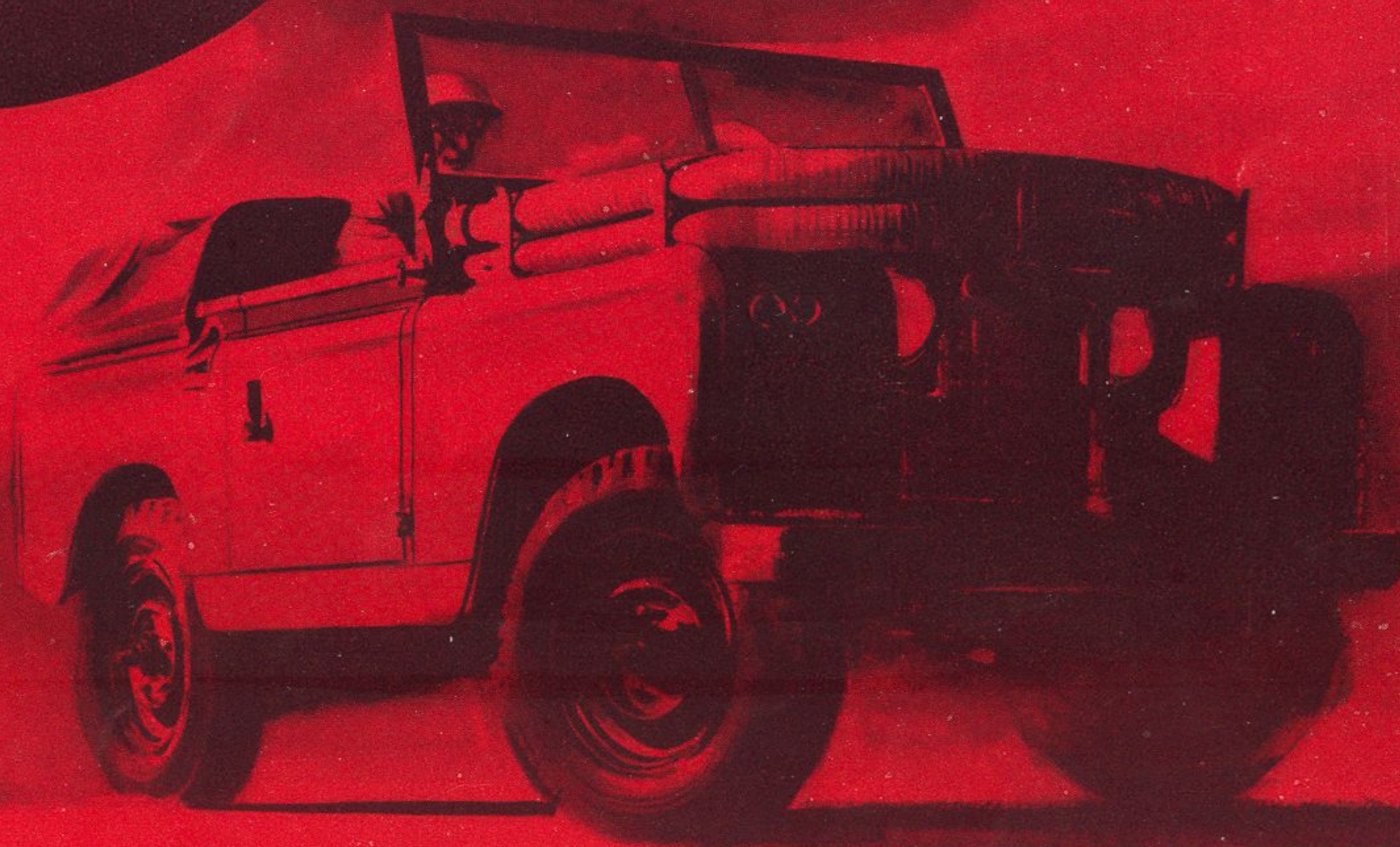


APPROVED FOR

LAND 
ROVER



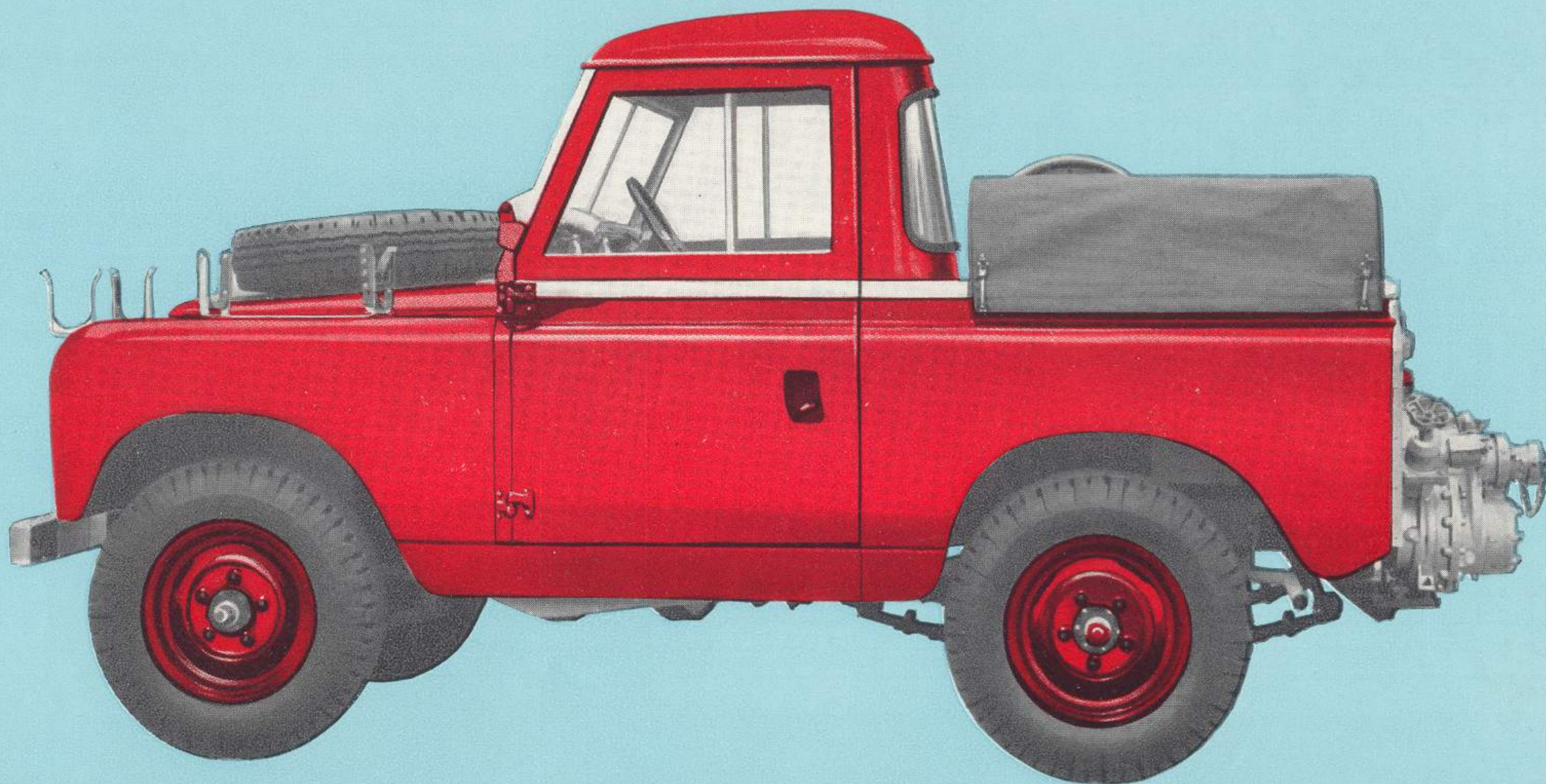
REDWING FTI *FIRE ENGINES*

THE COMPLETE FIRST A

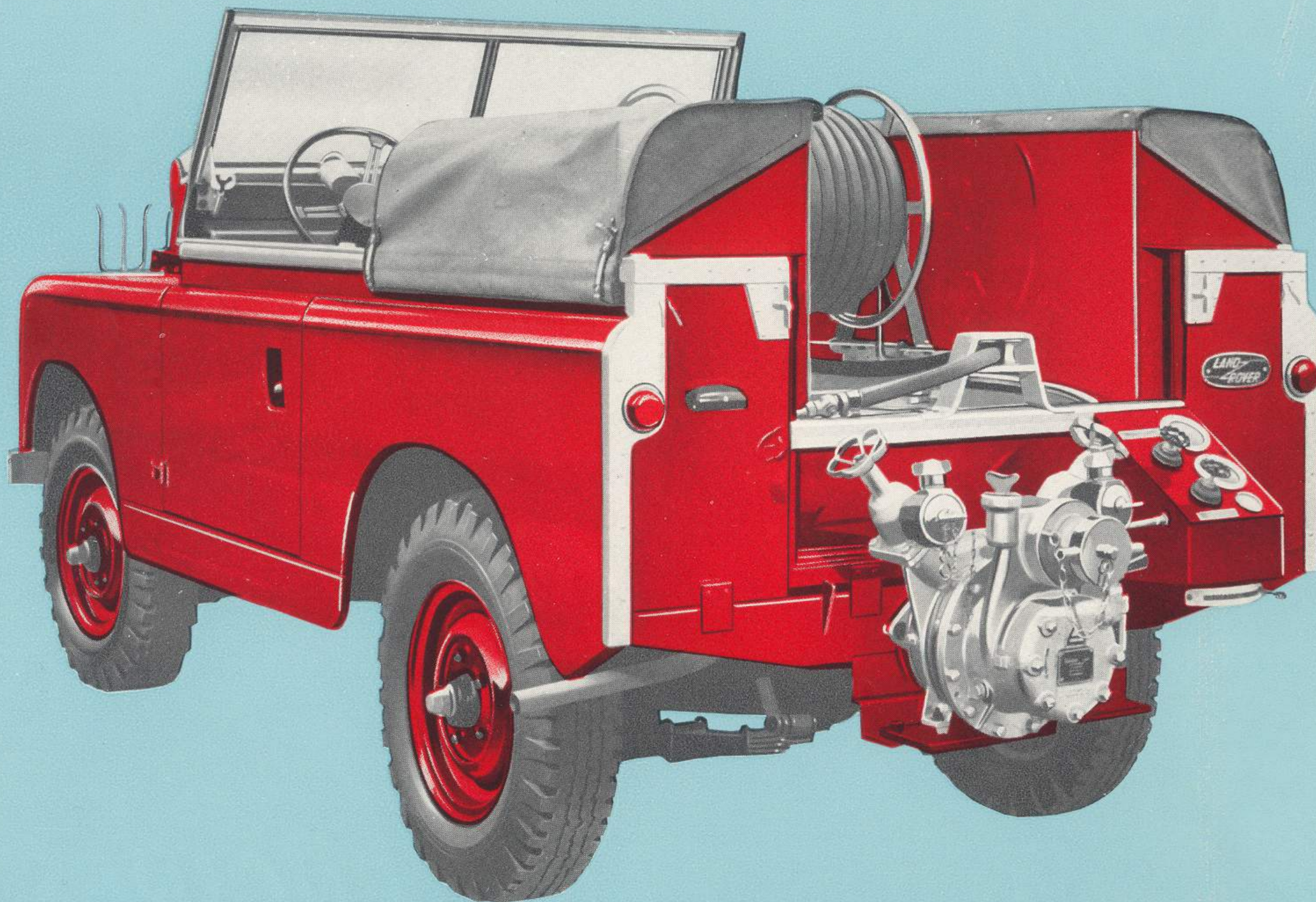
The Redwing FTI Fire Engine is a highly mobile, self-contained appliance particularly useful for towns and villages with narrow streets, rural areas, forestry service, factories, large estates . . . anywhere in fact where speed, good ground clearance and general handiness are first essentials. Its powerful four-wheel drive and compactness enable it to go practically anywhere and to get right up to trouble spots inaccessible to larger vehicles.

The 77 b.h.p. 4-cylinder engine drives the vehicle and provides power for the pump which apart from feeding twin full-sized delivery hoses, also supplies the 120 ft. first-aid hose reel from a self-contained 40 gallon tank. The front driving compartment accommodates driver and crew of two and a truck cab is available as an optional extra.

AID FIRE FIGHTING UNIT



The truck cab illustrated above is an optional extra.



Hose couplings and blanking caps illustrated are optional extras.

FIRE ENGINE SPECIFICATION

PUMP MOUNTING. Bolted to rear cross-member and draw bar.

DRIVE. The primary drive is taken from the centre power take-off output shaft direct to the pump, by a propeller shaft.

ENGINE OIL COOLING. By heat exchanger using water under pressure from the main pump.

STANDARD FIRE EQUIPMENT

FIRST-AID WATER TANK. Galvanised steel tank, capacity approx. 40 gallons (182 litres), carried between wheel arches. Tank filling via main pump suction or bucket filler.

FIRST-AID REEL. 120-ft. of rubber hose coiled on to a drum mounted amidships. Drum assembly castings in light alloy to reduce weight. Nozzle is of $\frac{1}{8}$ -in. bore, and incorporates on-off cock.

A ROLLER GUIDE is mounted centrally on the rear of the vehicle. The first-aid hose is threaded through this guide, thus enabling it to be run out at right angles to the longitudinal axis of the vehicle, if so required.

A CLIP at the rear of the vehicle houses the first-aid hose nozzle.

PUMP CONTROL PANEL. Situated alongside pump. Instruments and controls: compound pressure/vacuum gauge; pressure gauge; oil temperature gauge; two parallel slide type selector valves; engine governor control.

PUMP SPECIFICATION

RATING. The pump rating is 210 gallons a minute at 100 pounds per square inch pressure for a 10-foot lift.

PUMP CASING. Corrosion-proof light metal alloy casing with built-on hydraulic annular air pump.

IMPELLERS. Two stress-relieved impellers, of salt-water resistant light metal alloy, in volute type casing. Impellers run in interchangeable lead bronze impeller neck rings.

IMPELLER SHAFT. Stainless steel, with anti-friction bearing at the pressure side and water lubricated sleeve bearing at the suction side.

SEAL. A mechanical seal prevents air from entering the pump interior.

PRIMING SYSTEM. By easily accessible water-ring-vacuum pump mounted on the pump casing.

DISCHARGE. Twin delivery valves with large size handwheels are mounted directly on the pump body.

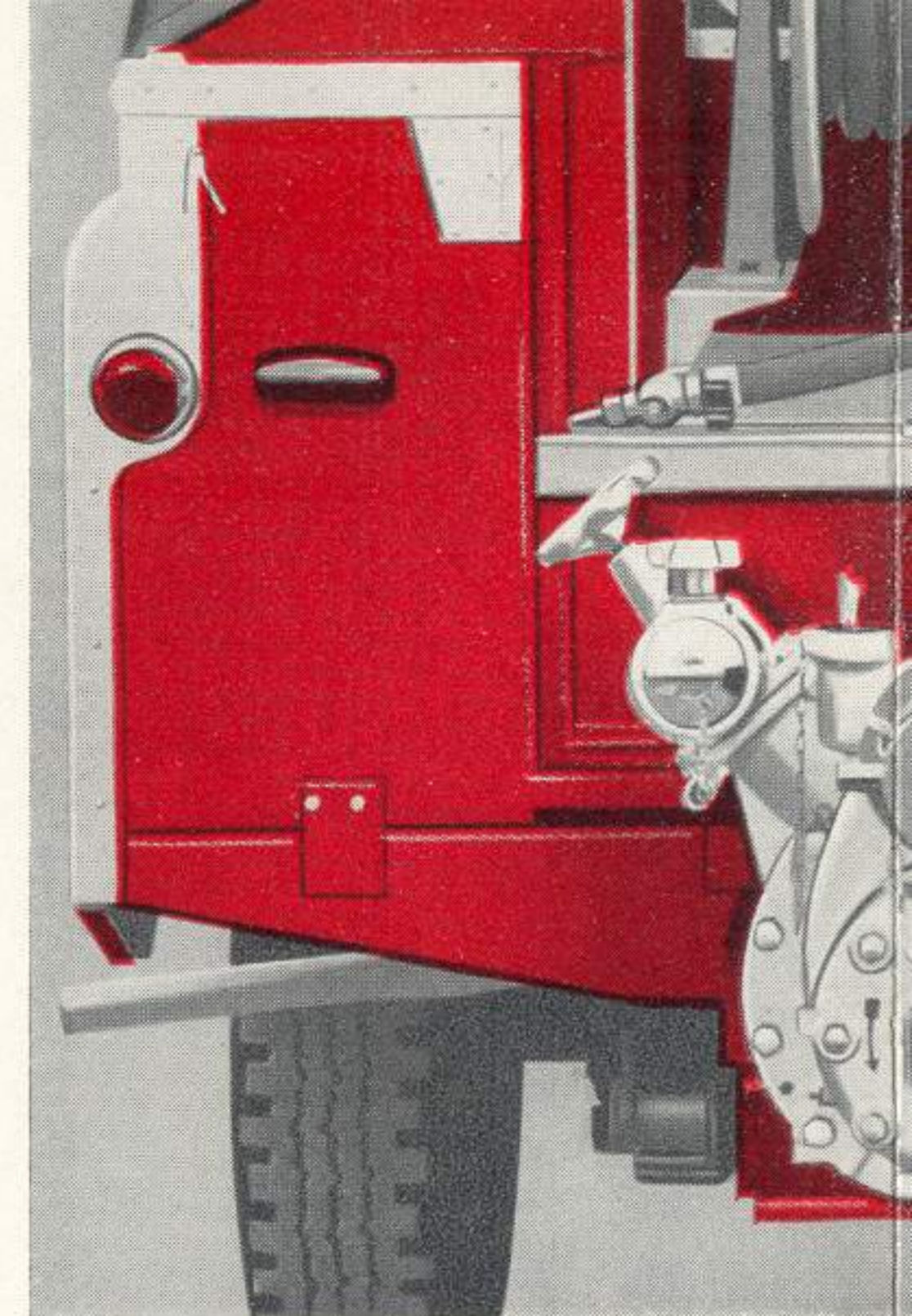
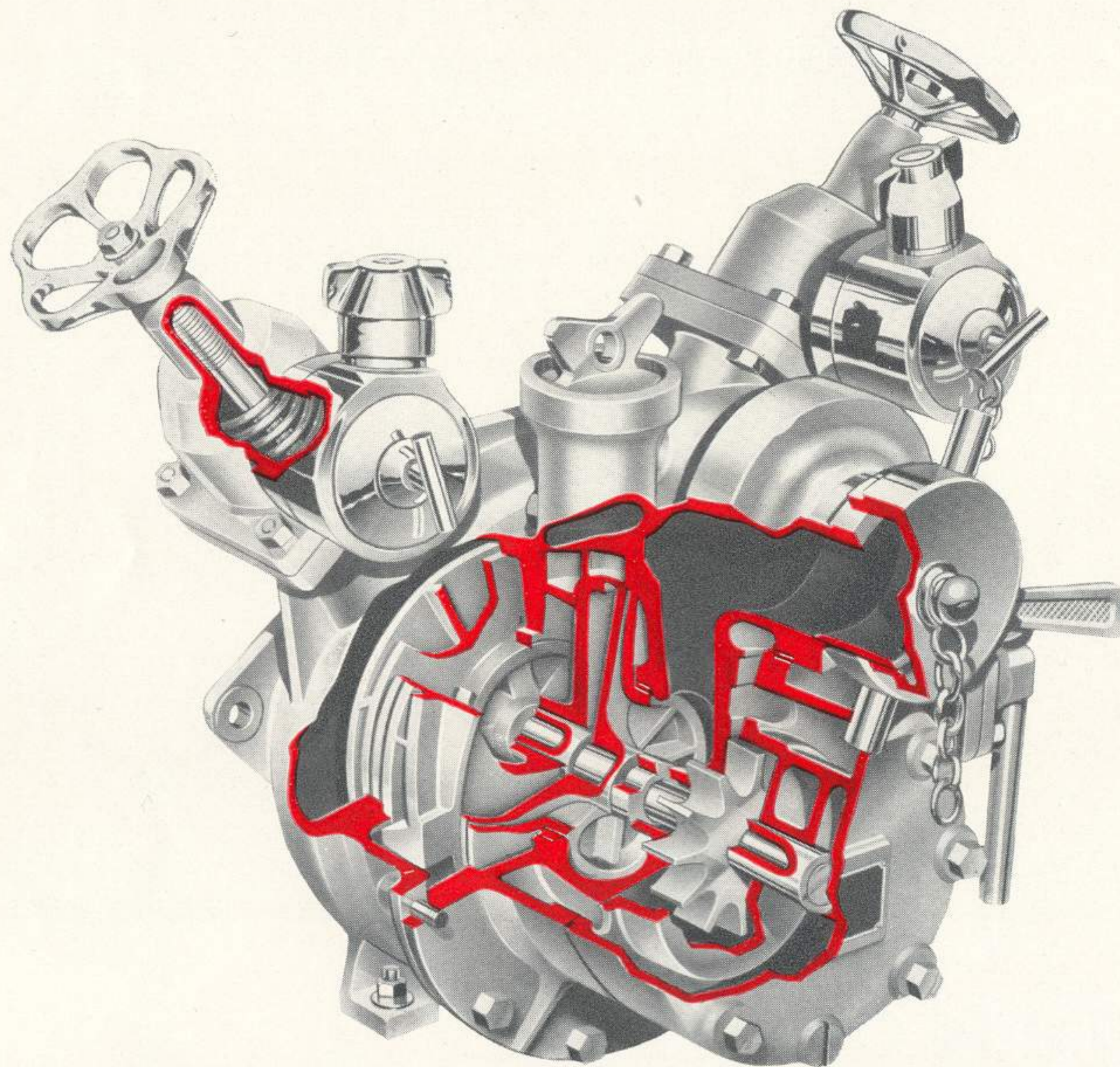
NOZZLES. When both delivery valves are in operation the maximum combination of nozzles which may be used is $\frac{7}{8}$ -inch and 1-inch.

HOSE LOCKERS. Stowage lockers for delivery hose lengths, etc., are built over both rear wheel arches, each locker measuring approx. 3-ft. 2 $\frac{1}{2}$ -in. long \times 13-in. wide \times 1-ft. 8-in. deep. The lockers have canvas covers for weather protection. The covers are secured by spring-loaded fasteners to the sides of the vehicle.

OPTIONAL EQUIPMENT *(Available at extra cost)*

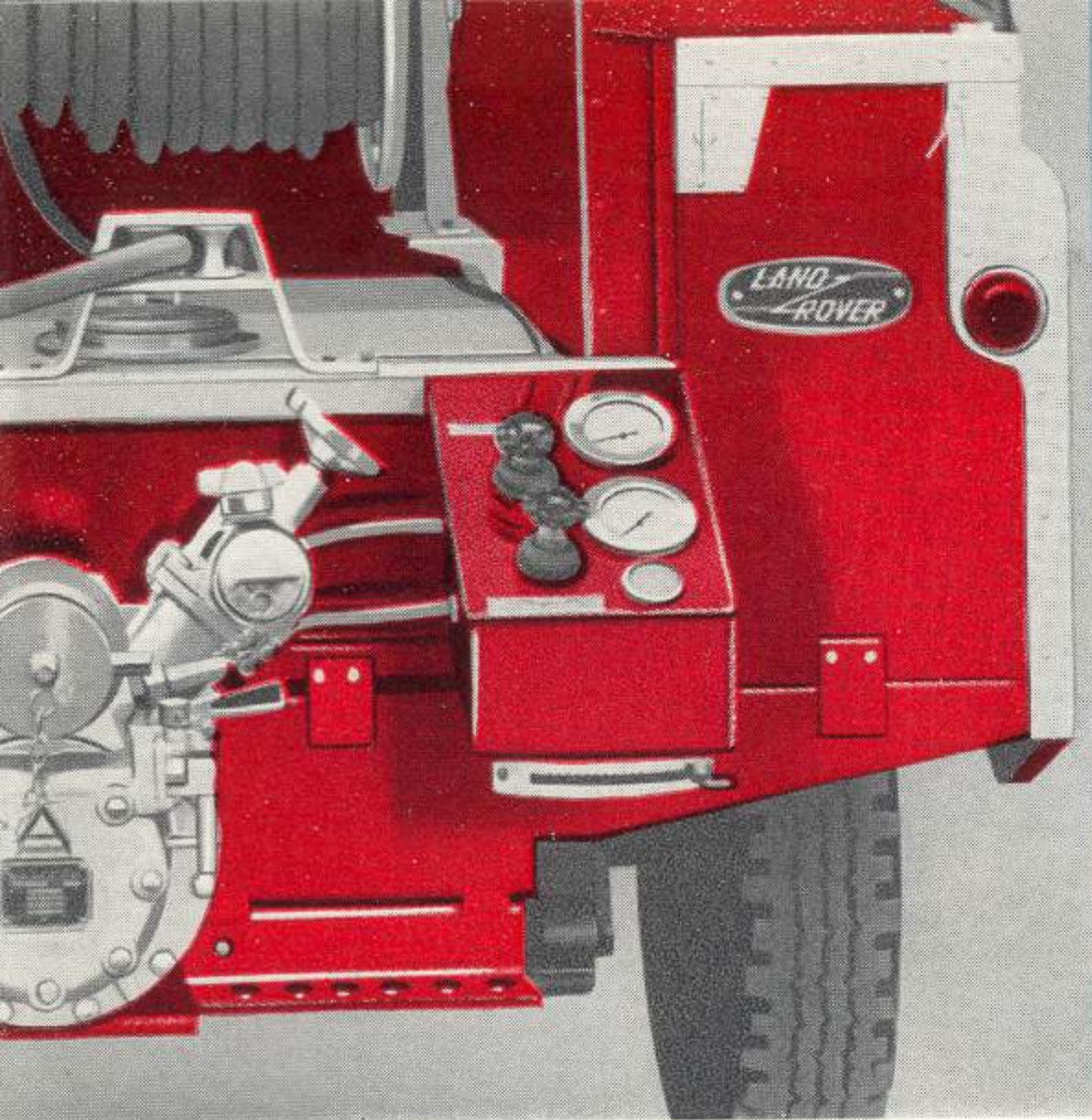
Delivery Hose Coupling: Standard British instantaneous type carrying 2 $\frac{1}{2}$ -inch delivery hose. **Blanking Cap** for delivery hose coupling. **Suction Hose Coupling:** Standard suction round thread to B.S.S. No. 336, for 3-inch suction hose. **Metal Truck Cab.** Various other optional items such as foam equipment, can be provided, full details being obtainable on application.

THE K.S.B. FIRE PUMP . . .



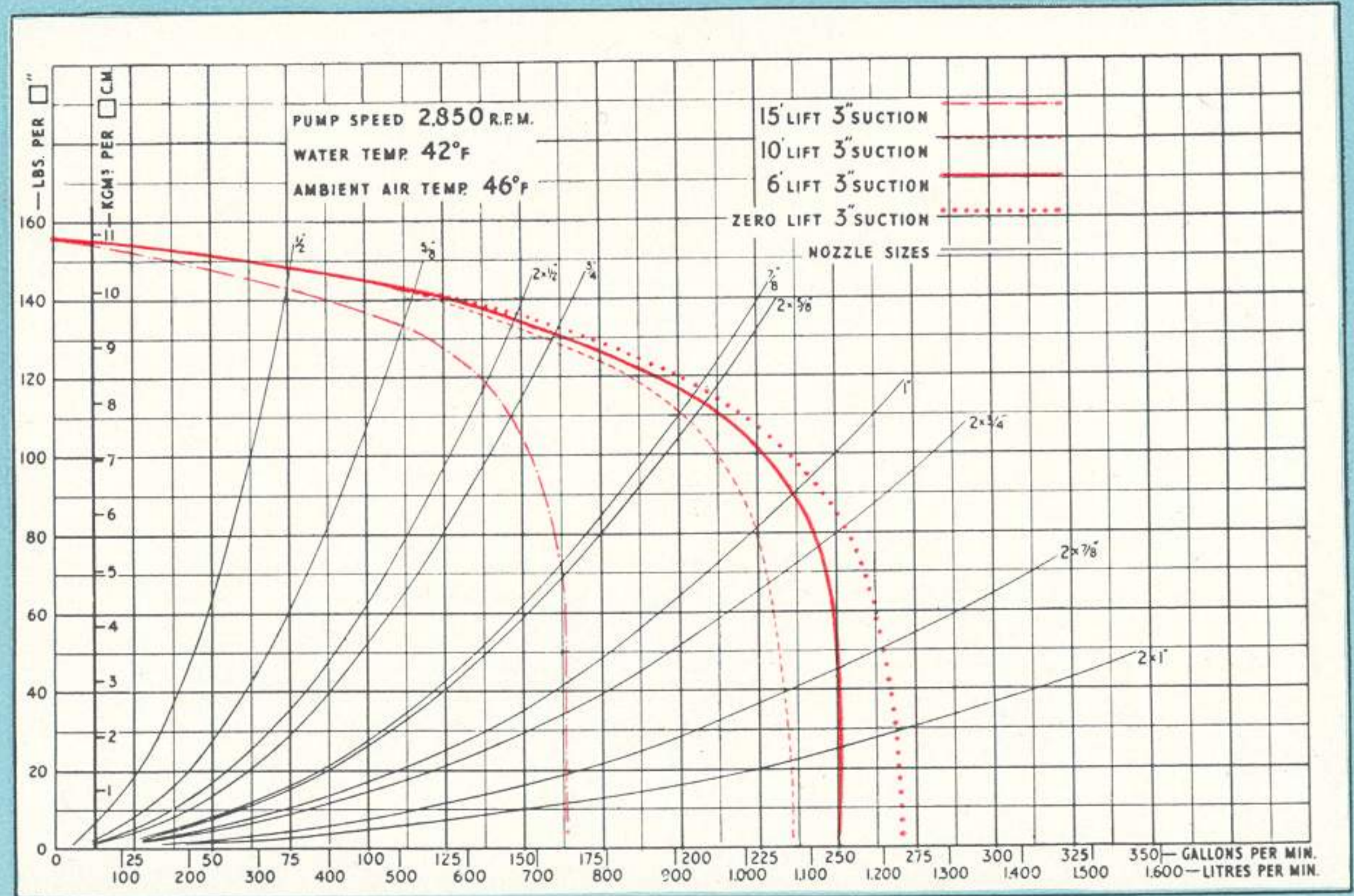
. . . ADVANTAGES

- Self-priming up to 25' (7.6 m)
- Priming time within Home C per foot of suction lift.
- No foot valve is required.
- Simple and reliable operation
- High efficiency with resultant
- Extreme compactness and low
- Vibrationless and very quiet
- Does not stress the engine as gases for priming.
- Insignificant power consump



K.S.B. PUMP PERFORMANCE

PRESSURE



FLOW PER MINUTE

PAGES

(metres) maximum suction lift.

Office requirements of not more than one second

coupled with long life.

at low power consumption.

low weight (approx. 106 lb.).

running.

as compared with other devices utilising exhaust

ption (0.5-1 h.p.) of hydraulic annular air pump.

FIRE ENGINE CHASSIS SPECIFICATION

ENGINE. Flexibly mounted on rubber at four points. Four cylinders, bore 90.47 mm. (3.562"), stroke 88.9 mm. (3.500"), capacity 2286 c.c. (139.5 cu. in.). Maximum B.H.P. 77 @ 4250 r.p.m. Maximum torque 124lb.ft. @ 2500 r.p.m. Compression ratio 7.0:1. Nickel chrome steel three-bearing crankshaft of ample dimensions. Copper-lead main and big end bearings. Camshaft in crankcase driven by double roller silent chain with hydraulic tensioner. Firing order 1, 3, 4, 2.

VALVES. All valves in cylinder head, operated by roller followers, push rods and rockers.

PISTONS. Aluminium, flat top fitted with two compression rings and one scraper ring.

LUBRICATION. By pressure from gear type pump forcing oil to all bearings, timing chain and valve gear. Full-flow oil filter. Capacity 11 pints (6 litres).

IGNITION. Coil and battery, automatic advance. Battery 12v. 57 amp. hr.

DYNAMO. Automatic voltage regulator, 12v.

STARTER. Operates on flywheel.

CARBURETTOR. Downdraught.

PETROL FILTER. On Fuel Pump Body.

AIR CLEANER. Centrifugal and oil-bath type, with integral pre-cleaner.

COOLING SYSTEM. Pump and 8-bladed fan, thermostatically controlled. Capacity 17½ imp.pints (10 litres). Spread bore cylinder arrangement ensures generous cooling.

BRAKES. Hydraulically operated foot brakes requiring light pedal pressure and infrequent adjustment. Mechanically actuated handbrake operates on transmission shaft to rear axle.

REAR AXLE. Fully-floating, spiral bevel type. Ratio 4.7:1.

FRONT AXLE. Fitted with differential similar to rear axle. Drive to front wheels through totally enclosed universal joints.

CLUTCH. Single dry plate, 9-in. (230 mm.) diameter.

TRANSMISSION. Provision for eight forward speeds and two reverse. Transmission to rear and front axle by open propeller shaft via two-speed transfer box.

Gear Ratios:

Main Gearbox	Transfer Box	
	High Ratio	Low Ratio
First gear	16.171	40.688
Second gear	11.026	27.742
Third gear	7.435	18.707
Top gear	5.396	13.578
Reverse gear	13.745	34.585

CHASSIS. Side and cross members of box section forming exceptionally rigid assembly.

STEERING. Recirculating ball type. Variable ratio: 15.6 to 1 straight ahead, 23.8 to 1 full lock. Right or left-hand steering as required.

FUEL SUPPLY. 10-gallon (45 litres) tank under right-hand seat.

SPRINGS. Semi-elliptic front and rear. Telescopic type shock absorbers front and rear.

WHEELS. Detachable disc wheels with 7.00 x 16 tyres.

DIMENSIONS. Overall width 64" (1.63 m.). Overall length 160½" (4.08 m.). Wheelbase 88" (2.23 m.). Track 51½" (1.31 m.). Weight of basic vehicle (with 5 gallons fuel, oil and water), 3,474 lb. (1576 kg.). For vehicle with Truck Cab add 60 lb. (27 kg.).

PAYLOAD. In addition to a crew of three, and the fire-fighting equipment provided with the standard vehicle (including 40 gallons (182 litre) of water in the first-aid tank), a maximum additional payload of 200 lb. (90.72 kg.) is permitted.

Standard equipment includes Oil Cooler, Body and general sheet metal work of high tensile non-corrodible light alloy. All external steel fittings galvanised.

The information contained in this leaflet is correct at the date of publication but is subject to alteration without notice.

CARMICHAEL & SONS (Worcester) LTD. . THE BUTTS . WORCESTER
(Telephone No. Worcester 26383)