

APPENDIX 2 - ATTACHMENT OF NOISE ATTENUATOR UNIT

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Introduction

1. To combat excess noise from the engine during engine ground running, noise attenuators have been provisioned for this aircraft.

2. Jet engine noise is generated by impinging a high velocity gas flow on the relatively still air, which results in a shear or tearing effect between them. By reducing the velocity of the gas flow before it is allowed to come in contact with the surrounding air, a reduction of noise is obtained. This is done by diffusing the gases through a baffle chamber in the form of a perforated colander.

3. The attenuator is designed to effect a 30dB noise reduction for full power engine ground running of this aircraft.

Description

4. The equipment comprises the following:—

Ref. No.	Description	Qty.
4C/3275	Multi-jet noise attenuator, Type No. 0026/63 (complete with cover)	1
4GB/6742	Chocks	4

The attenuator is fully described in A.P. 119N-0101-16, which also details servicing

of the unit. Additionally, grease XG-285 should be applied to all mechanisms.

5. The attenuating unit is mounted on a steerable trolley and is adjustable in height and pitch within the ranges of the jacks fitted. Provision is also made for traversing the attenuating unit up to 10 inches. No fore-and-aft adjustment is incorporated in the unit, therefore careful and accurate positioning of the attenuator to the jet pipe exit is essential.

Method of attachment

6. Prior to aligning the aircraft with the attenuator, the following precautions should be observed:—

- (1) Ensure that the aircraft oleo legs are normally compressed, and not in an extended position.
- (2) Observe current regulations and precautions for the ground running of aircraft engines.
- (3) Station an extra safety rating, in contact with the cabin occupant, to have a full side view of the jet pipe exit area. He is to be instructed to give warning to the cabin in the event of movement between aircraft and attenuator.

(4) Before commencing full power engine checks, accelerate the engine slowly to check the restraining devices of the aircraft and attenuator.

(5) Ensure that personnel in the vicinity of the running-up area are clear of what would be the jet blast area.

(6) Check the vicinity of the ground running base. This should be completely free of stones, oil, water, etc.

7. The following is the procedure for setting up the aircraft and attenuator. (fig. 1):—

- (1) Head the aircraft into wind so that the aircraft tail picketing ring (Ref. No. 26FX/95203) is over a restraining ring-bolt in the hard standing; fit chocks.
- (2) Position a 5 ton jack in conjunction with a Mk. 1 trestle and jacking pad (Ref. No. 26FX/95607) and just support the aircraft weight to prevent the nose oleo compressing during the engine run.
- (3) Lash the aircraft from the tail picketing ring (Ref. No. 26FX/95203) to the hard standing ring-bolt.

- (4) Remove the tail parachute fairing.
- (5) Position the attenuator laterally central in the trolley.
- (6) Using a tractor, position the centre-line of the attenuator mouth in line with the aircraft jet exit centre-line. Adjust as necessary on the attenuator jacks. When

correctly positioned there should be a parallel gap of four to six inches minimum between the rear face of the jet pipe and the entrance of the attenuator.

- (7) Apply the attenuator unit brakes, screw down the four locking collars on the trolley adjusting jacks and release the hydraulic pressure from the jacks.

- (8) Lower the four feet of the trolley, taking the weight off the wheels.

Caution

During ground running of the engines, the attenuator will become extremely hot; personnel are therefore warned to keep clear of the unit until a period has elapsed to allow it to cool down.

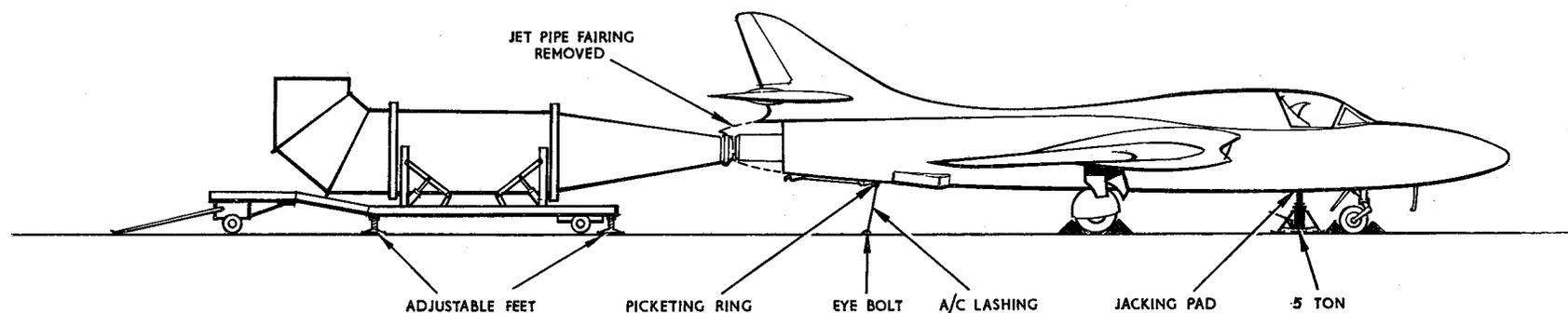


Fig. 1 Attachment of noise attenuator

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