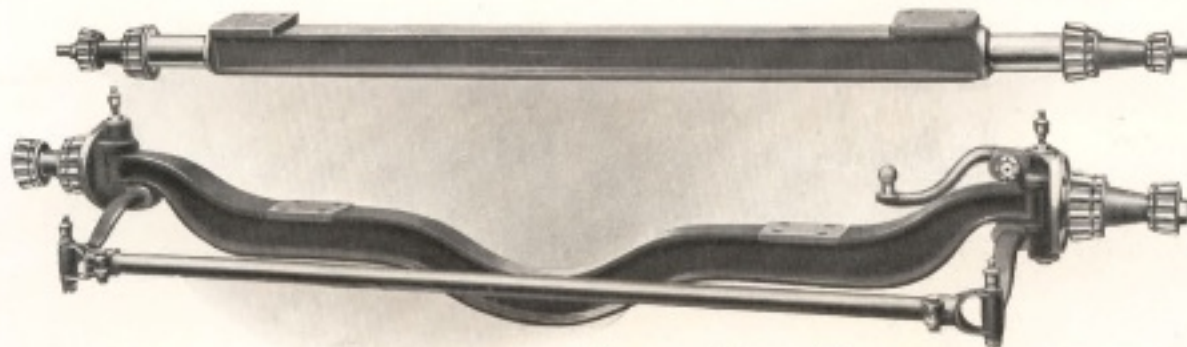
Frame

Gasoline Tank The tank is of pressed steel terneplated and divided by swash plates. It consists of but two pieces joined by a wide lap at the center. This elimination of rivets removes any chance of leakage. A large filling spud permits filling the tank easily and quickly and gauging the amount of gasoline in the tank at any time. The tank is gravity feed on all apparatus.

center to center of inside dual tires, rear, $62\frac{7}{8}$ inches. From center to center of outside dual tires, rear, $73\frac{3}{8}$ inches.

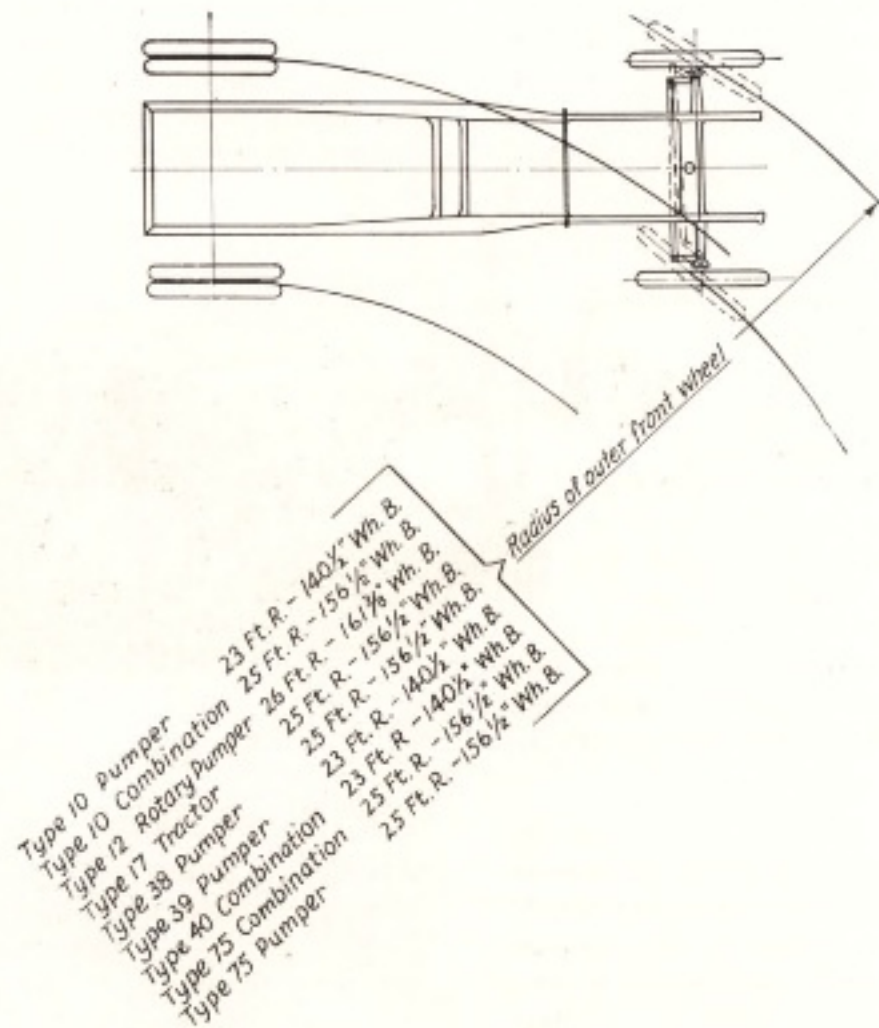
Axles Solid drop-forged I-section, of chrome nickel-steel, no welds, especially designed for fire service. Timken roller bearings in all wheels.

The foregoing description covering frame and running gear is general, and detailed specifications will be furnished on request.



Front and Rear Axles





Short Turning Radius

Diagram showing the Short Turning Radius
of American-LaFrance Motor Fire Apparatus
A Feature of Special Importance



• Relative Merits of Pump Design •

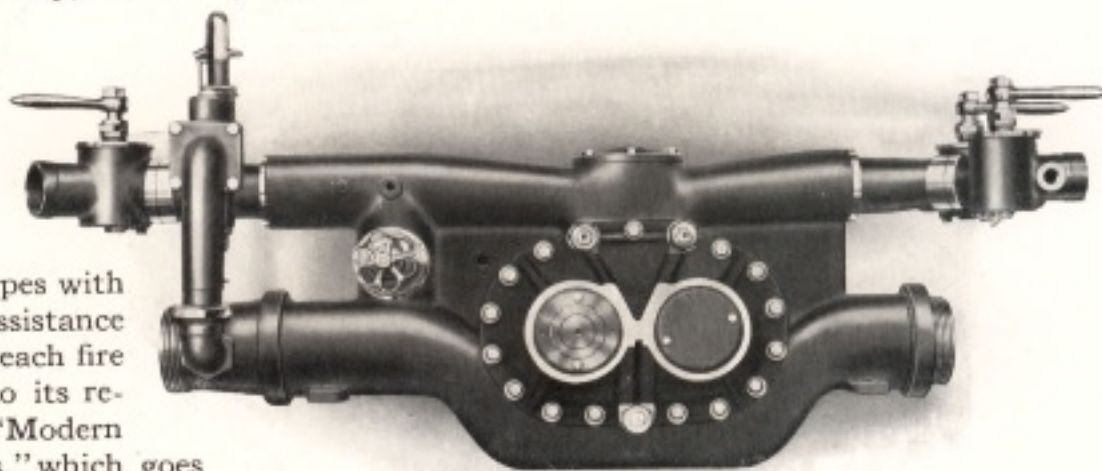
The American-LaFrance Fire Engine Company has studied and experimented for years with every type of fire pump worth consideration. It has worked out many forms of each type and has perfected to a high degree all three of the most available—the gear pump, the centrifugal pump, and the piston pump, and is prepared to supply all three.

The American-LaFrance Fire Engine Company believes the *gear* pump to be peculiarly adapted to Fire Department Service, but has no prejudice. We present briefly a few comparisons and criticisms of the three types with the hope that they may be of assistance in selecting the pump believed by each fire department to be best adapted to its requirements. Our special booklet, "Modern Pumps for Motor Fire Apparatus," which goes into more detail on the relative merits of each type of pump, will gladly be sent you on request.

The Gear Pump The gear pump is of the displacement type, positive both as to suction and discharge. It is light, compact, and highly efficient over the entire range of fire service. It runs at moderate speeds and works practically without vibration, in perfect harmony with the power unit. It is exceedingly simple, with the fewest possible parts, and has no wearing contact between the gears and pump case.

The gear pump gives satisfactory results with a variable speed transmission where the pump at all times runs more slowly than the motor. The centrifugal pump in itself takes care of the change from large volume at low pressure to small volume at high pressure, and the variation in speed as distinguished from the displacement pump is not sufficient to call for change speed

gears. Nevertheless, the centrifugal pump must be connected to the motor by a train of gears, since it runs at approximately twice the speed of the gas engine. Therefore, in our opinion, the gear pump permits the most satisfactory transmission, a comparatively slow running train of gears.



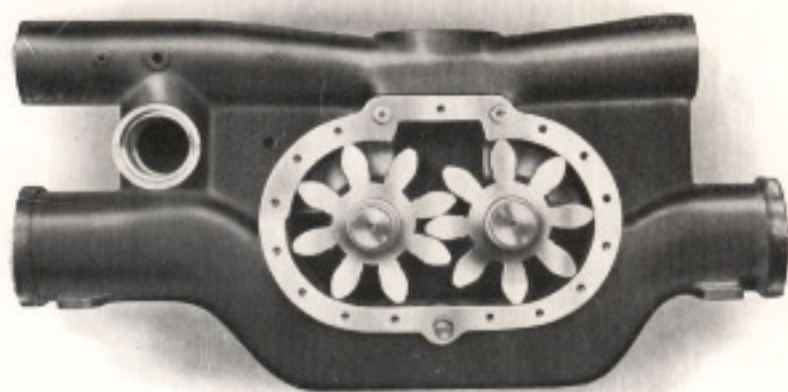
Rotary Gear Pump

The Piston Pump The direct connection of a steam piston to a pump plunger affords an ideal method of operating a piston type of pump. The direct connection of the pistons of the gasoline motor to the plungers would be extremely impractical, both on account of the high speed of the motor and the extreme variations in pressure on the piston. Since the piston pump must operate at one-third to one-sixth the speed of the gasoline motor, it calls for reduction gears for all service.

A six-cylinder, four-cycle motor develops its power through some three thousand sharp explosions per minute. The reciprocating, duplex, double-acting piston fire pump delivers less than one thousand impulses to the water in the same period of time.

The conversion of the rapid rotary motion of the crankshaft of a gasoline motor into the less frequent reciprocating motion of a piston pump plunger is usually accomplished by means of a double train of reduction gears, one or more additional crankshafts, and an extra set of connecting rods, cross heads and pins, which are not necessary in other types of pumps.

This complicated train of mechanism must be provided with perfect lubrication, and the vibration incident to the reciprocating parts must be eliminated as far as possible if the piston pump is to compare favorably with the rotary types.



Rotary Gear Pump

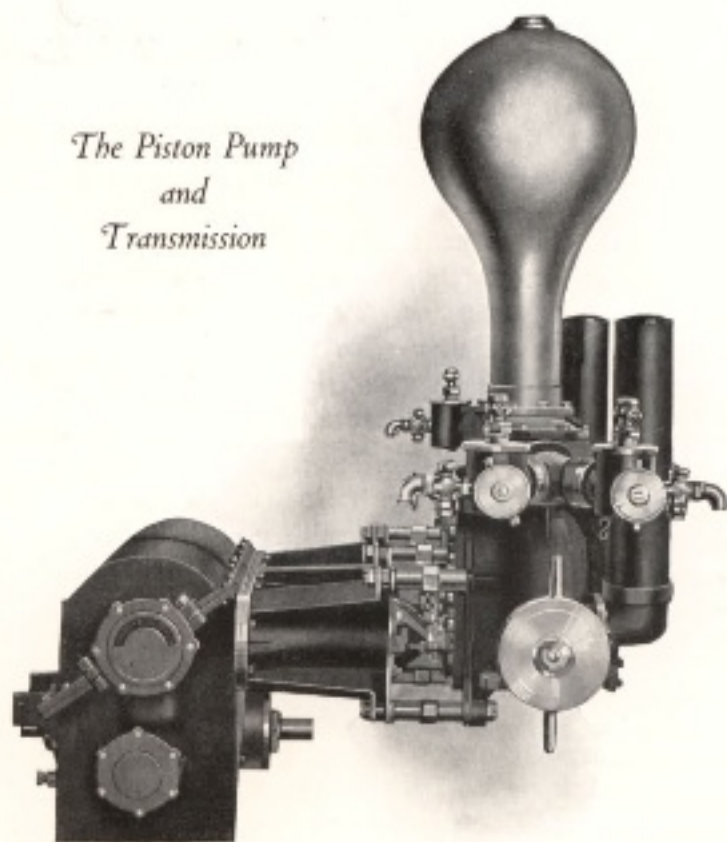
Aside from the complicated transmitting mechanism, there are hundreds of parts which must be overhauled and replaced periodically—rubber valves, valve springs, valve stems, valve seats, pistons, plungers, etc.

The Centrifugal Pump The centrifugal pump has favorable characteristics, and others which are highly objectionable. It is bulky and heavy, like the piston pump, and cannot readily be placed in a suitable position on the chassis. Ground clearance has to be cut down to a dangerous extent, or the pump has to be mounted too high on the chassis. Long and careful study by our engineers was necessary to meet these objections. The centrifugal pump runs at an excessively high speed, approximately twice as fast as the motor, putting the transmission gears and bearings under severe strain.

The centrifugal pump is particularly adaptable to the pumping of a constant volume against a constant head. But Fire Department Service is quite another problem. If all fires would break out at a certain fixed distance from a hydrant, always at the same height above the ground; if the same length of hose, of the same age and the same quality with respect to frictional losses and with the same size nozzle tip were always to be used, the efficiency of the centrifugal pump would not be subject to such serious criticism, though it would still be much lower than that of the displacement pump.

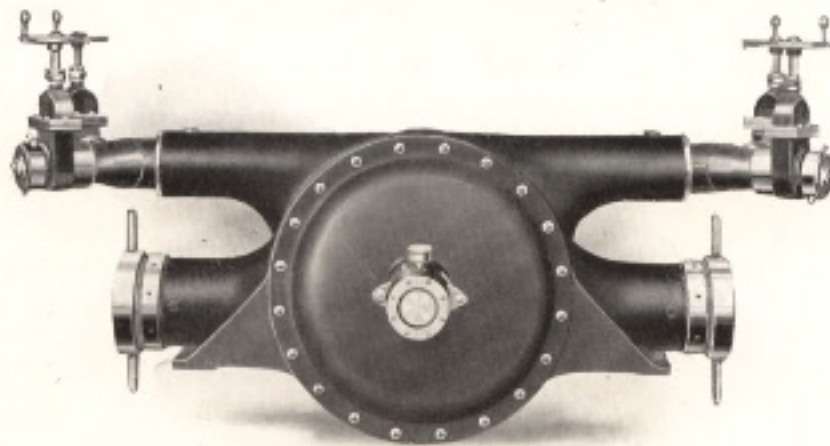
The centrifugal pump labors under a further serious handicap because of the characteristic heavy drop in its efficiency curve under varying capacities when the peak point is left in the

*The Piston Pump
and
Transmission*



direction either of greater or smaller volume of discharge.

To overcome these inherent defects the whole outfit must be made larger. Surplus power must be provided in the gas engine, with its additional weight carried throughout the chassis. If the pump is designed to deliver 800 gallons at 120 pounds pressure, the deliveries against higher or lower pressures will not be in the quantities they should be, or the defect must be concealed by furnishing an excessively large gasoline engine and in that way giving the same volume as the displacement pumps of smaller size over the entire range.



Centrifugal Pump, Front View



Fleets of American-LaFrance Fire Apparatus

in the United States, Canada and Foreign Countries

Only Fleets of five or more pieces are listed here

CITY	NUMBER OF PIECES
Birmingham, Ala.	10
Mobile, Ala.	11
Montgomery, Ala.	5
Little Rock, Ark.	9
Fresno, Calif.	6
Los Angeles, Calif.	18
Oakland, Calif.	8
Sacramento, Calif.	7
San Francisco, Calif.	49
Stockton, Calif.	5
Bridgeport, Conn.	5
Hartford, Conn.	12
New Britain, Conn.	6
Stamford, Conn.	6
Waterbury, Conn.	15
Wilmington, Del.	9
Washington, D. C.	43
Jacksonville, Fla.	15
Key West, Fla.	5
Miami, Fla.	5
Pensacola, Fla.	5
Atlanta, Georgia	28
Columbus, Georgia	5
Macon, Georgia	9
Savannah, Georgia	15
Chicago, Ill.	5
Quincy, Ill.	7
Rock Island, Ill.	5
Fort Wayne, Ind.	12
Indianapolis, Ind.	8
South Bend, Ind.	7
Cedar Rapids, Iowa	7
Des Moines, Iowa	22
Dubuque, Iowa	6
Sioux City, Iowa	7
Waterloo, Iowa	6
Topeka, Kansas	5
Louisville, Ky.	8
Baton Rouge, La.	5
New Orleans, La.	21
Shreveport, La.	8
Baltimore, Md.	19
Baltimore County, Md.	14
Boston, Mass.	92
Brookline, Mass.	9
Cambridge, Mass.	18
Fall River, Mass.	15
Holyoke, Mass.	5

CITY	NUMBER OF PIECES
Waltham, Mass.	6
Worcester, Mass.	13
Battle Creek, Mich.	7
Flint, Mich.	11
Highland Park, Mich.	6
Muskegon, Mich.	6
Pontiac, Mich.	6
Saginaw, Mich.	6
Duluth, Minn.	9
Minneapolis, Minn.	18
St. Paul, Minn.	8
Kansas City, Mo.	7
St. Joseph, Mo.	13
St. Louis, Mo.	37
Omaha, Nebr.	32
Atlantic City, N. J.	21
Camden, N. J.	7
East Orange, N. J.	8
Elizabeth, N. J.	5
Jersey City, N. J.	25
Montclair, N. J.	7
Newark, N. J.	6
Red Bank, N. J.	5
Union, N. J.	7
West New York, N. J.	5
Albany, N. Y.	10
Binghamton, N. Y.	9
Buffalo, N. Y.	36
Cohoes, N. Y.	6
Elmira, N. Y.	7
Jamestown, N. Y.	6
Larchmont, N. Y.	5
New Rochelle, N. Y.	9
New York, N. Y.	198
Rochester, N. Y.	5
Schenectady, N. Y.	9
Syracuse, N. Y.	15
Utica, N. Y.	15
Watertown, N. Y.	5
Yonkers, N. Y.	16
Charlotte, N. C.	5
Raleigh, N. C.	7
Wilmington, N. C.	5
Winston Salem, N. C.	6
Cleveland, Ohio	5
Dayton, Ohio	26
Lakewood, Ohio	5
Toledo, Ohio	5
Youngstown, Ohio	6
Zanesville, Ohio	5
Muskogee, Okla.	8
Oklahoma City, Okla.	12
Shawnee, Okla.	5
Tulsa, Okla.	7

CITY	NUMBER OF PIECES
Portland, Oregon	27
Coal Township, Pa.	5
Erie, Pa.	12
Johnstown, Pa.	8
Lancaster, Pa.	11
McKeesport, Pa.	5
Philadelphia, Pa.	75
Pittsburgh, Pa.	54
Reading, Pa.	15
Scranton, Pa.	13
York, Pa.	6
Newport, R. I.	8
Providence, R. I.	28
Chattanooga, Tenn.	12
Knoxville, Tenn.	12
Memphis, Tenn.	25
Nashville, Tenn.	15
Beaumont, Texas	5
Dallas, Texas	29
El Paso, Texas	5
Fort Worth, Texas	23
Houston, Texas	13
Port Arthur, Texas	5
San Antonio, Texas	8
Ogden, Utah	5
Lynchburg, Va.	5
Norfolk, Va.	26
Portsmouth, Va.	6
Richmond, Va.	9
Seattle, Wash.	16
Tacoma, Wash.	9
Charlestown, W. Va.	6
Huntington, W. Va.	6
Wheeling, W. Va.	10
La Crosse, Wisc.	6
Racine, Wisc.	7
U. S. GOVERNMENT	
Camps, Forts, Arsenals, etc.	133
CANADA	
Edmonton, Alberta	9
Vancouver, B. C.	9
Winnipeg, Manitoba	8
Halifax, Nova Scotia	5
Toronto, Ont.	28
FOREIGN	
Osaka, Japan	14
Tokyo, Japan	19
Mexico City, Mexico	6
Manila, Philippine Is.	6





AMERICAN-LAFRANCE

▪ Shatters All Known Pumping Records ▪

Thirteen Days' Continuous Pumping in
Zero Weather Adds a New Chapter to
the Accomplishments of

American-LaFrance Motor Fire Apparatus

▪ ▪ ▪

ON November 23rd last, a serious mine fire was discovered at Jonesville, Alaska. To fight the fire a Type 12 American-LaFrance Pumper was summoned from the Anchorage, Alaska, fire department.

It was thirteen days before the fire was extinguished. *During that time the American-LaFrance pumper worked continuously* with the exception of brief stops at irregular intervals for the purpose of changing the oil, and replacing hose that had blown couplings.

To make this performance all the more remarkable, the thermometer at the time of the fire was hovering around the zero mark.

Two hundred pounds pump pressure was maintained, which is equivalent to driving the car 9400 miles at top speed practically without interruption.

Engineering principles evolved from 78 years' experience in building fire apparatus, selection of the best materials, the thorough testing of every car we produce, and superior manufacturing methods, combine to make unusual performances typical of American-LaFrance Motor-Driven Fire Apparatus.



*Views of American-LaFrance Pumper
Working at Anchorage, Alaska*





AFFIDAVIT

Anchorage, Alaska
15 January 1923

TO ALL TO WHOM THIS MAY CONCERN:
GREETINGS.

I, William P. T. Hill, do hereby solemnly swear the following facts to be the truth relative to the performance of The American LaFrance Fire Engine, Registered 3970, Type 12, from the Anchorage Alaska, City Fire Station:

That above registered 3970 American LaFrance Fire Engine was in operation actually pumping for a total of 307 hours between November 23, 1922, and December 6, 1922 (both dates inclusive), at Jonesville, Alaska, during which time fire in the Jones mine was put under control;

That the above dates, above registered 3970 American LaFrance Fire Engine was shut down only for less than 6 hours; this being necessary at irregular intervals for the purpose of inspection, changing of oil, the general lubrication of engine and pump, and for replacement of hose that had blown couplings; but that at no time was there any necessity for shutting down due to failure of engine or pump to function properly and correctly;

That for the above 307 hours a pressure of 200 pounds or greater was maintained at the pump for the entire time;

That water was delivered to mine, a distance of 3,335 feet and a lift of 150 feet for entire 307 hours' running time;

That operation of above registered 3970 American LaFrance Fire Engine was under most trying conditions in that the temperature ranged between 10 degrees below zero and 20 degrees above zero with intermittent flurries of snow, and that there was a continual freezing and thawing of line between fire engine and mine, which also necessitated the attention of the men operating said fire engine;

That during above time entire apparatus functioned 100 percent due to the experience of Fire Chief J. W. Greene and his assistant, Mr. T. S. Bevers, both of the Anchorage Fire Department;

That consumption of gasoline for above run was approximately 1700 gallons Red Crown, and consumption of oil was approximately 90 gallons Valvoline heavy;

That the Anchorage Station of the U. S. Bureau of Mines takes this occasion to thank Mr. J. W. Greene and Mr. T. S. Bevers for the faithful and efficient assistance rendered by them in the flooding of the Evan Jones Coal Company mine fire.

W. P. T. Hill

Wm. P. T. Hill

Captain, U. S. Marine Corps

In charge of Anchorage Station

U. S. Bureau of Mines, Anchorage, Alaska.

Subscribed and sworn to before me this 18th day of January, A.D. 1923.

Robert C. Hurley

Notary Public for Alaska

My commission expires: August 3, 1926.



Fire Chiefs Who Insist on the Best Invariably Get

AMERICAN-LAFRANCE





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