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AVRO AIRCRAFT LIMITED

Inter-Departmental Memorandum

Ref 8259/03/J
Date April 18, 1958
To S. E. Harper
From T. Roberts
Subject ARMAMENT PACK SEAL TESTS

R.F.T. 5050, covering Armament Pack Seal Tests on aircraft
25203 with and without Sparrow missiles is attached.

T. Roberts

WE:bb

T. Roberts
Technical Flight
Test Co-ordinator

c.c.
Messrs J. Chamberlin
F. Brame
C. Marshall
D. Royston
S. Ward
D. Scard (6)
J. Lynch
C. Lindow
F. Mitchell
R. Bowyer
J. Housego
J. Ames
J. Booth
J. Scott
J. Gale

W/C G. Waterman
W/C G. Waterman (2) AVRO T.S.D. RCAF
For transmittal to
S/L K. Owen, C.E.P.E.
Detachment.

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AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

UNCLASSIFIED

R.F.T. NO. 5050

SHEET NO. 1 OF

DATE: April 18, 1958

AIRCRAFT 25203

ASSIGNMENT NO. X73-385

WORK ORDER NO.

ARMAMENT PACK SEAL TESTS

Requirements for Seal leak tests - Ref. Memo to J. Hodge from J. Housego dated March 7th 1958, para. 2.

1. OBJECT OF TESTS

To check the pneumatic type seals between the armament bay and the armament pack for leakage.

2. EQUIPMENT

- 2.1 Aircraft 25203 complete with armament pack and missiles (or dummy missiles).
- 2.2 Air supply and electrical power supply.
- 2.3 Manometers, flowmeters, thermometers etc. as required.

3. TEST PROCEDURE

- 3.1 To inflate the pneumatic seals proceed as follows:-

- (a) Check the electronics equipment door (just fwd. of the armament bay) to see that it is closed.
- (b) Ensure that the armament pack power control switch in the pack service panel is engaged.

NOTE:- The pack service door will have to be closed to perform the tests, and this will automatically engage the power control switch, so for safety, whilst testing with missiles on, the fire control breakers or the umbilical plug should be disconnected. (dummy missiles may be used if desired). Power supplied to the aircraft electrical system should energise the pneumatic valve which directs air into the seals.

R.F.T. PREPARED BY:
S.E. WARD

DATE FOR COMPLETION

APPROVED BY:

PRIORITY

AUTHORIZED BY:

ESTIMATED COMPLETION
DATE:



AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

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R.F.T. NO. 5050

SHEET NO. 2 OF

DATE: April 18, 1958

AIRCRAFT 25203	ASSIGNMENT NO. X73-385	WORK ORDER NO.
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- 3.2 Maintain pressures of up to $\frac{1}{2}$ psig through out the pack & armament bay via the pack air conditioning ducts, and measure the vol. of air^{flow} required to maintain these pressures.

Leakage rates are to be obtained for pressures starting at 0.1 psig and increasing in increments of 0.1 psi up to 0.5 psig. Pressures are to be measured using water manometers. The air temp. going into the pack and the air temp. in the pack are to be recorded. (The estimated flow of air going into the pack to maintain pressures is approx. 330 lbs/min.)

A close examination of the pneumatic seals is to be made when the pack and the bay are pressurized to 0.5 psig, and a rough check is to be made to determine bad leakage points, if any, by running the hand around the sealing area.

- 3.3 The above tests are to be done with 4 missiles installed, then repeated without missiles.

4. CONDITIONS

- 4.1 Tests are to be performed at room temperature.
- 4.2 A pressure of 18-20 psig is to be maintained in the seals during the tests.

R.F.T. PREPARED BY: S.E. WARD	APPROVED BY: W.C. Strickland	AUTHORIZED BY: [Signature]
DATE FOR COMPLETION	PRIORITY	ESTIMATED COMPLETION DATE: