

SECTION 5

AIR COMPRESSOR AND SERVICING TROLLEYS

LIST OF ITEMS

		Now AP 119A-1000-		
		Book	Sect	Item
2	Trolley, compressor, air, Type L, Mk 1, 2 and 2A	1A	5	1
3	Trolley, servicing, hydraulic, Mk 1 and Mk 1B	1A	5	2
4	Trolley, hydraulic, servicing, Mk 6B and Mk 6C	1A	5	3
5	Trolley, servicing, pneumatic, low pressure, Mk 1	1A	5	5
6	Trolley, air starting, low pressure, Mk 10	1A	2	4
7	Trolley, air starting, low pressure, Mk 12 and 12A	1A	2	5
8	Trolley, servicing, hydraulic, Mk 2G	1A	5	4
9	Trolley, pressure-cabin testing, Mk 1C	1A	3	1
10	Trolley, instrument and automatic pilot testing, Mk 1A and Mk 1B	1A	4	20
11	Trolley, servicing, pneumatic, low pressure, Mk 2	1A	5	6
13	Trolley, air cooling and pressure-cabin testing, Mk 3A	1A	3	9
19	Trolley, air starting, low pressure, lightweight, Mk 11	1A	2	7
20	Trolley, air cooling, Mk 1	1A	3	2
25	Trolley, servicing, hydraulic, Mk 2A, 2B and 2C	1A	5	7
26	Trolley, servicing, pneumatic, low pressure, Mk 1B	1A	5	8
27	Trolleys, air cooling, Mk 2 and 2B	1A	3	3
31	Trolleys, air cooling, Mk 2A and 2C	1A	3	4
37	Trolley, platform, aircraft servicing, GP	1A	7	26
38	Trolley, servicing, aircraft toilet, Mk 3	1A	1	6
40	Trolley, air supply, Mk 2	1A	3	11
46	Trolley, ground heating, Mk 4	1A	3	12
49	Trolleys, salvage, nose, 15 ton	1C	2	2
51	Trolley, pressure-cabin testing, Mk 2	1A	3	17
52	Trolley, air cooling, Mk 5 and 5A	1A	3	5
53	Trolleys, servicing, hydraulic, Mk 4A, 4B and 4C	1A	5	9
55	Trolley, servicing, hydraulic, Mk 3	1A	5	10
56	Trolley, servicing, aircraft toilet, Mk 4B	1A	1	7
57	Trolley, servicing, hydraulic, Mk 2D	1A	5	11
59	Trolleys, servicing, hydraulic, miniature, Mk 1B and 1C	1A	5	12
62	Trolley, air supply, Mk 4	1A	3	14
63	Trolley, air starting, low pressure, Mk 4	1A	2	8
65	Trolley, servicing, hydraulic, Mk 2E	1A	5	16
68	Trolley, air supply, Mk 3	1A	3	16
69	Trolleys, servicing, hydraulic, Mk 5B and 5C	1A	4	22
72	Trolleys, liquid oxygen replenishment, 75 litres capacity, Mk 1 and 2	1F	4	1
73	Trolleys, liquid oxygen replenishment, 185 litres capacity	1F	4	2

75	Trolley, air cooling, Mk 3D	1A	3	6
76	Trolley, salvage, main 75 ton (Air transportable)	1C	2	1
77	Trolley, servicing, water/glycol	1A	6	2
78	Rigs, test, cabin pressure and cooling	1A	3	8
79	Trolleys, aircraft heating (4 therm/hour), Mk 1 and 2	1A	3	13
81	Trolley, servicing, hydraulic, Mk 5E	1A	5	17
82	Trolley, air cooling, Mk 3C	1A	3	18
83	Trolley, hydraulic servicing, Mk 4D	1A	5	13

SECTION 5

AIR COMPRESSOR AND SERVICING TROLLEYS

LIST OF ITEMS

		Now AP 119A-1000-		
		Book	Sect	Item
2	Trolley, compressor, air, Type L, Mk 1, 2 and 2A	1A	5	1
3	Trolley, servicing, hydraulic, Mk 1 and Mk 1B	1A	5	2
4	Trolley, hydraulic, servicing, Mk 6B and Mk 6C	1A	5	3
5	Trolley, servicing, pneumatic, low pressure, Mk 1	1A	5	5
6	Trolley, air starting, low pressure, Mk 10	1A	2	4
7	Trolley, air starting, low pressure, Mk 12 and 12A	1A	2	5
8	Trolley, servicing, hydraulic, Mk 2G	1A	5	4
9	Trolley, pressure-cabin testing, Mk 1C	1A	3	1
10	Trolley, instrument and automatic pilot testing, Mk 1A and Mk 1B	1A	4	20
11	Trolley, servicing, pneumatic, low pressure, Mk 2	1A	5	6
13	Trolley, air cooling and pressure-cabin testing, Mk 3A	1A	3	9
14	Trolley, servicing and starting, electrical, 10/40 kW			
16	Trolley, servicing, low pressure, pneumatic, Mk 1A			
17	Trolley, ground heating, non-toxic, Mk 3			
18	Trolley, servicing and starting, electrical, Mk 5			
19	Trolley, air starting, low pressure, lightweight, Mk 11	1A	2	7
20	Trolley, air cooling, Mk 1	1A	3	2
21	Trolley, servicing, electrical, Mk 4			
23	Trolley, servicing, hydraulic, Mk 2			
25	Trolley, servicing, hydraulic, Mk 2A, 2B and 2C	1A	5	7
26	Trolley, servicing, pneumatic, low pressure, Mk 1B	1A	5	8
27	Trolleys, air cooling, Mk 2 and 2B	1A	3	3
28				
29	Trolley, air supply, Mk 5			
30	Aircraft pressure-cabin testing unit (Naval)			
31	Trolleys, air cooling, Mk 2A and 2C	1A	3	4
32	Chassis, standard, 35 cwt, Mk 2, Types A, B and C			
33	Trolleys, servicing and starting, electrical, Mk 3 and 4, 12/50 kW			
34	Kits, adapter, for U.S.A.F. aircraft servicing			
35	Trolley, radar servicing, Type A			
37	Trolley, platform, aircraft servicing, GP			

38	Trolley, servicing, aircraft toilet, Mk 3	1A	1	6
40	Trolley, air supply, Mk 2	1A	3	11
46	Trolley, ground heating, Mk 4	1A	3	12
49	Trolleys, salvage, nose, 15 ton	1C	2	2
50	Trolley, salvage, main, 75 ton	1C	2	1
51	Trolley, pressure-cabin testing, Mk 2	1A	3	17
52	Trolley, air cooling, Mk 5 and 5A	1A	3	5
53	Trolleys, servicing, hydraulic, Mk 4A, 4B and 4C	1A	5	9
54	Trolley, paralleling, 112-volt			
55	Trolley, servicing, hydraulic, Mk 3	1A	5	10
56	Trolley, servicing, aircraft toilet, Mk 4B	1A	1	7
57	Trolley, servicing, hydraulic, Mk 2D	1A	5	11
58	Trolley, servicing, electrical, 10kVA			
59	Trolleys, servicing, hydraulic, miniature, Mk 1B and 1C	1A	5	12
60	Trolley, air starting, low pressure, Mk 2A and 2B			
61	Trolley, servicing and starting, electrical, 35kW, 28 volts, d.c. (Houchin type)			
62	Trolley, air supply, Mk 4	1A	3	14
63	Trolley, air starting, low pressure, Mk 4	1A	2	8
64	Trolleys, servicing, electrical, 15kVA, 200 volts, a.c., 400 c.p.s. and 10kW, 28 volts, d.c.			
65	Trolley, servicing, hydraulic, Mk 2E	1A	5	16
66	Trolley, servicing, electrical, 600kVA, 200V, 400 c/s, /10kW, 28V, d.c. (Auto Diesel Type)			
67	Trolley, servicing, electrical, 60kVA, /10kW (Houchin Type)			
68	Trolley, air supply, Mk 3	1A	3	16
69	Trolleys, servicing, hydraulic, Mk 5B and 5C	1A	4	22
72	Trolleys, liquid oxygen replenishment, 75 litres capacity, Mk 1 and 2	1F	4	1
73	Trolley, liquid oxygen replenishment, 185 litres capacity	1F	4	2
74	Trolley, servicing, electrical, 15kVA, 200V a.c., 400 c.p.s., and 10kW, 28V, d.c. (Houchin Type)			
75	Trolley, air cooling, Mk 3D	1A	3	6
76	Trolley, salvage, main 75 ton (Air transportable)	1C	2	1
77	Trolley, servicing, water/glycol	1A	6	2
78	Rigs, test, cabin pressure and cooling	1A	3	8
79	Trolleys, aircraft heating (4 therm/hour), Mk 1 and 2	1A	3	13
80	Trolley, servicing and starting, electrical, 35kW, 28 volts, d.c., (Hampson Type)			
81	Trolley, servicing, hydraulic, Mk 5E	1A	5	17
82	Trolley, air cooling, Mk 3C	1A	3	18
83	Trolley, hydraulic servicing, Mk 4D	1A	5	13
84	Trolley, servicing, electrical, 15kW, 28V, d.c., (Petbow type)			

ITEM 13

TROLLEY, AIR COOLING AND PRESSURE-CABIN TESTING, Mk. 3A



A.P. Reference 2306R

Stores Ref. 4F/2584

Classification I

Overall dimensions

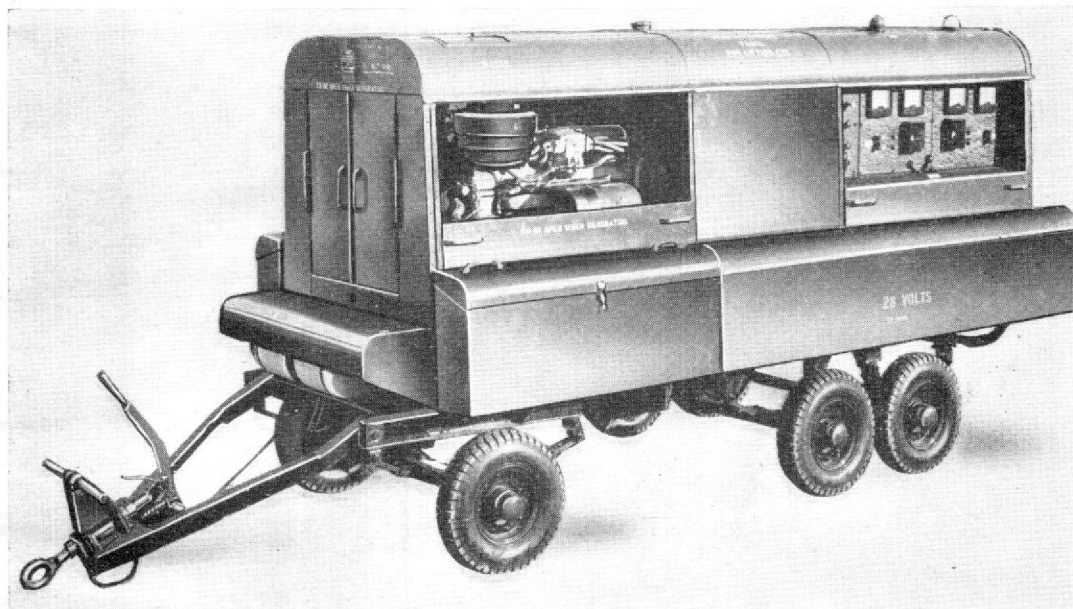
Length 10 ft. 5 in. **Width** 6 ft. 2½ in. **Height** 6 ft. 0 in.

Weight (dry) 5,336 lb.

Brief description This trolley is used to supply air to the cabins of aircraft on the ground for services which include cooling, heating, fumigating, deodorizing, and pressure testing. The trolley equipment is mounted on a four-wheeled chassis fitted with a draw-bar and front wheel steering, and is totally enclosed for weather protection. Power for operating the various services is provided by a Rolls-Royce B.81 Mk. 50G gasoline engine which is direct-coupled to a Godfrey M.2000/7 positive displacement blower. The charge air is supplied by the blower and, when used for cooling, it passes through two fan-cooled air-to-air heat exchangers and a Godfrey CA-9 Mk. 3 cold air unit; for other services, the cooling circuit is by-passed. The performance, measured at the trolley outlets, is 1,500 cu. ft. of free air per min. at pressures up to 12 lb. per sq. in. for pressure testing, and 1,860 cu. ft. per min. at 0.5 lb. per sq. in. (g) pressure for other services. When supplying cooling air, in ambient temperatures up to 120 deg. F., the trolley provides a temperature drop of 90 deg. F. The heating capacity is 300,000 B.Th.U/hr. (min.).

ITEM 14

TROLLEY, SERVICING AND STARTING, ELECTRICAL, 10/40 kW.



A.P. Reference 2306M

Stores Ref. 4F/2394

Classification I

Overall dimensions

Length 12 ft. 0 in. Width 4 ft. 3 in. Height 5 ft. 3 in.

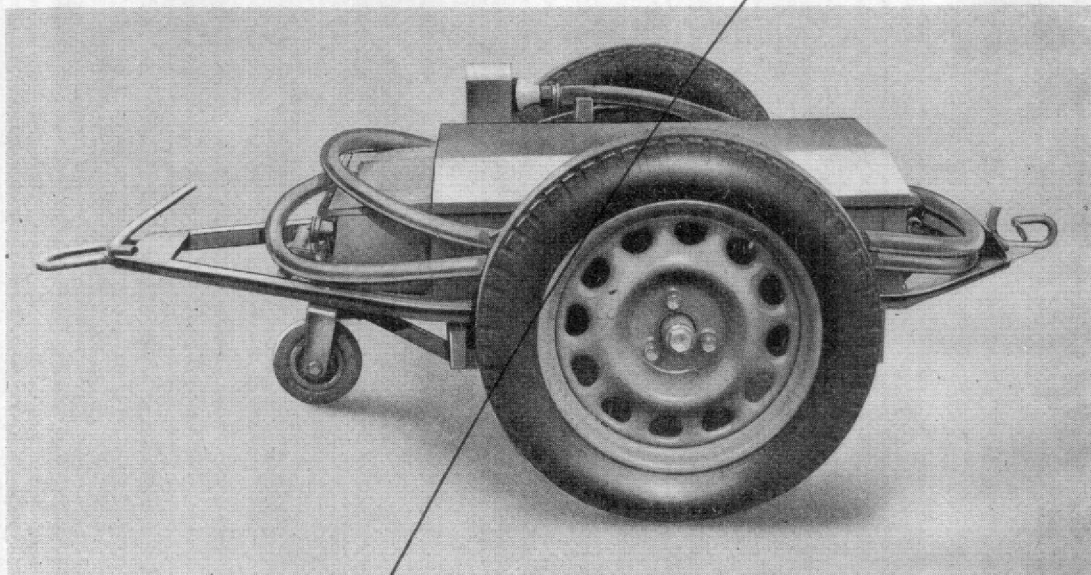
Weight (approx.) 45 cwt.

Brief description This trolley is used for servicing aircraft radio and electrical equipment and for starting jet aircraft engines. The trolley consists of a six-wheeled chassis on which is mounted a Rolls-Royce Type B60 Mk. 50G, 115 b.h.p., 3,250 r.p.m., water-cooled gasoline engine, which drives a main generator of 40 kW, 112 volts, d.c., and an auxiliary generator of 10 kW, 28 volts, d.c.; a control panel carries the instruments and controls for operating the trolley. The trolley provides a continuous output of 350 amps at either 28 or 112 volts, d.c., for normal aircraft servicing, and a peak output, for a few seconds duration at one minute intervals, of 800 amps., 112 volts, d.c., for engine starting. The equipment is totally enclosed for weather protection. Brakes are fitted to the front wheels and are operated by an override device or by a hand lever mounted on the tow-bar.

RESTRICTED

ITEM 15

TROLLEY, ACCUMULATOR, ELECTRIC STARTING, Mk. 5



A.P. Reference 2306H, Vol. 1, and Vol. 6, Part 1, Chap. 2

Stores Ref. 4F/1718

Classification 2 1

Overall dimensions

Length (including tow-bar) 7 ft. 2 in.

Width 3 ft. 9½ in.

Height 2 ft. 4½ in.

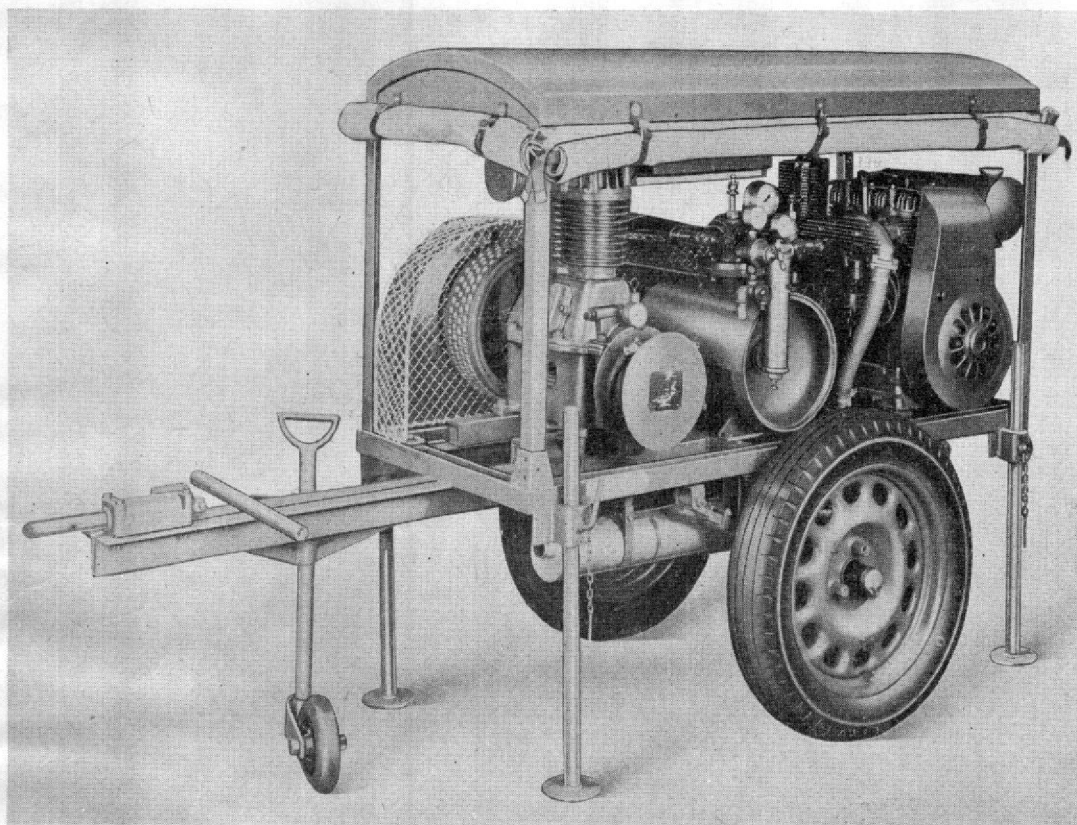
Weight 8 cwt.

Brief description This trolley is for use where a 24-volt, d.c. supply is required, particularly for starting aircraft turbine engines which require steady current loads of 200-600 amp. for short periods with momentary peaks of 2,000 amp. The trolley incorporates four 6-volt accumulators of 230 amp. hr. capacity, connected in series to provide a 24-volt supply with appropriate operating controls, the whole being mounted on a two-wheeled chassis.

RESTRICTED

ITEM 16

TROLLEY, SERVICING, LOW PRESSURE PNEUMATIC, Mk. 1A



A.P. Reference 2306D, Vol. I, Part I, Chap. I

Stores Ref. 4F/1725

Classification I

Overall dimensions

Length 8 ft. 10 in.

Width 3 ft. 10 in.

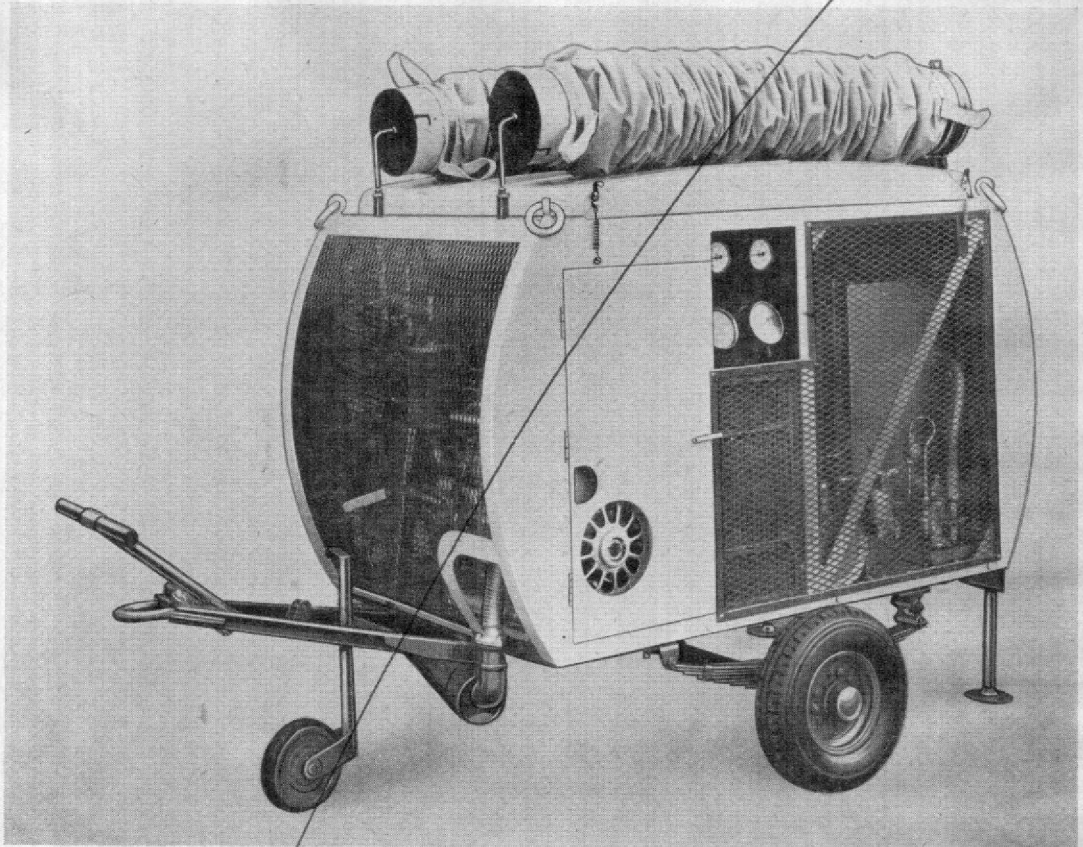
Height 5 ft. 10 in.

Weight 12 cwt.

Brief description The compressed air plant in this trolley is used for the operation of pneumatic tools, tyre inflation, sand blasting, or for dope and paint spraying. The trolley is equipped with a J.A.P. 55 gasoline engine, an air compressor, air receiving tank, and air regulating and reducing valves. Four drop legs give stability to the trolley when the compressor is in use, and a jockey wheel assists manipulation of the trolley when it is moved by hand. The length of the tow bar is 3 ft. 4 in.

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TROLLEY, AIR COOLING, Mk. 1



A.P. Reference 4350A

Ref. No. 4F/1785

Classification 1

Overall dimensions

Length (less tow-bar) 5 ft. 11 in.

Width 4 ft. 4 in.

Height 5 ft. 2 in.

Weight (approx.) 13 cwt. 3 qr. 15 lb.

Brief description This self-contained air cooling unit is used to produce and deliver cooled air to cabins and confined spaces in aircraft on the ground. The power unit is an air-cooled, J.A.P. model 55 gasoline engine. The engine drives the compressor and two fans in the refrigeration plant, which has a maximum refrigeration capacity of 24,000 B.Th.U per hour. The cooled air is delivered through 8 in. dia. bore flexible asbestos hose.

~~RESTRICTED~~

ITEM 21

TROLLEYS, SERVICING, ELECTRICAL, Mk. 4



A.P. Reference 2306M

Ref. No. 4F/1913

Classification 1

Overall dimensions

Length (less tow-bar) 10 ft. 0 in. **Width** 2 ft. 11 in. **Height** 4 ft. 7 in.

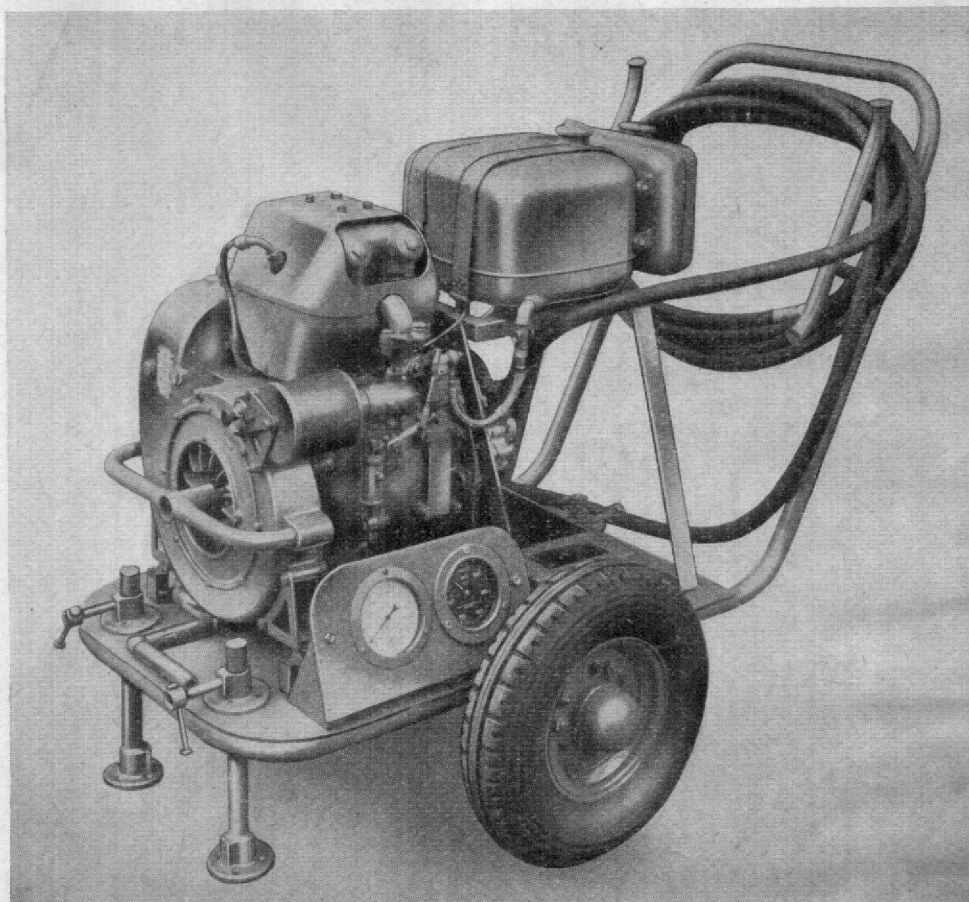
Weight 11 cwt.

Brief description This trolley is used to supply the power when servicing or testing aircraft radar and other electrical equipment. The trolley incorporates a generator which is driven by a 10 h.p. water-cooled Ford engine and has a 10 kW d.c. generator (output 30 volts, 358 amp.). The tow-bar is 3 ft. 1 in. long and, when unsupported, applies the brakes on the front wheels.

RESTRICTED

ITEM 23

TROLLEY, SERVICING, HYDRAULIC, Mk. 2



A.P. Reference 2306B

Stores Ref. 4F/1685

Classification I

Overall dimensions

Length 4 ft. 7 in.

Width 2 ft. 10 in.

Height 3 ft. 3 in.

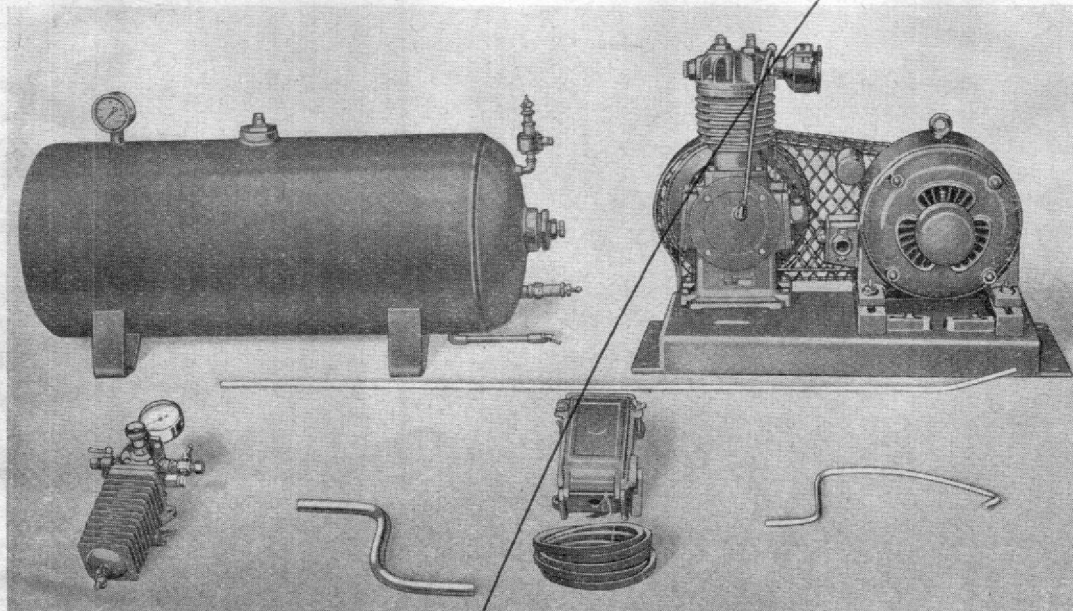
Weight 3 cwt. 3 qr. (tanks empty)

Brief description This trolley is used for servicing and testing aircraft hydraulic systems and components. A hydraulic pump is not supplied with the trolley, as a pump similar to the one used on the aircraft under test must be coupled to the engine on the trolley; adapters for this purpose are provided to suit the various types of hydraulic pumps. The trolley engine speed can be varied between 1,300 and 4,000 r.p.m. to enable the hydraulic pump fitted to the trolley to be driven at the same speed as the pump fitted in the system under test.

~~RESTRICTED~~

ITEM 24

COMPRESSOR, AIR, TYPE F



A.P. Reference 4118A

Stores Ref. 4F/1366

Classification 2

Overall dimensions

Length

Width

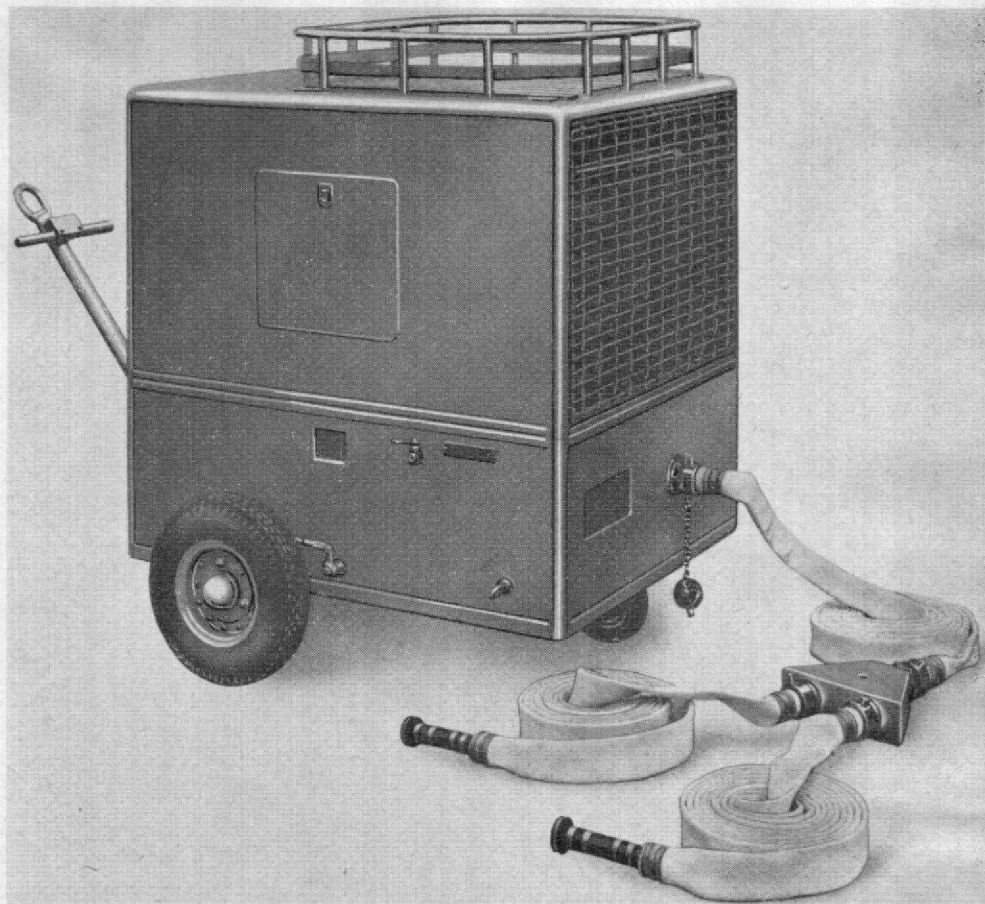
Height

Weight 450 lb. (approx.)

Brief description This compressor set is normally installed in a mobile workshop vehicle and is used for servicing operations requiring the use of compressed air. It may be fitted with either the A.I.D. compressor, Model A.S.10 (Stores Ref. 4F/1770) or the Bristol compressor, Model B.C. (Stores Ref. 4F/1771). The compressor is driven by a 230 volt, 50 cycles, single phase motor, and has a capacity to deliver 9 cu. ft. of free air per minute at 150 lb. per sq. in at 600 r.p.m.

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ITEM 29

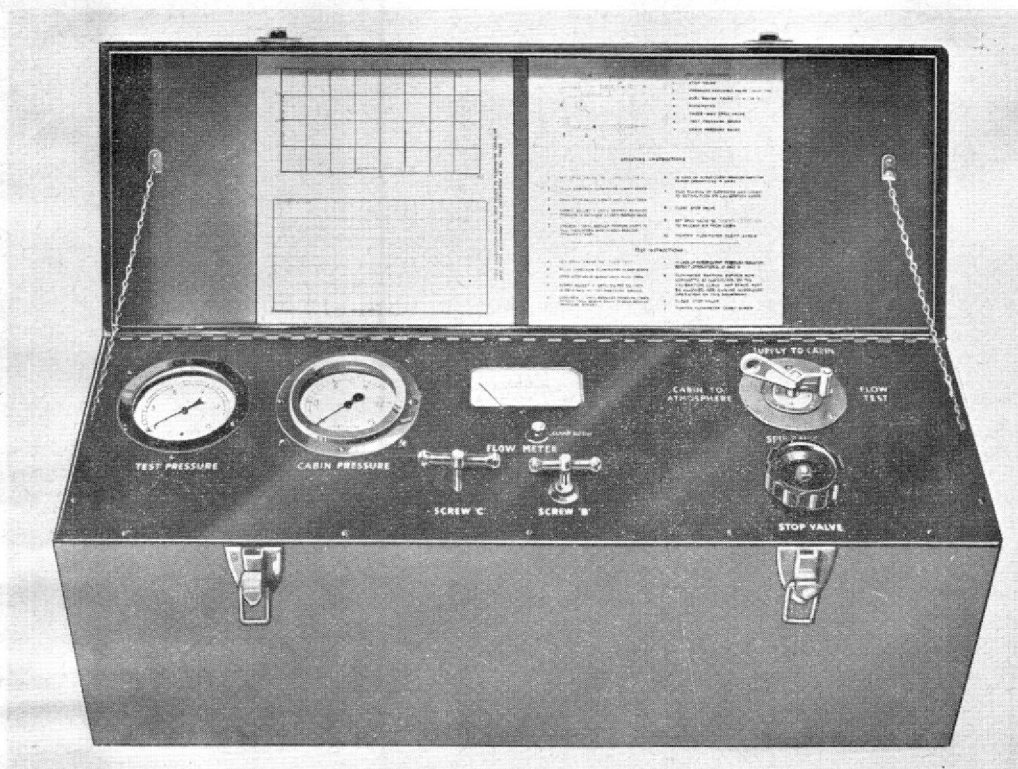
TROLLEY, AIR SUPPLY, Mk. 5**A.P. Reference** 2306S**Ref. No.** 4F/4506**Classification** 1**Overall dimensions****Length** (towbar up) 4 ft. 0 in.
(towbar down) 6 ft. 0 in.**Width** 4 ft. 0 in.**Height** 4 ft. 1 in.**Weight** 975 lb.

Brief description This trolley is used to supply relatively dry air, at or about ambient temperature, to the ventilated suits worn by aircrew whilst in an aircraft awaiting take-off. The trolley consists of a three-wheeled trailer chassis on which is mounted a Coventry Victor AN4 Mk. 2B gasoline engine driving a Roots type blower and the Sternette twin-cylinder compressor of a refrigeration plant comprising a condenser, evaporator, pre-cooler, cooling fans and control valves. The equipment is enclosed in a sheetmetal canopy fitted with access doors and panels. A 2-inch bore delivery hose connects the trolley air outlet to a distributor which supplies three suits through separate $\frac{5}{8}$ in. bore hoses, or alternatively, to a distributor which supplies two 2-inch bore hoses. The free air delivery at the end of the hose is 2 lb./min. for a 2-suit supply or 4 lb./min. for a 4-suit supply, at an air pressure of 6 lb. per sq. in.

RESTRICTED

ITEM 30

AIRCRAFT PRESSURE-CABIN TESTING UNIT (NAVAL)



A.P. Reference 1464G, Vol. 1, Part 2, Sect. 5, Chap. 6

Ref. No.

Classification 2

Overall dimensions

Length 2 ft. 11 in.

Width 12 in.

Height 13 in.

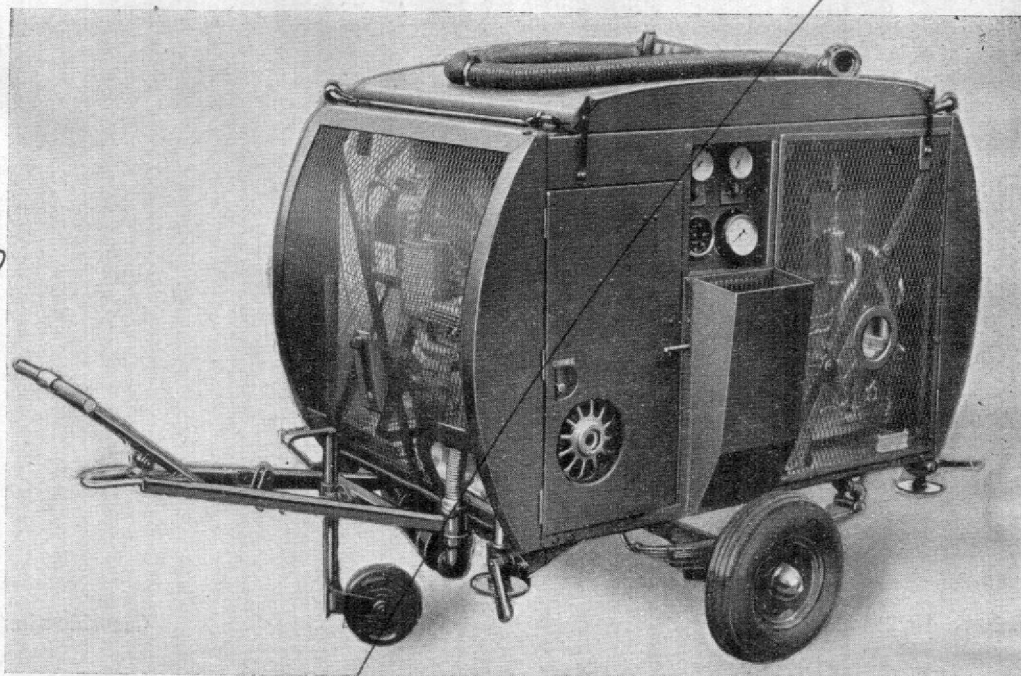
Weight (less hoses) 65 lb.

Brief description This portable testing unit is used in aircraft carriers to indicate the rate of air leakage from aircraft pressurized cabins. The unit is operated from the air supply of the ship (normally 120 cu. ft. per min. at 120 — 150 lb. per sq. in. pressure) and controls the delivery air pressure, between 1 — 10 lb. per sq. in., to suit the requirements of the aircraft under test. It also indicates the rate and pressure of the air delivered so that the leakage rate of the aircraft cabin can be ascertained. Two air hoses are supplied with the unit.

RESTRICTED

ITEM 31

TROLLEYS, AIR COOLING, Mk. 2A and 2C



A.P. Reference 4350A

Ref. No. 4F/2002 (Mk. 2A); 4F/5221 (Mk. 2C)

Classification 1

Overall dimensions

Length (less tow-bar) 5 ft. 11 in.

Width 4 ft. 4 in.

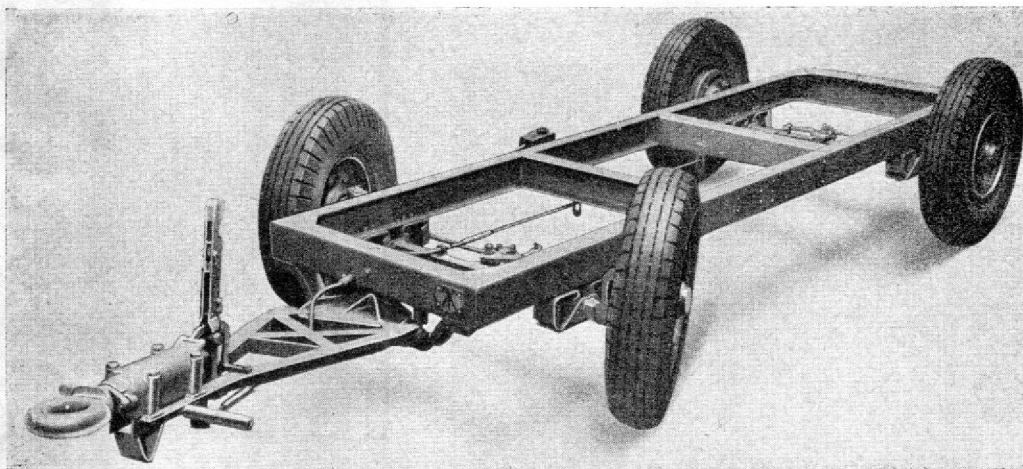
Height 4 ft. 8½ in.

Weight 17 cwt. 0 qr. 16 lb.

Brief description These trolleys are used to provide cool air to facilitate the ground running and testing of aircraft radar installations. Each unit is mounted on a two-wheeled chassis and consists of a "Prestcold" mechanical refrigeration plant driven by a J.A.P. Model 55 engine. A Godfrey Type K.200/25/1 air blower draws in air from the atmosphere and forces it under pressure through the air cooler, from which cool air is delivered through a 20 ft. length of 2 in. dia. flexible hose to the radar installation. The unit has a maximum refrigeration capacity of 24,000 B.Th.U./hour and will deliver 10 lb. of air per minute at 1 lb. per sq. in. gauge. At ambient temperatures of 110–120 deg. F., the air delivery temperature is at least 56 deg. F. below the ambient conditions. The Mk. 2C trolley has an extra fuel tank to allow for 4½ hours continuous running.

~~RESTRICTED~~

CHASSIS, STANDARD, 35 CWT., Mk. 2, TYPES A, B and C



A.P. Reference 1464G, Vol. 1, Part 2, Sect. 5, Chap. 37

Ref. No. 4F/2017, 2018, 2019

Classification 2

Overall dimensions and weight

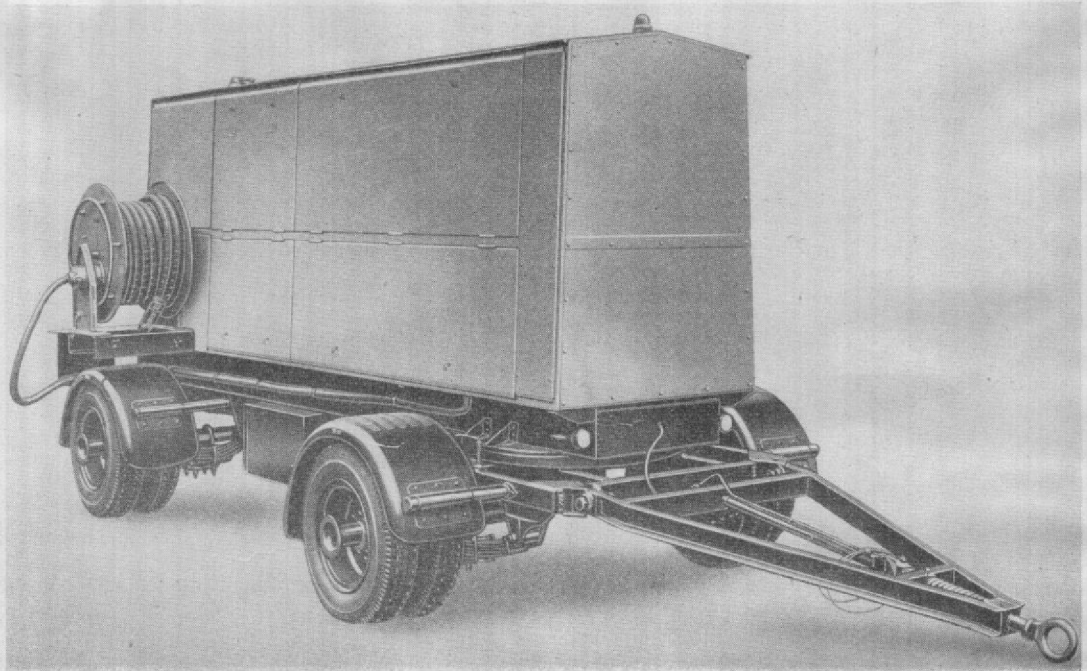
	Type A	Type B	Type C
Length (with towbar)	14 ft. 6½ in.	16 ft. 6½ in.	18 ft. 6½ in.
Length (frame)	8 ft. 0 in.	10 ft. 0 in.	12 ft. 0 in.
Width	4 ft. 9½ in.	4 ft. 9½ in.	4 ft. 9½ in.
Height (wheels)	2 ft. 3½ in.	2 ft. 3½ in.	2 ft. 3½ in.
Height (frame)	1 ft. 5 in.	1 ft. 5 in.	1 ft. 5 in.
Weight	7 cwt. 1 qr.	7 cwt. 1 qr. 14 lbs.	7 cwt. 3 qr.

Brief description This equipment is designed to provide chassis of a standard pattern for carrying various types of aircraft ground servicing equipment. The three types of chassis are similar in construction and differ only in the length of the frame. Each chassis will support a load of up to 35 cwt. The chassis frame is of channel section and is rubber-suspension mounted on the front and rear axles. Steering is effected by the lateral movement of the drawbar. Brakes on the rear wheels are operated by either an overrun device or a hand lever on the drawbar. A towing hook at the rear enables two or more chassis to be towed in train.

~~RESTRICTED~~

ITEM 33

TROLLEYS, SERVICING AND STARTING, ELECTRICAL, Mk. 3 AND 4, 12/50 kW



A.P. Reference 2306M, 4343S

Stores Ref. 4F/2400 (Mk. 3—engine driven)
4F/2401 (Mk. 4—electric motor driven)

Classification I

Overall dimensions

Length (less tow-bar) 12 ft. 4½ in. **Width** 7 ft. 0 in.

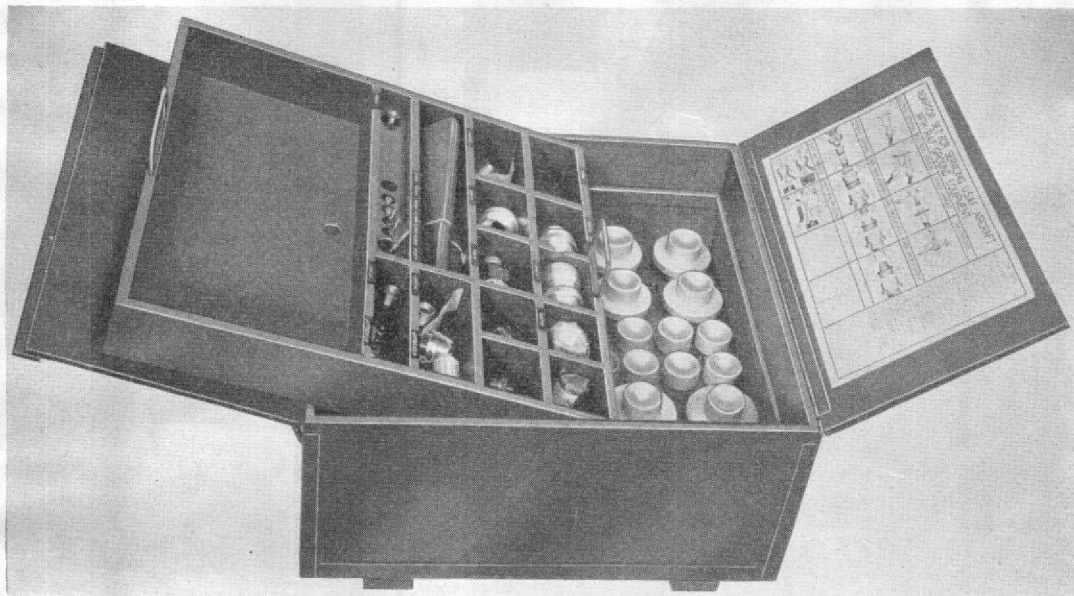
Height 6 ft. 9 in.

Weight 4 tons 3 cwt. 1 qr.

Brief description These trolleys are used to supply the power for starting the engines and for servicing the electrical and radio equipment installed in heavy bomber aircraft. The Mk. 3 trolley consists of an eight-wheeled chassis on which is mounted a 12/50 kW, d.c. generator driven by a Rolls Royce, B.8I, Mk. 5G gasoline engine. The generator is of the dual-voltage type providing two simultaneous sources of power, one at 28 volts giving 12 kW and the other at 112 volts giving 50 kW. A control panel is mounted above the generator and carries the instruments and controls necessary for operating the trailer. Brakes fitted to the front wheels are operated by either an overrun device on the tow-bar or a hand wheel at the side of the trailer. The Mk. 4 trolley is the electric motor driven version of the Mk. 3 trolley; the generator is driven by a screened, slip-ring induction motor of 100 h.p., 2,900 r.p.m., 415 volts, 3-phase, 50 cycles, continuous rating.

ITEM 34

KITS, ADAPTER, FOR U.S.A.F. AIRCRAFT SERVICING



A.P. Reference 1464G, Vol. 1, Part 2, Sect. 5, Chap. 36

Stores Ref. 4F/2185 (*Fighter adapter kit*)
4F/2186 (*Bomber adapter kit*)

Classification 2

Overall dimensions(packed in container)

Length 2 ft. 2 in.

Width 2 ft. 1 in.

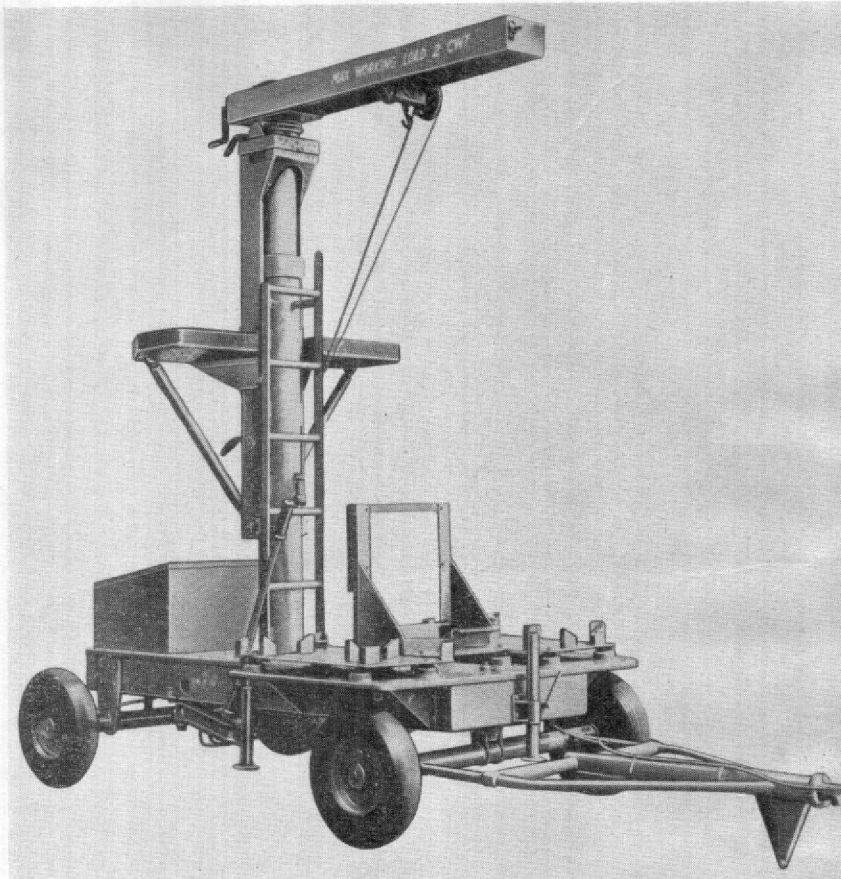
Height 1 ft. 0 in.

Weight 2 cwt. (*approx.*)

Brief description Each of these kits is contained in a wooden box and consists of the adapters necessary to enable R.A.F. standard ground servicing equipment to be used when servicing U.S.A.F. aircraft on British airfields. The bomber adapter kit contains all the items included in the fighter adapter kit, plus certain additional adapters.

~~RESTRICTED~~

ITEM 35

TROLLEY, RADAR SERVICING, TYPE A**A.P. Reference** 4552A**Stores Ref.** 4F/1933**Classification** I**Overall dimensions****Length** 10 ft. 11 in.**Width** 3 ft. 10 in. **Height** (ram retracted) 7 ft. 0 in.**Weight** 9 cwt. 2 qr.

Brief description This trolley is used during aircraft servicing operations for the removal, transportation and installation of aircraft radar units. The trolley consists of a four-wheeled chassis on which is mounted a manually-operated crane, a platform for servicing personnel, a tool box, and rubber mountings for carrying the radar equipment on the chassis platform. The crane is adjustable hydraulically for heights between 5 ft. 6 in. and 10 ft. 0 in. Four stabilising legs are fitted to the chassis. The maximum working load of the crane is 2 cwt.

(A.L.25, Sept. 55)

ITEM 36

TROLLEY, RADAR SERVICING, TYPE B



A.P. Reference 4552A

Stores Ref. 4F/1723

Classification I

Overall dimensions

Length 5 ft. 7 in.

Width 3 ft. 6 in.

Height (ram retracted) 6 ft. 6 in.

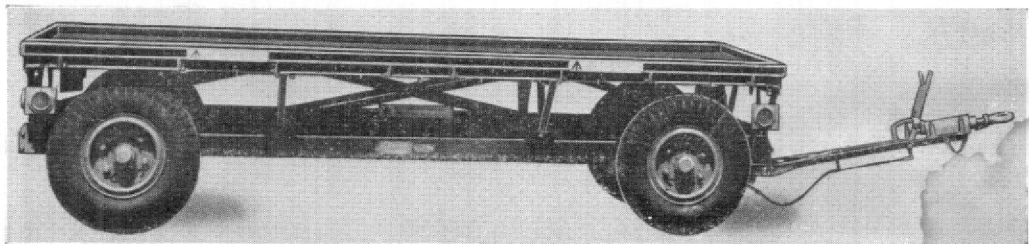
Weight 5 cwt. 1 qr. 12 lb.

Brief description This trolley is used during aircraft servicing operations for the removal, transportation and installation of aircraft tail warning radar units. The trolley consists of a four-wheeled chassis on which is mounted a manually-operated crane, a weatherproof box fitted with rubber mountings for carrying two radar units, and a tool locker. The crane is adjustable hydraulically for heights between 5 ft. 4 in. and 9 ft. 0 in. Four stabilising legs are fitted to the chassis. The maximum working load of the crane is 1 cwt.

~~RESTRICTED~~

ITEM 37

TROLLEY, PLATFORM, AIRCRAFT SERVICING, G.P.



A.P. Reference 1464G, Vol. 1, Part 2, Sect. 5, Chap. 37

Ref. No. 4F/2061

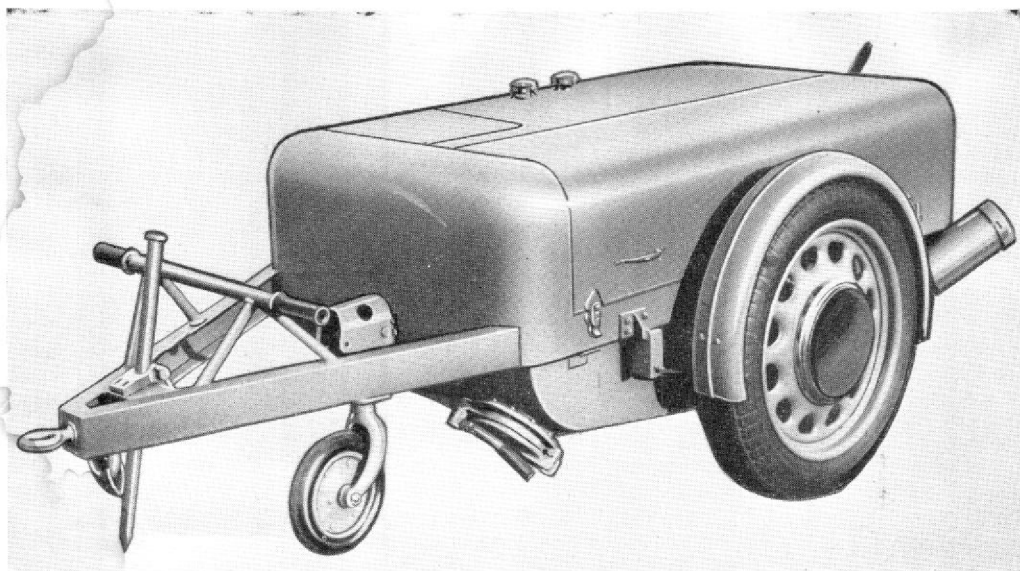
Classification 2

Overall dimensions

Length (with tow-bar) 18 ft. 6½ in. **Width** 5 ft. 0 in. **Platform height** 2 ft. 7¾ in.

Weight 14 cwt. 2 qr.

Brief description This platform trolley is used for transporting heavy aircraft components during aircraft servicing. The trolley consists of a Mk. 2, Type C standard chassis (ITEM 32) on which is mounted a metal platform 12 ft. long and 5 ft. wide. The load supported on the trolley must not exceed 35 cwt. A canvas canopy and a canopy support can be fitted to the platform when the trolley is used solely for transporting guns and ammunition.

TROLLEY, SERVICING, AIRCRAFT TOILET, Mk. 3**A.P. Reference**

Ref. No. 4F/2344

Classification 2

Overall dimensions

Length 8 ft. 4 in.

Width 4 ft. 3 in.

Height 2 ft. 8 in.

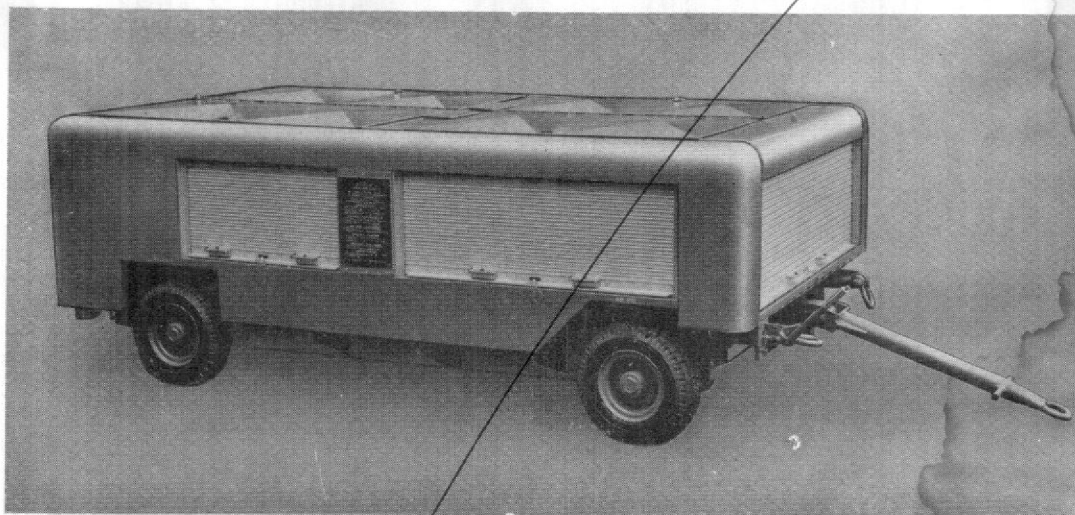
Weight (empty) 5½ cwt.

Brief description This trolley is used for the ground servicing of self-flushing chemical toilets fitted in V.I.P. aircraft. The trolley consists of a two-wheeled chassis which carries a 60 gallon sump tank, 14 gallon sluice tank, 8 gallon charge tank, a pump unit operated by a 24-volt battery, and a control panel; a hand pump also is incorporated for use in the event of an electrical failure. The sewage is drained by gravity from the aircraft toilet system through a 4 in. bore flexible funnel fitted to the sump tank inlet. The front castor wheel is retractable to allow the trolley to be tipped to press the rubber top of the funnel against the aircraft to form a seal around the sewage outlet; the trolley being held in this position by a prod fitted to the drawbar. Water is then pumped from the sluice tank, through a 1 in. hose connected to the aircraft, to flush the toilet system, which is then charged with chemical solution from the charge tank; the passage of the water and solution being controlled by a regulating valve and time switch. The solution consists of ¼ pint of Fluid, disinfectant, "Racasan" (33F/400) to each gallon of water. A 6 in. bore drain valve in the base of the sump tank is fitted with a quick-action release and is used for draining the sewage into a ground manhole. The tanks have sufficient capacity for servicing five aircraft toilets.

RESTRICTED

ITEM 53

TROLLEYS, SERVICING, HYDRAULIC, Mk. 4A, 4B and 4C (FOR NAVAL USE ONLY)



A.P. Reference 2306B

Ref. No. (Mk. 4A) 4F/
(Mk. 4B) 4F/3150
(Mk. 4C) 4F/3551

Classification I

Overall dimensions

Length (less towbar) 10 ft. 0 in.

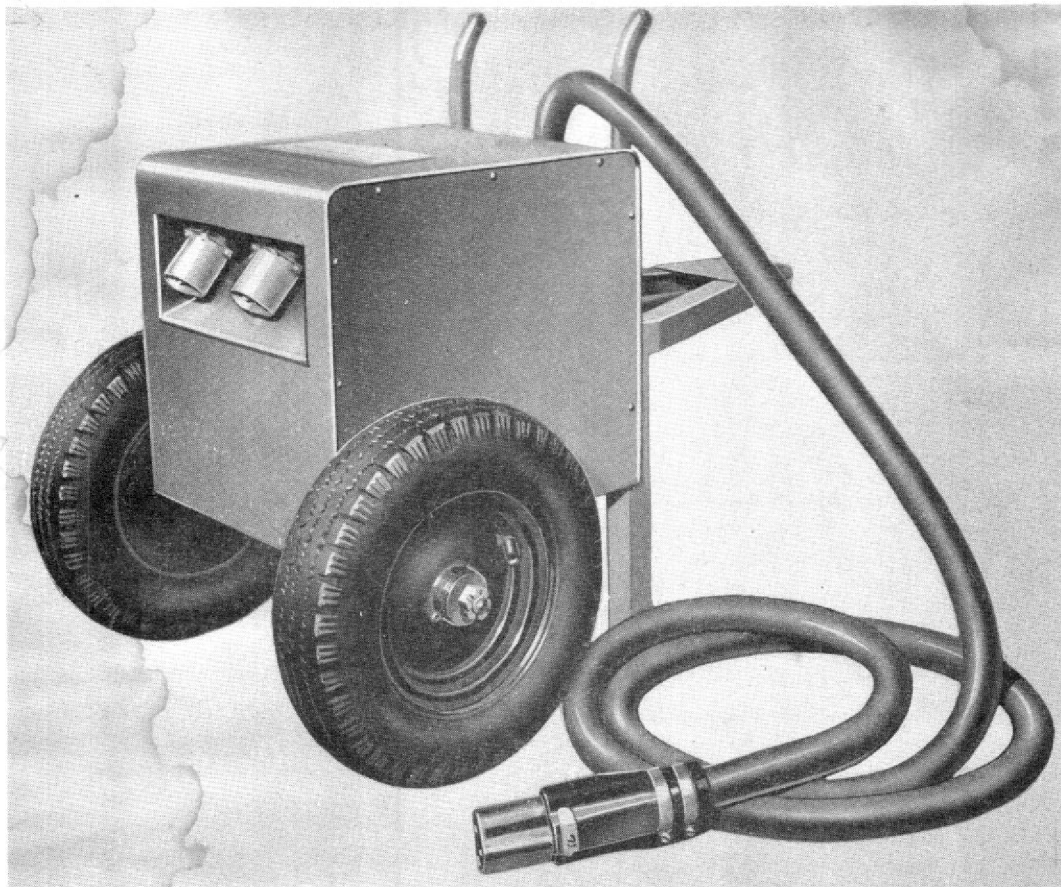
Width 5 ft. 10 in.

Height 3 ft. 7 in.

Weight (approx.) $2\frac{3}{4}$ tons

Brief description These trolleys are used for the functional testing on the ground of aircraft hydraulic systems operating at pressures up to 5000 lb. per sq. in. Each trolley is a mobile self-contained unit in which a power unit drives four pumps installed in a hydraulic system arranged in two separate circuits. Each circuit is provided with its own control valves, gauges, closed tank, and two pumps, and gives a total delivery of 8 g.p.m. at pressures up to 5000 lb. per sq. in. The trolley can be controlled to deliver two separate fluid flows of 0—8 g.p.m. simultaneously from each of No. 1 and No. 2 circuits, or a single fluid flow of 0—16 g.p.m. utilising the combined output of both circuits. The pressure and return hoses for connecting the trolley to an aircraft are stowed inside the trolley canopy. The trolleys differ only in the type of power unit installed; the Mk. 4A trolley has a Rolls-Royce B.60, No. 1, Mk. 5D water-cooled gasoline engine, the Mk. 4B trolley has a Petter McLaren PDV8 air-cooled diesel engine, and the Mk. 4C trolley has a Newman Industries electric motor of 400/440 volts, a.c., 3-phase, 50 cycles.

TROLLEY, PARALLELING, 112 VOLT



A.P. Reference 4343S, Vol. I, Sect. 23, Chap. 18

Ref. No. 4F/2957

Classification 2

Overall dimensions

Length 3 ft. 6½ in.

Width 2 ft. 1¼ in.

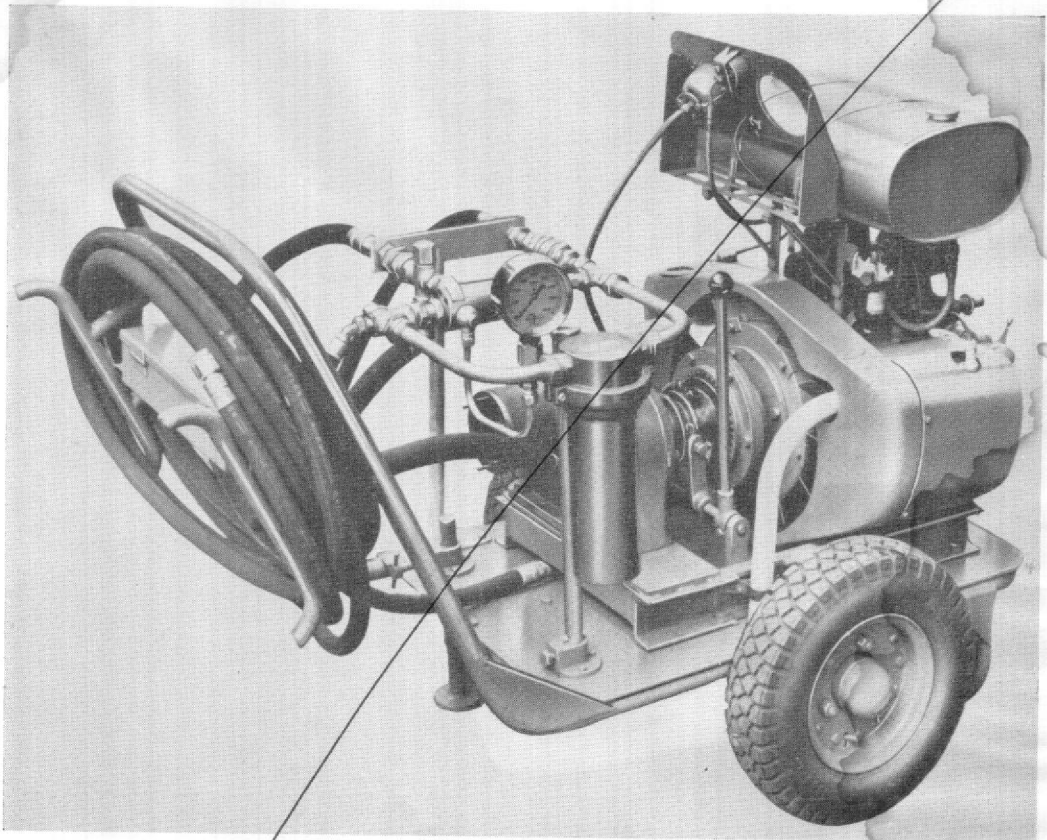
Height 2 ft. 7¼ in.

Weight 100 lb.

Brief description This trolley is for use with the electrical servicing and starting trolleys (Ref. No. 4F/2400, 2401 and 2394) to enable any two of these trolleys to be coupled together in parallel and their combined output used for starting gas-turbine engines that require a higher starting current than can be supplied by any single trolley of existing types. The trolley components are contained in a sheet-metal box mounted on an axle fitted with two 16 × 4 in. pneumatic tyred wheels. A towing frame and a cable carrier are attached to the box, which houses two relays, a rectifier and a H.E.D. contactor, and is fitted with two N.A.T.O. input plugs, marked "main set" and "boosting set" respectively, for connecting the trolley cables. A 15 ft. length of cable protruding from the box has a 112 volt N.A.T.O. socket at its end for connecting the trolley output to the external supply plug on an aircraft.

RESTRICTED

ITEM 57

TROLLEY, SERVICING, HYDRAULIC, Mk. 2D

A.P. Reference 2306B

Ref. No. 4F/3229

Classification 1

Overall dimensions

Length 4 ft. 11 in.

Width 2 ft. 10 in.

Height 3 ft. 5 in.

Weight 4 cwt. 2 qr.

Brief description This trolley is used for the ground testing and servicing of aircraft hydraulic systems operating at pressures up to 4000 lb. per sq. in. The trolley consists of a two-wheeled platform chassis on which is mounted a Coventry Victor Type AN4 Mk. 3 gasoline engine fitted with a lever-operated clutch which transmits the drive to a gearbox. Provision is made on the gearbox casing for mounting a hydraulic pump which is connected by a coupling to the driving shaft; the pump must be identical to the engine-driven pump of the system under test. The trolley is a modified version of the Mk. 2B trolley (ITEM 25), being fitted additionally with a castor wheel under the chassis, and a 5-micron filter, a pressure differential relief valve, a non-return valve and a pressure gauge on the delivery side of the pump. Accessories include a range of couplings to suit the various types of pump shafts and three 18 ft. hoses fitted with $\frac{3}{4}$ in., $\frac{1}{2}$ in. and $\frac{3}{8}$ in. B.S.P. connections respectively. The engine speed can be varied to provide pump speeds of between 1300 and 3900 r.p.m.

RESTRICTED

ITEM 58

TROLLEY, SERVICING, ELECTRICAL, 10 kVA



A.P. Reference 2306M

Ref. No. 4F/3142

Classification 1

Overall dimensions

Length (towbar up) 7 ft. 11 in.
(towbar down) 10 ft. 8 in.

Width 3 ft. 9 in.

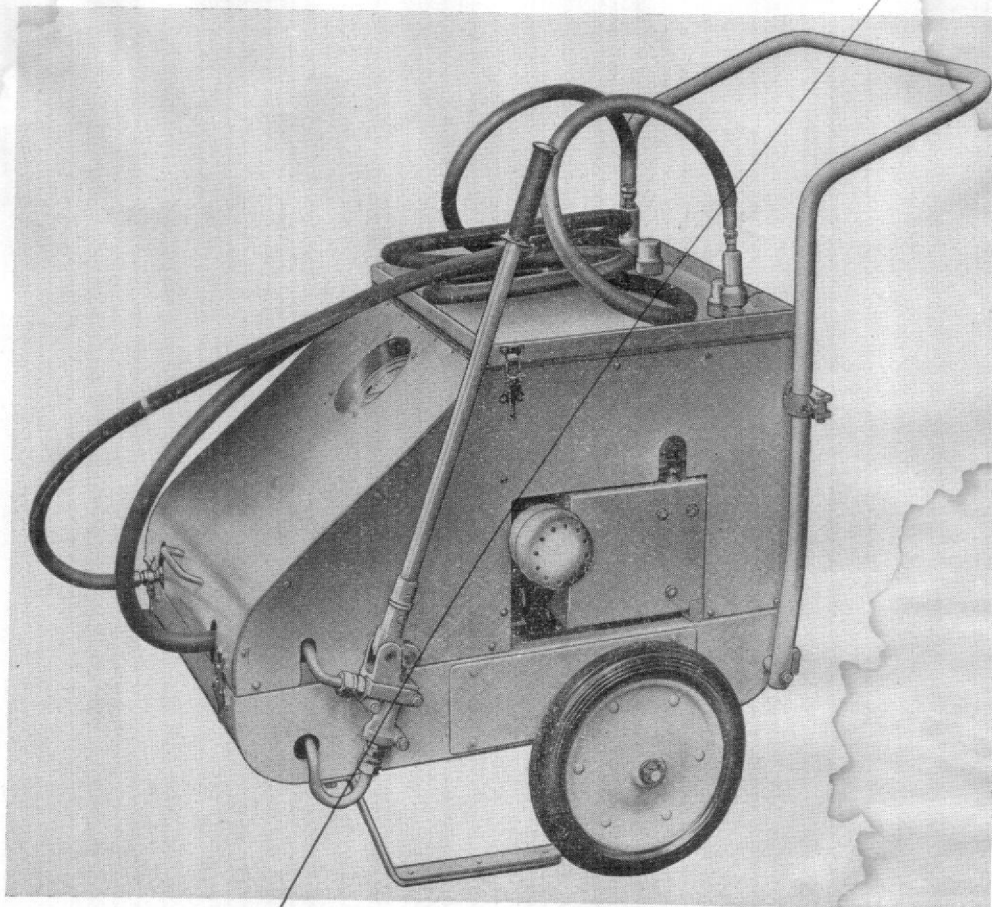
Height 5 ft. 6 in.

Weight

Brief description This trolley is used to provide a high quality mobile electrical power supply of 115 volts, 2400 c.p.s., a.c., for the ground servicing of aircraft equipped with G.W. installations, and is used in conjunction with the appropriate aircraft installation test set. The trolley consists of a G.E.C. 10 kVA generator driven by a Ford Zephyr 6-cylinder industrial engine mounted, with the associated components, on a four-wheeled chassis. The trolley is totally enclosed for weather protection.

RESTRICTED

TROLLEYS, SERVICING, HYDRAULIC, MINIATURE, Mk. IB and IC

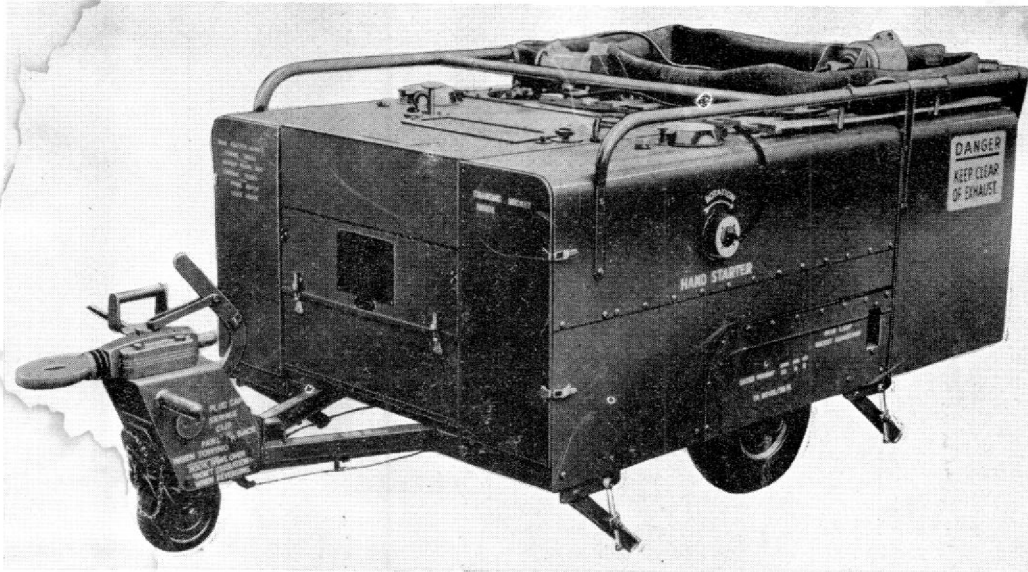
**A.P. Reference** 2306B**Ref. No.** 4F/3909 (Mk. IB trolley)
4F/3910 (Mk. IC trolley)**Classification** I**Overall dimensions** (handle folded)**Length** 3 ft. 0½ in.**Width** 2 ft. 0½ in.**Height** 3 ft. 1 in.**Weight** 308 lb. (Mk. IB) 330 lb. (Mk. IC)

Brief description These trolleys are used in the Royal Navy for the ground functional testing of aircraft hydraulic systems operating at pressures of 3000 or 4000 lb. per sq. in. Each trolley is a light mobile unit in which a power unit drives a pump installed in a hydraulic system which can be controlled to deliver a fluid flow of one gallon per minute at pressure up to 4000 lb. per sq. in.; the system also incorporates a hand pump, filter, cooler, pressure gauge, and the necessary valves for controlling the output pressure. The trolley is connected to the aircraft by suction and delivery hoses fitted with self-sealing couplings and uses the hydraulic fluid in the aircraft reservoir, the pump delivery entering the aircraft system at a point which will enable the airborne hydraulic controls to be operated. The trolleys differ mainly in the type of power unit installed; the Mk. IB trolley has a Coventry Victor Type M.A.2 gasoline engine, and the Mk. IC trolley has a 6 h.p. electric motor of 3000 r.p.m. for operation on a 28-volts d.c. mains supply. The illustration above shows the Mk. IB trolley.

RESTRICTED

ITEM 60

TROLLEY, AIR STARTING, LOW PRESSURE, Mk. 2A and 2B



A.P. Reference 4677A and B

Ref. No. 4F/3363 (Mk. 2A)
4F/ — (Mk. 2B)

Classification I

Overall dimensions

Length 9 ft. 10 in.

Width 4 ft. 6 in.

Height 3 ft. 8 in.

Weight (operational) 2031 lb.

Brief description These trolleys are used to supply air at low pressure for starting gas turbine engines in Naval aircraft and are fitted with Mk. 101 and Mk. 102 Palouste air bleed gas turbine engines respectively. The Mk. 101 engine in the Mk. 2A trolley provides a bleed flow of 1.5 lb. of air per second at 40 lb. per sq. in. pressure, and the Mk. 102 engine in the Mk. 2B trolley provides a bleed flow of 2 lb. of air per second at 38.5 lb. per sq. in. pressure; the trolleys are otherwise similar. The engine is mounted in a cradle positioned on the trolley chassis between two 18-gallon fuel tanks and is provided with intake and exhaust silencers to reduce noise. Each trolley is totally enclosed for weather protection and has stowage accommodation for the air delivery hose, electrical cable and two 24-volt batteries. With the delivery hose and electrical cable connected between the trolley and the aircraft, and the trolley engine running at idling speed, the operation of the trolley is semi-automatic; starting of the aircraft engine is then controlled by the pilot in the aircraft. The trolley chassis is mounted on two pneumatic-tyred wheels and has a retractable castor wheel fitted to its towbar; overrun/parking brakes are fitted to the road wheels.

RESTRICTED

ITEM 61

TROLLEY, SERVICING AND STARTING, ELECTRICAL, 35 kW, 28 VOLTS, D.C. (HOUCHIN TYPE)



A.P. Reference 2306M and 4343S

Ref. No. 4F/4190

Classification 1

Overall dimensions

Length (towbar up) 11 ft. 11 $\frac{3}{4}$ in.
(towbar down) 15 ft. 4 $\frac{1}{2}$ in.

Width 5 ft. 6 in.

Height 5 ft. 9 in.

Weight 3 tons 12 cwt. 1 qr.

Brief description This trolley is used to supply the power for the electrical servicing and starting of certain types of aircraft, and provides an intermittent peak load of 2500 amps. for starting and a continuous load of 1250 amps. for servicing. The trolley consists of a four-wheeled trailer chassis on which is mounted a 35 kW, 28 volts d.c. generator driven by an A.E.C. Type AV690 6-cylinder in-line water-cooled diesel engine of 123 b.h.p. at 1800 r.p.m.; a control panel mounted on the rear end of the chassis carries the instruments and controls for operating the trolley. A metal canopy provides weather protection for the trolley equipment and stowage for the supply cables. Brakes are fitted to all four wheels and are operated by an override device or by a hand lever mounted on the towbar.

RESTRICTED

ITEM 62

TROLLEY, AIR SUPPLY, MK. 4



A.P. Reference 2306S

Ref. No. 4F/2376

Classification 1

Overall dimensions

Length 9 ft. 0 in.

Width 4 ft. 6½ in.

Height 6 ft. 4 in.

Weight 2100 lb.

Brief description This trolley is used to supply dehumidified air, at or about ambient temperature, to the air ventilated suits worn by aircrew whilst in an aircraft awaiting take-off. The trolley consists of a two-wheeled chassis on which is mounted a Coventry Victor AN4 Mk. 3 gasoline engine driving a Hall Mk. 2CP mechanical refrigeration plant and a Wade Type 3R.010 air blower. The blower draws in air from atmosphere and delivers it through the cooling plant and a 50 ft. delivery hose to either a connector communicating with the aircraft air supply system or to a distributor head adapter into which the aircrew connect their suit supply pipes direct. The delivery at the end of the hose is 3 lb. of air per minute at 5 lb. per sq. in. pressure, and is sufficient for serving three suits simultaneously. The equipment is covered by a sheetmetal canopy with louvered doors and panels, and the chassis is provided with a towing arm fitted with an adjustable jockey wheel. The pneumatic-tyred wheels are fitted with brakes operated by a hand lever.

RESTRICTED

ITEM 63

TROLLEY, AIR STARTING, LOW PRESSURE, Mk. 4



A.P. Reference 4677C

Ref. No. 4F/3235

Classification 1

Overall dimensions

Length 9 ft. 10 in.

Width 4 ft. 6 in.

Height 3 ft. 8 in.

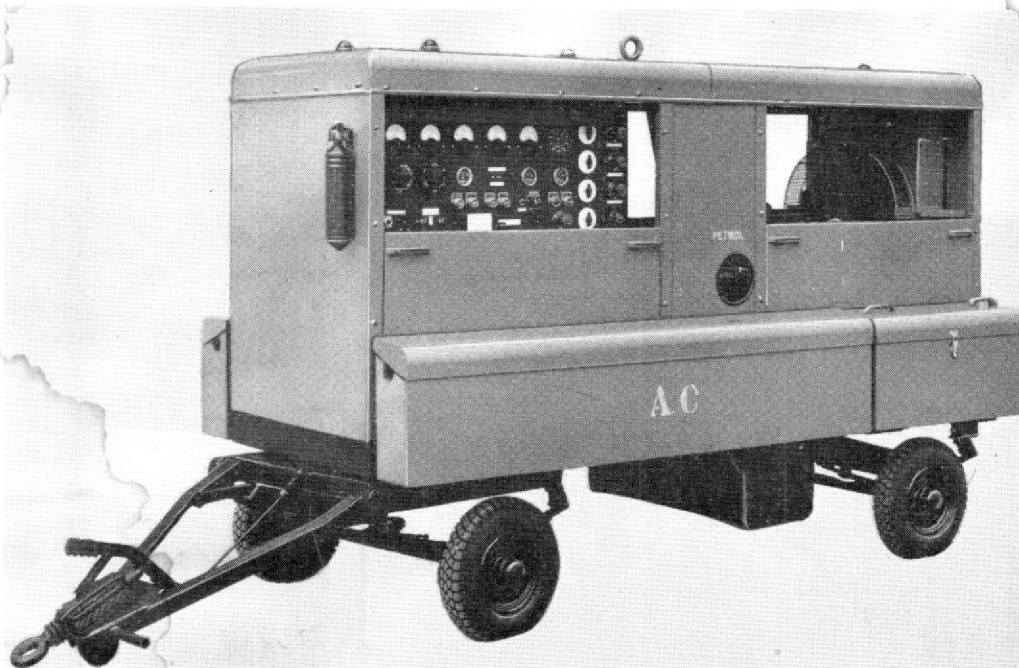
Weight (operational) 2025 lb.

Brief description This trolley is used to supply air at low pressure for starting the engines in multi-engined aircraft. A bleed flow of 2 lb. of air per second at 38.5 lb. per sq. in. pressure is provided by a Palouste Mk. 104 air bleed gas turbine engine, which is mounted in a cradle positioned centrally on the trolley chassis between two 18½-gallon fuel tanks. Air intake and exhaust silencers are provided to reduce engine noise. The trolley is totally enclosed for weather protection and has a stowage rack on the top for the air delivery hose and electrical lead, and compartments at each side which accommodate two 24-volt batteries and the trolley accessories. With the delivery hose and electrical lead connected between the trolley and the aircraft, and the trolley engine running at idling speed, the operation of the trolley is semi-automatic and the engine starting operation is then controlled by the pilot in the aircraft. The trolley chassis is mounted on two pneumatic-tyred wheels and has a retractable castor wheel fitted to its towbar; overrun/parking brakes are fitted to the road wheels.

RESTRICTED

ITEM 64

TROLLEYS, SERVICING, ELECTRICAL, 15 kVA, 200 VOLTS, A.C., 400 C.P.S., and 10 kW, 28 VOLTS, D.C.



A.P. Reference 2306M

Ref. No. 4F/3761 (*engine driven*)
4F/3786 (*electric motor driven*)

Classification 1

Overall dimensions

Length 11 ft. 7 in.

Width 4 ft. 5 in.

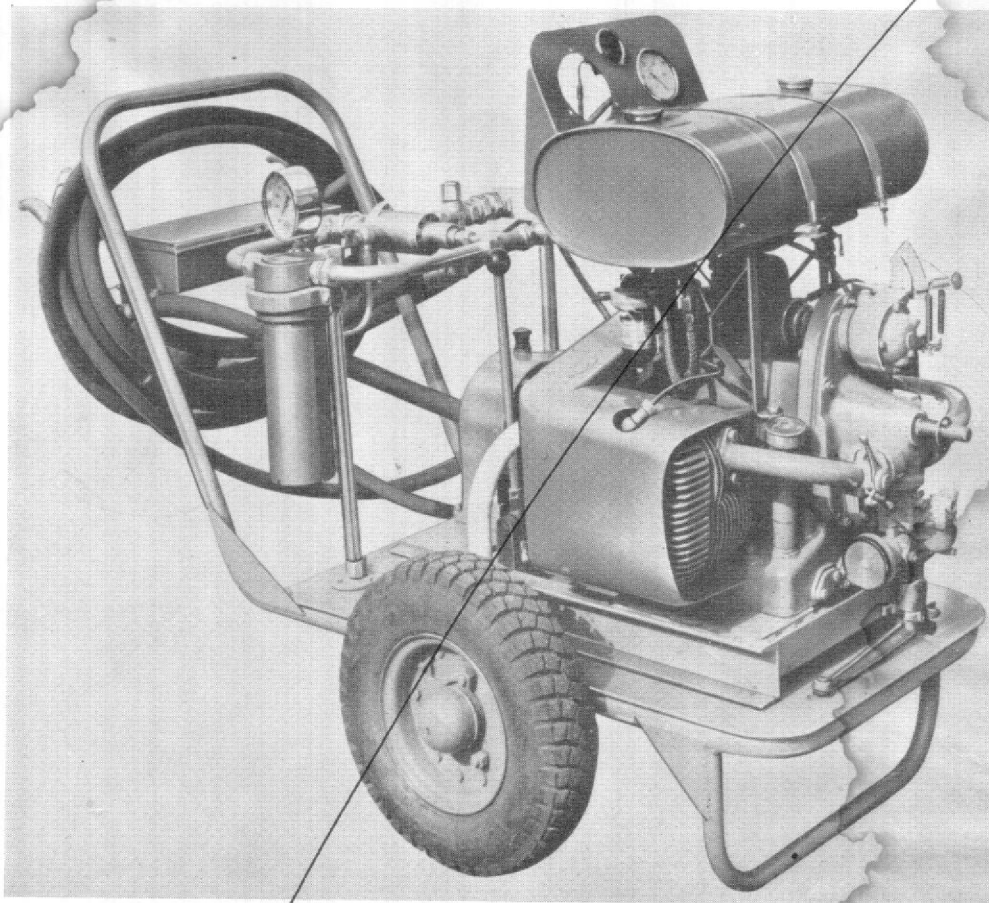
Height 5 ft. 6 in.

Weight 1 ton 11 cwt.

Brief description These trolleys are used for the ground servicing of aircraft requiring a supply of both a.c. and d.c. electrical current. The trolleys have a dual output providing separate power supplies of 15 kVA, 200 volts, a.c., 3-phase, 400 c.p.s., and 10 kW, 28 volts, d.c. The electrical power is provided by a brushless a.c. generator and a shunt-wound d.c. generator built as one machine and driven at 3000 r.p.m. by a power unit which may be either a Ford Zephyr Mk. 2 gasoline engine or a 32.2 h.p. electric motor of 400/440 volts, a.c., 3-phase, 50 c.p.s. The generator and power unit are mounted with a control panel on a four-wheeled trailer chassis and are enclosed in a sheetmetal canopy fitted with sliding doors on each side. The output cables and other accessories are stowed in lockers on each side of the chassis. The road wheels are fitted with pneumatic tyres; overrun/parking brakes are fitted to the front wheels.

RESTRICTED

ITEM 65

TROLLEY, SERVICING, HYDRAULIC, Mk. 2E**A.P.Reference** 2306B**Ref. No.** 4F/3818**Classification** 1**Overall dimensions****Length** 4 ft. 11 in.**Width** 2 ft. 10 in.**Height** 3 ft. 5 in.**Weight** 4 cwt. 2 qr.

Brief description This trolley is used for the ground testing and servicing of aircraft hydraulic systems operating at pressures up to 4000 lb. per sq. in. The trolley consists of a two-wheeled platform chassis on which is mounted a Coventry Victor Type AN4 Mk. 2 gasoline engine fitted with a hand-operated clutch which transmits the drive to a gearbox. Provision is made on the gearbox casing for mounting a hydraulic pump which is connected by a coupling to the driving shaft; the pump must be of the same type as that installed in the system under test. The trolley is a Mk. 2C trolley (ITEM 25) modified by fitting a filter assembly on the delivery side of the pump and a castor wheel under the chassis; the filter assembly consists of a 5-micron filter, pressure differential relief valve, non-return valve and a pressure gauge. Accessories include a range of pump shaft couplings, hose adapters for different types of pumps, and three 18 ft. hoses of $\frac{3}{4}$ in., $\frac{1}{2}$ in. and $\frac{3}{8}$ in. bore diameter respectively. The engine speed can be varied to provide pump speeds of between 1300 and 3900 r.p.m.

RESTRICTED

ITEM 66

**TROLLEY, SERVICING, ELECTRICAL,
60kVA, 200V, 400 c/s./10kW, 28V, d.c.
(AUTO DIESEL TYPE)**



A.P. Reference 4343S, Vol. 1, Sect. 23, Chap. 27

Ref. No. 4F/2461 (*Engine driven*)

4F/2462 (*Motor driven*)

Classification 1

Overall dimensions

Length (*less towbar*) 13 ft. 3 in.

Width 5 ft. 0 in.

Height 7 ft. 0 in.

(*with towbar*) 17 ft. 7 in.

Weight

Brief description This trolley is used to provide an electrical supply for servicing electrical radio and radar equipment in aircraft with 200V, 3-phase, 400 c/s installations. The trolley consists of a six-wheeled chassis on which are mounted a power unit, an a.c. generator, a d.c. generator and their associated equipment and controls. A metal canopy provides weather protection for the trolley equipment and stowage for the supply cables. The trolley provides two sources of electrical supply which are available simultaneously, one of 200V, a.c., 3-phase, 400 c/s at a continuous rating of 60kVA, and the other of 28V, d.c. at a continuous rating of 10kW. There are two versions of the trolley, in one the power unit for driving the generators is a Leyland 0680 vertical diesel engine, and in the other the power unit is a 92 h.p. slip-ring induction motor operated from a 415V, 3-phase, 50 c/s mains electrical supply.

~~RESTRICTED~~

ITEM 67

TROLLEY, SERVICING, ELECTRICAL, 60kVA/10kW (HOUCHIN TYPE)



A.P. Reference 4343S, Vol. 1, Sect. 23, Chap. 26

Ref. No. 4F/3974 (*Engine driven*)
4F/3975 (*Motor driven*)

Classification 1

Overall dimensions

Length (*towbar up*) 11 ft. 0 in.
(*towbar down*) 15 ft. 0 in.

Width 5 ft. 6 in.

Height 5 ft. 6 in.

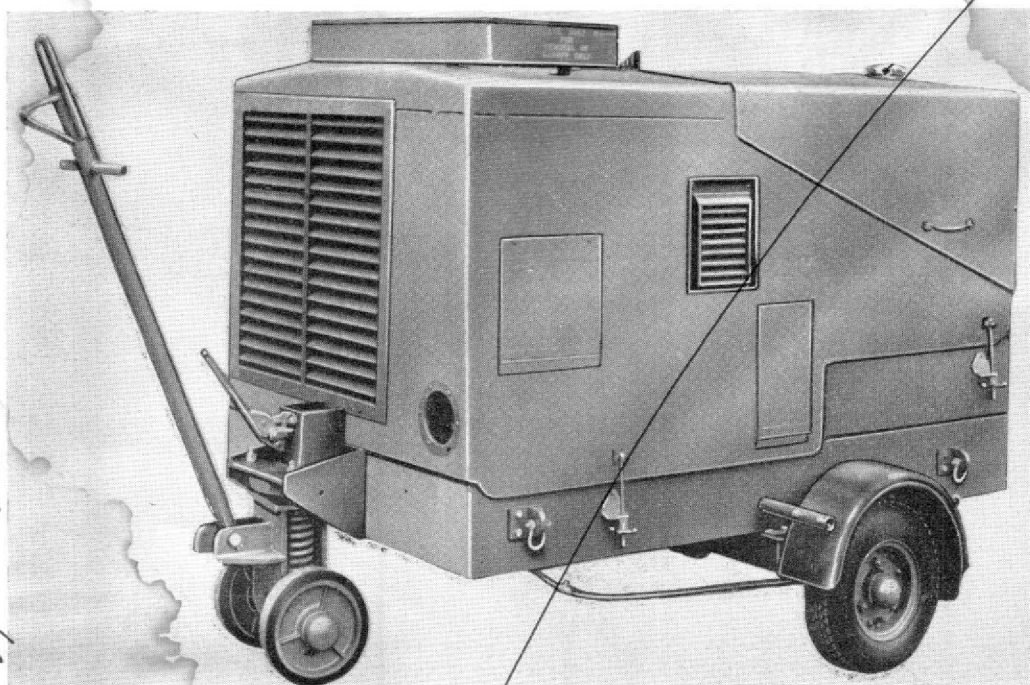
Weight 3 tons 15 cwt.

Brief description This trolley is used to provide the electric supply for servicing aircraft electrical radio and radar equipment. Two main supplies are available and can be used simultaneously, one provides 200 volts, a.c., 3-phase at a continuous rating of 60 kVA and the other provides 28 volts, d.c., at a continuous rating of 10 kW. The trolley consists of a 4-wheeled chassis carrying a power unit, generator unit, instrument panel, transformer/rectifier unit, and the associated equipment and controls. A metal canopy provides weather protection for the trolley equipment and stowage for the supply cables. Brakes are fitted to all four wheels and are operated by an override device or by a hand lever mounted on the towbar. There are two versions of the trolley, in one the power unit for driving the generator is an A.E.C., Type AV 690 G, 6-cylinder in-line water-cooled diesel engine of 120 b.h.p. at 1500 r.p.m., and in the other the power unit is a 90 h.p. electric motor operated from a 400 volt, a.c., 3-phase, 50 c/s mains supply.

~~RESTRICTED~~

ITEM 68

TROLLEY, AIR SUPPLY, Mk. 3



A.P. Reference 2306S

Ref. No. 4F/3998

Classification 1

Overall dimensions

Length 7 ft. 3 in.

Width 4 ft. 10 in.

Height 4 ft. 10 in.

Weight 1 ton 6 cwt. 3 qr.

Brief description This trolley is used to produce and deliver relatively dry air, at or about ambient temperature, to the air ventilated suits worn by aircrew whilst in an aircraft awaiting take-off. The trolley consists of a chassis on which is mounted a Coventry Victor Type AC4 four-cylinder air-cooled gasoline engine driving a Hall Mk. 3CP mechanical refrigeration plant and a Wade Type 3R020 supercharger. The supercharger draws in air from atmosphere and delivers it through the cooling plant and a 50 ft. delivery hose to either a connector communicating with the aircraft air supply system or to a distributor head adapter into which the aircrew connect their suit supply pipes direct. The delivery at the end of the hose is 6 lb. of air per minute at 5 lb. per sq. in. pressure, and is sufficient for serving six suits simultaneously. The trolley equipment is enclosed in a detachable sheet metal canopy, and the chassis is mounted on two pneumatic-tired wheels and has a steering bogey at the front fitted with two solid-tired wheels and a towbar. Brakes on the main wheels are operated by a hand lever.

RESTRICTED

ITEM 73

TROLLEY, LIQUID OXYGEN REPLENISHMENT, 185 LITRES CAPACITY



A.P. Reference 4765A

Ref. No. 71AA/2

Classification 1

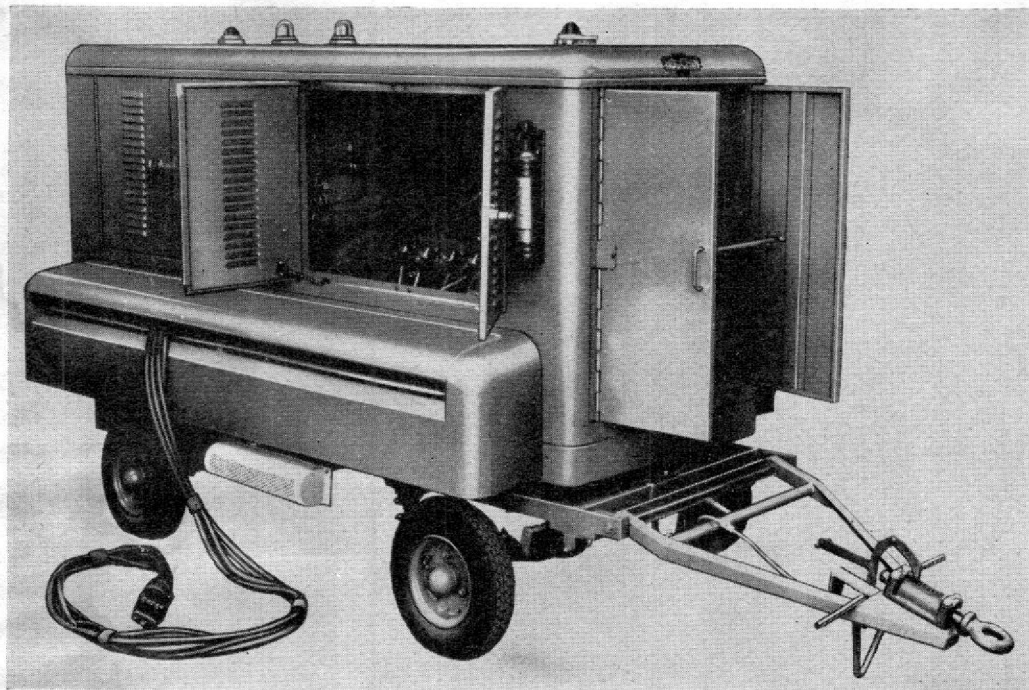
Overall dimensions**Length** (towbar up) 8 ft. 5 in.**Width** 5 ft. 1 in.**Height** 4 ft. 3 in.**Weight** (dry) 1070 lb. (filled) 1543 lb.

Brief description This trolley is used for transporting liquid oxygen between bulk storage tanks and aircraft, and comprises an insulated vessel that is mounted on a four-wheeled trailer and equipped with a control panel at the rear end. The panel is fitted with the appropriate valves and gauges for filling the vessel from the storage tanks and for transferring the liquid oxygen via a 10 ft. double-walled hose into the aircraft systems at the required delivery pressure; the vessel holds the equivalent of 5590 cu. ft. of gaseous oxygen at 60 deg. F. The maximum working pressure of the liquid oxygen vessel is 50 lb. per sq. in. and the operating pressure of the safety relief valve is 60 lb. per sq. in. Towbar-operated brakes fitted to the rear wheels are applied when the end of the towbar is resting on the ground or when the towbar is raised to the up/stowed position.

RESTRICTED

ITEM 74

**TROLLEY, SERVICING, ELECTRICAL,
15kVA, 200 VOLTS, A.C., 400 C.P.S.,
and 10kW, 28 VOLTS, D.C.
(HOUCHIN TYPE)**



A.P. Reference 2306M

Ref. No. 4F/4257 (engine driven)
4F/4258 (electric motor driven)

Classification 1

Overall dimensions

Length (towbar up) 8 ft. 8 in.
(towbar down) 11 ft. 9 in.

Width 4 ft. 7 in.

Height 5 ft. 2 in.

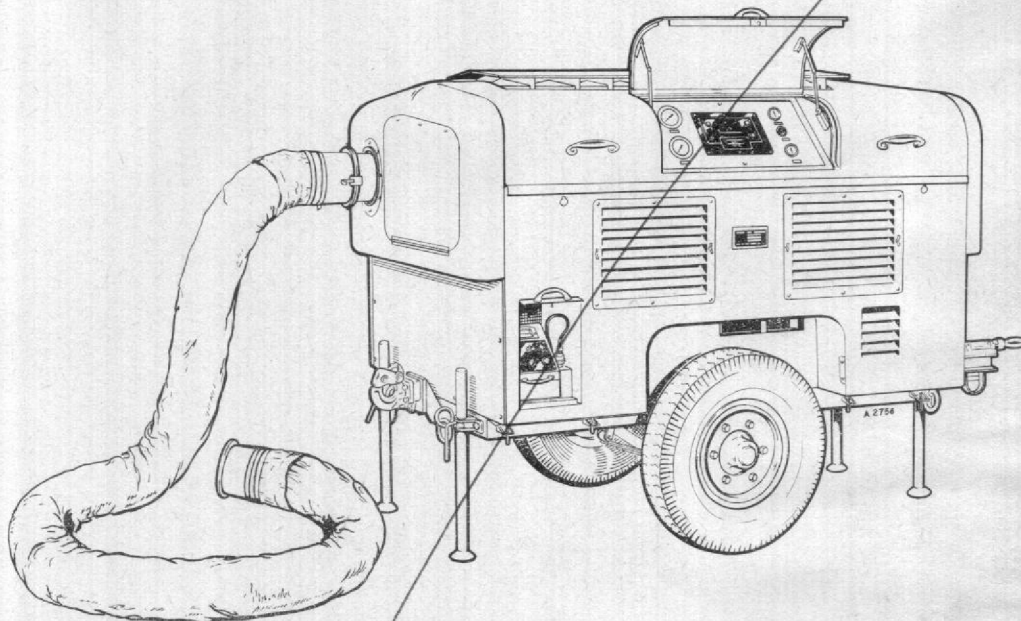
Weight

Brief description These trolleys are used for the ground servicing of aircraft requiring both a.c. and d.c. electric current. The trolleys have a dual output of 200V, a.c., 3-phase, 400 c.p.s. at 15 kVA and 28 volts, d.c. at 10 kW. The electrical power is provided by a generator unit consisting of a brushless a.c. generator and a compound wound d.c. generator driven at 3000 r.p.m. by a power unit which may be either a Ford Series 209E 6-cylinder in-line water-cooled gasoline engine or a 45 h.p. electric motor operating from a 415V, 3-phase, 50 c.p.s. mains supply. The generator unit, power unit and a control panel are mounted on a four-wheeled trailer chassis and are enclosed in a sheetmetal canopy fitted with access doors at the sides and ends. The output cables and other accessories are stowed in lockers at each side of the canopy. The road wheels are fitted with pneumatic tyres, overrun/parking brakes being fitted to the front wheels.

RESTRICTED

ITEM 79

TROLLEYS, AIRCRAFT HEATING (4 THERM/HOUR), Mk. 1 AND 2



A.P. Reference 4338C

Ref. No. 4F/4491 (Mk. 1): 4F/5443 (Mk. 2)

Classification 1

Overall dimensions

Length 10 ft. 0 in.

Width 5 ft. 0 in.

Height 5 ft. 0 in.

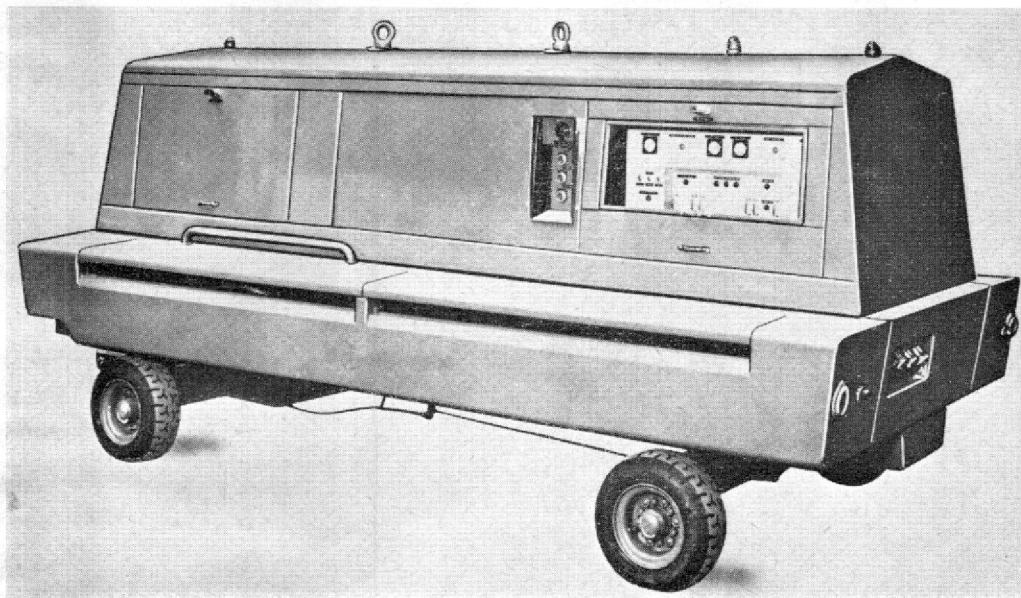
Weight (dry) 1 ton

Brief description These trolleys are used to supply clean heated air for the space heating and ventilation of aircraft on the ground. Each trolley consists of a two-wheeled trailer chassis which carries an engine-driven fan, combustion heater, 24V d.c. electrical control system, instrument panel, and separate fuel systems for the engine and combustion heater, the equipment being enclosed in a sheetmetal canopy fitted with access doors and panels. The power unit is a Coventry Victor AN4 Mk. 3 gasoline engine. AVGAS 100/130 is the fuel used in the combustion heater. The air delivery at the heater outlet is approximately 100 lb./min., and the maximum heat output is 400,000 Btu/hr. The heated air is ducted from the trolley to the delivery point on the aircraft via a 15 ft. flexible hose. The Mk. 2 trolley is similar to the Mk. 1 trolley except that the fuel supply to its combustion heater is controlled by a variable switch instead of the five-stage switch on the Mk. 1 trolley.

~~RESTRICTED~~

ITEM 80

TROLLEY, SERVICING AND STARTING, ELECTRICAL, 35 kW, 28 VOLTS, D.C. (HAMPSON TYPE)



A.P. Reference 4343S, Vol. 1, Book 4, Sect. 23, Chap. 12

Ref. No. 4F/4191

Classification 1

Overall dimensions

Length (towbar up) 13 ft. 0 in.

Width 6 ft. 2 in.

Height 5 ft. 10 in.

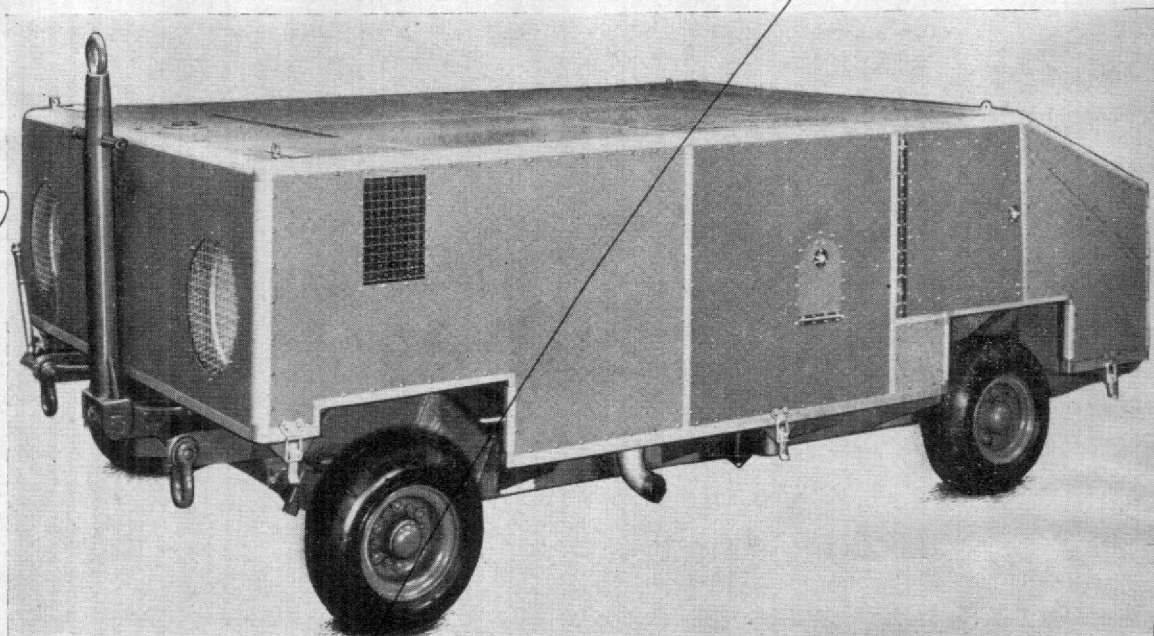
Weight 3 tons 7 cwt.

Brief description This trolley is used to supply the power for the electrical servicing and starting of certain types of aircraft in hangars and at dispersals equipped with mains facilities, and is the motor-driven version of the trolley (4F/4190) (ITEM 61). The trolley provides an intermittent peak load of 2500 amps for starting and a continuous load of 1250 amps for servicing. The trolley consists of a four-wheeled trailer chassis on which is mounted a 35 kW, 28 volts d.c. generator direct-coupled to a 67 h.p. slip ring induction motor operated from a 415V, 50 c/s, 3-phase, a.c. electrical supply. A control panel on the side of the trolley carries the instruments and controls for operating the equipment. A sheetmetal canopy fitted with access doors and panels provides weather protection for the trolley equipment and there are stowage lockers for the supply cables. Brakes are fitted to the rear wheels and are operated by an overrun device or by a hand lever mounted on the towbar.

RESTRICTED

ITEM 83

TROLLEY HYDRAULIC SERVICING Mk. 4D



A.P. Reference 119F-0505-16

Ref. No. 4F/7167

Classification 1

Power unit Petter PJ4 diesel engines (2 off)

Overall dimensionsLength (Towbar in stowed position) 10 ft. 6 in.
(Towbar in lowered position) 13 ft. 0 in.Width 6 ft. 0 in.
Height 3 ft. 6 in.

Weight 3 ton 0 cwt. (including fuel, oil and water)

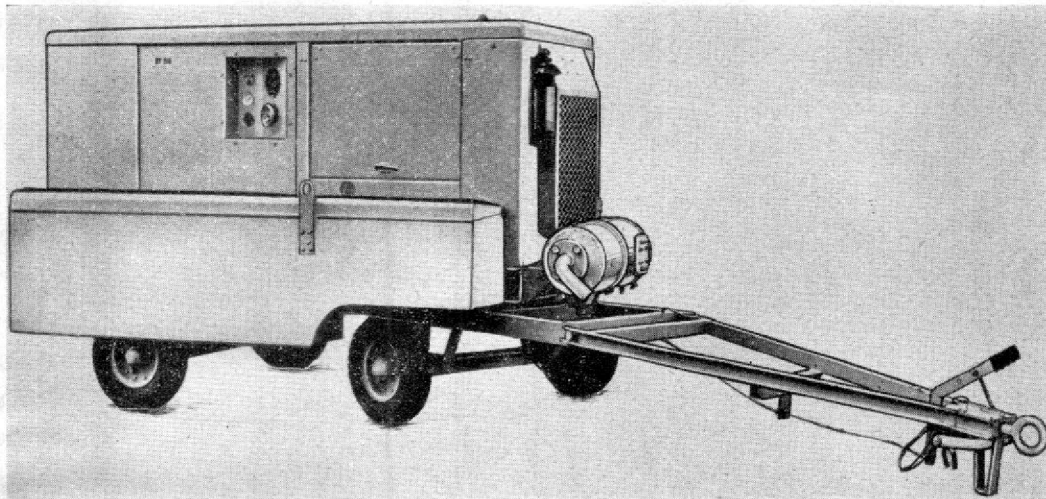
Brief description These trolleys are used for the functional testing of aircraft hydraulic systems. Each trolley is self contained and fitted with two diesel engines to drive two hydraulic pumps thus providing two hydraulic circuits. Each hydraulic circuit has its own pump, filters, control valves and gauges. The controls for each circuit can be used to provide two separate deliveries up to 8 gal/min or a combined single delivery up to 16 gal/min. at a pressure of 200 to 5,000 lb/in². A 16 gal. fluid tank supplies fluid for bleeding the trolley hydraulic circuits. When the trolleys are being used for aircraft servicing they take their fluid supply from the aircraft hydraulic system.

RESTRICTED

RESTRICTED

ITEM 84

TROLLEY, SERVICING, ELECTRICAL, 15KW, 28V, d.c. (PETBOW TYPE)



A.P. Reference 4343S Vol. 1, Sect. 23, Chap. 17

Ref. No. 4FE/4373

Classification 1

Overall dimensions

Length (towbar down) 14 ft 0 in

Width 5 ft 0 in

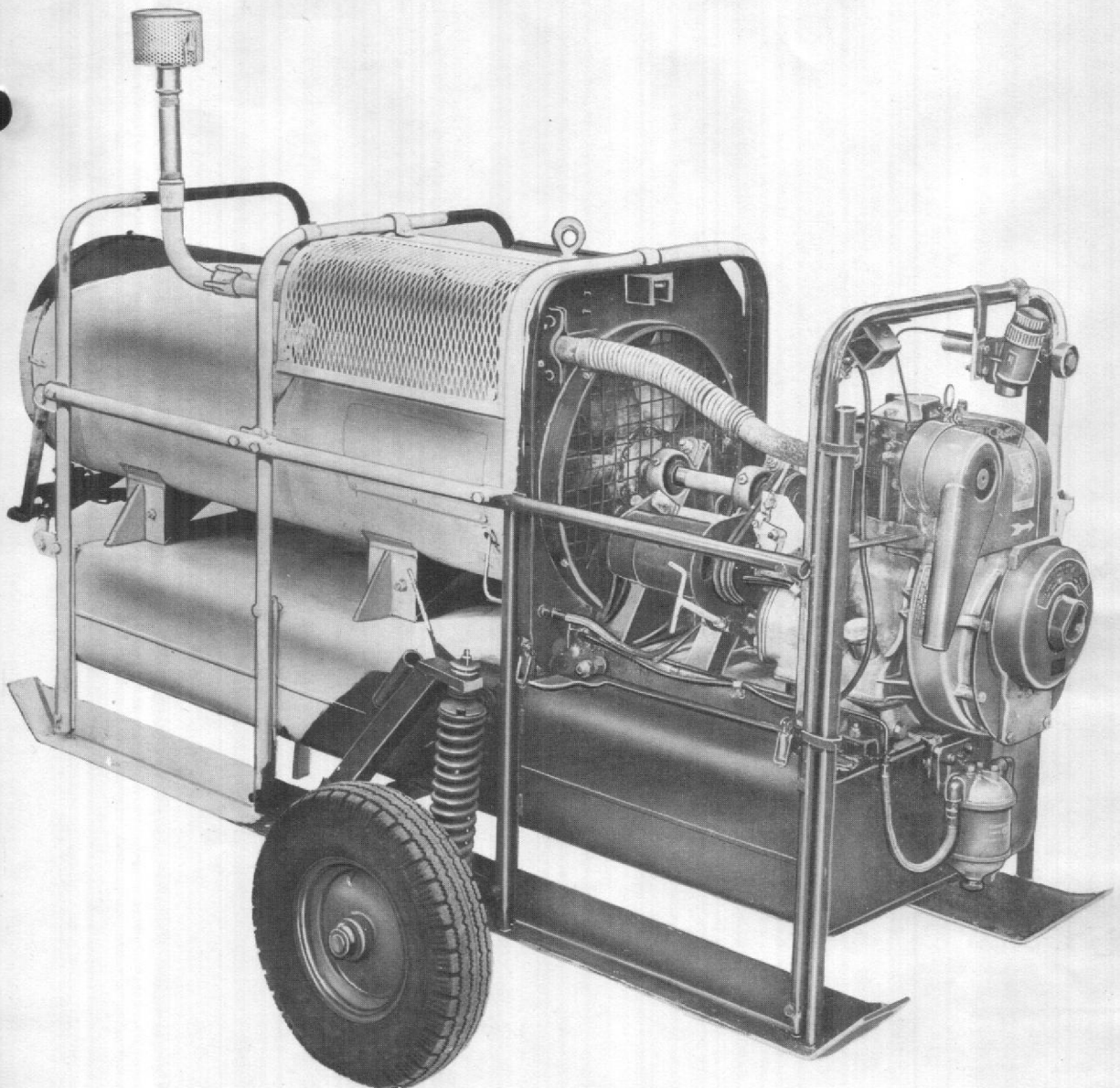
Height 4 ft 8½ in

Weight 1 ton 8 cwt 0 qtr 4 lb

Brief description This trolley is designed to supply 28V, d.c. for servicing radio, radar and electrical equipment on RN aircraft. The trolley consists of a Perkins 4-107 water cooled diesel engine driving a d.c. generator at 2900 rev/min producing a continuously rated output of 15kW at $28 \pm 0.7V$, d.c. The engine and generator, together with their associated control equipment, are mounted on a four-wheeled chassis and totally enclosed by a metal canopy. The two output cables and 6V batteries are stowed in panniers on either side of the trolley. Brakes are fitted to the front wheels only and are operated by a handbrake or overrun device on the towbar.

RESTRICTED

PORTABLE HEATER, KHAM SIN TYPE D500, Mk.1



AP Reference 119F-0724-16

Ref. No. 4F/7865

Overall dimensions:-

Length 6 ft. 6 in. (198cm)

Width 3 ft. 1 in. (94cm)

Height 3 ft. 0 in. (91,5cm) exhaust folded down

Weight, dry 550 lb. (249,7kg).

Classification 1

Brief description: A portable space heater, powered by a Petter AB1 diesel air-cooled engine, producing an airflow of 3000 to 3500 cu.ft./min. with a temperature rise of 150 deg.C (270 deg.F) above ambient.

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