

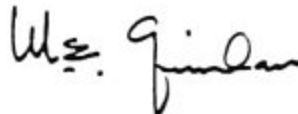
AP 112G-1252-1
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Dated January 1982)

TACHOMETER INDICATOR TYPE RT7

PART No BH-80-321 & BH-80-1237

GENERAL AND TECHNICAL INFORMATION

BY COMMAND OF THE DEFENCE COUNCIL



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AMENDMENT RECORD

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GENERAL AND TECHNICAL INFORMATION (TOPIC 1)

Chapter 1

TECHNICAL DESCRIPTION

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GENERALLeading particulars

- 1 The leading particulars are:-

Dimensions	Refer to Fig.1
Weight	0.90 lb
Sect/Ref No. Pre Mod.169	6A/6252514
BAe (S) Part No. Pre Mod.169	BH-80-321
Sect/Ref No. Post Mod.169	6A/6685-99-6571461
BAe (S) Part No. Post Mod.169	BH-80-1237

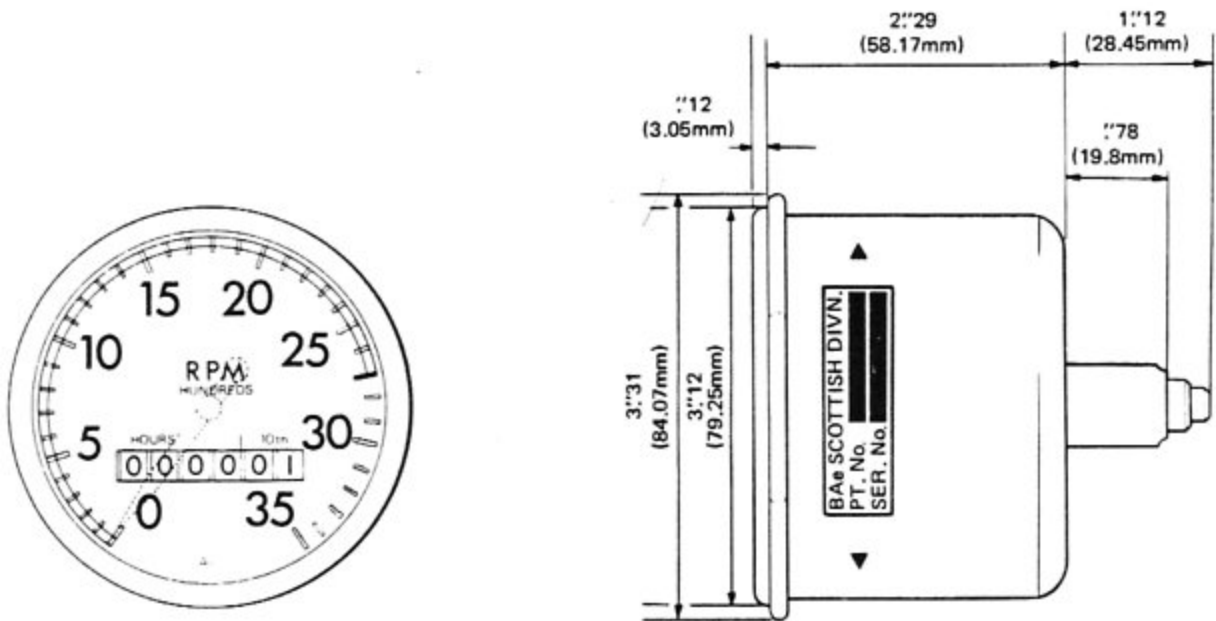


Fig.1 Tachometer indicator, Type RT7

Description

2 The tachometer indicator Type RT7, Ref. No. 6A/6252514 is a single pointer mechanical tachometer used to indicate engine speed. The dial is calibrated from zero to 3500 rev/min. in increments of 100 rev/min. and is numerically indicated every 500 rev/min. The instrument also displays a digital read-out calibrated in hours and tenths of hours to indicate actual engine running time.

The tachometer indicator Ref. No. 6A/6685-99-6571461 is physically identical to the indicator described above except that at a distance of 0.700 in. from the pivot point, the indicator pointer is angled towards the dial face to give a clearance of 0.050 in. between the tip of the pointer and the dial face over the whole range of movement. This is to cancel parallax error.

Chapter 2STANDARD SERVICEABILITY TEST
(with test set Models 6C/1117125 or 6C/6365770)

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 - 6 Hours elapsed indicator test
- Completion
- 7 Test equipment
 - 8 Documentation

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INTRODUCTIONGeneral

1 The following tests must be carried out if the tachometer indicator has been returned with a defect or if it is thought to be unserviceable.

Special tools and equipment

2 The following equipment is required to carry out the Standard Serviceability Test.

TABLE 1 SPECIAL TOOLS AND EQUIPMENT

SECT/REF NO	PART NO	NOMENCLATURE	FUNCTION
6C/1117125 or 6C/6365770	20317/GA	Test Set, Dual Tachometer	Ranging Test
		Test Set, Dual Tachometer	Ranging Test
26NS/6054066 6C/4361157 6B/9101001	WFD 189 1367	Drive Flexible Adapter Watche, Stop	Connecting equipment Connecting equipment Timing Test

TESTINGPreparation

3 Prepare test set 6C/1117125 in accordance with AP112T-01156-1 or test set 6C/6365770 in accordance with AP112T-0110-1.

- 3.1 Connect the 4 to 1 ratio step down gearbox to the test set.
- 3.2 Connect the adapter, Part No.1367, to the gear box.
- 3.3 Connect the flexible drive, Ref No. 26NS/6054066 to the adapter and indicator under test.

Ranging testCAUTION ...

When switching test set ON, make sure the pointer of the indicator, under test, moves smoothly up the scale before increasing speed.

4 During the following tests unless otherwise stated, the instrument is to be mounted with the dial upright and in a vertical plane. Light tapping of the instrument is permissible during the test.

- 4.1 Switch on the test set and set the drive speed to indicate 1600 rev/min.. Run continuously for 15 minutes. Make sure that the indicated speed of the indicator under test is between 775 and 825 rev/min.
- 4.2 Do the tests in accordance with parameters listed in table 2.

TABLE 2 RANGING TEST PARAMETERS

Test set rev/min	Tachometer rev/min	Tolerance
1600	800	+ 25 - 25
3500	1750	+ 50 - 50
5400	2700	+ 75 - 0

Anti-tilt test

5 Do the anti-tilt test

5.1 Set the test set drive speed to indicate 1600 rev/min. and make sure that conditions are as at sub para 4.2.

5.2 Gently tilt the Indicator backwards and forwards approximately 15 deg. and make sure that there is no change to the indicated reading.

Hours elapsed indicator test

6 Set the test set drive speed to indicate 3500 rev/min. Use the stop watch, make sure that the one tenth indicator advances one figure in 47.5 seconds.

COMPLETIONTest equipment

7 Switch off the test equipment and disconnect in reverse order to para.3.

Documentation

8 Annotate the appropriate aircraft service documents.

Chapter 2-1STANDARD SERVICEABILITY TEST
(with test set Model No.10074)

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INTRODUCTIONGeneral

1 The following tests must be carried out if the tachometer indicator has been returned with a defect or if it is thought to be unserviceable.

Special tools and equipment

2 The following equipment is required to carry out the Standard Serviceability Test.

SECT/REF NO	PART NO	NOMENCLATURE	FUNCTION
6C/6598644	10074	Test Set, Dual Tachometer	Ranging Test
	10095	Gearbox, adaptor	Adaptor
26NS/6054066	WFD 189	Drive Flexible	Connecting equipment
6C/4361157	1367	Adapter	Connecting equipment
6B/9101001		Watche, Stop	Timing Test

TESTINGPreparation

3 Prepare the test equipment:

- 3.1 Prepare test set in accordance with AP112T-01121-1.
- 3.2 Mount adapter gearbox Pt. No. 10095, 1 to 1 ratio, to the test set's left locating ring. Fit and secure adapter Pt. No. 1367 to gearbox.
- 3.3 Connect flexible drive Pt. No. WFD 1869 to adapter and indicator under test.

Ranging testCAUTION ...

When switching test set ON make sure the pointer of the indicator, under test, moves smoothly up the scale before increasing speed.

4 During the following test unless otherwise stated, the instrument is to be mounted with the dial upright and in a vertical plane. Light tapping of the instrument is permissible during the test.

4.1 Set the test set left on/off switch ON and adjust the left SPEED CONTROL until digital display indicates 400. Run continuously for 15 minutes. Make sure that the indicated speed of the indicator under test is between 775 and 825 rev/min.

4.2 Do the tests in accordance with the parameters listed in table 2.

TABLE 2 RANGING TEST PARAMETERS

Test set rev/min	Tachometer rev/min	Tolerance
400	800	+ 25
875	1750	+ 50
1350	2700	+ 75 - 0

Anti-tilt test

5 Do the anti-tilt test

5.1 Adjust the test set left SPEED CONTROL until digital display indicates 400 and ensure that conditions are as at sub para 4.2.

5.2 Gently tilt the indicator backwards and forwards approximately 15 deg. and ensure that there is no change to the indicated reading.

Hours elapsed indicator test

6 Adjust the test set left SPEED CONTROL until digital display indicated 875. Use the stop watch, make sure that the one tenth indicator advances one figure in 47.5 seconds. Rotate left SPEED CONTROL until minimum speed is indicated on digital display.

COMPLETIONTest equipment

7 Set test set left ON/OFF switch OFF and disconnect in reverse order to para 3.

Documentation

8 Annotate the appropriate aircraft service documents.