

Chapter 7 TRANSPORTERS AND PANNIERS

LIST OF CONTENTS

DESCRIPTION	Para.	DESCRIPTION	Para.	DESCRIPTION	Para.
General	1	Suspension frame	13	Type B container	30
Type A container		Pannier	14	Type C container	31
Fixed fittings	2	Loading the pannier	17	Freight pannier suspension frame	32
Carrier	4	Towing the pannier	18	Fitting the freight pannier	33
Type B container		E.C.U. carrier		E.C.U. carrier	
Fixed fittings	5	Introduction	19	Installing the adapter assembly	34
Carrier	7	Adapter set	20	Removing the adapter assembly ...	35
Type C container		Equipment stowages	23	Installing the upper section ...	36
Fixed fittings	8	Stowage rack	27	Removing the upper section ...	37
Carrier	9			Installing the trolley section ...	38
Freight pannier		REMOVAL AND ASSEMBLY		Removing the trolley section ...	39
General	11	General	28	Installing the equipment rack ...	40
Fixed fittings	12	Type A container	29	Stowing the equipment	41
				Removing the stowage rack ...	42

LIST OF ILLUSTRATIONS

DESCRIPTION	Fig.	DESCRIPTION	Fig.	DESCRIPTION	Fig.
Fitting Type A container	1	Fitting freight pannier and suspen- sion frame (2)	5	Hoisting E.C.U. carrier - upper section	10
Fitting Type B container	2	E.C.U. adapter set	6	Hoisting E.C.U. carrier - trolley section	11
Fitting Type C container	3	Attachment points in bomb-bay ...	7	E.C.U. carrier in bomb bay	12
Fitting freight pannier and suspen- sion frame (1)	4	E.C.U. adapter set installed ...	8	Hoist equipment stowed	13
		Special extension tube	9		

DESCRIPTION

TYPE A CONTAINER

Fixed fittings

2. The Type A container and carrier, fitted in the aircraft power compartment, are secured to attachment brackets on the window launching compartment longerons, two on the port longeron and two on the starboard. The forward brackets are just aft of former 284.5A and the rear brackets just aft of former 399A.

3. A securing point, for a minihoist used for assembling and removing the container and carrier is fitted to two intercostals between formers 384.5A and 399A at the aircraft centre line on the power compartment roof.

Carrier

4. The carrier consists of a built up rectangular base, fitted with a curved cradle to accommodate the cylindrical

General

1. Provision for the carriage of special flight containers Type A, B and C is made by the introduction of Mod.629, 630 and 842. Mod.629 introduces the aircraft fixed fittings, Mod.630 (S.O.O.) introduces containers Type A and B and Mod.824 (S.O.O.) introduces container Type C. Types B and C cannot be fitted to the aircraft together as they are secured to the same attachment points.

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shaped container, which is secured in position by two straps attached to the cradle by bolts and quick release fasteners. Bolted to the four corners of the base are mounting brackets which engage with, and are secured by, Pip-pins to the attachment brackets on the window launching compartment longerons. A spreader bar, provided for lifting purposes, is attached by cable to two points on the cradle mid-way between the container securing strap attachments and is stowed in clips on the carrier base when not in use.

TYPE B CONTAINER

Fixed fittings

5. The Type B container carrier, fitted in the bomb bay, is bolted in position, to four anchor nuts fitted in brackets on the port side of the bomb bay, two on the forward face of bomb arch 151-919A and two on the rear face of bomb arch 171-842A.

6. A securing point, for a minihoist used for installing and removing the container, is secured to brackets fitted to the forward face of bomb arch 151-919A. Provision for fitting a pulley, used in conjunction with the minihoist, is made on two intercostals between bomb arches 151-919A and 171-842A adjacent to the carrier attachment points.

Carrier

7. The container carrier consists of a straight central box member with two curved box members attached transversely at each end and a curved box member attached longitudinally at each end, the curved box members form the cradle for the cylindrical-shaped Type B container. Straps, attached to the transverse box members by bolts on one side and quick-release catches on the other, secure the container to the carrier. Brackets riveted to the transverse members provide the attachment for the carrier to the

aircraft mounting points, the rear inboard mounting bracket also provides a stowage for the pulley used in the fitting and removal operations.

TYPE C CONTAINER

Fixed fittings

8. The Type C container utilises the same attachment points as the Type B container.

Carrier

9. The Type C container carrier consists of three parts, a hoisting cradle, a hoisting channel and a structure cradle. The hoisting cradle consists of three box-section beams secured together by U-section members and gusset plates. Provision is made on the ends of the box-section beams for fastening the quick-release catches. The hoisting channel, fitted centrally over the top of the container when placed in the hoisting cradle, is secured in position by straps and quick-release catches fastened to the central box-section beam of the hoisting cradle. Fitted to the hoisting channel is a hoisting bracket assembly and a locating peg which engages a locating block in the structure cradle.

10. The structure cradle, by which the container complete with hoisting channel is secured to the aircraft, consists of a box-section beam to which two beams are secured on both sides. The cradle is secured to the aircraft by four attachment brackets being bolted to the four anchor nuts (para.5). Straps, attached to the four side beams, are fitted with quick release catches which engage with the fittings on the hoisting cradle beams to secure the container to the structure cradle. A shear peg, which engages in a hole at bomb arch 171-842A, and a locating block for the shear peg on the hoisting channel (para.9) are secured to the structure cradle central beam. Also secured to the forward end of the central

beam is a stowage for the pulley used in installing and removing the container.

FREIGHT PANNIER

General

11. A suspension frame, when fitted in the aircraft bomb bay by (Mod.476 S.O.O.) provides the means of securing a 4,000 lb. freight pannier to the aircraft. The method of fitting the suspension frame and pannier is given in para.32 and 33 and illustrated in fig.4 and 5.

Fixed fittings

12. The fixed fittings on the aircraft to which the suspension frame attachment hangers are secured by bolts, consist of four attachment points on intercostals between bomb arches 44-592A and 64-592A and bomb arches 151-919A and 171-842A. Two brackets, for attachment of a hoisting adapter, used when fitting the suspension frame to the aircraft, are secured one on each side of the aircraft centre line on bomb arch 108-687A.

Suspension frame

13. The suspension frame A.V.261 (Ref.No.26DC/6177) is attached to the aircraft fixed fittings by four attachment hangers secured to the outboard beams of the forward and rear transverse frames. Four attachment tubes, used to secure the freight pannier to the frame, are attached to the frame forward and rear end beams and, when not in use are stowed in clips on the inboard faces of frame side beams. An attachment block, on the frame central transverse beam, provides the attachment for a minihoist cable ball end during installation of the frame. A stowage for the hoisting adapter (Ref.No.26DC/7063) is provided at the front of the frame.

Pannier

14. The freight pannier (Ref.No.27H/3346), of light alloy construction with a steel and plywood floor, is in the form of

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an open-top rectangular box. It is equipped with four main wheels, fitted in pairs on the centre line at each side, and a small central wheel at each end. A removable tow bar, provided for ground handling, attaches to the rear end of the pannier and is stowed inside the pannier when the pannier is installed in the aircraft.

15. Four trunnions, two on the front of the pannier and two on a swivel beam at the rear of the pannier, enable the pannier to be hoisted, by four minihoists, to the suspension frame. Four spigots one at each corner of the pannier locate with four holes in the suspension frame, to ensure correct positioning and also take forward and transverse shear loads.

16. Three access panels, one at the front and two at the rear, are fitted to the pannier. The front access panel carries stowages for four minihoist handles and a torque spanner. A canvas cover, for the open top of the pannier, is supplied for ground use and must be stowed inside the pannier before hoisting. Stowages are provided on the sides of the pannier for the minihoists, two on each side.

Loading the pannier

17. The maximum floor loading of the pannier is 100 lb. per sq.ft. and the maximum all up weight including minihoists, tow bar, cover and spanners must not exceed two tons.

Towing the pannier

18. The pannier towing arm consists of three tubular struts bolted at one end to a towing lug, the other ends of the struts, fitted with fork ends are secured by Pip-pins, to eye-brackets on the rear end of the pannier. The lower strut is telescopic and can be adjusted to suit the height of the tug attachment and locked in position by a Pip-pin. The towing speed of the pannier on good surfaces must not exceed 5 m.p.h.

E.C.U. CARRIER

Introduction

19. To provide for the carriage of an E.C.U. in an airborne trolley slung in the aircraft bomb-bay, an adapter set is provided for fitment to the bomb-bay roof arches. Full details of the carrier and the method of loading the E.C.U. on to the trolley are contained in A.P.1464G, Vol.1, Part 2, Sect.6, Chap.4. Servicing of the minilift hoists is contained in A.P.2817A.

Adapter set

20. The items required to enable the carrier and equipment to be secured in the bomb-bay are listed in Table 1.

21. The adapter assembly consists of a fabricated Tee-beam fitted with attachment brackets, blocks and pins to secure it to the bomb-bay roof and with the necessary suspension lugs and pins for securing the carrier upper section. The port and starboard attachment blocks are provided to secure frame D of the upper section to frame N of the trolley and the sling brackets and hoist links are supplied for use, as required, to facilitate hoisting. The jack assemblies are fitted to assist

alignment of the trolley section with the upper section. The equipment stowage rack, designed to be carried in the bomb-bay by attachment to the bomb arches, is fitted with stowages for the minilift hoists and the trolley jacks.

22. The hoist components required to carry out the installation operations are listed in Table 2.

Equipment stowages

23. Stowages are provided for the towbar and steering equipment when being prepared for air transit. The towbar is secured along the starboard side of the trolley and the steering beam and forks along the port side.

24. To stow the towbar withdraw the pins from the clip on the starboard side diagonal member of the trolley and from the bracket on the outer face of frame L. Align the bracket on the towbar with the bracket on frame L and also the swivel block hole with the clip on the rear diagonal member. Refit the stowage pins and refit the towbar attachment pin in the swivel block.

25. The steering beam is stowed in the

TABLE 1

Part No.	Nomenclature	Qty.
FS1072-909E	Adapter assembly	1
FS1072-991B	Attachment block, port	1
FS1072-992B	Attachment block, starboard	1
FS1072-1216B	Sling bracket assembly	4
FS1072-1278B	Hoist link	4
FS1072-1319E	Equipment stowage rack	1
FS1072-1359C	Jack assembly	2

brackets on the top of frames L and N by withdrawing the pins, aligning the holes at each end of the beam with those in the brackets and refitting the pins. The two steering forks are stowed together by securing, below the stowed beam, at frame L and at the clip on the diagonal member.

26. Secure all mooring shackles, hoist links and sling bracket assemblies by the webbing straps provided. Stow the carrier wheels by withdrawing the retaining pins (A, B and C, fig.11) from the wheel assemblies, swinging each assembly upwards through 90 deg. and fitting retaining pin B in each diagonal member to lock. The forward starboard wheel must be rotated through 45 deg., toe inboard, to avoid fouling the stowed tow bar, and securing by pin C. The remaining three wheel assemblies are locked in the vertically down attitude by pin C.

General

28. The method of fitting the special flight containers, the freight pannier suspension frame, the freight pannier and the E.C.U. carrier are given in the following paragraphs. The assembly procedures only are given for the special flight containers, the freight pannier suspension frame and the freight pannier, the removal procedures are a reversal of the assembly procedures.

TYPE A CONTAINER

29. To fit a Type A container and carrier in the aircraft power compartment proceed as follows. Fig.1 illustrates the fitting of the container and carrier.

- (1) Open the power compartment access door.

TABLE 2

Ref.No.	Part No.	Nomenclature	Qty.
4GC/5752	-	Minilift hoist	4
-	FS1072-1235C	Special cable	4
-	FS1072-1236C	Special extension tube	4
4GC/5754	-	Sheath, top	4
4GC/5755	-	Sheath, bottom	4

NOTE...

Care must be taken that the shoulders of the wheel fork and the axle ends do not strike or damage the engine.

Stowage rack (fig.13)

27. A special stowage rack provided for the hoists and jacks is designed to be carried in the bomb-bay by attachment to

the roof members. It consists of a rectangular framework equipped with attachment fittings for the hoists and jacks. Bearing plates fitted to the port and starboard side members provide the points of attachment to the roof and four stop blocks, the forward two of which are adjustable, ensure rigidity. No provision is made for the mechanical lifting of this rack.

REMOVAL AND ASSEMBLY

- (2) Remove the window launching mechanism compartment access panel.
- (3) Remove the circular access panel on the rear portion of the power compartment honeycomb floor.
- (4) Engage the minihoist (Ref.No.4GC/5425) on the support point on the compartment roof at former 384.5A.
- (5) Lower the minihoist cable through the hole left by the removal of the access panel in item (3) and engage the cable end with the lifting bracket on the window launching mechanism.
- (6) Tighten the minihoist cable, remove the pins securing the window launching mechanism to the aircraft, lower and move it clear.
- (7) Remove the aft portion of the power compartment honeycomb flooring.
- (8) Move the minihoist from the support point on former 384.5A to the support point on the intercostals between formers 384.5A and 399A.
- (9) Remove the spreader bar from the clips on the carrier, lower the minihoist cable and engage the cable ball end with the lifting block on the spreader bar.
- (10) Raise the container and carrier into the aircraft in a vertical position i.e., with the spreader bar stowage at the top and the carrier mounting brackets facing rearward.
- (11) With the container suspended above

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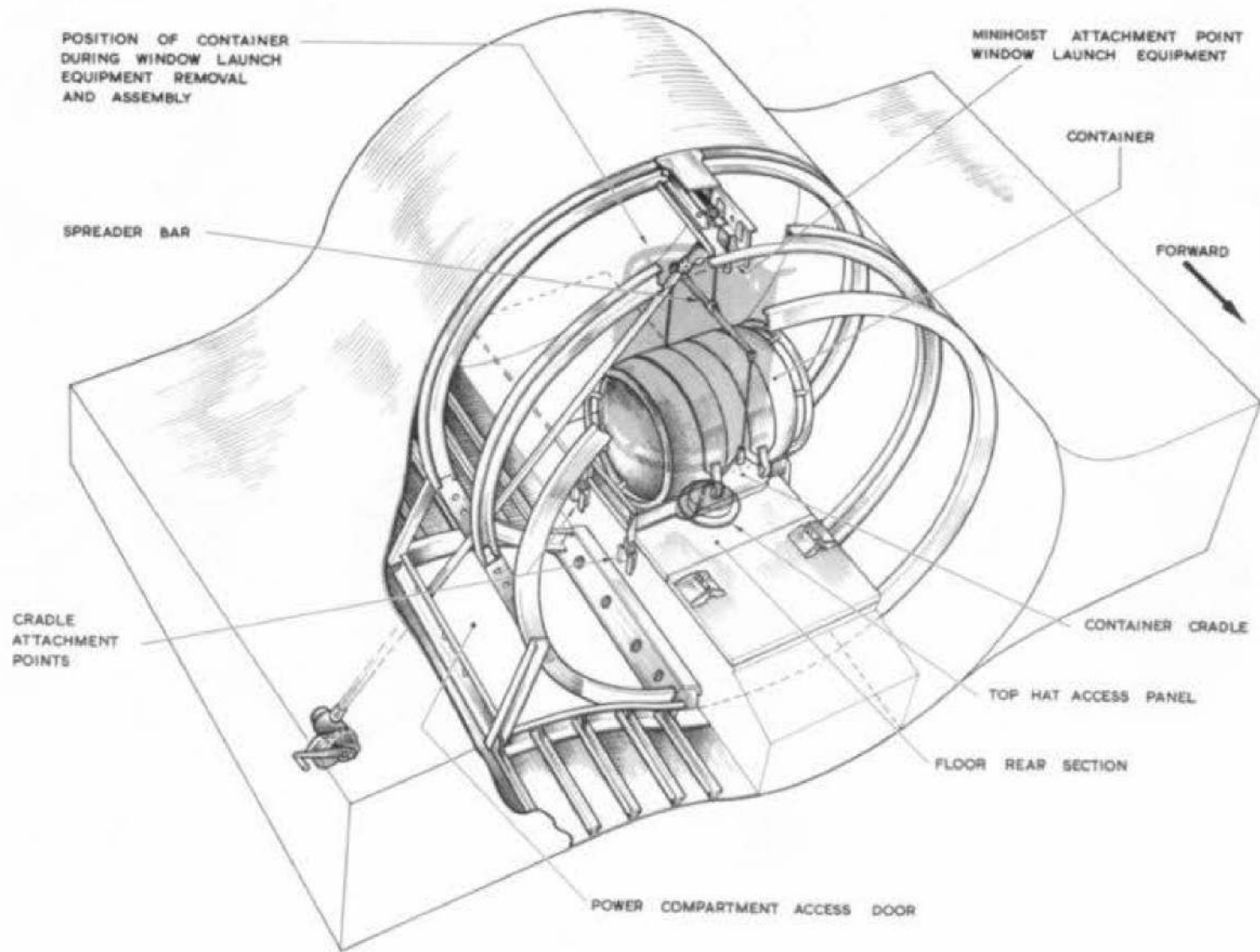


Fig.1, Fitting Type A container
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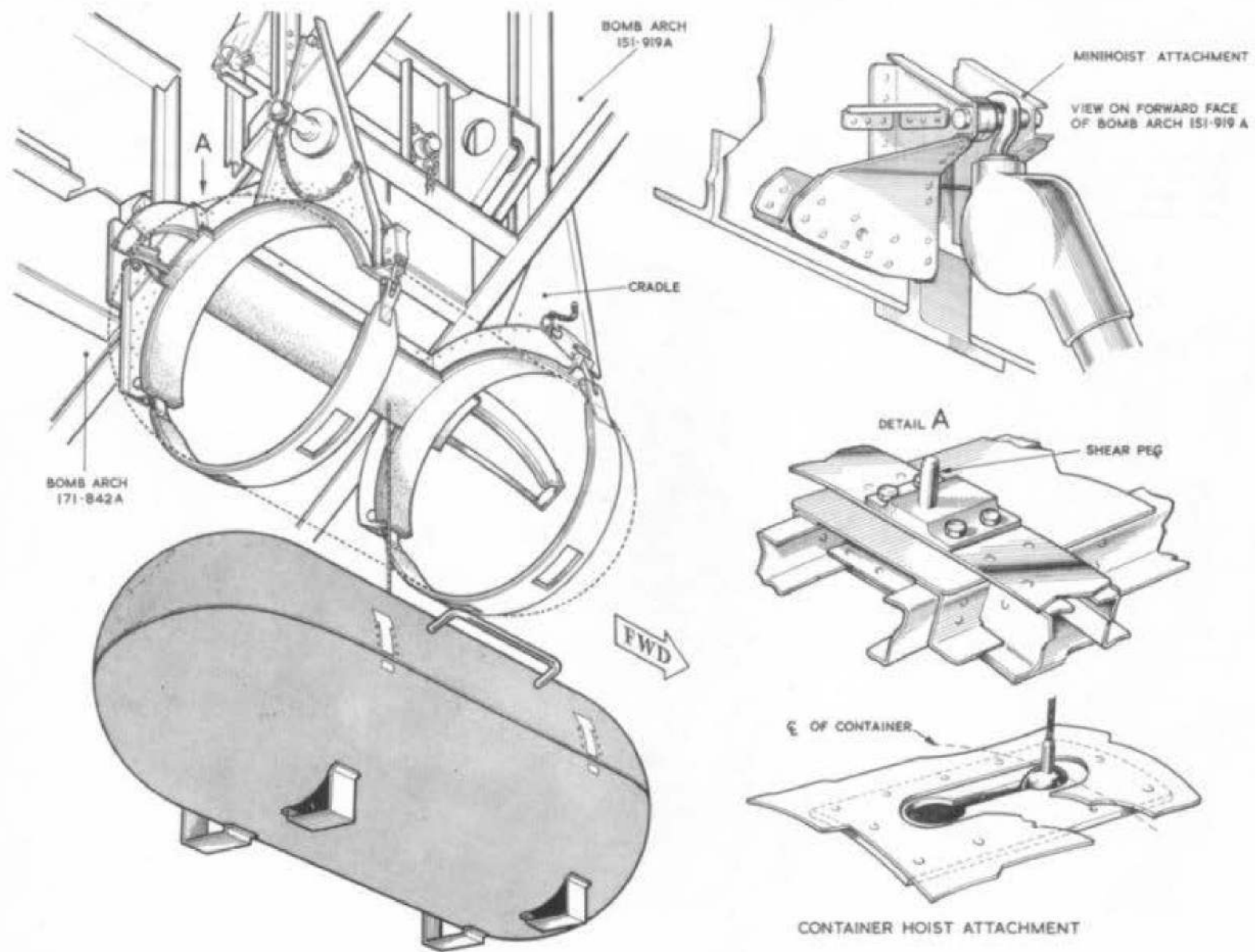


Fig. 2. Fitting Type B container.

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the power compartment floor level replace the rear portion of the floor removed in item (7).

- (12) Rotate the container and carrier through 90 deg. and lower them in a vertical position on to the port side of the compartment floor with the carrier mounting brackets facing to port. Ensure that the circular panel is left clear.
- (13) Disconnect the minihoist cable from the spreader bar and move the minihoist to the support point on former 384.5A.
- (14) Using the minihoist raise the window launching mechanism into position in the aircraft securing it with the attachment pins.
- (15) Disconnect the minihoist from the window launching mechanism and move the minihoist from the support point on former 384.5A to the support point on the intercostals.
- (16) Fit the circular access panel on the rear portion of the floor.
- (17) Engage the minihoist cable ball end with the carrier spreader bar, lift the container and carrier clear of the floor and rotate them through 90 deg. so that the carrier attachment brackets face downwards and the spreader bar stowage clips face to port.
- (18) Lower the container and carrier into position engaging the carrier attachment brackets with the mounting brackets on the window launching compartment longerons and insert the Pip-pins.
- (19) Disconnect the minihoist cable from the spreader bar and remove the minihoist from the aircraft.

- (20) Stow the spreader bar in the carrier clips, replace the window launching mechanism compartment access panel and close the power compartment access door.

NOTE...

Items (3) to (6) and (12) to (16) are applicable only when the window launching mechanism is fitted to the aircraft.

TYPE B CONTAINER

30. Fitting the Type B container and carrier to the aircraft attachment points is illustrated in fig.2 and the procedure is as follows:-

- (1) Open the bomb bay doors.
- (2) Remove the pulley from the carrier stowage and secure it by Pip-pin, in position to the intercostals between formers 151.919A and 171.842A.
- (3) Remove the four bolts and washers from the anchor nuts on the attachment brackets on bomb arches 151.919A and 171.842A.
- (4) Secure the container carrier to the brackets on bomb arches 151.919A and 171.842A using the bolts removed in item (3). Ensure that the shear peg engages correctly in the hole at bomb arch 171.842A.
- (5) Assemble minihoist (Ref.No.4GC/5425), extension tube (Ref.No.4G/5444), top sheath (hook) (Ref.No.4G/5428) and cable ball end (Ref.No.4G/5433) and attach to the attachment point on the forward face of bomb arch 151.919A.
- (6) Pass the minihoist cable through the hole in bomb arch 151.919A immediately below the minihoist attachment point, over the pulley

and down vertically, to engage the cable ball end with the hoisting point on the Type B container.

- (7) Raise the container into the bomb bay securing it to the carrier by the securing straps. Lock the quick release catches by the safety pin on the front and Pip-pin on the rear.
- (8) Remove the cable ball end from the container, remove the minihoist and close the bomb bay doors.

NOTE...

The pulley remains in position between the intercostals when the container is fitted to the aircraft.

TYPE C CONTAINER

31. Fitting the Type C container is illustrated on fig.3 and the procedure is as follows:-

- (1) Open the bomb bay doors.
- (2) Remove the pulley from the structure cradle stowage and secure it by Pip-pin to the intercostals between bomb arches 151.919A and 171.842A.
- (3) Remove the four bolts and washers from the attachment bracket anchor nuts on bomb arches 151.919A and 171.842A.
- (4) Separate the structure cradle from the hoisting cradle by releasing the quick-release catches on the four end securing straps.
- (5) Secure the structure cradle to the attachment points on bomb arches 151.919A and 171.842A by the four bolts removed in item (3). Ensure that the shear peg engages correctly in the locating hole at bomb arch 171.842A.

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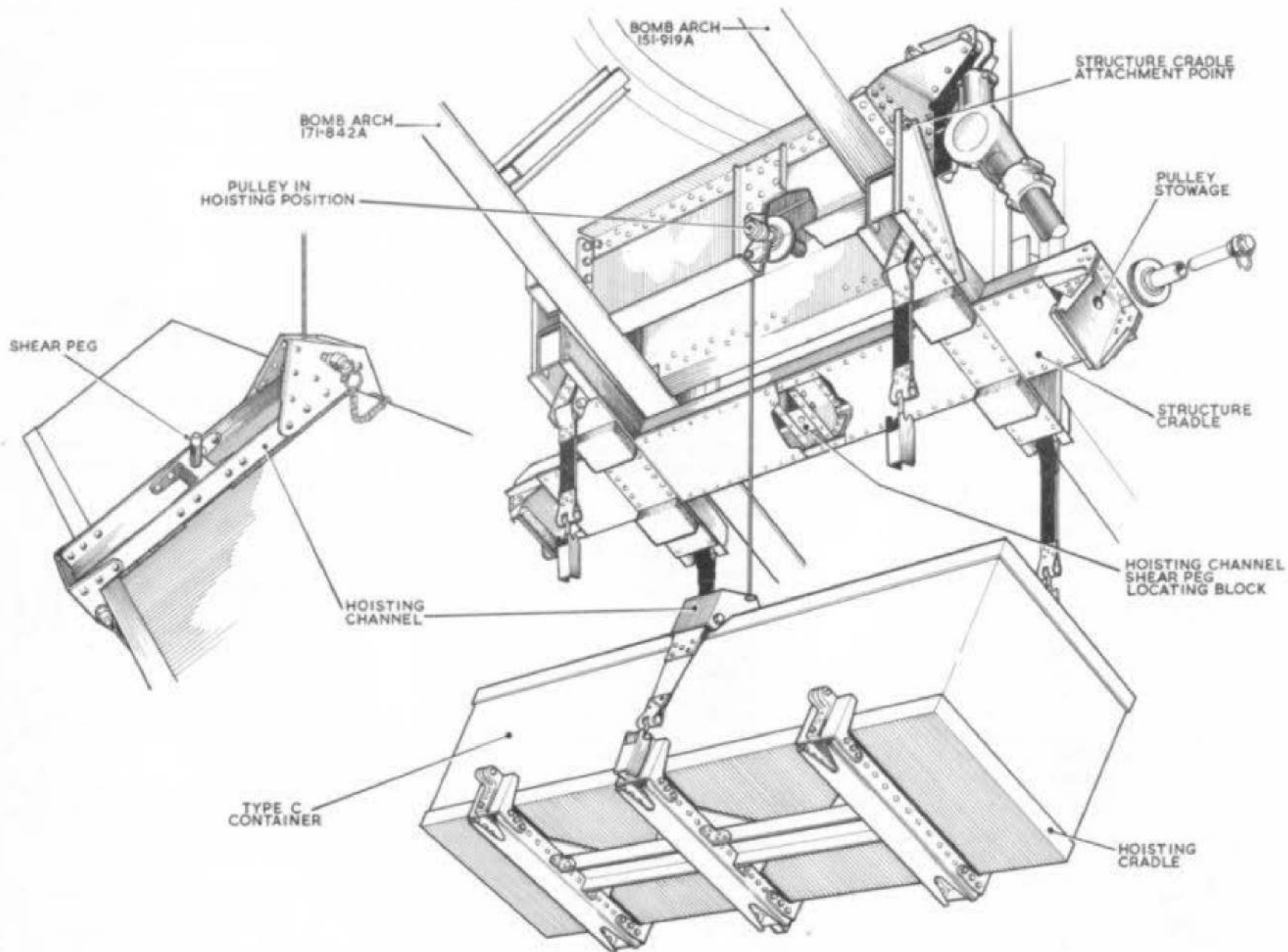


Fig.3. Fitting Type C container
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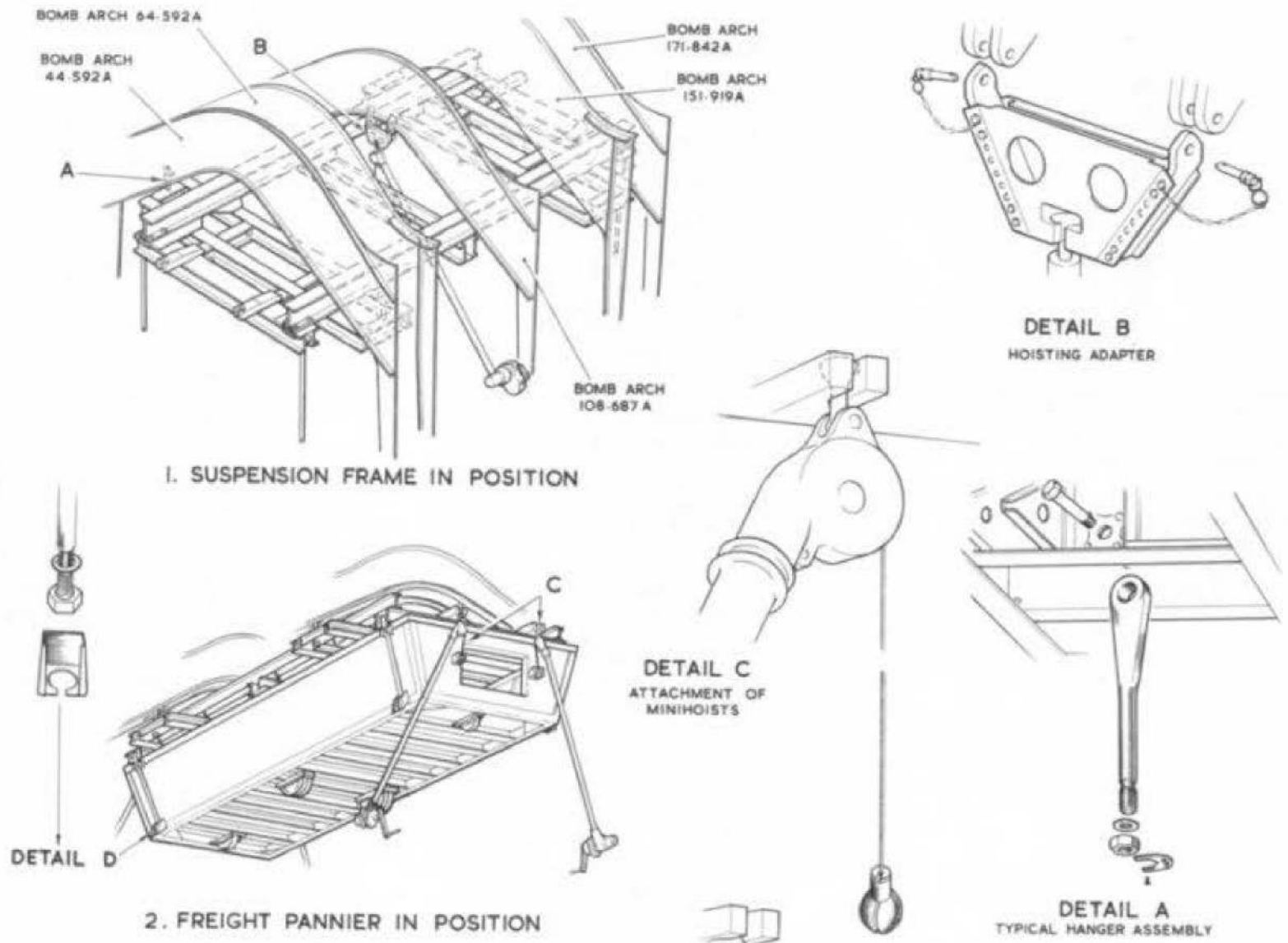


Fig. 4. Fitting freight pannier and suspension frame (1)

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- (6) Ensure that the container is positioned correctly in the hoisting cradle and the hoisting channel is positioned in accordance with the instructions stencilled on it. Lock the quick-release catches with the safety pins.
- (7) Assemble minihoist (Ref.No.4GC/5425), extension tube (Ref.No.4G/5444), top sheath (hook) (Ref.No.4G/5428) and cable ball end (Ref.No.4G/5433) and attach to the attachment point on the forward face of bomb arch 151-919A.
- (8) Pass the minihoist cable through the hole in bomb arch 151-919A, immediately below the minihoist attachment point, over the pulley wheel and down vertically to engage the cable ball end with the block on the hoisting channel. Ensure that the Pip-pin is replaced in the block to prevent the cable ball end slipping out of engagement.
- (9) Lift the hoisting cradle, complete with container, into position securing it to the structure cradle by the securing straps. Ensure that the shear peg on the hoisting channel engages correctly in the structure cradle locating block. Lock the securing strap quick-release catches with the safety pins.
- (10) Disconnect the cable end from the hoisting channel and remove the minihoist. Close the bomb bay doors.

NOTE...

The pulley remains in position between the intercostals when the container is fitted in the aircraft.

WARNING...

When the container and hoisting cradle

are fitted in the aircraft under no circumstances must the two centre securing straps be undone, i.e., those securing the hoisting channel to the hoisting cradle.

FREIGHT PANNIER SUSPENSION FRAME

32. The freight pannier suspension frame and its attachment points on the aircraft are illustrated on fig.4, the sequence of operations for fitting the frame to the aircraft is as following:-

- (1) Open the bomb doors.
- (2) Remove the hoisting adapter (Ref.No.26DC/7063) from the stowage on the suspension frame and attach it, by Pip-pins, to the brackets on bomb arch 108-687A.
- (3) Position the suspension frame under the bomb bay ensuring that it faces the correct way.
- (4) Remove the nuts, washers and special bolts from the suspension frame attachment hangers.
- (5) Fit a minihoist (Ref.No.4GC/5752) to the hoisting adapter on bomb arch 108-687A.
- (6) Lower the minihoist cable and engage the cable ball end with the lifting block on the suspension frame central transverse beam.
- (7) Raise the suspension frame, and guide the attachment hangers into the aircraft pick-up points.
- (8) If required fit thin washers between the attachment hangers and the aircraft attachment points, fit the special attachment bolts.
- (9) Fit the nuts to the attachment

bolts and tighten. Lock the nuts with split pins.

- (10) Remove the locking plates from the attachment hanger to suspension frame securing nuts and torque load the nuts to 52 lb. ft.
- (11) Replace the locking plates.
- (12) Remove the minihoist and hoisting adapter. Fit the hoisting adapter to the stowage on the suspension frame.

FITTING THE FREIGHT PANNIER

33. To fit the freight pannier to the suspension frame proceed as follows:-

- (1) Remove the pannier attachment tubes from the stowage clips on the suspension frame and fit them to the attachment points on the frame forward and rear end beams.
- (2) Fit four minihoists (Ref.No.4GC/5752), complete with extension tubes 60 in. (Ref.No.4GC/5753), top sheath (ball)(Ref.No.4GC/5754) and ball end, winch cable, 1½ in. dia. (Ref.No.4GC/5772), one to each hoisting point on the suspension frame forward and rear end beams.
- (3) Position the freight pannier under the suspension frame.
- (4) Lower the minihoist cables and engage the cable ball ends with the hoisting trunnions on the pannier.
- (5) Using the minihoists raise the pannier evenly and engage the attachment tubes with the brackets on the pannier.
- (6) Tighten the special pannier se-

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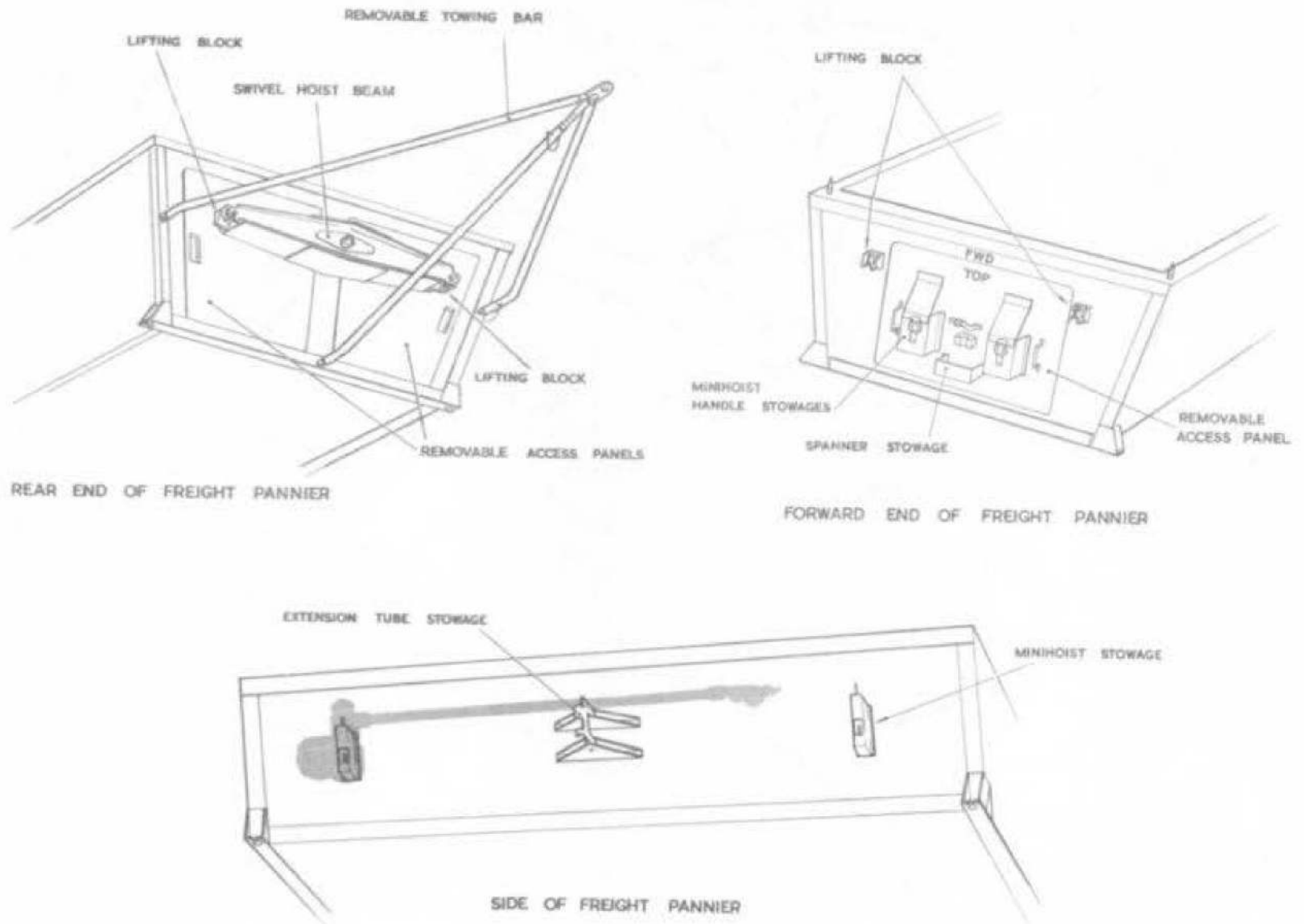


Fig.5. Fitting freight pannier and suspension frame (2)
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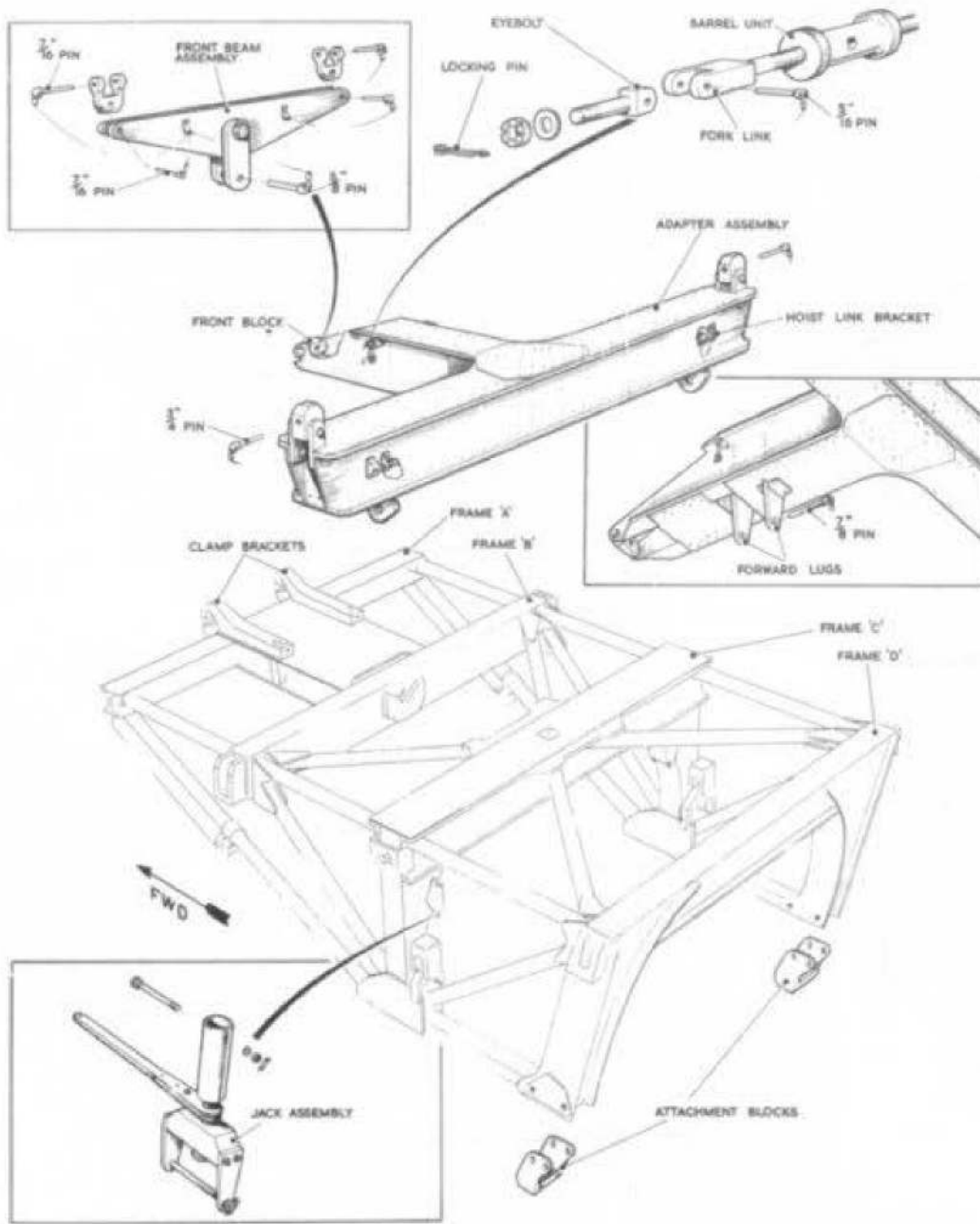


Fig.6. E.C.U. adapter set
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curing nuts on the attachment tube ends and torque load them to 17.5 lb.ft.

- (7) Remove and stow the minihoists on the pannier.

E.C.U. CARRIER

Installing the adapter assembly

34. To install and secure the adapter assembly in the bomb-bay proceed as follows:-

- (1) Remove any fittings suspended from the attachment points at fuselage formers 108-687A, 123-015A and 151-919A.
- (2) Release the front beam assembly from the front block by removing the 5/8 in.dia. pin. It is not necessary to release the fork fittings from the beam assembly.
- (3) Fit the front beam assembly to the crutch attachment brackets in the bomb-bay roof at Former 108-687A by engaging the fork fittings and securing with the 7/16 in.dia. pins.
- (4) Remove the port and starboard eyebolts from their respective fork links by withdrawing the 5/16 in.dia. pins, and fully retract the fork links by rotating the barrel nut.
- (5) Fit the eyebolts in the crutch attachment brackets at Former 123-015A. Fully tighten the nuts and lock with the pins provided.
- (6) Remove the 5/8 in.dia. pins from the port and starboard rear suspension lugs.
- (7) Secure the adapter to the front beam assembly using 5/8 in.dia. pin removed at operation (2).
- (8) Pivoting about the front block,

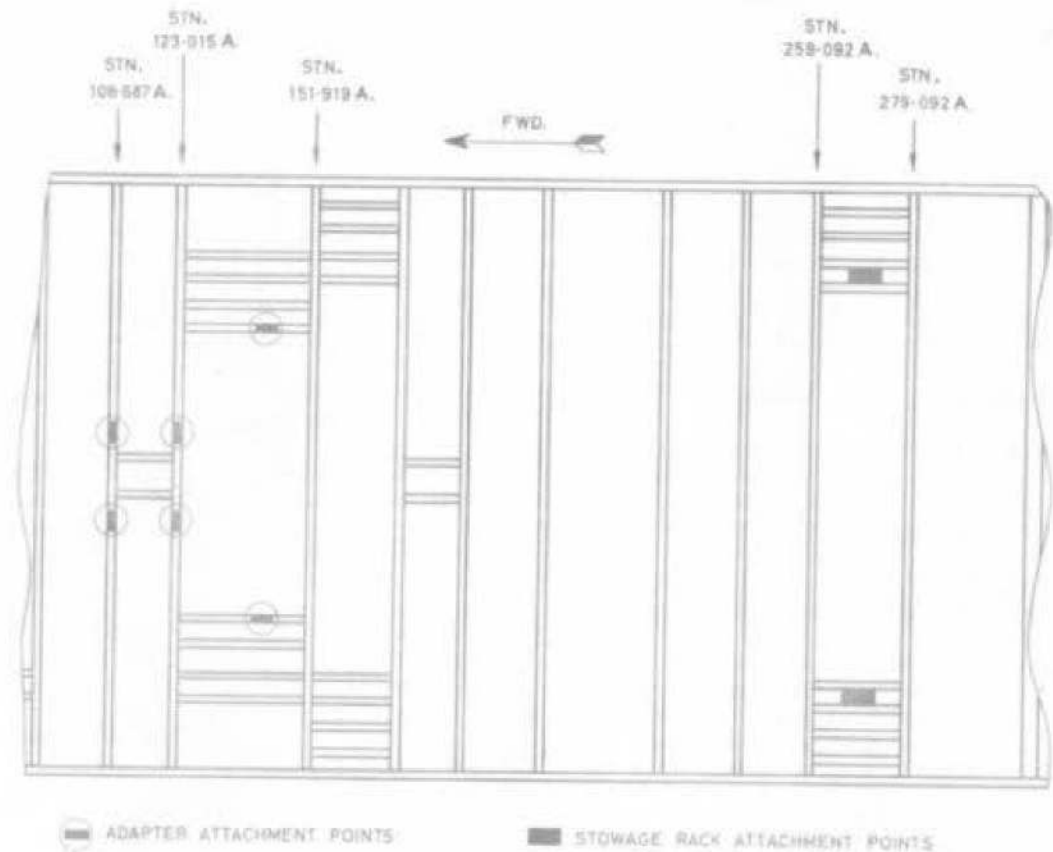


Fig.7 Attachment points in bomb bay

swing the adapter upwards and rearwards to engage the rear suspension lugs in the intercostals at the bearing plates positioned just forward of Former 151-919A.

- (9) Secure the adapter set at these positions using the 5/8 in.dia. pins removed at operation (6).
- (10) To secure the adapter at Former 123-015A, rotate the barrel nut until the holes in the fork links

align with the holes in the eyebolts fitted at operation (5).

- (11) Refit the 5/16 in.dia. pins removed at operation (4).

Removing the adapter assembly

35.

- (1) Take the weight manually and release the pins from the rear attachment lugs and from the eyebolt attachment to the fork links at Former 123-015A.

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- (2) Allow the adapter to swing downwards about the front block.
- (3) Release the 5/8 in.dia. front pin and remove the adapter.
- (4) Withdraw the two 7/16 in.dia. pins to release the front beam assembly.
- (5) Remove the eyebolts from the crutch attachment brackets at Former 123-015A.
- (6) Re-assemble the component parts of the adapter set.

Installing the upper section

36.

- (1) Fit and secure a hoist link (fig.9) on the rear face of the adapter at the port and starboard brackets provided and labelled.
- (2) Withdraw the 7/8 in.dia. pin from the forward suspension lugs.
- (3) Remove the two clamp brackets from their position on the underface of frame A, invert, reposition and secure them on the top face at the same attachment holes.
- (4) Remove the pins from the port and starboard end fitting of frame C.
- (5) Remove the circlip and slotted collar from the special extension tube.
- (6) Fit the special cable in this tube and refit the collar and circlip.
- (7) Assemble the two minilift hoists in accordance with A.P.2817A, Vol.1 and 6, Part 1, Sect.8, Chap.12.

NOTE...

Once the hoists are fitted with the special cables, the special tubes must not be detached from the winch body.

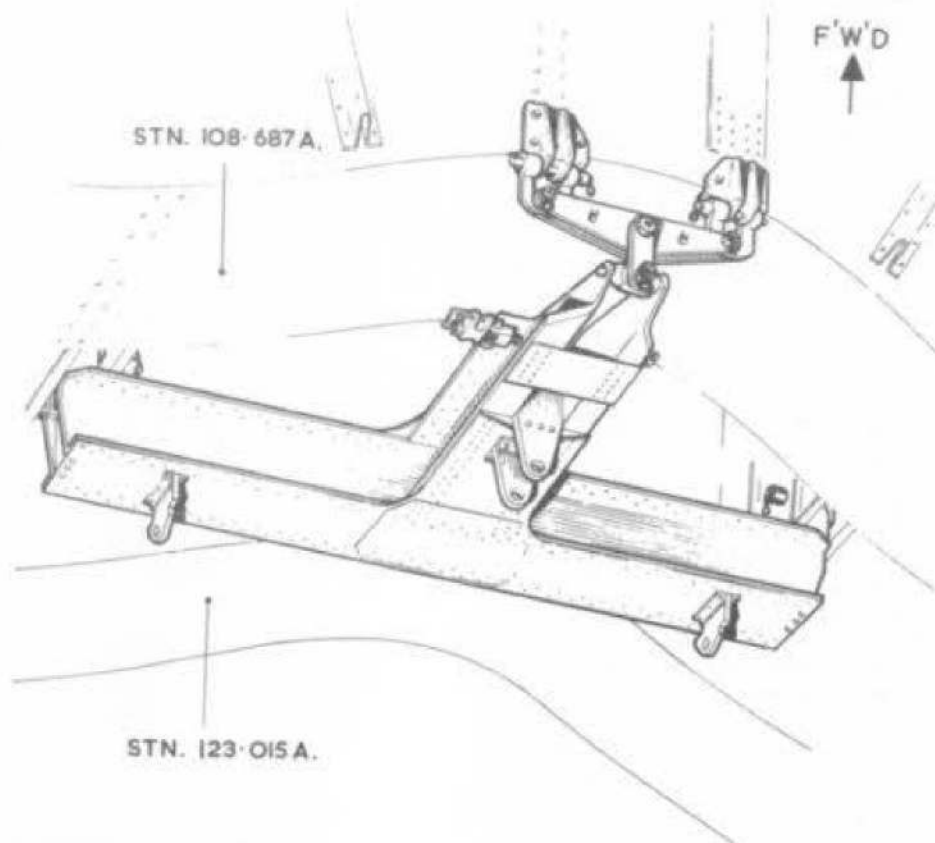


Fig.8.E.C.U. adapter set installed

- (8) Engage a hoist top sheath in each of the hoist links fitted to the adapter rear member.
- (9) Align the upper section under the installed adapter and engage the hoist bottom sheath one in each of the ball sockets fitted adjacent to frame C.
- (10) Manually support the front of the upper section and operate the hoists to raise it until the forward suspension lugs on the adapter engage in the central fitting at frame B and the rear lugs engage in the end fitting on frame C.
- (11) Align the holes at the three attachment positions and secure with the pins previously withdrawn.
- (12) Remove the hoists and remove the hoist links from the adapter rear member.

Removing the upper section

37.

- (1) Engage two minilift hoists as for

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installing (para.36 (8) and (9)) and take the load.

- (2) Remove the pins from the frame C attachment points and from the frame B central suspension lugs.
- (3) Align the trolley under the upper section.
- (4) Allow the hoist cables to run out, steadily lowering, until frame C re-engages with the trunnion bearers and frame D re-engages with the frame N attachment blocks.
- (5) Secure at these attachment points with the pins previously removed and engage the forward clamps about the front suspension loop.
- (6) Remove the minilift hoists and wheel the carrier clear of the aircraft.

Installing the trolley section 38.

- (1) Open the half-clamps on the brackets mounted centrally at frame A. (fig.6).
- (2) Release the pins from the base of frames C and D.
- (3) Fully extend the port and starboard jack assemblies.
- (4) Attach the jack assemblies to the brackets on frame C, ensure that the captive spanners are aligned forward, and remove the bolts from the jack bottom forks.
- (5) Ensure that the E.C.U. is securely installed in the trolley section.
- (6) Fit two sling bracket assemblies, one port and one starboard, on the top tubular members immediately to the rear of frame L.

NOTE . . .

It will be found necessary to separate the attachment block from the bracket by withdrawing the 1/2 in. dia. bolt, and to re-assemble in situ.

- (7) Fit the remaining two sling bracket assemblies, one port and one starboard, on the top tubular members to the rear of frame N.
- (8) Fit the two attachment blocks (991B port and 992B starboard) to the top of frame N, and secure with the 5/8 in. dia. pins and the 3/8 in. dia. captive pins provided in the top of the frame.
- (9) Align the trolley under the installed upper section. It will be found advantageous to allow the front wheel forks to be trailing when in motion.
- (10) Remove the towbar, steering forks and jacks
- (11) Secure the four hoist links, one to each of the minilift hoist top sheaths.
- (12) Secure the hoist links, one each port and starboard, to the attachment brackets at frames B and D.
- (13) Engage the bottom sheaths one in each of the four sling bracket assemblies fitted to the trolley top tubes.
- (14) Under the direction of a Senior N.C.O. operate all four hoists simultaneously to raise the trolley.
- (15) Continue the lift until the lower end of the jacks on frame C engage with the trunnion bearer upper bolt.
- (16) Align the attachment holes and

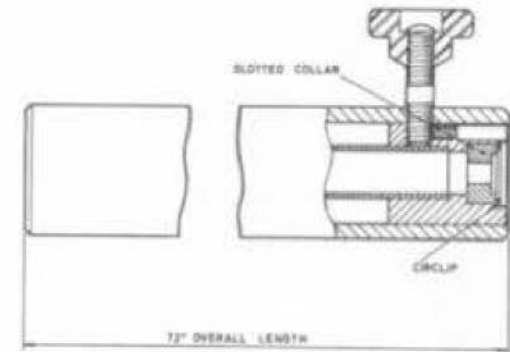


Fig.9. Special extension tube

secure the jack bottom forks to the trunnion bearers with the bolts supplied.

- (17) By retraction of the jacks, and maintaining the tension in the hoist cables, align the holes in the trunnion bearer forks with those in the base of frame C, and align the holes in the attachment blocks at trolley frame N with those in the base of frame D.
- (18) Secure at these positions with the pins previously removed, a single pin only is required at frame D.
- (19) Ensure that the E.C.U. front suspension loop engages in the top section clamp brackets and close and secure the clamps. Release the port and starboard jack assemblies by removing the bottom fork bolts. This is essential before flight.
- (20) Remove the minilift hoists.

Removing the trolley section

39.

- (1) Remove the steering equipment and towbar from the stowages on the trolley.
- (2) Lower, align and secure the wheel assemblies. Care must be exercised to ensure that the forward starboard wheel assembly does not damage the engine during lowering.
- (3) Engage the four minilift hoists as for hoisting (para.38 (11), (12) and (13)) and re-connect the jack assemblies to the trunnion bearers.
- (4) Take the weight by retracting the jacks, at the same time maintaining tension in the hoist cables.
- (5) Open the forward suspension loop clamps, and remove the pins from the trunnion bearer attachments to frame C and the pin from the frame N to frame D attachment blocks.
- (6) Fully tension the hoist cables and remove the lower jack attachment bolts.
- (7) Lower the trolley by allowing the minilift hoist cables to run out steadily.

NOTE...

The Senior N.C.O. must ensure that all cables are taking an equal load during the lowering operation.

- (8) Remove the hoists, fit the steering equipment and towbar and wheel the trolley clear of the bomb-bay.

Installing the equipment rack

40.

- (1) Lift the rack to align the side bearing plates with those fitted in the intercostals 11 in. forward of Former 279-092A.

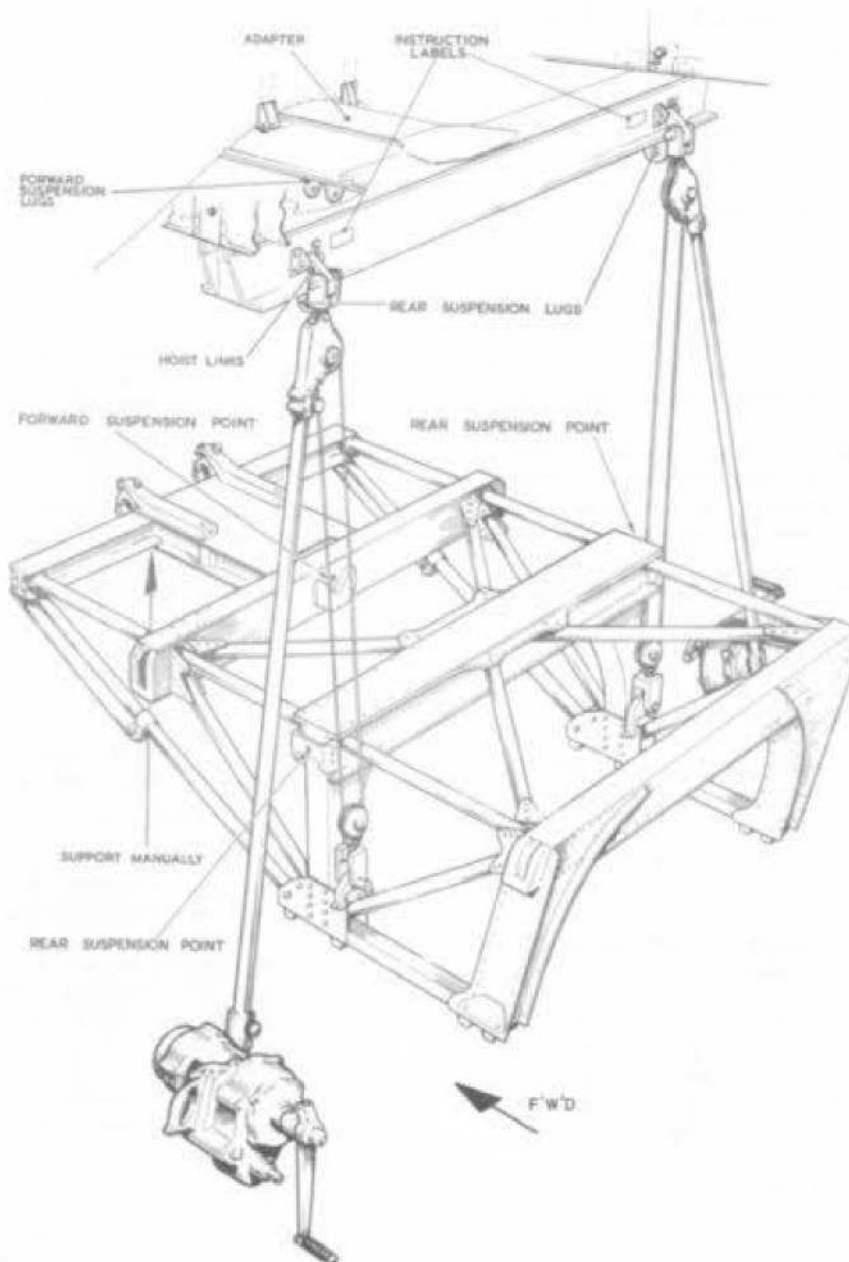


Fig.10. Hoisting E.C.U. carrier - upper section

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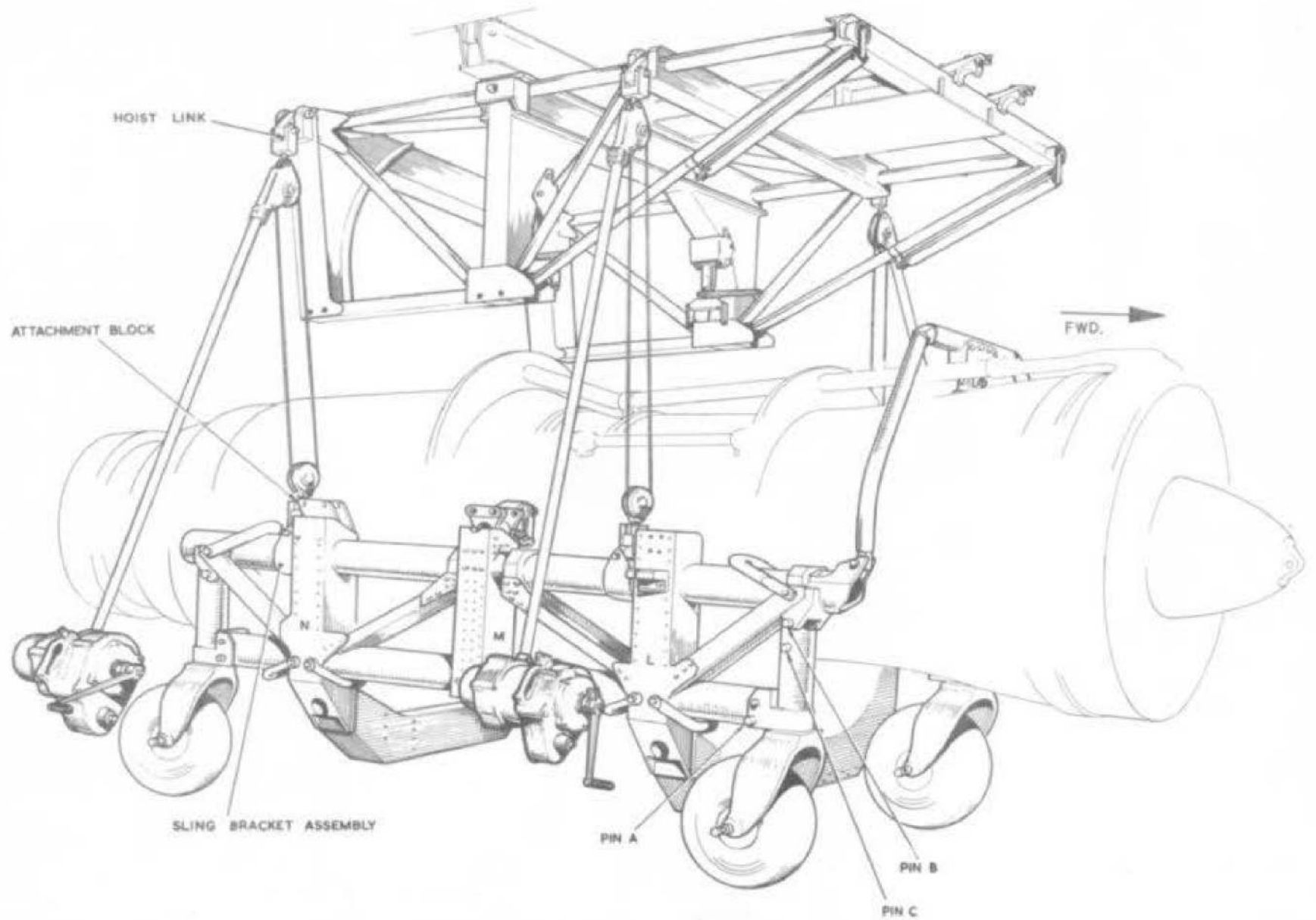


Fig. 11. Hoisting E.C.U. carrier-trolley section
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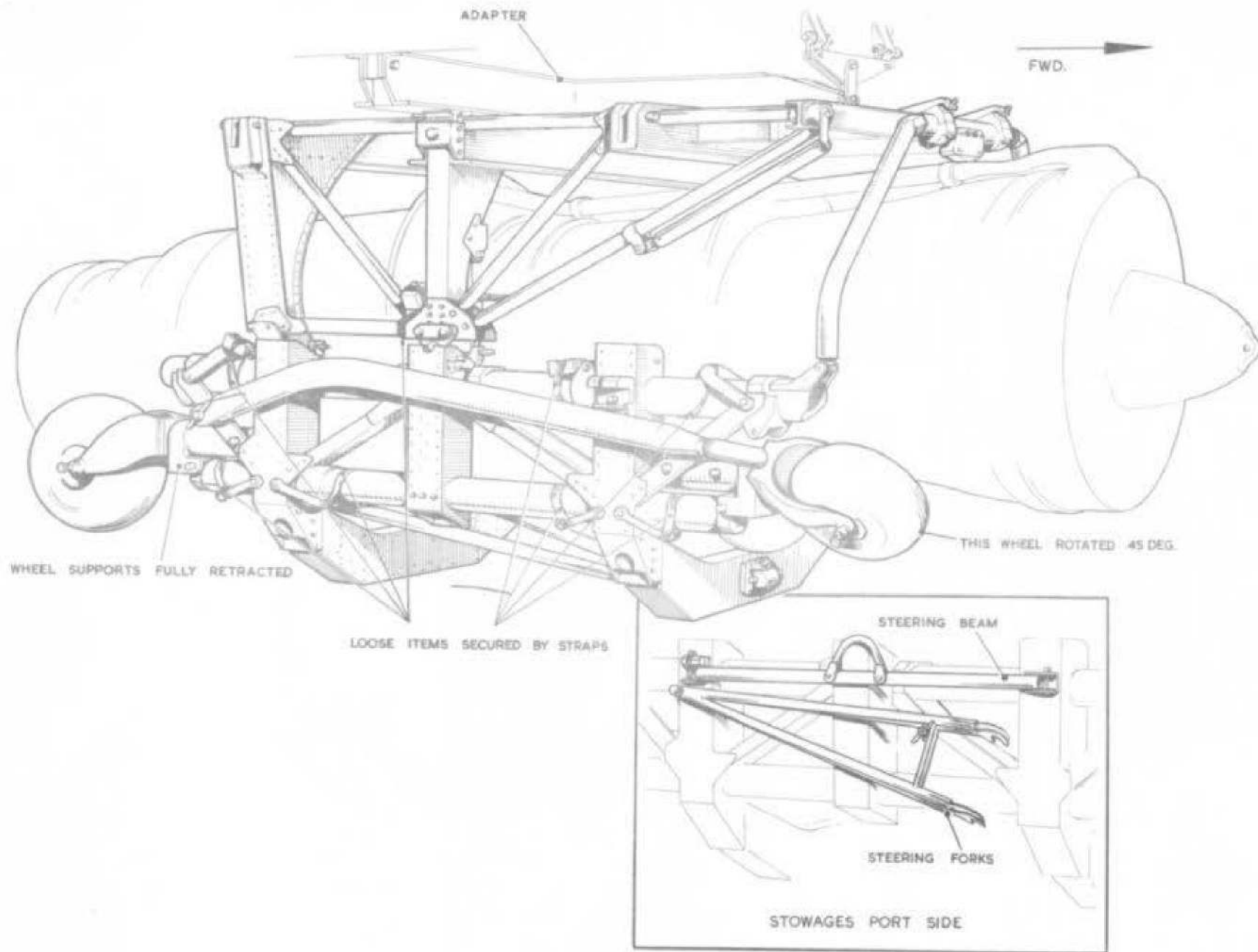


Fig 12. E.C.U. carrier in bomb bay

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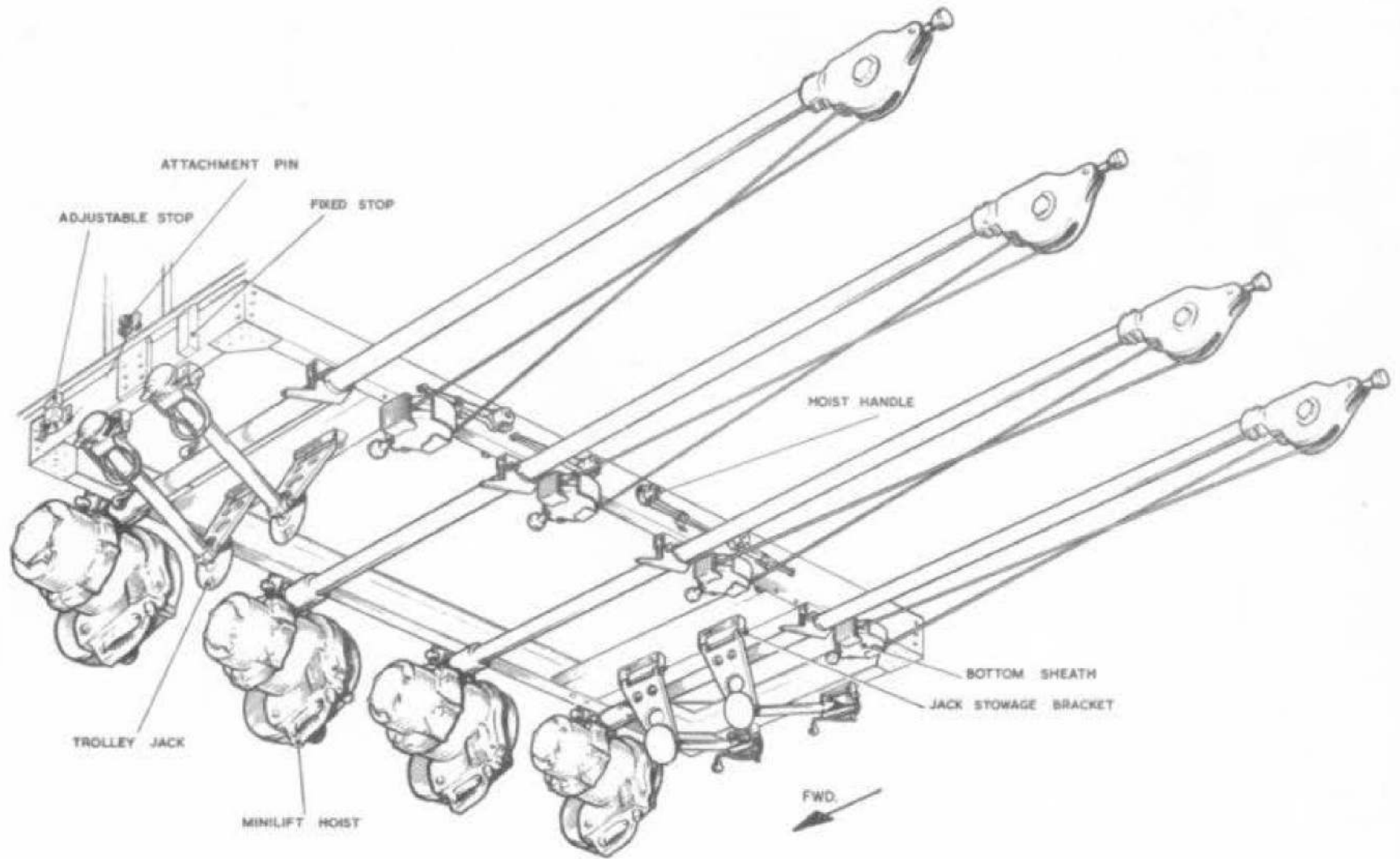


Fig. 13. Hoist equipment stowed
RESTRICTED

- (2) Secure at these positions with the pins provided with the rack.
- (3) Adjust the port and starboard forward stop blocks until all four are in firm contact with the crutching pads in the roof structure.
- (4) Pin the forward stops to lock.

Stowing the equipment

41.

- (1) Secure the hoist drums to the rack front member by inserting the rack pins through the lugs on the drums.

- (2) Secure each extension tube in the appropriate clamp fitting on the rear member.
- (3) Fit each hoist bottom sheath in the housing on the rack rear member and tension the cables by turning the hoist spindles, by hand, then press the brake release button of each winch.

NOTE...

The winch handles must not be used to tension the cables.

- (4) Remove the handles from the hoists

and stow them in the holes provided in the web of the rack rear member. Secure with the captive webbing straps.

- (5) Secure the four jacks, two port and two starboard, by pinning them in the brackets provided on the rack inner and outer transverse members.

Removing the stowage rack

42. Remove the hoists, hoist handles and jacks, take the weight manually, remove the two attachment pins and carry the rack clear of the bomb-bay.

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