AP 104J-1048-13

(Formerly AP 104J – 1048 – 1
and AP 4515C, Vol. 3,
Part 1, Sect. 2, Chap. 48)

BRAKE UNITS

DUNLOP PART No. AH 50247, AH 50248

GENERAL AND TECHNICAL INFORMATION (-1)

PARTS CATALOGUE AND RELATED INFORMATION (-3)

BY COMMAND OF THE DEFENCE COUNCIL

Ministry of Defence

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Service users should send their comments through
the channel prescribed for the purpose in:

AMENDMENT RECORD

Amdt	Incorporated by	Date
1		9/9/86
2		11/9/95
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RECORD OF ADVANCE INFORMATION LEAFLETS (AIL)

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RECORD OF SERVICE TEMPORARY AMENDMENT LEAFLETS (STAL)

Identity *	Date received	Deleted by Amdt or AIL or STAL

Identity *	Date received	Deleted by Amdt or AIL or STAL

*Insert specific identity of STAL

CAUTIONARY NOTICE

Acid Damage

The cleaning fluid for many hydraulic components is trichloroethane or some other form of chlorinated solvent. If traces of solvents are left in components they can combine with minute amounts of water, present in hydraulic systems, to form hydrochloric acid. It is essential that when hydraulic components are cleaned with a chlorinated solvent all traces of the solvent must be removed from internal surfaces and passages, before assembly, using the air blast method or other effective means.

Hazard from Asbestos

▶ The friction pads fitted in Dunlop Brake Units part number AH50247 and AH50248 contain asbestos which is hazardous to health through normal handling but especially when drilling operations are carried out as this creates dust. Before starting to work on these brake units personnel are to be aware of the contents of AP 100B-10, data sheet S.0005, Table 1 and are to follow the instructions detailed in AP 100B-10, data sheet S.0600, particularly paras 5 to 8 inclusive. ◀

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BRAKE UNITS

DUNLOP PART NO. AH.50247 AND AH.50248

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ASSOCIATED PUBLICATIONS

AP 2337, Vol.6	Aircraft Wheels, Tyres and Brakes, Repair and Reconditioning Instructions
AP 119A-0601-1C	Aircraft Painting, Pre-treatment of Metal Surfaces

LEADING PARTICULARS

Hydraulic fluid	OM-15 (D.T.D.585)
Maximum working pressure	1500 lbf/in^2

DESCRIPTION

1. This is a plate-type brake the components of which are assembled to a torque plate which is an integral part of the undercarriage oleo leg.

2. Two jack units are bolted to the torque plate. The upper jack unit consists of two cylinders and pistons, and the lower unit consists of a single piston and cylinder.

3. One inner and one outer brake friction plate are positioned between the pressure plate and backing plate assemblies.

OPERATION

4. When the brake is pressurized the pistons move against the action of the return springs. The piston movement is transmitted to the pressure plates via the piston rods, thus the brake friction plates and the friction pads are clamped together to impart a retarding force to the aircraft wheel.

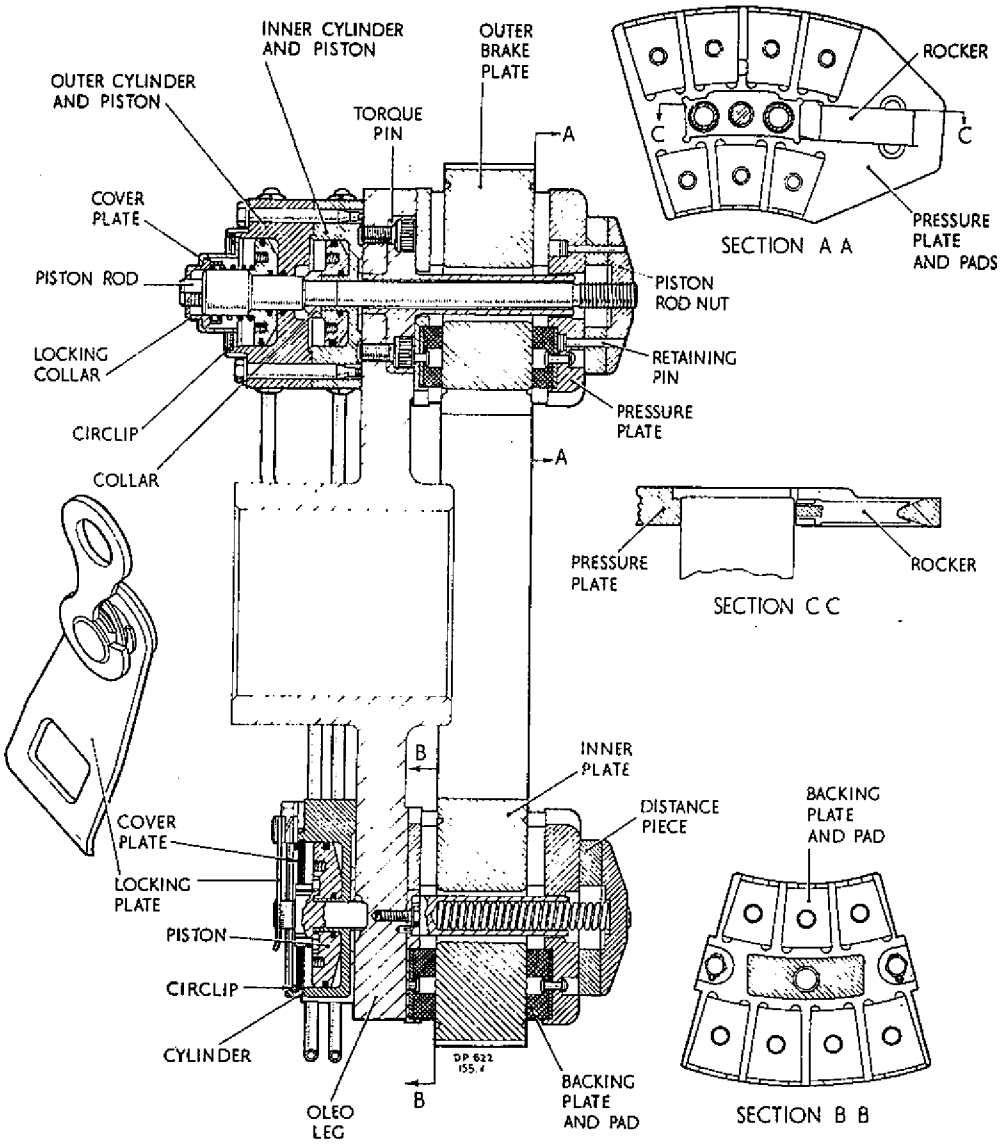

Fig.1. Sectional arrangement of the brake unit

SERVICING

SPECIAL TOOLS

5. The following special tools are required:-

AO.101130 Ref. No.27G/5395	Piston extractor (for twin piston)
AO.101131 Ref. No.27G/5396	Piston extractor (for single piston)
AO.49285	Tenon wear gauge
AO.101123 Ref. No.27G/5100	Pad wear gauge
AO.50592 Ref. No.27G/5103	Spanner piston rod

PAD WEAR CHECK

6. The progress of brake friction pad wear can be ascertained by measuring the distance from the oleo leg to the outer face of the brake friction plate with the brake unit pressurized.

7. With the brake unit pressurized and using the special tool AO.101123 measure the distance from the oleo leg to the outer face of the brake friction plate (fig.2 refers). If this distance is 1·076 in. or less the complete brake set of backing plate and pressure plate assemblies must be renewed.

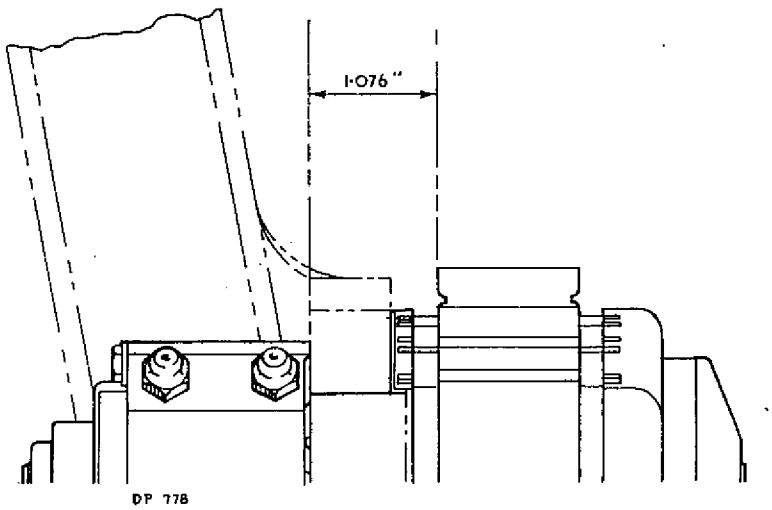

Fig.2. Measurement of friction pad wear

BRAKE FRICTION PLATES

General

8. Brake friction plates are supplied in matched sets, a set being comprised of one outer and one inner plate which are of the same stage of repair within the terms of Repair Scheme RP.6 (AP 2337, Vol.6, Sect.3, Chap.2 refers). Only matched sets of plates must be fitted. If during examination an inner or outer brake friction plate is unserviceable the complete set must be renewed.

Identification of brake friction plates

9. Under the terms of Repair Scheme RP.6 the stage of repair of the brake friction plates is identified by a letter/number code and a colour code as shown in Table 1. The colour code is a $^1/_4$ in. width band around the inner circumference of an outer plate and the outer circumference of an inner plate. Plates of original thickness are unpainted.

TABLE 1

Identification of friction plates

Stage of Repair	Letter/ Number Code	Colour Code	Meaning of Code
Original	1435	Unpainted	Original thickness (1·435 in.)
1	RP/1405/1	Yellow	Reduction of 0·030 in. from original thickness
2	RP/1375/2	Green	Reduction of 0·060 in. from original thickness
3	RP/1345/3	Red	Reduction of 0·090 in. from original thickness

DISMANTLING

10. As the component parts are removed place them away from tools and equipment likely to cause damage.

CAUTION...

During dismantling ensure that the brake friction surfaces do not become contaminated by oil or grease from any source.

11. Dismantle the brake unit as follows:

(1) Place the unit on a clean bench, open the bleed screws and drain off any residual hydraulic fluid. Refer to para.10 CAUTION.

(2) Remove the banjo bolt from the lower cylinder assembly. Separate the sealing washers from the banjo bolt.

(3) Unscrew the pipe connections from the upper cylinder assembly, withdraw the feed pipe assembly.

(4) Manually restrain the upper cylinder cover plate and locking collar. Using suitable circlip pliers remove the circlip and withdraw the cover plate, locking collar and the return spring.

(5) Manually restrain the upper piston rod nut and distance piece. Using the special tool AO.50592 unscrew the piston rod.

(6) Remove the locking plate assembly from the lower cylinder assembly. Using suitable circlip pliers remove the circlip, withdraw the cover plates and rubber seal.

(7) Manually restrain the lower piston rod nut and distance piece, and using the special tool AO.50592 unscrew the piston rod.

(8) Remove the pressure plate assemblies and the inner and outer friction plates.

(9) Remove the main return springs from the torque pins.

(10) Remove the backing plate assemblies securing bolts and tabwashers. Discard the tabwashers. Remove the backing plate assemblies.

(11) Remove the torque pin securing bolts, withdraw the torque pins from the torque plate.

(12) Dismantle the upper cylinder assembly as follows:

(a) Remove the securing bolts, withdraw the inner and outer cylinder assemblies. Remove the collar from between the assemblies.

(b) Using the special tool AO.101130 extract the pistons from their respective cylinders.

(c) Remove the inner and outer seals from the pistons and the inner seal from the outer cylinder.

(d) Remove the bleed screws.

(13) Dismantle the lower cylinder assembly as follows:

(a) Remove the securing bolts, withdraw the cylinder assembly.

(b) Using the special tool AO.101131 extract the piston from the cylinder.

(c) Remove the inner and outer seals from the piston.

(d) Remove the bleed screw.

CLEANING

12. (1) Hydraulic components which have not had their sealing rings removed must be cleaned in clean system fluid.

(2) Clean all metal components with trichloroethane.

(3) Brake friction surfaces must only be cleaned with a stiff brush.

CAUTION...

Chemical cleaning fluids must not be used.

EXAMINATION

13. (1) Examine the friction plate for damage. Scored brake plates are serviceable until the plating at the base of the scores is broken, but continued use of a scored plate will eventually result in unserviceability due to lifting of the plating. Fig.3 and Fig.4 shows a typical brake plate which is unserviceable due to scoring, and if, on examination, a plate is found to be in a similar condition to those illustrated, the matched set of plates must be renewed (refer to para.7.).

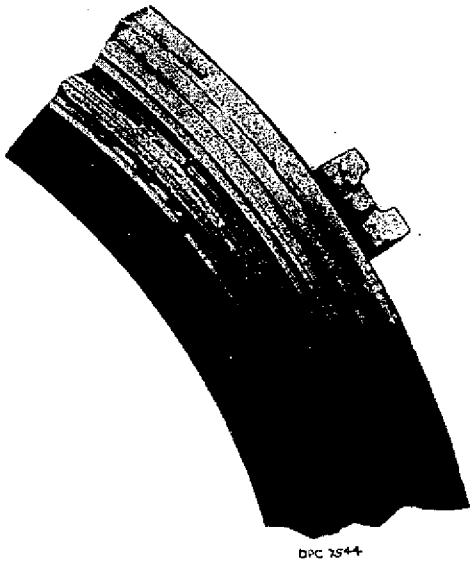

Fig.3. A section of a badly scored brake plate

(2) Lifting or flaking of the plating can occur from causes other than scoring and is recognised by the appearance of small blisters and/or irregular areas of bare copper. If confined to a small local area this defect is not detrimental, but if the condition is allowed to spread over the whole surface of a plate it will inevitably result in:

(a) A decrease in braking effort.

(b) An increase in the wear rate of the friction pads.

It is therefore essential to renew a matched set of plates where the flaking on one or both plates has reached an advanced stage. Fig.3 and fig.4 show brake plates which are unserviceable because of flaking of the plating. In fig.4, the flaking is spread over the whole surface, but in fig.5 the flaking is confined to a number of small areas. If on examination, a friction plate has approximately the same amount of plating removed as those shown in fig.3, 4 and 5 it is unserviceable and the complete set must be renewed.

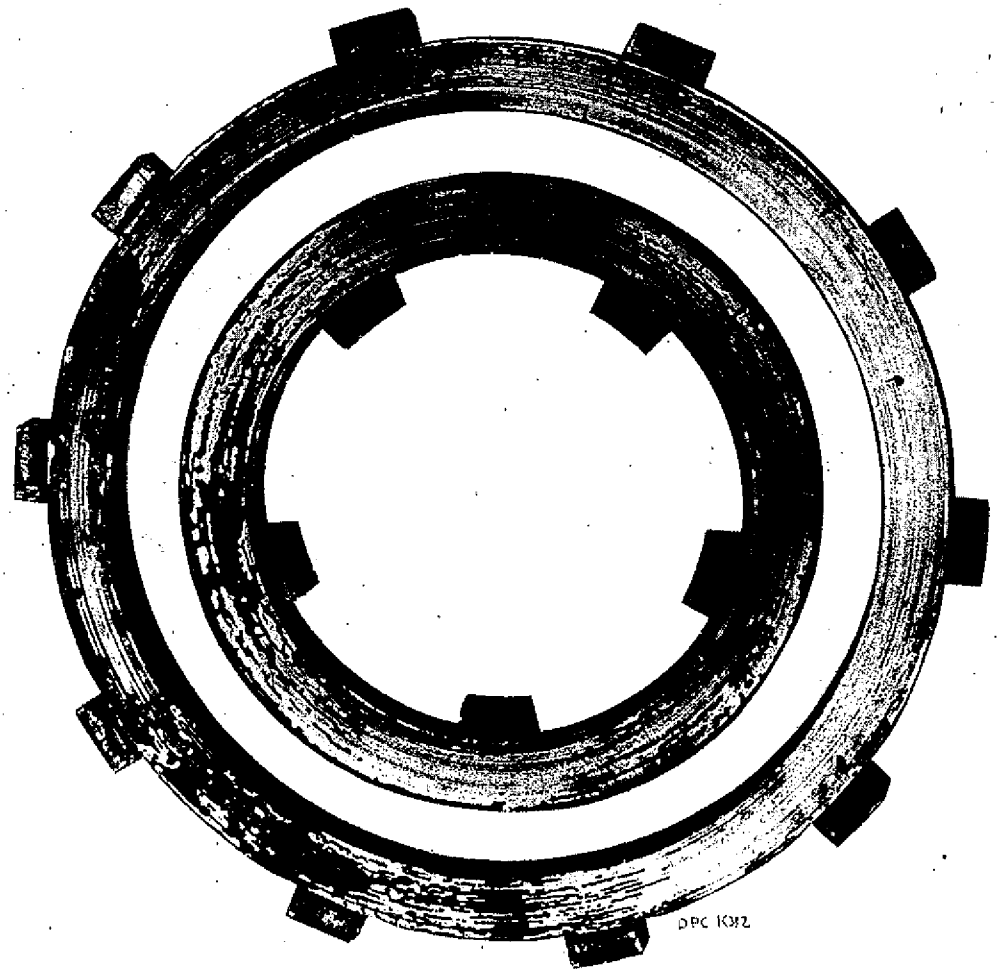

Fig.4. Brake plate with flaking spread over the whole surface

(3) Check the friction plate tenons for wear. The minimum permissible width of an outer plate tenon is 0·790 in. The maximum permissible width of an inner plate tenon gap is 0·841 in. Wear in excess of these limits will necessitate renewal of the plate(s).

(4) Lay the friction plate on a surface plate and check for distortion using a 0·005 in. feeler gauge. If the feeler gauge can be inserted completely under any section of the friction plate, the distortion may be corrected by planishing with a hide-faced hammer.

14. (1) Examine the pressure plates for damage and corrosion. Slight external damage and corrosion may be dressed out using a smooth hone or grade 00 carborundum cloth. Remove all traces of the abrasive and restore the protective treatment as detailed in AP 119A-0601-1C, Chap.4.

(2) Damage which cannot be repaired as detailed in para.14 (1) or cracks renders the pressure plates unserviceable.

Fig.5. Brake plate with flaking confined to small areas

15. Examine the brake friction pads for burning, scoring, chipping and contamination by hydraulic fluid or other forms of grease. Check for cracks, particularly around the rivet holes. If any brake friction pad, carrier plate or backing plate is found to be unserviceable the complete brake set of carrier plate and backing plate assemblies must be renewed.

16. Examine the inside cylinder wall and the outside wall of the piston locating boss for scoring. Scoring may be dressed out as detailed in Repair Scheme RP.35, AP 2337, Vol.6, Sect.3, Chap.2.

17. Examine the return springs for distortion, corrosion and permanent set. Renew if defective. Subject each spring to the load deflection test shown in Table 2. Springs which fail this test must be renewed.

TABLE 2

Load deflection test

Item	Load (lbf)	Length (in)
Upper cylinder return spring	7·5/8·5	0·690
Torque pin spring	22·5/26·5	2·752

18. Examine the head of the piston rod, remove all burrs and sharp edges from the locking slots.

19. Examine the circlips for corrosion, distortion and loss of resilience. Renew if defective.

20. Examine the pistons inner and outer seals for twisting, permanent set and embedded foreign matter. Renew if defective.

Note...

Inner and outer seals which have been removed from their grooves must be renewed on assembly.

21. Check the condition of all threads.

ASSEMBLING

22. Assemble the brake unit as follows:

(1) Lubricate the pistons inner and outer seals with system fluid and position them in their grooves.

(2) Assemble the upper cylinder assembly as follows:

(a) Lubricate the sealing ring with system fluid and position it in the outer cylinder piston rod bore.

(b) Locate the pistons in the inner and outer cylinders.

(c) Position the collar in the recess in the rear face of the outer cylinder.

(d) Mate the inner and outer cylinders together and align the securing bolt holes. Position the assembly on the torque plate, fit and tighten the securing bolts.

(3) Assemble the lower cylinder as follows:

(a) Locate the piston in the cylinder.

(b) Position the assembly on the torque plate, fit and tighten the securing bolts.

(4) Locate the backing plate assemblies on the torque plate. Fit and tighten the bolts, bend up the leg of the new tabwashers.

(5) Locate the main return springs in the torque pins.

(6) Position the inner and outer brake friction plates.

Note...

Ensure that the inner and outer friction plates are a matched set. Refer to para.8 and 9 and Table 1.

(7) Locate the pressure plate assemblies on the torque pins.

Note...

Ensure that the rockers are correctly located.

(8) Locate the distance pieces and the piston rod nuts over the locking pins protruding from the pressure plate.

(9) Insert the piston rods through the pistons and torque pins. Restrain the distance pieces and piston rod nuts and screw in the piston rods.

(10) Set the brake clearance adjustment as detailed in para.23.

(11) Locate the outer return spring and the locking collar over the upper piston rod. Position the end cover and fit the retaining circlip.

(12) Assemble the rubber seal between the lower cylinder cover plates. Position the assembly over the piston rod and fit the retaining circlip. Fit the locking plate assembly.

(13) Screw the bleed screws into the cylinders.

(14) Screw the feed pipe assembly pipe connections into the upper cylinders.

(15) Position the sealing washers on the banjo bolt. Place the banjo bolt through the block in the feed pipe assembly and screw it into the lower cylinder.

(16) Test the unit as detailed in para.24.

(17) Wirelock the unit using lockwire Ref. No.30A/9437135.

BRAKE CLEARANCE ADJUSTMENT

23. The brake clearance is set when the brake unit and the wheel are fitted to the aircraft. Periodic adjustment is necessary to allow for brake friction pad wear. Set the brake clearance as follows:

(1) Free the head of the piston rods from their locking devices.

(2) Using the special tool A0.50592 screw in the piston rods until they begin to resist further rotation thus indicating that the clearance has been taken up.

(3) Unscrew the piston rod one complete turn plus the amount required to re-engage the locking device.

(4) Fit the locking devices.

TESTING

Bay test

24. Bay test the brake unit as follows:

(1) Assemble the brake components to a dummy torque plate and connect it to a test rig.

(2) Bleed the brake and test rig using a hydraulic pressure of 100 lbf/in^2. Refer to para.10 CAUTION.

(3) Apply a hydraulic pressure of 1500 lbf/in^2 at a frequency of 12 times per minute and check for leaks. Leaks are not permitted.

(4) Apply a hydraulic pressure of 1500 lbf/in^2 and allow the unit to stand for a period of 15 minutes. There must be no pressure drop over this period.

(5) Apply a hydraulic pressure of 150 lbf/in^2 and check that the brake is fully applied. When the brake is released ensure that the pistons return to the bottom of their stroke.

(6) Apply a hydraulic pressure of 5 lbf/in^2, allow the unit to stand for a period of 30 minutes and check for leaks. Leaks are not permitted.

In-situ test

25. (1) Assemble the brake components and the wheel to the aircraft oleo leg and set the brake clearance as detailed in para.23.

(2) Bleed the brake unit as detailed in para.24 (2).

(3) Apply a hydraulic pressure from zero to 1500 lbf/in^2 at a frequency of 12 times per minute and check for leaks. Leaks are not permitted.

(4) Apply a hydraulic pressure of 1500 lbf/in^2 for a period of 15 minutes. There must be no drop in pressure or leakage over this period.

(5) Release the pressure and check that the wheel can be rotated freely without brake interference.

PARTS CATALOGUE AND RELATED INFORMATION (-3)

MODIFICATION RECORD

Mod No	AL No	Mod No	AL No	Mod No	AL No	Mod No	AL No	Mod No	AL No	Mod No	AL No
M440	*										
2128	*										
2337	*										
2578	*										
2732	*										
3892	*										
4025 Amdt.	*										
M.72 Amdt.	*										
35673	*										

* Incorporated in initial issue of catalogue
NA Mod not applicable to this catalogue
C Mod cancelled
AS Amendment Sheet

PREFACE

Demands

1 Requirements for demands are:

1.1 The demand must quote the appropriate Vocabulary Section and Reference/Stock Number for each item. Unreferenced parts are not normally provisioned as spares and demands for such items must quote the Vocabulary Section, Maker's Part Number, and the name and type of the equipment. The location of each part within the equipment should be clearly indicated.

1.2 Demands are to be prepared in accordance with the procedure laid down in AP 830 Volume 1 or BR4.

Local manufacture

2 Parts annotated 'LM' are to be manufactured from local resources. If the manufacture of such items is beyond the capacity of the Unit, the demand is to be endorsed 'Unable to manufacture locally'.

Major repair

3 'MR' indicates that an item is required for major repair purposes only and will not normally be held in store by Units other than those authorised to undertake major repair of the equipment.

Units per assembly

4 The number quoted is the quantity required per next higher assembly in the position shown except 'attaching parts' which quote the quantity required to attach one item. The letters 'AR' in the 'Units per Assy' column indicate that the quantity is 'as required'. Where applicable the quantity normally fitted is shown as a nominal figure, e.g. (Nom 3). Where an item is listed only for reference purposes the letters 'RF' are quoted.

Classification of equipment

5 The Class of Store is indicated by a single letter as laid down in AP 830 Volume 1 or BR4.

Condition of Supply (Interchangeability Code)

6 Condition of Supply is indicated by one of the following letters and is only quoted against parts which are not directly interchangeable:

V Open up holes on assembly
W Partially assembled
X Ream or machine on assembly
Y Drill or drill and tap on assembly
Z Trim on assembly

Obsolescent stock

7 An asterisk in the 'Part No.' column indicates that no further purchases of the item will be made but the part is to be used until stocks are exhausted.

Modifications

8 When items are affected by a modification the 'Mod No.' is quoted in the Nomenclature. Modifications incorporated in the catalogue are listed in the Modification Record.

Usage code

9 The usage code indicates the applicability of an assembly item to other assemblies. Where no code is detailed against an item, that item is applicable to all the main assemblies. The code used in this publication is:-

A - Brake unit (port), Part No. AH 50247.

B - Brake unit (starboard), Part No. AH 50248.

INDEX OF NATO STOCK NUMBERS

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28N	5340-99-103-8199	AGS 2030/44		1/28		C
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27G	5306-99-123-2282	AHO 29701		1/24		C
27G	4730-99-123-5150	AHO 28006		1/21		C
27G	1630-99-128-7886	AHO 29774		1/27		C
27G	1620-99-145-0025	AHO 84326		1/44		C
27G	5306-99-145-0040	AHO 83723		1/42		C
27G	5120-99-145-0625	AO 102730		1/63		C
27J	5315-99-454-2891	AHO 26376		1/22		C
27G	5330-99-461-8346	AHO 26020		1/31		C
27G	5330-99-461-8347	AHO 26132		1/41		C
27G	1630-99-461-8368	A 10039		1/64		L
27G	1630-99-461-8374	AO 49285		1/60		L
27G	5120-99-461-8377	AO 50592		1/26		L
27G	1630-99-461-8379	AHO 28093		1/26		C
27G	1630-99-461-8394	AHO 29420		1/36		C
27G	1630-99-461-8395	AHO 29432		1/33		C
27G	1630-99-461-8397	AHO 29431		1/29		C
27G	5310-99-461-8398	AHO 29702		1/2		C
27G	1630-99-461-8399	AHM 3225		1/23		C
27G	1630-99-461-8400	AHM 3223		1/23		C
27G	5365-99-461-8401	AHO 29428		1/3		C
27G	1630-99-461-8402	AHO 29426		1/11		C
27G	5340-99-461-8403	AHO 29415		1/46		C
27G	5360-99-461-8404	AHO 29430		1/35		C
27G	5360-99-461-8416	AHO 29865		1/12		C
27G	5120-99-461-8418	AO 101130		1/57		L
27G	5120-99-461-8419	AO 101131		1/58		L
27G	1630-99-461-8423	AO 101123		1/59		L
27G	1630-99-461-8427	AHO 35571		1/13		P
27G	1630-99-461-8456	AHM 4208		1/34		C
27G	1630-99-461-8471	AHM 4330		1/16		P
27G	1630-99-461-8472	AHO 36855		1/8		C
				1/19		C
27G	1630-99-461-8473	AHO 36856		1/7		C
27G	1630-99-461-8474	DAS 1474-15		1/17		C
27G	1630-99-461-8475	AHM 4331		1/4		P
27G	1630-99-461-8476	AHM 4332		1/4		P
27G	5310-99-461-8478	AHO 37543		1/6		C
27G	5120-99-461-8519	AO 102448		1/62		L
27G	1630-99-461-8568	DAS 1474-26		1/5		C
27G	1630-99-461-8754	AHM 5795		1/37		L
27G	1630-99-461-8755	AHM 5796		1/25		L
27G	1630-99-461-8756	AHM 5797		1/37		L
27G	1630-99-461-8757	AHM 5798		1/25		L
27G	1630-99-461-8814	AHM 5868		1/48		L
27G	1630-99-461-8815	AHM 5874		1/48		L
27G	5330-99-461-8816	AHO 81662		1/54		C
27G	1630-99-461-8817	AHO 81663		1/53		C
27G	1680-99-461-8818	AHM 6086		1/47		C

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27G	1630-99-632-6536	AHM 3345		1/48		L
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		SP 13-E		1/43		C
28W	5310-99-941-9447	DSR 158-1		1/15		C
		SP 41-C		1/15		C
28D	5305-99-943-6920	A 25-1C		1/14		C
		DSR 172-2		1/14		C
30A	9505-99-943-7135	DTD 189A		1/1		C

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AHM 3225	27G	1630-99-461-8399		1/23
AHM 3230				1/20
AHM 3232				1/10
AHM 3251				1/10
AHM 3345	27G	1630-99-632-6530		1/48
AHM 4207	27G	1630-99-632-3993		1/47
AHM 4208	27G	1630-99-461-8456		1/34
AHM 4330	27G	1630-99-461-8471		1/16
AHM 4331	27G	1630-99-461-8475		1/4
AHM 4332	27G	1630-99-461-8476		1/4
AHM 5795	27G	1630-99-461-8754		1/37
AHM 5796	27G	1630-99-461-8755		1/25
AHM 5797	27G	1630-99-461-8756		1/37
AHM 5798	27G	1630-99-461-8757		1/25
AHM 5868	27G	1630-99-461-8814		1/48
AHM 5874	27G	1630-99-461-8815		1/48
AHM 6086	27G	1630-99-461-8818		1/47
AHO 26020	27G	5330-99-461-8346		1/31
				1/40
				1/55
AHO 26132	27G	5330-99-461-8347		1/41
AHO 26376	27J	5315-99-454-2891		1/22
				1/50
AHO 28006	27G	4730-99-123-5150		1/21
AHO 28093	27G	1630-99-461-8379		1/26
				1/38
AHO 29296	27G	5306-99-121-9151		1/45
AHO 29415	27G	5340-99-461-8403		1/46
AHO 29417	27G	1630-99-632-6531		1/53
AHO 29418				1/56
AHO 29420	27G	1630-99-461-8394		1/36
AHO 29425				1/9
AHO 29426	27G	1630-99-461-8402		1/11
AHO 29428	27G	5365-99-461-8401		1/3
AHO 29430	27G	5360-99-461-8404		1/35
AHO 29431	27G	1630-99-461-8397		1/29
AHO 29432	27G	1630-99-461-8395		1/33
AHO 29701	27G	5306-99-123-2282		1/24
AHO 29702	27G	5310-99-461-8398		1/2
AHO 29774	27G	1630-99-128-7886		1/27
				1/39
				1/51
AHO 29865	27G	5360-99-461-8416		1/12
AHO 35571	27G	1630-99-461-8427		1/13
AHO 36855	27G	1630-99-461-8472		1/8
				1/19

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AHO 36856	27G	1630-99-461-8473		1/7 1/18
AHO 37543	27G	5310-99-461-8478		1/6
AHO 81377				1/32
AHO 81662	27G	5330-99-461-8816		1/54
AHO 81663	27G	1630-99-461-8817		1/53
AHO 82991	27G	6901		1/42
AHO 83723	27G	5306-99-145-0040		1/42
AHO 84326	27G	1620-99-145-0025		1/44
AH 50247				1/-
AH 50248				1/-
AO 101123	27G	1630-99-461-8423		1/59
AO 101130	27G	5120-99-461-8418		1/57
AO 101131	27G	5120-99-461-8419		1/58
AO 102448	27G	5120-99-461-8519		1/62
AO 102730	27G	5120-99-145-0624		1/63
AO 49285	27G	1630-99-461-8374		1/60
AO 50592	27G	5120-99-461-8377		1/61
A 10039	27G	1630-99-461-8368		1/64
A25-1C	28D	5305-99-943-6920		1/14
DAS 1474-15	27G	1630-99-461-8474		1/17
DAS 1474-26	27G	1630-99-461-8568		1/5
DSR 149-4	28W	5310-99-941-8921		1/43
DSR 158-1	28W	5310-99-941-9447		1/15
DSR 172-2	28D	5305-99-943-6920		1/14
DTD 189A	30A	9505-99-943-7135		1/1
SP 13-E	28W	5310-99-941-8921		1/43
SP 41-C	28W	5310-99-941-9447		1/15

DETAILED PARTS LIST

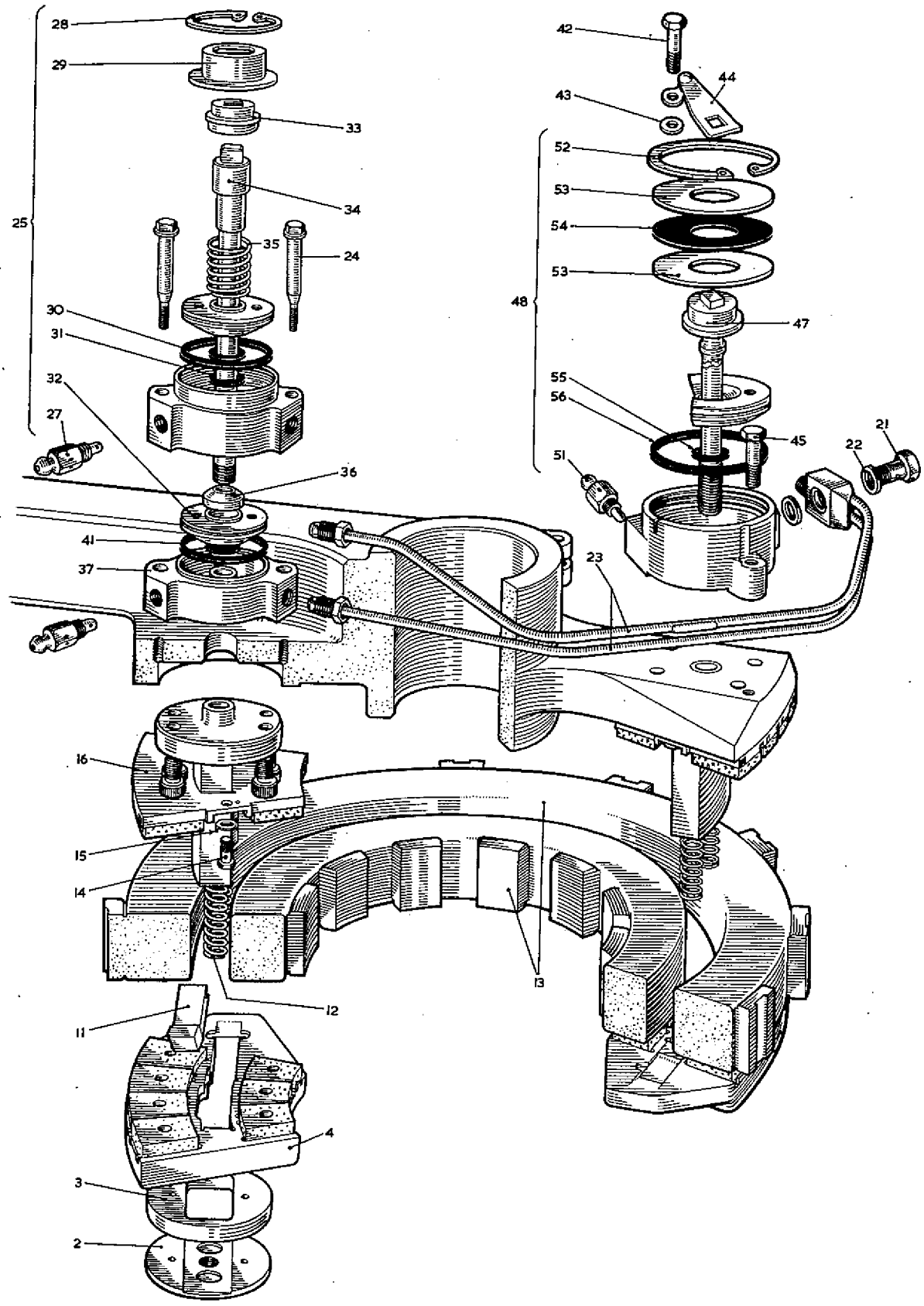

Fig.1 Brake unit

DETAILED PARTS LIST

BRAKE UNIT

Fig./ Index No.	Part No.	Nomenclature 1 2 3 4 5 6	Usage Code	Units per Assy.
1-	AH 50247	Brake unit (port) (Dunlop Mod.2128)	A	
	AH 50248	Brake unit (starboard) (Dunlop Mod.2128)	B	
-1+	DTD 189A	. Wire, locking, 22 s.w.g.		AR
-2	AHO 29702	. Nut, piston rod		2
-3	AHO 29428	. Piece, distance		2
-4	AHM 4331	. Plate, pressure and pads, assembly (Mod.2732)	A	2
	AHM 4332	. Plate, pressure and pads, assembly (Mod.2732)	B	2
-5+	DAS 1474-26	. . Rivet		7
-6+	AHO 37543	. . Washer		7
-7+	AHO 36856	. . Pad, inner		3
-8+	AHO 36855	. . Pad, outer		4
-9+	AHO 29425	. . Pin, stop		2
-10+	AHM 3232	. . Plate, pressure	A	1
	AHM 3251	. . Plate, pressure	B	1
-11	AHO 29426	. Rocker		2
-12	AHO 29865	. Spring, return, main		4
-13	AHO 35571	. Plates, friction, inner and outer (Mod.2337)		1 set
-14	A25-1C	. Screw (DSR 172-2)		4
-15	SP41-C	. Washer, tab (DSR 158-1)		4
-16	AHM 4330	. Plate, backing and pads, assembly (Mod.2732)		2
-17+	DAS 1474-15	. . Rivet		7
-18+	AHO 36856	. . Pad, inner		3
-19+	AHO 36855	. . Pad, outer		4
-20+	AHM 3230	. . Plate, backing		1
-21	AHO 28006	. Bolt, banjo		1
-22	AHO 26376	. Washer, sealing		2
-23	AHM 3225	. Pipe, feed, assembly	A	1
	AHM 3223	. Pipe, feed, assembly	B	1
-24	AHO 29701	. Bolt		2
-25	AHM 5796	. Cylinder, operating, upper (outer) assembly (Mod.3892)	A	1
	AHM 5798	. Cylinder, operating, upper (outer) assembly (Mod.3892)	B	1
-26+	AHO 28093	. . Blanking off, assembly (transport item)		1
-27	AHO 29774	. . Screw, bleed		1
-28	AGS 2030/44	. . Circlip, internal, 1.13/16 in (Amdt.35673)		1
-29	AHO 29431	. . Plate, cover		1
-30	ACO 26132	. . Seal, outer		1
-31	AHO 26020	. . Seal, inner		2
-32	AHO 81377	. . Piston		1

+ Item not illustrated

DETAILED PARTS LIST

BRAKE UNIT

Fig./ Index No.	Part No.	Nomenclature 1 2 3 4 5 6	Usage Code	Units per Assy.
1-33	AHO 29432	. Collar, locking		1
-34	AHM 4208	. Rod, piston (Mod.2578 Pt.'A')		1
-35	AHO 29430	. Spring, return		1
-36	AHO 29420	. Collar		1
-37	AHM 5795	. Cylinder, operating, upper (inner), assembly (Mod.3892)	A	1
	AHM 5797	. Cylinder, operating, upper (inner), assembly (Mod.3892)	B	1
-38+	AHO 28093	. . Blanking off, assembly (Transport item)		1
-39+	AHO 29774	. . Screw, bleed		1
-40+	AHO 26020	. . Seal, inner, piston and cylinder		1
-41	AHO 26132	. . Seal, outer, piston		1
-42	AHO 82991	. Bolt (Amdt.M.72) (Pre-Mod.M.440)		1
	AHO 83723	. Bolt (Mod.M.440)		1
-43	SP 13-E	. Washer (DSR 149-4)		1
-44	AHO 84326	. Plate, locking, assembly (Mod.M.440)		1
-45	AHO 29296	. Bolt		1
-46+	AHO 29415	. Spring, locking (Pre-Mod.4025)		1
-47	AHM 4207	. Rod, piston, lower (Mod.2578 Pt.'A') (Pre-Mod.4025)		1
	AHM 6086	. Rod, piston, lower (Mod.4025)		1
-48	AHM 3345	. Cylinder, operating, lower assembly (Pre-Mod.4025)	B	1
	AHM 5868	. Cylinder, operating, lower, assembly (Mod.4025)	A	1
	AHM 5874	. Cylinder, operating, lower, assembly (Mod.4025)	B	1
-49+	AGS 1229/A	. . Plug, 1/8 in BSP (Transport item)		1
-50+	AHO 26376	. . Washer, sealing (Transport item)		1
-51	AHO 29774	. . Screw, bleed		1
-52	AGS 2030/93	. . Circlip, 61 mm, internal type (Amdt.35673)		1
-53	AHO 29417	. . Plate, cover, assembly (Pre-Mod.4025)		2
	AHO 81663	. . Plate, cover (Mod.4025)		2
-54	AHO 81662	. . Seal (Mod.4025)		1
-55	AHO 26020	. . Seal, inner, piston		1
-56	AHO 29418	. . Seal, outer, piston		1

+ Item not illustrated

DETAILED PARTS LIST

BRAKE UNIT

Fig./ Index No.	Part No.	Nomenclature 1 2 3 4 5 6	Usage Code	Units per Assy.
		SPECIAL TOOLS		
1-57+	AO 101130	Extractor, piston, 1.125 in CRS (Twin piston)		1
-58+	AO 101131	Extractor, piston, 1.562 in CRS (Single piston)		1
-59+	AO 101123	Gauge, pad wear		1
-60+	AO 49285	Gauge, tenon wear		1
-61+	AO 50592	Spanner, for piston rod nut		1
-62+	AO 102448	Tools, riveting, pre-scorched pads		1
-63+	AO 102730	Punch		1
-64+	A 10039	Fixture, brake alignment		1

+ Item not illustrated