URGENT

***TB 1–1520–248–20–42**

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

INSTRUCTIONS FOR REPLACING OH–58D T703–AD–700B ENGINE WITH T703–AD–700A

Headquarters, Department of the Army, Washington, D. C.
20 July 2000

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

NOTE

THIS PUBLICATION IS EFFECTIVE
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1. **Priority Clasification.** Urgent.

2. **Purpose.** The bleed air duct hose, part number (P/N) NAS1375A08SB062, to engine cowl installation using existing bleed air duct, P/N BE 1076–1, and cowl duct, P/N NTPQ–15951, per reference TB was a temporary configuration authorized in response to an immediate need for action in Kuwait in support of operation Desert Thunder. Replacement of existing duct cowl assembly, P/N NTPQ–15951, with discharge duct assembly P/N 406–060–815–101, National Stock Number (NSN) 1560–01–185–8972, using a locally fabricated doubler; is a permanent configuration and is allowed as a minor fix to fit the duct to the helicopter.

3. **Reporting Compliance Suspense Date.** Not applicable.

4. **Summary of Problem.** Due to limited spares the T703–AD–700B engines, it may be necessary to replace T703–AD–700B engines with T703–AD–700A engines on OH–58D helicopters.

5. **End Items to be Reworked.**

NOMENCLATURE	NSN	PART NO.	CAGE	TYPE/ MODEL	SERIAL NO. RANGE
Helicopter Observation	1520–01–125–5467	OH–58D	97499	OH–58D	93–0935 through 94–0664 95–0037, 95–0072 and 95–0079

6. **Parts to be Inspected.** Not applicable.

7. **Installation Procedures:**

a. Bleed air heater tube.

(1) During T703–AD–700B engine disassembly, remove and retain bleed air heater tube from right side of engine.

(2) During assembly of T703–AD–700A engine, install bleed air heater on left side of engine. If necessary, relocate compressor scroll bleed pad cover and gasket from right to left side of engine compressor scroll.

This TB supersedes reference TB 1–1520–248–20–42 dated 1 June 1998.

b. Preferred method, Bleed air duct (flexible duct between front of engine and engine cowl assembly).

(1) Remove cowl duct P/N NTPQ–15951 from engine cowl.

(2) If required, trim discharge duct assembly P/N 406–060–815–101 flange to ensure clearance of duct assembly in existing hole in cowl.

(3) Locally fabricate a 0.032 inch aluminum doubler approximately 4.25 inch in diameter with a 2.0 inch hole in the center.

(4) Center 2.0 inch hole in doubler on screen side of duct assembly, drill eight equally spaced 3/32 inch diameter holes through doubler and duct assembly and attach using eight MS20470B3 rivets and eight 104–001–11 washers.

(5) Match drill doubler to cowl and install on outside of cowl with eight MS20470B3 rivets and eight 104–001–11 washers.

(6) Install air fitting assembly P/N 204–064–271–107 on replacement engine with four NAS1351C08C08H6 cap screws and four NAS1149DN816J flat washers.

(7) Attach bleed air duct hose NAS 1375A08SB062 to compressor scroll bleed pad and cowl duct with two hose clamps AN737W74.

c. Alternate method, Bleed air duct (flexible duct between front of engine and cowl assembly).

(1) Remove cowl duct NTPQ–15951 from front of engine.

(2) Remove flange/screen from cowl duct.

(3) Locally fabricate a cowl duct. Fabricated duct should have a 2.0 inch outside diameter (OD) inlet tube, and approximately a 4.25 inch OD flange. See Figure 1.

(4) Match drill eight equally spaced 3/32 inch diameter holes through locally fabricated cowl duct, removed flange/screen, and cowl.

(5) Install fabricated cowl duct and flange/screen on inside of cowl using eight MS20470B3 rivets and eight 104–001–11 washers.

(6) Install air fitting assembly 206–064–271–107 on replacement engine with four NAS13151C08H6 cap screws and four NAS1149DN816J flat washers.

(7) Attach bleed air duct hose NAS1377A08SB062 to air fitting assembly and cowl duct with two AN737TW74 hose clamps.

8. Supply Parts and Disposition.

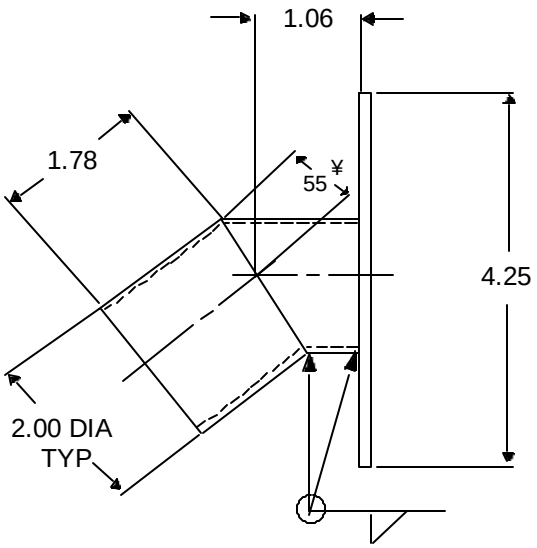
a. Parts Required:

Nomenclature	NSN	CAGE	Part Number	Quantity
Hose, Air Duct	4720–01–216–2321	80205	NAS1375A08SB062	1
Clamp, Hose	4720–00–278–0422	88044	AN737TW74	2
Duct assembly, Discharge	1560–01–185–8972	97499	406–060–815–101	1
Cowl Duct	N/A	N/A	Locally Fabricate	1
Rivet	Bulk	96906	MS20470B3	16
Washer	5310–00–135–7177	97499	140–001–11	16
Fitting Assembly, Air	1560–01–185–8964	97499	206–064–271–107	1
Screw, Cap	5305–01–299–9447	80205	NAS1351C08H6	4
Washer, Flat	5310–01–125–1225	80205	NAS1149DN816J	4

b. Requisitioning Instructions. Use logistical point of contact in this TB.

9. Special Tools, Jigs, and Fixtures. Not applicable.

a. Disposition of Hazardous Material. N/A.



NOTE

- All dimensions are in inches.
- Flange Plate is 0.080 inch aluninum stock.
- Tubing is aluminum with 0.063 inch wall thickness.

Figure 1. Locally Manufactured Discharge Duct Assembly

10. **Application.**

a. Category of Maintenance. AVUM.

b. Aircraft downtime will be charged to AVUM.

c. Time Required. Negligible; in addition to normal engine change out.

d. Estimated Cost Impact of Stock Fund Items to the Field. Not applicable.

e. Disposition. Dispose of removed parts/components in accordance with normal supply procedures. A QDR is not required.

f. TB/MWOs to be Applied Prior to or Concurrently with this Inspection. Not applicable.

g. Publications Which Require Change as a Result of This Inspection. Not applicable.

11. **References.**

a. TM1–1520–248–23, Aviation Unit and Intermediate Maintenance Manual for Army Model OH–58D Helicopter, dated 28 February 2000.

b. TM 1–1520–248–23P, Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools List (including Depot Maintenance Repair Parts and Special Tools) for Helicopter, Observation OH–58D. Dated 3 March 2000.

c. TB 1–1520–248–20–42, Instructions for Replacing OH–58D Helicopter T703–AD–700B Engine With T703–AD–700B. Dated 1 June 1998.

12. **Recording and Reporting Requirements.** The following forms are applicable and are to be completed in accordance with DA PAM 738-751,15 June 1999:

NOTE

ULLS–A units use applicable “E” forms.

a. DA Form 2408–13, Aircraft Status Information Record.

b. DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.

c. DA Form 2308–13–2, Related Maintenance Action Record.

d. DA Form 2408-15, Historical Record for Aircraft.

e. DA Form 2408–16, Aircraft Component Historical Record.

f. DA Form 2410, Component Removal, Repair, Overhaul Record.

13. **Wieght and Balance.** Negligible.

14. **Points of Contact.**

a. Technical point of contact for this TB is Mr. Gene Mergel, AMSAM–RD–AE–I–D–O, DSN 788–0973 or commercial 256–842–0973. E–Mail gene.mergel@redstone.army.mil.

b. Logistical point of contact for this TB is Mr. Chris Price, AMSAM–DSA–ASH–L, DSN 645–7449 or commercial 256–955–7449. E–Mail chris.price@redstone.army.mil

c. Forms and records point of contact for this TB is Ms. Ann Waldeck, AMSAM–MMC–RE–FF, DSN 746–5564 or commercial 256–876–5564. E–Mail waldeck–ab@redstone.army.mil

d. After hours contact AMCOM Command Operations Center (COC) DSN 897–2066/7 or commercial 256–313-2066/7.

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