

SECTION 4

STORAGE EQUIPMENT AND CARGO HANDLING AIDS

LIST OF ITEMS

		Now AP 119A-1000-		
		Book	Sect	Item
2	Truck, elevating platform, Type A	1C	4	1
3	Platform, elevating truck, Type A	1C	4	4
4	Truck, elevating platform, Type B	1C	4	2
5	Platform, elevating truck, Type B	1C	4	3
6	Conveyor, portable, ramp type	1C	4	5
11	Trolley, platform	1C	4	14
15	Truck, fork lift, pedestrian operated	1C	4	8
18	Trailer, four-wheeled, 2/3 ton capacity	1C	4	12
19	Loader, transfer, Trianco Type	1H	1	11
21	Trailers, baggage, 20 cwt	1H	2	1
24	Truck, fork lift, 560 lb, pedestrian-operated	1C	4	9

AL76, July 77

SECTION 4

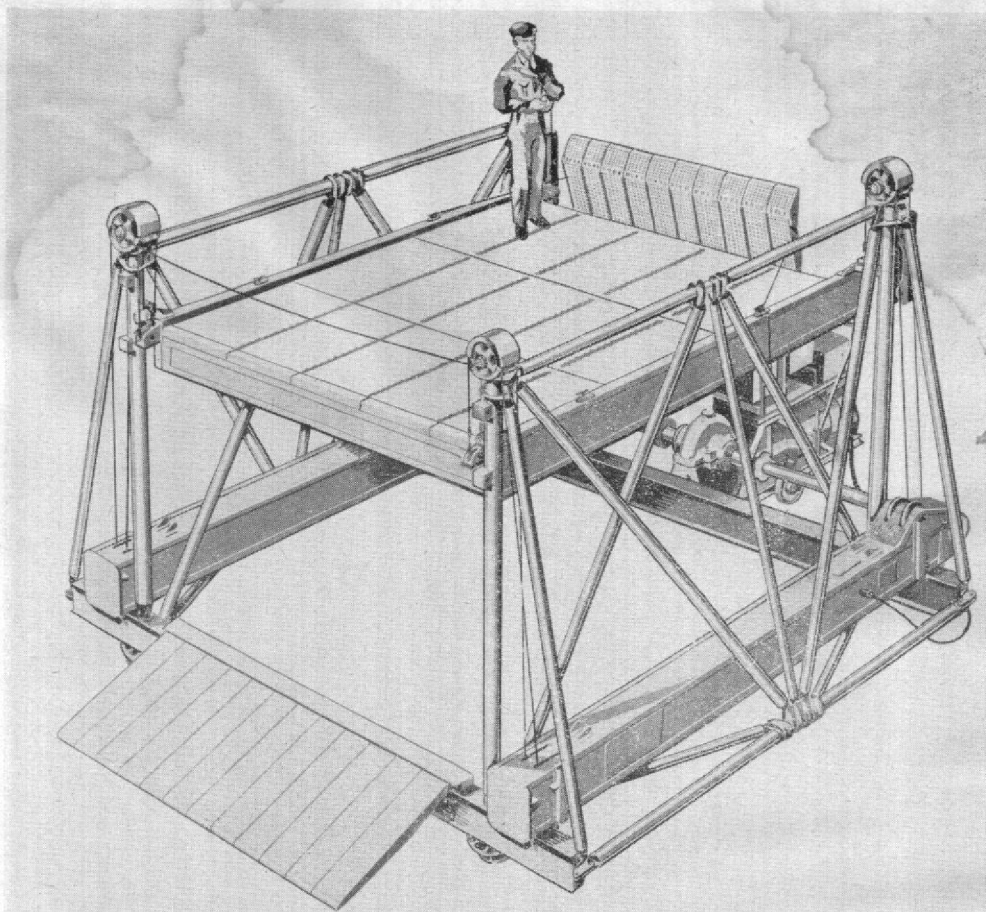
STORAGE EQUIPMENT AND CARGO HANDLING AIDS

LIST OF ITEMS

	Now AP	119A-1000-	
	Book	Sect	Item
1 Platform, freight lift			
2 Truck, elevating platform, Type A	1C	4	1
3 Platform, elevating truck, Type A	1C	4	4
4 Truck, elevating platform, Type B	1C	4	2
5 Platform, elevating truck, Type B	1C	4	3
6 Conveyor, portable, ramp type	1C	4	5
9 Bench, metal			
10 Bench, component			
11 Trolley, platform	1C	4	14
14 Platform, freight transfer			
15 Truck, fork lift, pedestrian operated	1C	4	8
16 Trolley, castoring, and loading ramp			
17 Trailer, four-wheeled, 2-ton capacity			
18 Trailer, four-wheeled, 2/3 ton capacity	1C	4	12
19 Loader, transfer, Trianco Type	1H	1	11
20 Loader, transfer, Aviation Trader, Mk 3			
21 Trailers, baggage, 20 cwt	1H	2	1
22 Transfer loader, Type 25 KT			
23 Truck, fork lift, 2,000 lb, pedestrian operated			
24 Truck, fork lift, 560 lb, pedestrian operated	1C	4	9

ITEM 1

PLATFORM, FREIGHT LIFT



A.P. Reference 4747B

Ref. No. 4D/2259

Classification 1

Overall dimensions

Length 20 ft. 9 in.

Width 19 ft. 2 in.

Height 14 ft 0 in.

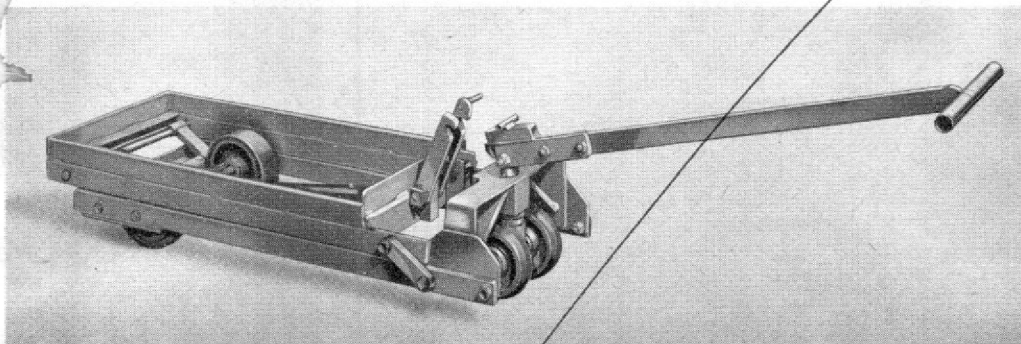
Weight 5100 lb.

Brief description This platform lift is used for loading and unloading transport aircraft, and can be quickly dismantled for stowage in an aircraft. The lift consists of two main beams forming the base on which are mounted two drive unit beams and two tubular structures between which a 14 ft. x 12 ft. platform can be raised and lowered between heights of 13 inches and 12 feet, to carry the freight from ground level to the aircraft sill height, and vice versa. The platform is operated by a 6 b.h.p 110-volt d.c. reversible motor via reduction gearboxes, and a chain, cable and pulley mechanism; the motor can be operated off the aircraft batteries. The lift has two ramps to facilitate the movement of freight, one from the ground to the lowered platform and one from the raised platform to the aircraft. Four retractable rubber-tyred castor wheels are fitted to the drive unit beams to enable the lift to be towed or man-handled. Screw-operated jacks and built-in spirit levels are fitted to the two main beams for levelling purposes. The normal working load of the lift is 8000 lb., but there is an overload limitation of 12000 lb. maximum.

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ITEM 2

TRUCK, ELEVATING PLATFORM, TYPE A



AC26

A.P. Reference

Ref. No. 4D/1020

Classification 2

Overall dimensions (less tow-arm)

Length 4 ft. 0 in.

Width 1 ft. 6 in.

Height 1 ft. 4½ in.

Weight 2 cwt. 1 qr.

Brief description This one ton capacity truck has a general purpose application for the transportation of equipment in storage. When the tow-arm is placed perpendicular, the base of the arm engages with a forked lever attached to a raisable platform-supporting framework. Downward movement of the tow-arm then elevates the framework from the base of the truck. The length of the tow-arm is 3 ft. 6 in. A platform for use with the truck, which has a separate reference number, is illustrated in Item 3.

~~RESTRICTED~~

ITEM 9

BENCH, METAL



A.P. Reference

Ref. No. 4D/1313

Classification 3

Overall dimensions

Length 6 ft. 1 in.

Width 3 ft. 4½ in.

Height 4 ft. 6 in.

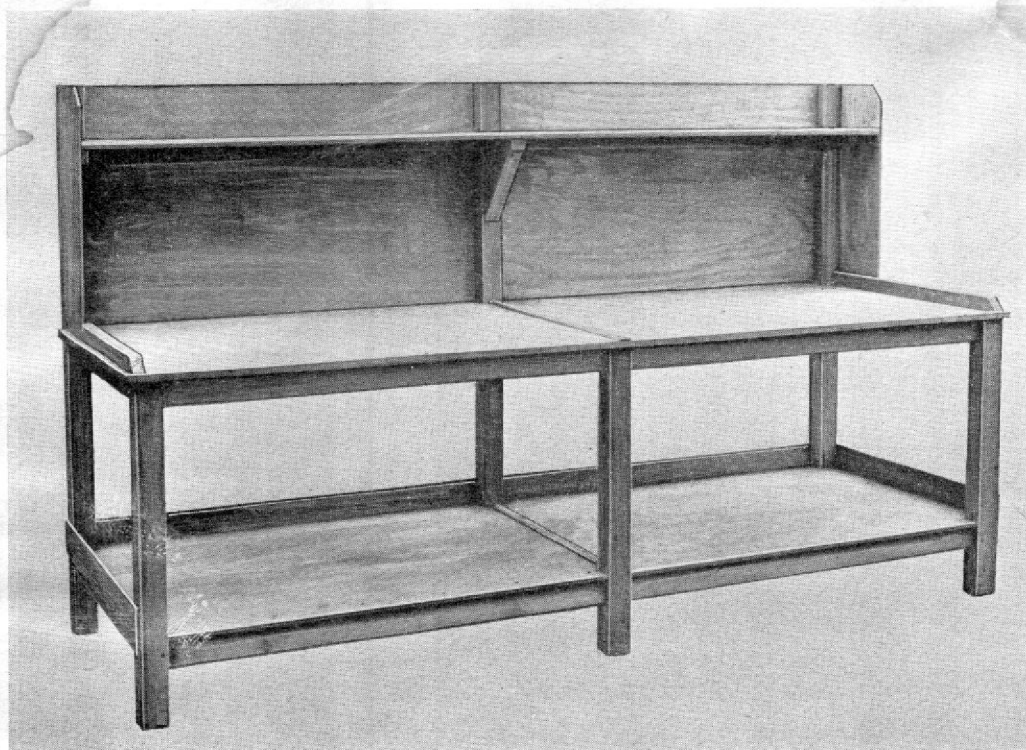
Weight 2 cwt. 1 qr. 16 lb.

Brief description This bench is used for general purposes at Maintenance Units. The framework is constructed from lengths of angle iron which are bolted together and strengthened by gusset plates. The bench surfaces, shelf, and back are made from sheet metal.

~~RESTRICTED~~

ITEM 10

BENCH, COMPONENT



A.P. Reference

Ref. No. 4D/1312

Classification 3

Overall dimensions

Length 9 ft. 0 in.

Width 3ft. 1 in.

Height 5 ft. 0 in.

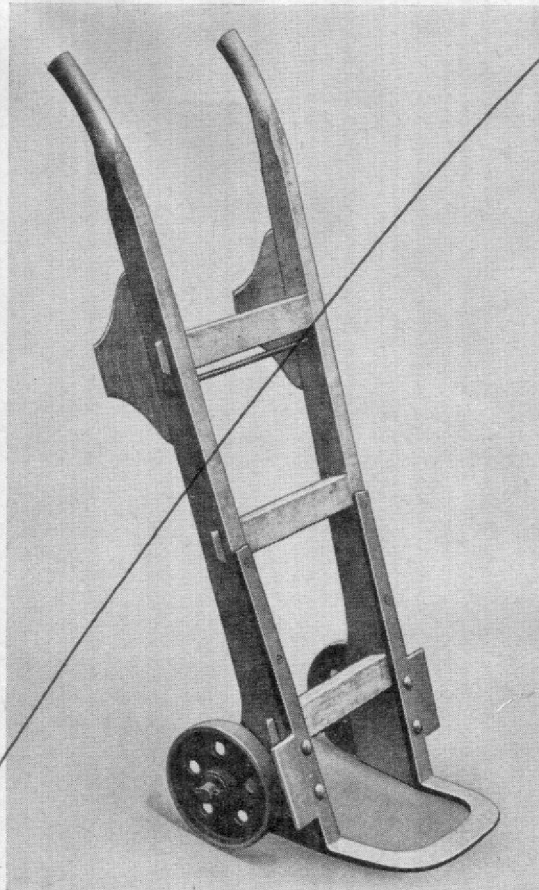
Weight 2 cwt. 20 lb.

Brief description This bench is used for the storage and layout of aero-engine component parts in workshops and stores. The framework is constructed from 2 in. $\times$ 2 in. timber, and the bench, stowage, shelf, and back are constructed from multi-plywood.

~~**RESTRICTED**~~

ITEM 13

TRUCK, SACK



A.P. Reference

Ref. No. 4D/228

Classification 3

Overall dimensions

Length 1 ft. 6 in.

Width 1 ft. 5 in.

Height 4 ft. 0 in.

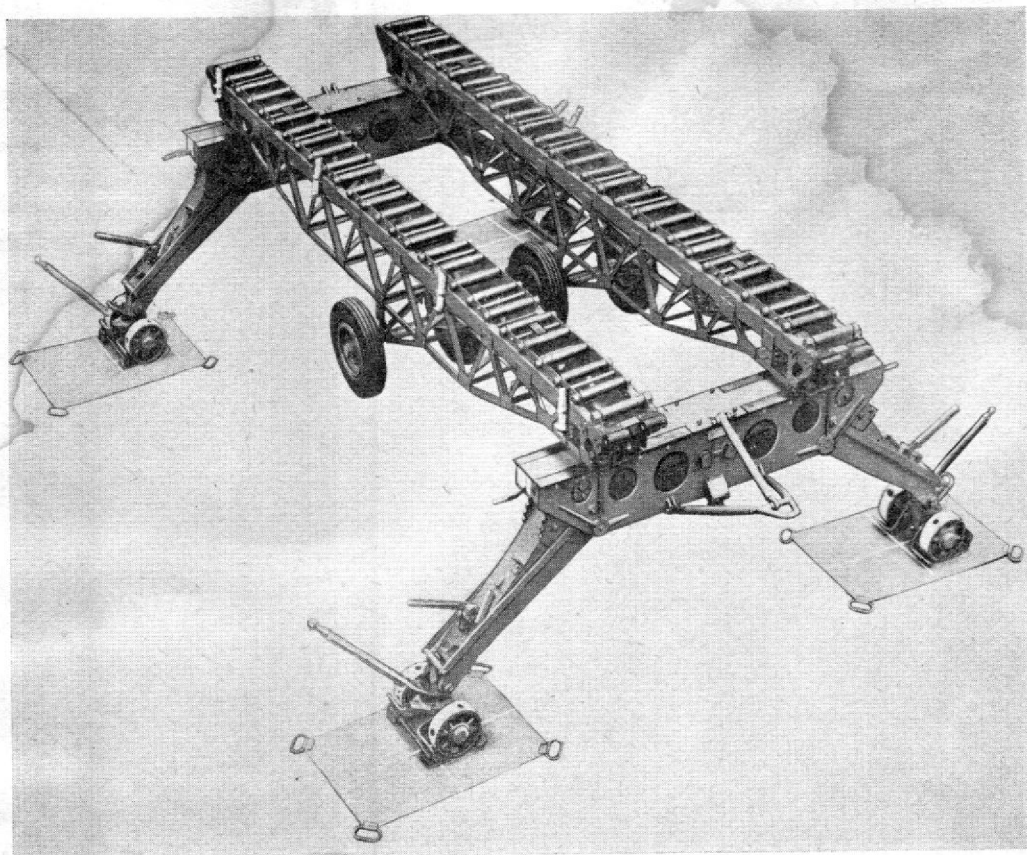
Weight 47 lb.

Brief description This general purpose truck is used in stores, hangars and workshops for carrying packages and equipment. The truck is fitted with either cast iron wheels (Ref. No. 4D/230) or solid rubber-tyred wheels (Ref. No. 4D/231).

~~RESTRICTED~~

ITEM 14

PLATFORM, FREIGHT TRANSFER



A.P. Reference 4747B

Ref. No. 4D/2244

Classification 2

Overall dimensions

Length (less towbar) 18 ft. 6 in. **Width** 14 ft. 10 in. **Height** (min.) 3 ft. 3 in.

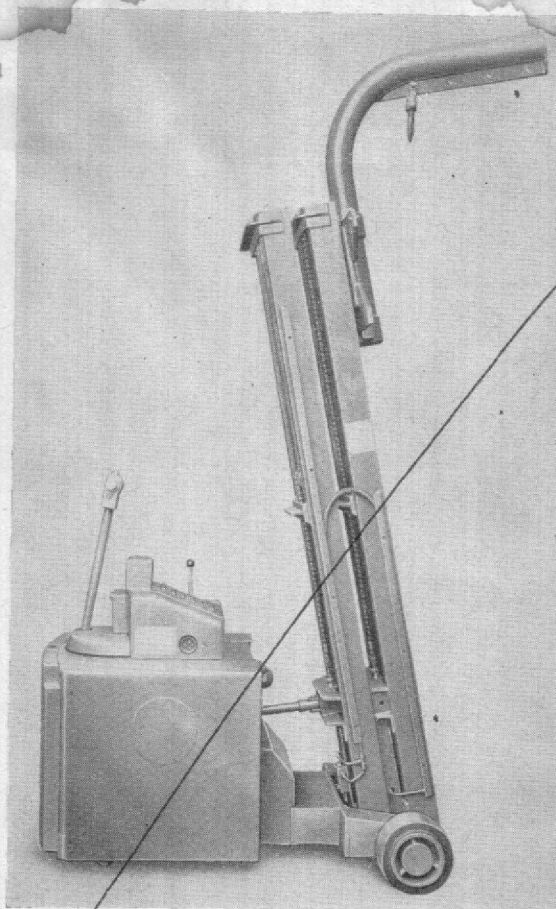
Weight 7774 lb.

Brief description This equipment is used when loading and unloading transport aircraft for transferring bulky stores weighing up to 25000 lb. between the aircraft and M.T. vehicles. The loader comprises two bridge assemblies which form a conveyor bridge platform, and two beam assemblies which support the platform. Each beam assembly has two legs which pivot on the beam and are operated hydraulically to raise or lower the platform between heights of 3 ft. 3 in. and 6 ft. 4 in. Wheels are fitted to the legs for manœuvring the loader, and sole plates are provided for placing under the wheels when the loader is used on soft ground. Pneumatic tyred wheels are fitted to the bridge assemblies to allow the unladen loader to be towed for short distances over prepared surfaces at speeds not exceeding 5 m.p.h. The platform is 18 ft. long and its width can be adjusted between 3 ft. 6 in. and 8 ft. 4 in. to suit the store being transferred. The beams can be detached from the bridge assemblies for stowage purposes.

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ITEM 15

TRUCK, FORK LIFT, PEDESTRIAN OPERATED



A.P. Reference 4546A

Ref. No. 4D/2770

Classification 1

Overall dimensions

Length (with forks)	8 ft. 0 in.	Width	3 ft. 0 in.	Height (min.)	7 ft. 8 in.
(less forks)	5 ft. 0 in.			(max.)	14 ft. 0 in.

Weight 3500 lb.

Wheelbase 3 ft. 5 in.

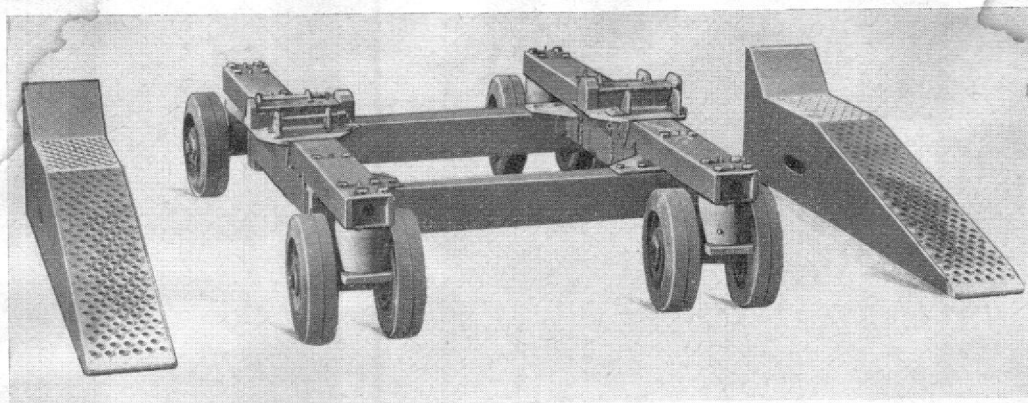
Ground clearance $2\frac{3}{4}$ in.

Brief description This medium duty fork lift truck is used for the lifting, transportation and stacking of palletized loads. It can be used also as a mobile crane after removing the lifting forks and fitting a jib attachment, as shown in the above illustration. The truck has a maximum lifting capacity of 1600 lb. at 20 in. load centre and a lifting range of from ground level to 12 feet high; it is mounted on three 10 in. dia. solid-tyred wheels and has a turning circle of 4 feet. Four 12-volt lead-acid batteries connected in series provide the power for driving two electric motors; one motor provides the drive through an electromagnetic clutch and a reduction gear to the rear wheel, and the other motor drives a hydraulic pump for raising and lowering the lifting forks or jib. The brake is of the cone type operating on an intermediate drive shaft. The truck operating controls are mounted on the steering arm.

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ITEM 16

TROLLEY, CASTORING, AND LOADING RAMP



A.P. References 4747A, 4200, 4216D

Ref. No. 4D/3235

Classification 3

Overall dimensions

Length 4 ft. 0 in.

Width 3 ft. 0 in.

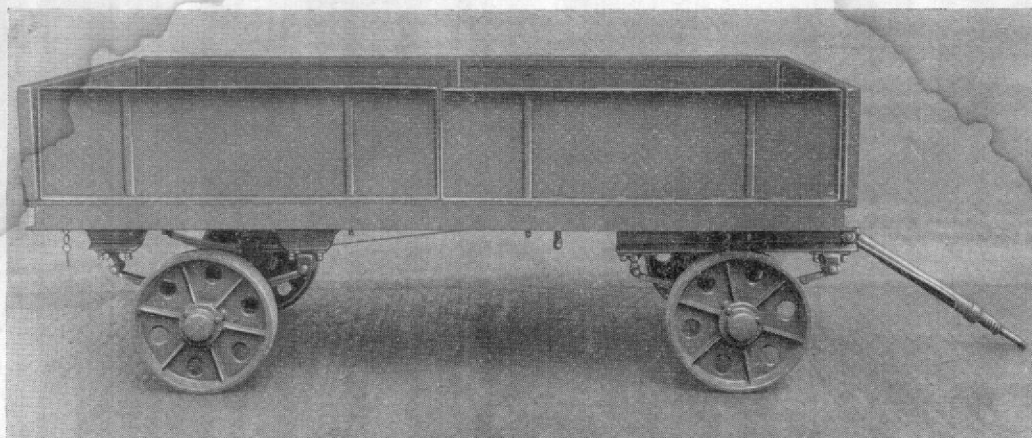
Height 1 ft. 0½ in.

Weight 225 lb.

Brief description This aircraft cargo handling equipment is used in conjunction with the Freight Loading Platform Lift (ITEM 1) for loading selected vehicles into transport aircraft of the side-loading type. The trolley consists of a rectangular frame mounted on four twin-wheeled castors, which supports the vehicle under its rear axle with its wheels clear of the ground. The vehicle thus supported can be easily manhandled and manoeuvred into the aircraft from the platform lift when loading, and vice versa when unloading. The trolley is wheeled into position under the axle after the rear end of the vehicle has been raised on two ramps, final positioning being made by wheeling the vehicle down the ramps on to the trolley, and then removing the ramps. Various fittings can be attached to the trolley to suit the axles of different types of vehicles; fittings for the Rover Mk. 8 vehicle are shown on the above illustration.

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ITEM 17

**TRAILER, FOUR-WHEELED
2 TON CAPACITY**

A.P. Reference 2477, Vol. 3

Ref. No. 4D/2973

Classification 3

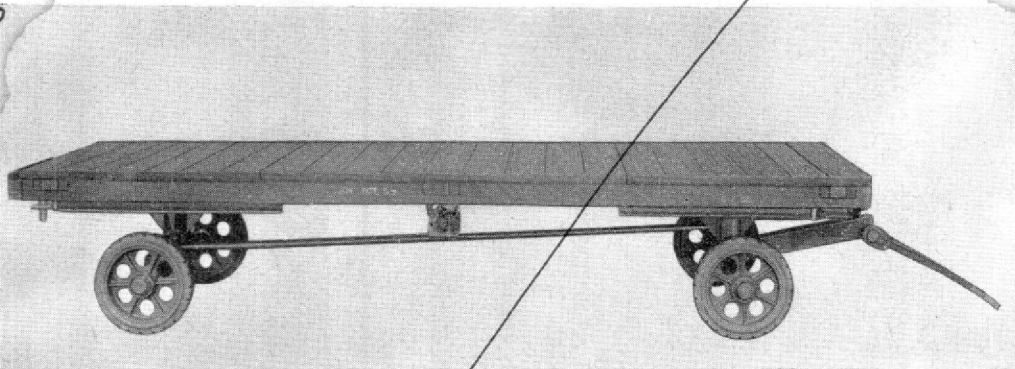
Overall dimensions**Length** (with towbar) 10 ft. 4 in. **Width** 3 ft. 7 in. **Height** 2 ft. 10 in.**Weight** 10 cwt.

Brief description This low-loading all-steel platform trailer is used as a general purpose vehicle for the movement of equipment. The height of the platform is 1 ft. 10 in. and it is fitted with detachable sides and ends. The trailer is mounted on four 16 in. dia. cast-iron wheels, a steering turntable at the front being fitted with a 2 ft. 10 in. towbar. The suspension is by semi-elliptical springing front and rear. A parking brake is operated by a handle at the left-hand side. The trailer must not be towed at speeds above 5 m.p.h.

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ITEM 18

TRAILER, FOUR-WHEELED 2/3 TON CAPACITY



A.P. Reference

Ref. No. 4D/2974

Classification 3

Overall dimensions

Length (with towbar) 13 ft. 4 in.

Width 3 ft. 7½ in.

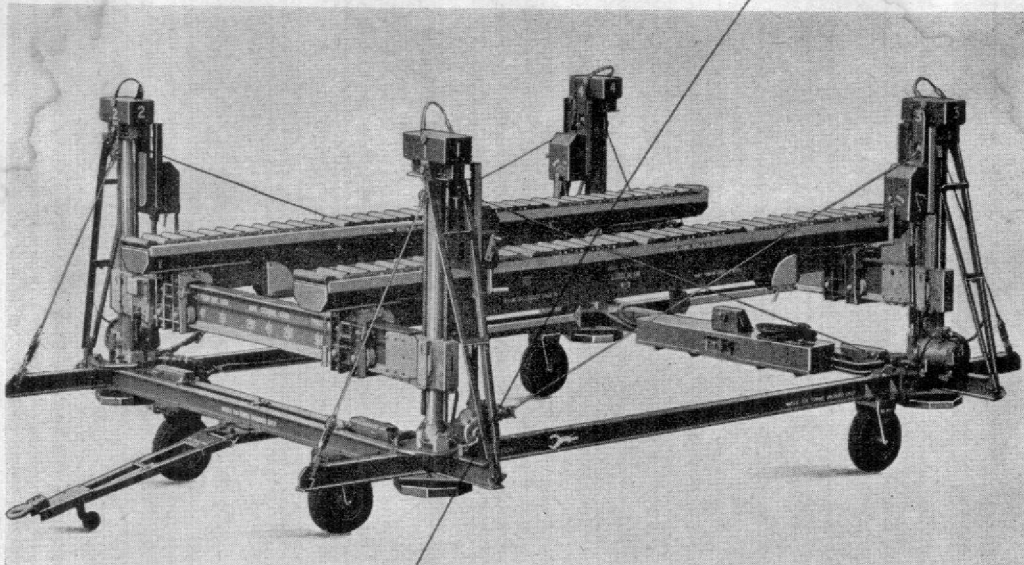
Height 2 ft. 0 in.

Weight 8 cwt. 2 qr.

Brief description This four-wheeled low-loading platform trailer is used as a general purpose vehicle for the movement of equipment. The trailer has an all-steel frame and a flat wooden platform, and is mounted on four cast-iron wheels fitted with cushion-type tyres. The trailer has turntable steering at both front and rear, the steering being controlled by the side movement of the towbar. No brakes are fitted, and the trailer must not be towed at speeds above 5 m.p.h.

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ITEM 19

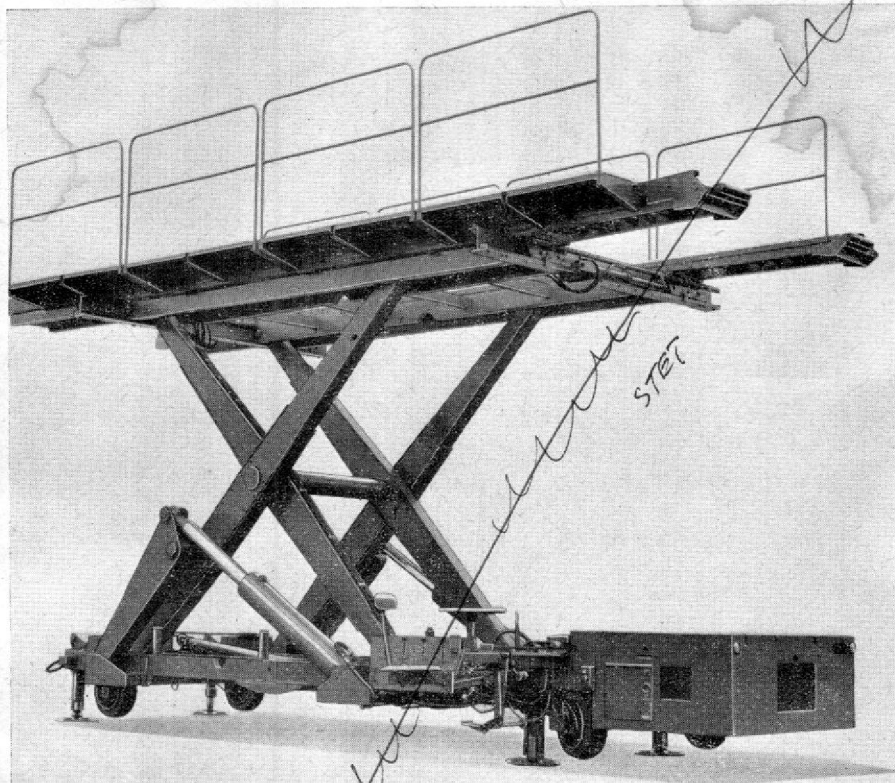
LOADER, TRANSFER, TRIANCO TYPE**A.P. Reference** 4747B**Ref. No.** 4DB/2786**Classification** 1**Overall dimensions****Length** 21 ft. 0 in.**Width** 16 ft. 6 in.**Height** 6 ft. 10½ in.**Weight** 5022 lb.

Brief description This transfer loader is used to facilitate the handling of air cargo when loading and unloading rear-doored transport aircraft. It consists of four stanchions, mounted in a girder base frame, which provide the support and lifting gear for a platform which can be raised from its minimum height of 3 ft. 2 in. to a maximum height of 6 ft. 6 in. The platform consists of two roller conveyor beams mounted on transverse beams connected to the stanchions. The platform has a maximum working load of 25000 lb. and a maximum overload of 35000 lb. The loader is mounted on four pneumatic tyred wheels to facilitate its movement, the wheels being raised clear so that the stanchions rest on the ground when a load is supported. The loaded platform can be raised or lowered by one man using a remote control box and a 28V d.c. electrical supply capable of delivering 200 amps. The load can also be raised or lowered by four men, using the winding handle on each stanchion for operating the lifting gear.

RESTRICTED

ITEM 20

LOADER, TRANSFER AVIATION TRADER, Mk.3



A.P. Reference 4747B, Vol. 1 and 6, Part 1, Sect. 4

Ref. No. 4DB/3009

Classification 1

Overall dimensions

Length 26 ft. **Width (max.)** 11 ft. 4 in., (min., prepared for air transport) 8 ft. 4 in.

Height (max.) 12 ft. 2 in., (min., normal) 3 ft. 6 in., (with stops removed) 3 ft. 2 in.

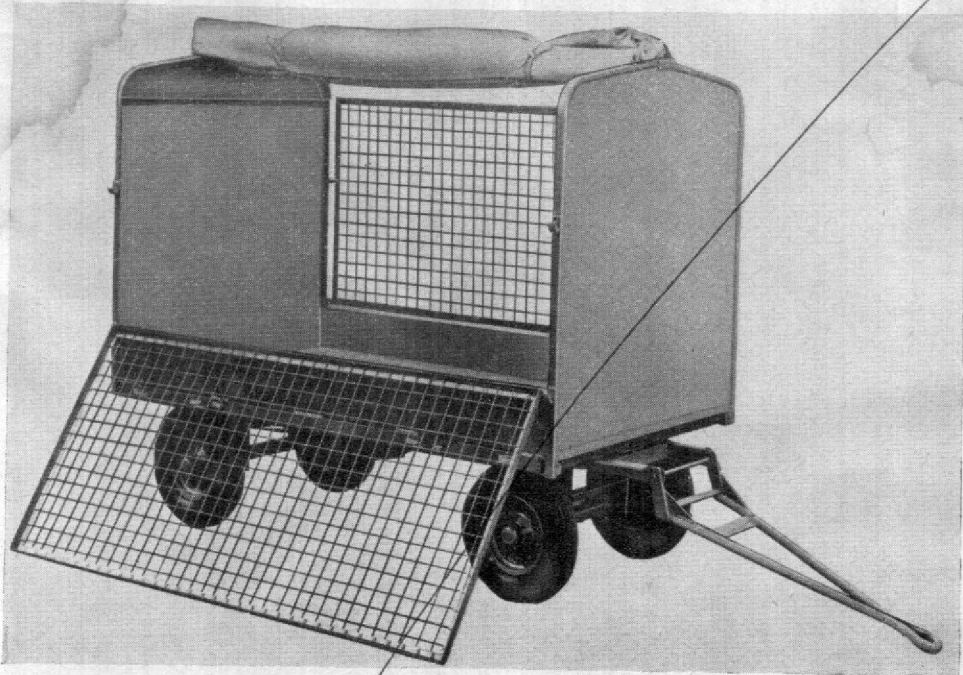
Weight (approx.) 19300 lb.

Brief description This transfer loader is a steerable, self-propelled, power operated trolley, designed to accept and transfer loads to and from aircraft. Its safe working load is 25000 lb. (30000 lb. in emergency). The platform, which may be operated between heights of 3 ft. 6 in. and 12 ft. 2 in., carries the roller conveyor tracks which are adjustable to accept varying widths up to 9 ft., and may be shifted laterally or operated to give a slew angle. The platform carries a catwalk at each side to enable personnel to control the load. Levelling of the complete transfer loader is achieved by operation of four powered stabilizer jacks. The loader is powered by a Coventry Victor Vixen 4-stroke diesel engine which drives a Dowty gear pump to supply hydraulic power to the lift and platform traverse system, and a Lucas variable delivery pump which supplies oil to four hydraulic motors, one mounted in each wheel, to give tractive power. The Lucas pump is controlled by a rocking foot pedal operated by the heel and toe which permits very low inching speeds to be achieved. The chain and spur gear steering allow a turning circle of approx. 40 ft./diameter. Provision is made for towing the loader from the rear wheels which are also fitted with steering gear (locked for normal drive).

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ITEM 21

TRAILERS, BAGGAGE, 20 Cwt.



A.P. Reference 4747B

Ref. No. 4DB/3131

Classification 2

Dimensions

Length (towbar lowered) 9 ft 3 in
(towbar raised) 6 ft 6 in

Width 3 ft 9 in

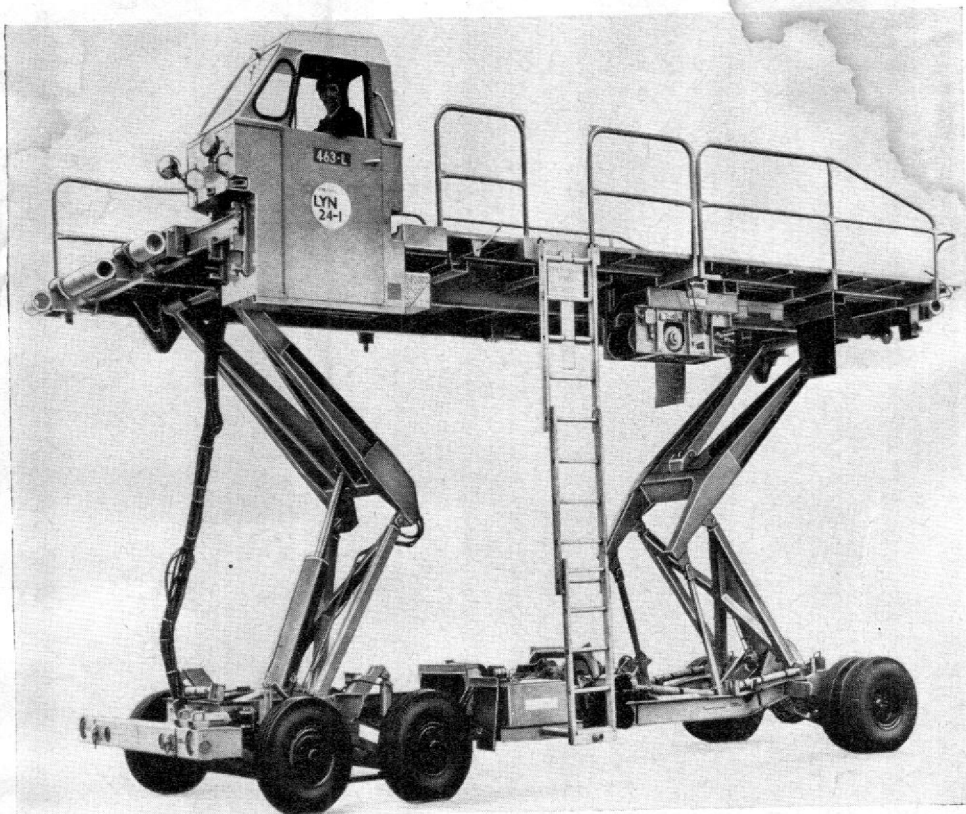
Height 5 ft 0 in

Weight 392 lb

Brief description The baggage trailer is used to carry up to one ton of hand baggage, small parcels and crates. It is fitted with a canvas cover, to protect the load from the elements, and a towing pintle so that several trailers may be pulled by the same tug. The wire mesh sides are removable to facilitate loading.

ITEM 22

TRANSFER LOADER TYPE 25 K.T.



A.P. Reference 119H03011

Ref. No. 4DB/3543

Classification 1

Overall dimensions

Length 26 ft 10 in

Width 12 ft 8½ in (overall)

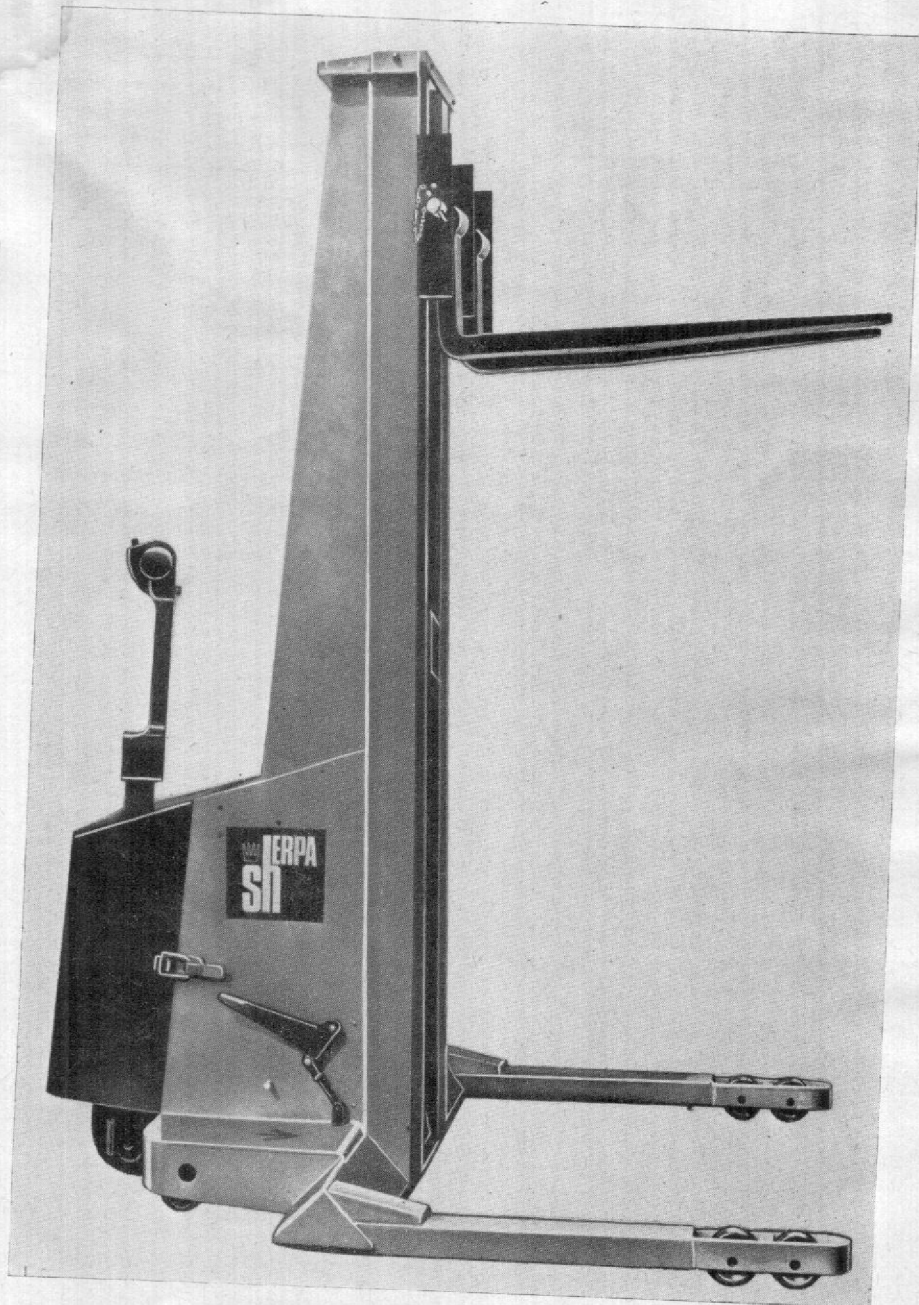
Height (platform lowered) 3 ft 1½ in
(platform raised) 13 ft 1½ in

Weight 22500 lb

Brief description The vehicle is self propelled and used to transfer miscellaneous cargo, up to loads of 25000 lb and, for 10 per cent of operating time, up to 35000 lb. The vehicle platform can be raised, lowered, rolled and pitched hydraulically. Vehicle power is provided by a six cylinder engine, horizontally mounted. The vehicle is driven and operated from a cab which has a comprehensive control panel. The cab is detachable and may be attached to either the chassis or the platform. In addition, it may be stowed within the platform width to make it easily air portable. The loader may be driven on the highway if fitted with trade plates supplied by H.Q. Maintenance Command.

ITEM 23

**TRUCK, FORK LIFT, 2,000 lb.
PEDESTRIAN OPERATED**



continued overleaf

Overall dimensions

◀Length 6ft 0in▶ ◀Width 3ft 2½in▶
Height (mast retracted) 7 ft 11 in
(mast extended) 13 ft 4 in
◀Weight (including batteries) 1562 lb▶

Brief description The truck can be used with fork lift attachment for lifting, transporting and stacking palletted loads up to a maximum of 2,000 lb, and raising the load to a maximum height of 12 ft. The truck can be adapted for use as a mobile crane by removing the fork and fitting a jib and hook attachment and can be operated in aisles with a minimum width of 8 ft. The fork assembly is mounted on an extendable mast; both the fork and mast are operated independently by separate hydraulic rams and roller chains. The rams are operated by a pump which is driven by a 12V battery powered motor. The two 12V and two 6V series/parallel connected batteries are also used to power the 24V traction motor which is controlled by a twist grip on the tiller to provide three forward and three reverse speeds. A brake switch, 3rd speed cut-out switch and a horn button are also located on the tiller. Three braking methods are provided, a mechanical type foot brake for parking, an electrical foot brake which breaks the electrical circuit and a dynamic or regenerative brake which operates through the traction motor. A jib and hook attachment, barrel attachment and extension forks are supplied with the truck and can be fitted by the operator. A wall mounted battery charger also is provided.

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