

20 September 1945

AIRCRAFT AND MAINTENANCE PARTS

NORTH AMERICAN—INSPECTION AND REWORK OF WINDSHIELD FRAME
AND CANOPY MECHANISM—P-51D, P-51K, F-6D, AND F-6K

This Technical Order replaces T. O. No. 01-60-113, dated 1 September 1945, to revise paragraph 2.g. and include paragraphs 2.f. and 3.

NOTE As prescribed in T. O. No. 00-20A, appropriate reference to this Technical Order will be entered on AAF Forms 60-A for the aircraft affected. The work directed herein will be accomplished as soon as possible and not later than the next 50-hour inspection period by service activities with the aid of base maintenance facilities, if necessary.

1. To assure positive jettisoning of the canopy upon operation of the emergency release handle, and to reduce the possibility of inadvertent release due to malfunction of the locking mechanism, all P-51D, P-51K, F-6D, and F-6K airplanes will be inspected and necessary rework accomplished in accordance with the instructions contained in paragraph 2.

2. The instructions for accomplishing the inspection and necessary rework are as follows:

a. With the canopy closed very tightly, actuate the emergency release and lift from both sides of the canopy at the forward end only to determine that the canopy leading edge does not bind on the windshield frame.

CAUTION Care should be exercised when closing the canopy not to exert excessive force on the canopy handcrank.

The windshield glass retainers, part Nos. 106-318226-2, 106-318226-3, and 106-318226-6, installed at the aft edge of the windshield frame form a projecting lip at the rear edge of the windshield frame which may bind the leading edge of the canopy and prevent the canopy from jettisoning.

b. If a binding condition is found to exist, the lip formed by the retainers should be trimmed sufficiently to eliminate all binding caused by interference between the lip and the leading edge of the canopy. The existing rubber seal, part No. 109-318237, will be effective in sealing the gap between the canopy and windshield if care is exercised to prevent damage to the seal during trimming.

NOTE The air loads during flight tend to pull the canopy off. The lifting loads calculated from flight data are sufficiently high to insure release of the canopy in all flight attitudes (except possibly in the case of an extreme ac-

celerated pull-out or turn). The frame should therefore be trimmed only sufficiently to eliminate interference with the canopy closed tightly, since too drastic trimming will reduce the amount of support provided for the rubber seal.

c. Inspect the cockpit enclosure release mechanism on the left-hand side of the cockpit at the point where the emergency release cable, part No. 106-318217, attaches to the emergency release tripping bar, part No. 106-318204. Determine whether the bolt, part No. AN23-10, which attaches the emergency release cable turnbuckle to the tripping bar is chafing or binding on the channel which encloses the cable. If chafing or binding is found to exist, make certain that the cable turnbuckle is installed on the outboard side of the release tripping bar and that the tripping bar is not bent.

d. With the canopy removed, inspect the locking cams in the three trucks for free, smooth action. Correct any binding noted or install new trucks which operate satisfactorily if binding cannot be corrected.

e. Remove the 1/4-28 inch bolts and plain nuts that retain the bushings and rollers to the housing of the rear truck assembly. Install a clevis bolt, part No. AN24-16, a castalled shear nut, part No. AN320-4, and a cotter pin, part No. AN380C3-2. Removal of 3/32 inch from the end of the clevis bolt to prevent it from interfering with the closed side of the channel track, is considered structurally satisfactory, as approximately .025 inch of material is left between the edge of the cotter pin hole and the end of the threaded portion of the bolt. In no case should more than 3/32 of an inch of the bolt be removed.

f. Reinstall the canopy and actuate the emergency release several times to check that the action is free.

3. The following parts per airplane are required to accomplish this change:

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Compliance with these instructions is MANDATORY in continental United States. In overseas theaters, compliance will be at the discretion of Air Force Commanders concerned.

RESTRICTED
T. O. No. 01-80-113

QTY	STOCK NO.	PART NO.	NOMENCLATURE	CLASS	SOURCE
	6500-071080	AN24-16	Bolt - Clevis	04-A	AF Stock
2	6500-468500	AN320-4	Nut - Castle shear, steel	04-A	AF Stock
2	6700-394850	AN380C2-2	Pin - Cotter	29	AF Stock

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