HERCULES | LOCKHEED-GEORGIA COMPANY
A DIVISION OF LOCKHEED CORPORATION

SERVICE BULLETIN

MAP, FMS, SAP APPLICABILITY NOTICE

The attached publication, Hercules Service Bulletin No. 82-557, also applies to military C-130B, C-130E, C-130K and C-130K(S) series aircraft with Lockheed serial numbers in the range 3501 through 5019.

This publication provides instructions for removing redundant doublers from the lower surface of the center wing. This publication is based upon the configuration of the aircraft as delivered from the Lockheed-Georgia Company. Previous publications issued by the Lockheed-Georgia Company have been considered in the preparation of this publication. However, the Contractor does not maintain configuration control of military aircraft after delivery, therefore, no consideration has been given to peculiar changes made to aircraft by owners since delivery.

This publication has been forwarded to the USAF Warner Robins Air Logistics Center with a Lockheed recommendation for time compliance technical order action on affected USAF and MAP/FMS/SAP aircraft.

File: CSB 330

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WING - REMOVAL OF DOUBLERS FROM CENTER WING LOWER SURFACE, CWS 62 TO CWS 68

1. **Planning Information**

A. Effectivity

(1) **382-57-55, FAA Certificated Aircraft:** This publication is applicable to all model 382, 382B, 382E, 382F, and 382G series FAA Certificated Hercules aircraft with Lockheed serial numbers in the range 3946 through 5000.

(2) **82-557, Foreign Direct Sales Aircraft:** This publication is applicable to all model 282, 382, 382C series and 382T series Hercules aircraft with Lockheed serial numbers in the range 3546 through 5019.

(3) The intent of this publication will be accomplished on Hercules aircraft with Lockheed serial numbers 5020 and subsequent, during production, prior to delivery to the customer.

B. Reason

(1) Two external redundant doublers are presently installed on the center wing lower surface on each side of the aircraft between CWS 62 and CWS 68. These doublers have been determined to be a potential source of stress hard points and have been removed from current production aircraft. Incorporation of this modification will remove a potential source of fatigue from this area of the center wing. This modification will also make redundant one X-ray sampling inspection presently contained in SMP 515-D, Inspection Card SA-24.

(2) This change is considered as a fatigue improvement modification and may be accomplished at the convenience of the aircraft owner/operator.

C. Description

This modification consists of removing the four 398802-9 doublers and attaching taper-lok fasteners and replacing with oversize taper-lok fasteners.

D. Approval

(1) The aircraft owner/operator will make an appropriate entry in the aircraft log records upon compliance with this publication.

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(2) When the work has been completed on each affected aircraft, please complete and mail an enclosed Notice of Service Bulletin Compliance.

(3) **382-57-55, FAA Certificated Aircraft:** The doubler removal and fastener replacement in this publication has been approved by the FAA as complying with applicable Federal Aviation Regulations.

E. Manpower

The work prescribed in this publication has not been performed at the Lockheed facility exactly as described herein; therefore, the manpower estimates provided here have not been validated, and should not be construed as being acceptable for use in making fixed price quotes for accomplishment of the work. These estimates are provided only as a convenience for customer planning purposes. It is estimated that approximately 236 man-hours (a crew of 4 men) will be required to accomplish the work on each affected aircraft. This will take approximately 59 hours elapsed time while the aircraft is out of service.

F. Material - Cost and Availability

Parts/Materials listed in paragraph 3 are to be supplied by the aircraft owner/operator. Parts listed in paragraph 3 may also be purchased from Lockheed, as noted, if desired. Direct inquiries concerning prices and availability to the Manager, Customer Supply Sales and Contracts Department as follows:

MAIL:	Lockheed-Georgia Company 86 South Cobb Drive Marietta, GA 30063, USA Attn: Manager, Customer Supply Sales and Contracts Dept. Dept. 65-11, Zone 451
TELEPHONE:	(404) 424-4214
TWX:	LKHD MARIETTA 8107634724 DEPT. 65-11
TELEX:	804263 LOCKHEED MARA DEPT. 65-11
CABLE:	MA LOCKHEED DEPT. 65-11

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G. Tooling - Price and Availability

None.

H. Weight and Balance

(1) **382-57-55, FAA Certificated Aircraft:** Make appropriate entries in the aircraft Record of Weight and Balance or in the Empty Weight and Index Record upon completion of the work described in this publication.

Model:	382B	382/E/F/G
Net Weight Change (pounds):	-3.0	-3.0
Moment Arm or Trim Station (inches):	571.5	44.5
Change in Moment or Trim Index (inch-pounds or index units):	-1715	-0.1

(2) **82-557, Foreign Direct Sales Aircraft:** Make appropriate entries in the aircraft Handbook of Weight and Balance Data, Basic Weight and Balance Record, or Basic Weight and Moment Record upon completion of the work described in this publication.

Model:	282/382/382C	382T	C-130K/K(S)
Net Weight Change (pounds):	-3.0	-3.0	-3.0
Moment Arm, Loading Station, or Trim Station (inches):	571.5	771.5	44.5
Change in Moment, Moment/1,000, or Trim Index (inch-pounds or index units):	-1715	-2.3	-0.1

I. References

Hercules Maintenance Manual

Hercules Airfreighter L-382 Series Inspection Procedures

Hercules Airfreighter L-382 Series Sampling Inspection Program

Hercules Maintenance Instructions Manual

Hercules Airfreighter C-130/L-382 Series Progressive Inspection Procedures

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J. Other Publications Affected

Hercules Airfreighter L-382 Series Inspection Procedures

Hercules Airfreighter L-382 Series Sampling Inspection Program

Hercules Airfreighter C-130/L-382 Series Progressive Inspection Procedures

2. Accomplishment Instructions

WARNING: OBSERVE ALL APPLICABLE SAFETY PRECAUTIONS WHILE ACCOMPLISHING THIS SERVICE BULLETIN. ENSURE THAT POWER IS ISOLATED FROM ALL SYSTEMS PRIOR TO APPROACHING THE AREA. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY TO PERSONNEL.

A. Prepare aircraft for modification as follows:

(1) Gain access to the lower surface of the center wing on each side of the aircraft by removing wing fillet assemblies, as required, in accordance with instructions in the Hercules Maintenance Manual. (See figure 1, detail A.)

WARNING: ENSURE THAT ALL APPLICABLE SAFETY PRECAUTIONS PERTAINING TO WORK IN FUEL/FUME AREAS SPECIFIED IN THE HERCULES MAINTENANCE MANUAL ARE STRICTLY OBSERVED WHILE WORKING IN THE CENTER WING FUEL TANK AREAS. PERSONNEL SHALL WEAR NON SPARKING PROTECTIVE CLOTHING. ENTRY INTO THE FUEL TANK AREAS FOR DEPUDDLING MUST NOT BE MADE UNTIL THE AREAS HAVE BEEN PURGED TO THE FIRE-SAFE 20 PERCENT LOWER EXPLOSIVE LIMIT (LEL), AS DETERMINED USING FUEL VAPOR DETECTION AND MEASURING EQUIPMENT. FULL FACE-PIECE RESPIRATOR MUST BE WORN UNTIL THE AREA HAS BEEN PURGED TO THE HEALTH-SAFE 0.0 TO 1.5 PERCENT LEL AND 19.5 PERCENT OXYGEN CONTENT. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY OR DEATH TO PERSONNEL AND DAMAGE TO THE AIRCRAFT.

CAUTION: THE OUTER LAYER (FABRIC) OF THE BLADDER CELL IS ONLY COVERED WITH A THIN COATING OF SYNTHETIC RUBBER AND CAN BE EASILY DAMAGED.

(2) Gain access to and remove the inboard bladder cells in accordance with instructions in the Hercules Maintenance Manual.

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(3) Locate and remove the 398917 and 398919 backing boards from the bottom of the tanks as required to obtain access to taper-lok fasteners attaching the 398802-9 doubler plates to the lower surface of center wing between CWS 62 and CWS 68. (See figure 1, detail B.) Retain backing boards for reinstallation.

NOTE: Backing boards are secured to structure with velcro tape.

B. Remove the two 398802-9 doubler plates from the center wing on each side of aircraft and replace taper-lok fasteners as follows:

NOTE: Access to both interior and exterior of the inboard auxiliary tank will be required for doubler plate and fastener removal and fastener installation.

(1) Locate and remove the set of thirty-six taper-lok fasteners installing each 398802-9 doubler plate to wing structure and remove each 398802-9 doubler plate from the wing lower surface. (See figure 1, details A and B.)

WARNING: FEDERAL SPECIFICATION O-T-620 TRICHLOROETHANE, USED IN THE FOLLOWING PROCEDURE IS TOXIC TO SKIN, EYES, AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION REQUIRED. AVOID REPEATED OR PROLONGED CONTACT. IF ALLOWED TO EVAPORATE IT PRODUCES TOXIC VAPORS AND MAY BE FLAMMABLE. AVOID HEAT SOURCES OR OPEN FLAMES. GOOD GENERAL VENTILATION NORMALLY ADEQUATE. WEAR APPROPRIATE PROTECTIVE CLOTHING AND USE WITH APPROVED CONTAINERS. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY OR ILLNESS TO PERSONNEL.

(2) Clean the surface of the wing where the doublers were installed to remove all traces of sealant residue, using clean cloths moistened with Federal Specification O-T-620 trichloroethane or equal. Wipe dry. Do not allow solvent to air dry.

(3) Enlarge existing tapered holes for replacement TL210-3-6 taper-lok pins in accordance with the Hercules Structural Repair Manual.

WARNING: THE SEALANT USED IN THE FOLLOWING PROCEDURE IS FLAMMABLE AND TOXIC TO EYES, SKIN, AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION ARE REQUIRED. AVOID REPEATED AND PROLONGED CONTACT. GOOD GENERAL VENTILATION IS NORMALLY ADEQUATE. FAILURE TO COMPLY MAY RESULT IN INJURY OR ILLNESS TO PERSONNEL.

(4) Wet install thirty-six TL210-3-6 pins and TLN1000-3 nuts using PR1422G, Class B-2 sealant, or equivalent, at each doubler location, in accordance with instructions in the Hercules Structural Repair Manual. (See figure 1, detail B.)

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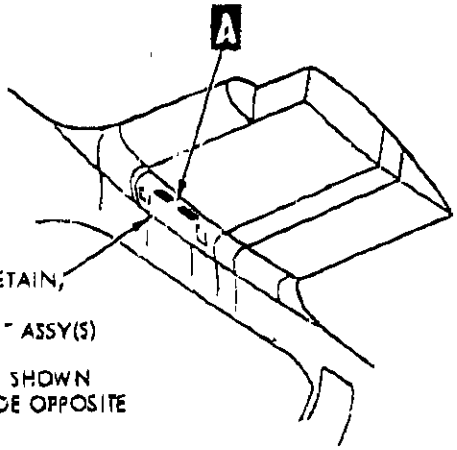
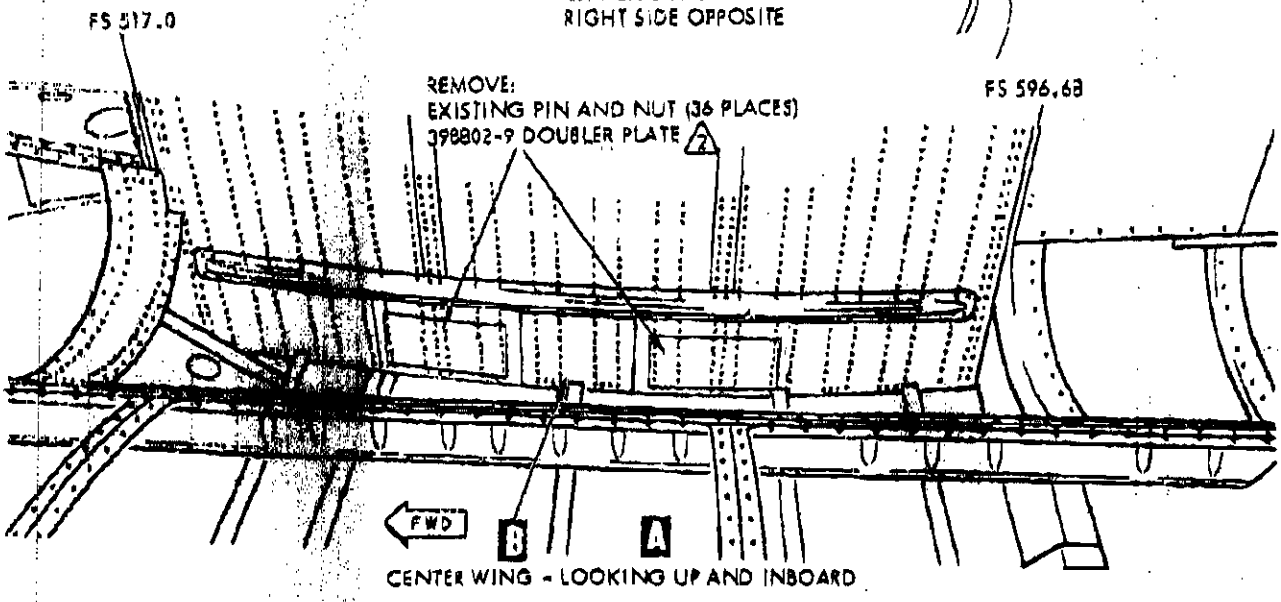
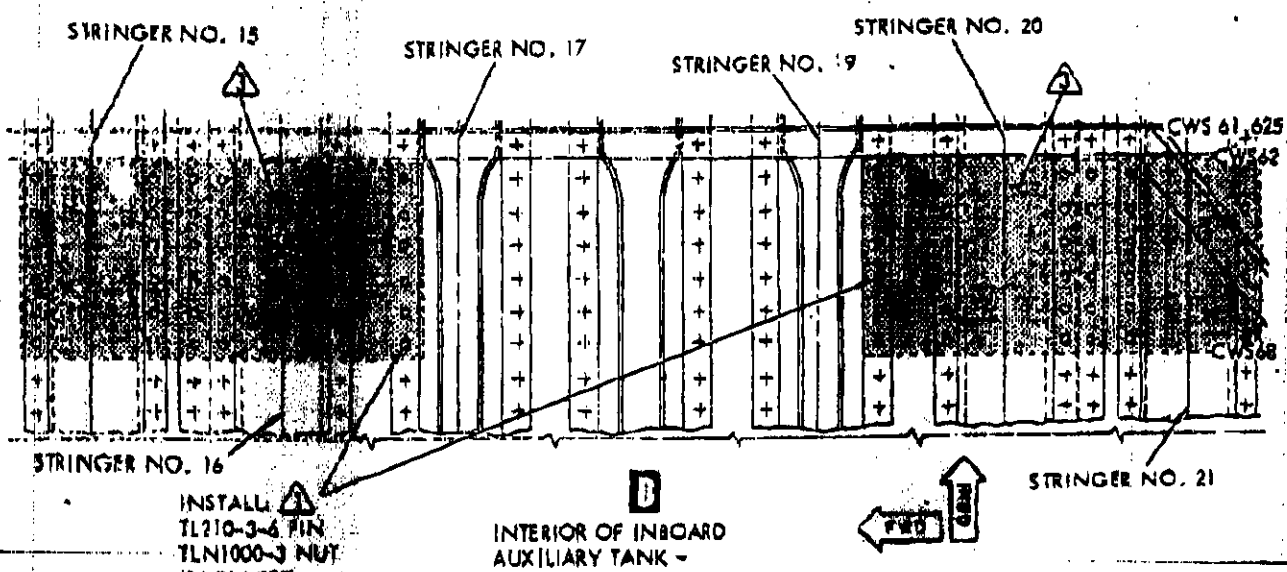
NOTE

1. WET INSTALL FASTENERS WITH PR1422G, CLASS B-2 SEALANT OR EQUIVALENT.
2. CLEAN SURFACES OF SEALANT RESIDUE AFTER REMOVAL OF DOUBLERS.
3. OUTLINE OF REMOVED DOUBLER PLATE SHOWN SHADED FOR REFERENCE.







5382-57-55/82-557-0-00.

Figure 1. Removal of Doublers from Center Wing Lower Surface, CWS 62 to CWS 68

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C. Reinstall 398917 and 398919 backing boards removed for access.

D. Reinstall bladder cells, access doors, and wing fillets in accordance with instructions in the Hercules Maintenance Manual.

E. Restore the aircraft to service.

NOTE: If assistance is needed, contact the local Lockheed-Georgia Company Field Service Representative, or the Lockheed Field Service Office in Marietta, Georgia, as follows:

TELEPHONE:	(404) 424-3560
TWX:	LKHD MARIETTA 8107634724 ATTN: DEPT. 64-21
TELEX:	542642 LOCKHEED MARA ATTN: DEPT. 64-21
CABLE:	MA LOCKHEED ATTN: DEPT. 64-21
MAIL:	Lockheed-Georgia Company 86 South Cobb Drive Marietta, GA 30063, USA ATTN: Dept. 64-21, Zone 279

3. Material Information

The following parts, required to perform the modification on each affected aircraft, will be supplied by the aircraft owner/operator.

NEW PART NUMBER	QTY	KEY WORD	OLD PART NUMBER	INSTRUCTIONS/ DISPOSITION
TL210-3-6	144	Pin	TL200-3-7	NOTE 1, 3, 4
TLN1000-3	144	Nut	TLN1000-3	NOTE 1, 3, 4
	4	Doubler Plate	398802-9	NOTE 1

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NEW PART NUMBER	QTY	KEY WORD	OLD PART NUMBER	INSTRUCTIONS/ DISPOSITION
	1 pint	Sealant (PR-1422G, Class B-2)		NOTE 2, 3
	1 pint	Trichloro-ethane (Federal Specification O-T-620)		NOTE 3

NOTE: 1. Scrap old part.

2. Products Research and Chemical Corp., 2919 Empire Avenue, Burbank, CA 91504, USA

3. Local purchase/local supply item.

4. Parts may also be obtained from Lockheed in accordance with Paragraph 1.F.

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File: CSB 330

DEPARTMENT OF THE AIR FORCE
TECHNICAL ORDER

T.O. 1C-130-1266
DATA CODE: 0169217
9 APRIL 1987
RESCISSION DATE: 9 JANUARY 1989

REMOVAL OF DOUBLERS FROM CENTER WING LOWER SURFACE CWS 62 TO CWS 68, C-130 AIRCRAFT

NOTE Commanders are responsible for bringing this publication to the attention of all Air Force personnel assigned for operation of the affected equipment.

1. APPLICATION.

   a. This TCTO is applicable to all C-130B/E aircraft.

   b. Kits are not required for compliance with this TCTO.

   c. TCTO proofing, as prescribed by TO 00-5-15, was waived by WR-ALC/MMSRTA and this action concurred in by HQ TAC/LGM, HQAFRES/LGM, NGB/LGM, HQAFSC/LGM, and HQMAC/LGM.

2. PURPOSE.

   This TCTO directs removal of two external doublers installed on the center wing lower surface on each side of C-130 aircraft between CWS 62 and CWS 68. These doublers have been determined to be a potential source of cracks at hard points. Removal of these doublers will remove a potential source of fatigue from this area of the center wing.

3. WHEN TO BE ACCOMPLISHED.

   During depot level maintenance (as scheduled by WR-ALC/MMSP).

4. BY WHOM TO BE ACCOMPLISHED.

   Depot level maintenance.

5. WHAT IS REQUIRED.

   a. Supply Information and Requirements.

      (1) Kits/Parts/Materials Required.

      The following parts required to comply with this TCTO are not furnished in a kit, and therefore, will be obtained through the appropriate supply source. This action was concurred in by HQ TAC/LGM (MSgt Smith/AV574-3737), HQ AFRES/LGM (Ed Hamlin/AV 468-5126), NGB/LGM (Mel Bhoon/AV 225-0897), HQ AFSC/LGM (CMSgt Taylor/AV 858-3544), and

HQ MAC/LGM (CMSgt Chase/AV 576-4771. When used as directed in this TCTO, these items do not adversely affect safety, will not induce corrosion, and have no critical properties essential to the purpose of this TCTO (applies also to any items supplied as substitutes through the AFLC D097 system).

QTY	STOCK NO.	PART NO.	NOMENCLATURE	SOURCE
144	5320-00-119-8351	TL210-3-6	Pin	AF Supply
144	5310-00-968-6562	TLN1000-3	Nut	AF Supply
1 pint	8030-00-008-7196	*MIL-S-81733, or	Type I-2 Sealant	AF Supply
1 quart	8030-00-433-9028	*PR-1422G,	Class A-2 Sealant	AF Supply
1 pint	6810-00-551-1487	**1-1-1	Trichlorethane	AF Supply

*Shelf life code: 2
**Shelf life code: 9

(2) Action Required on Items in Stock. Not Applicable.

(3) Kits/Parts/Materials Required to Modify Items in Stock. Not Applicable.

(4) Disposition of Removed and Replaced Parts/Materials.

NOTE

Parts/Materials removed, but not listed, will be disposed of as scrap material/ shop residue.

(5) Drawings/Instructions Required. Not Applicable.

(6) Size, Weight, and Cost of Kits. Not Applicable.

(7) Disposition of Kits. Not Applicable.

b. Personnel Information and Requirements.

WORK PHASES	AFSC SKILLS	MAN-HOURS
Gaining Access	491XX	75.0
Removal of Doublers	427XX	25.0
Replacement of Fasteners	427XX	25.0
Closing Area	431XX	100.0
	Total	225.0

c. Special Tools, Fixtures, Test Equipment, and Software Required. Not Applicable.

6. HOW WORK IS ACCOMPLISHED.

a. Make aircraft safe for maintenance.

WARNING

Observe all applicable safety precautions while accomplishing this TCTO. Ensure that power is isolated from all systems prior to approaching the area. Failure to comply may result is serious injury to personnel.

b. Gain Access to lower surface of center wing on each side of aircraft by removing wing fillet assemblies, as required, in accordance with instructions contained in applicable aircraft maintenance manuals.

WARNING

- Ensure that all applicable safety precautions pertaining to work in fuel/fume areas specified in applicable maintenance manual are strictly observed while working in the center wing fuel tank areas.
- Personnel shall wear non-sparking protective clothing. Entry into the fuel tank areas for repuddling must not be made until the areas have been purged to the fire-safe 20 percent lower explosive limit (lel), as determined, using fuel vapor detection and measuring equipment. Full face-piece respirator must be worn until the area has been purged to the health-safe 0.0 to 1.5 percent lel and 19.5 percent oxygen content.
- Failure to comply with these warnings may result in serious injury or death to personnel and damage to the aircraft.

CAUTION

The outer layer (fabric) of the bladder cell is only covered with a thin coating of synthetic rubber and can be easily damaged.

c. Gain access to and remove inboard bladder cells in accordance with instructions contained in applicable aircraft maintenance manuals.

d. Locate and remove 398917 and 398919 backing boards from the bottom of tanks, as required, to obtain access to [illegible]-lok fasteners attaching 398302-9 doubler plates to lower surface of center wing between CWS 52 and CWS 68. (See figure 1, detail B.) Retain backing boards for reinstallation.

NOTE

Backing boards are secured to structure with velcro tape.

a. Remove two 398802-9 doubler plates from center wing on each side of aircraft. Replace taper-lok fasteners as follows:

NOTE

Access to both interior and exterior of the inboard auxiliary tank will be required for doubler plate and fastener removal and fastener installation.

(1) Locate and remove the set of 36 taper-lok fasteners installing each 398802-9 doubler plate to wing structure. Next remove each 398802-9 doubler plate from wing lower surface. (See figure 1, detail A and B.)

WARNING

- Federal Specification O-T-620 Trichloroethane, used in the following procedure, is toxic to skin, eyes, and respiratory tract. Skin and eye protection is required. Avoid repeated or prolonged contact. If allowed to evaporate, it produces toxic vapors and may be flammable. Avoid heat sources or open flames.

- Good general ventilation is normally adequate. Wear appropriate protective clothing and use only approved containers. Failure to comply may result in serious injury to or illness of personnel.

(2) Clean surface of wing, where doublers were installed, to remove all traces of sealant residue, using clean cloths moistened with Federal Specification O-T-620 Trichloroethane or equal. Wipe dry. Do not allow solvent to air dry.

(3) Enlarge existing countersunk holes for replacement TL210-3-6 taper-lok pins in accordance with aircraft Structural Repair Manual instructions.

WARNING

The sealant used in the following procedure is flammable and toxic to eyes, skin, and respiratory tract. Skin and eye protection is required. Avoid Repeated and prolonged contact. Good general ventilation is normally adequate. Failure to comply may result in injury to or illness of personnel.

(4) Wet-install new TL210-3-6 taper-lok pins and TLN1000-3 nuts using PR1422G, Class A-2 sealant (or equivalent) at each doubler location, in accordance with instructions contained in aircraft Structural Repair Manual. (See figure 1, detail B.)

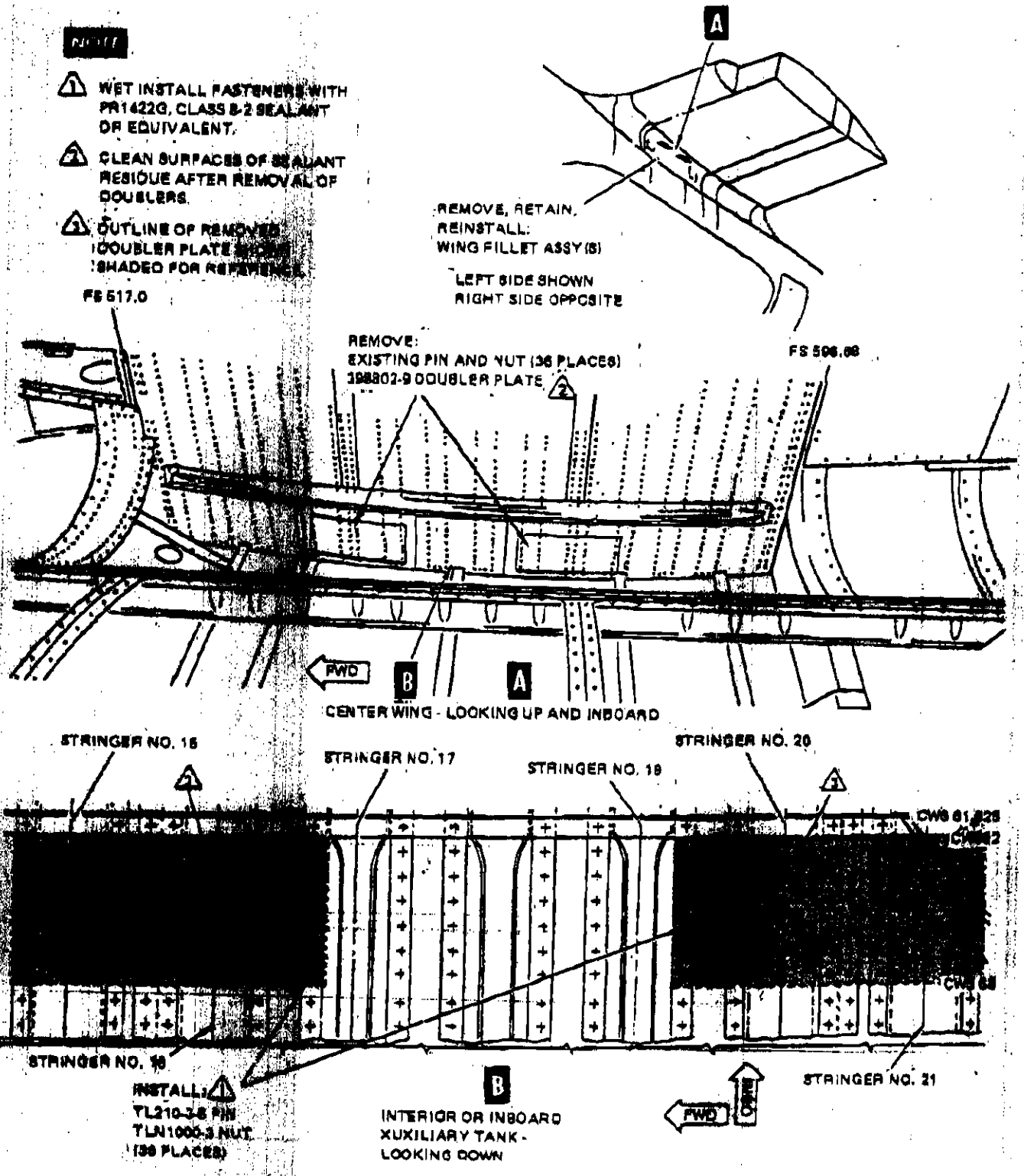


Figure 1. Removal of Doublers from Center Wing Lower Surface, CWS 62 to CWS 68

f. Reinstall 398917 and 398919 backing boards previously removed for access.

g. Reinstall bladder cells, access doors, and wing fillets in accordance with instructions contained in applicable aircraft maintenance manuals.

h. Restore aircraft to service.

7. SUPPLEMENTAL INFORMATION.

a. Fuel System Defuel/Purge.

Defueling/purging of the aircraft fuel system is required prior to compliance with this TCTO.

b. Operational Checkout Requirements.

The system/equipment shall not require an operational checkout after TCTO compliance and prior to release for normal operations.

c. Weight and Balance Information.

There are no weight or balance changes resulting from the instructions contained herein.

d. Technical Manuals Affected. Not Applicable.

8. RECORDS.

a. Action Required on Maintenance Records.

An AFTO Form 349 (or computer-generated equivalent) will be submitted for each affected C-130 aircraft by serial number. Report TCTO compliance in accordance with instructions prescribed by TO 00-20-2-2, table 2-8, rule 5.

b. Action Required on Supply Record.

Supply records are not affected by this TCTO.

c. Retrofit Change or Inspection Identification Markings. Not Applicable.

BY ORDER OF THE SECRETARY OF THE AIR FORCE:

LARRY D. WELCH, GENERAL, USAF
CHIEF OF STAFF

EARL T. O'LOUGHLIN, GENERAL, USAF
COMMANDER, AFLC

Prepared by WR-ALC/MMEDTA (AV 468-6345)

4-195. [redacted] 30; CENTER WING LOWER SURFACE PANELS UNDER DOUBLERS CWS 61.5 TO 80 [redacted] Figure 4-30.

4-196. DESCRIPTION. The center wing lower surface panels are machined extrusions fabricated from 7075-T6 aluminum alloy. The lower wing panels are anodized and coated with various coating systems. Doublers are installed at various locations on the lower surface between CWS 61.5 and 80.

4-197. DEFECTS. Cracks initiate in the wing panel from fastener holes under the doublers and progress from stop drilled cracks in the wing where repair doublers have been installed.

4-198. PRIMARY NDI PROCEDURE - RADIOGRAPHY.

WARNING

RADIATION HAZARD

Ensure compliance with all applicable safety precautions set forth in Section I, of this manual, and TO 33B-1-1. Failure to comply may result in serious injury to personnel.

a. NDI Equipment.

(1) Portable X-ray Unit, NSN 6635-00-000-0133, or equivalent.

(2) Film Type M, or equivalent.

b. Preparation of airplane.

WARNING

Make sure power is isolated from all systems in the inspection area prior to approaching the inspection area. Failure to comply may result in serious injury to personnel.

(1) Isolate power from all systems in the inspection area in accordance with TO 1C-130A-2-1 and TO 1C-130A-2-2.

(2) Remove wing to fuselage fairings No. 172 and 173 from under wing.

c. Access. Access is gained to the top and bottom of the wing with use of appropriate SE and removal of fairings.

d. Preparation of part. No special preparation required.

e. X-ray machine settings. Set the X-ray machine for the data indicated in the radiograph inspection data block. This procedure is for a median film density of 2.0.

NOTE

Settings specified in this procedure were established to provide and assure quality radiographic and film densities specified in this procedure. Due to variance in X-ray equipment it may be necessary to vary the MA, time, and KV settings in order to achieve the density specified and quality necessary. Therefore, the MA and time settings should be construed as guidelines and KV may be lowered if necessary (not raised); however, the density specified must be maintained.

f. Film placement. Place X-ray film, as illustrated, and in the sequence specified. After each exposure, remove film and place film for next exposure. Use film specified in radiographic inspection data block or equivalent.

g. X-ray tube location. Locate X-ray tube and center X-ray beam, as illustrated, for each exposure.

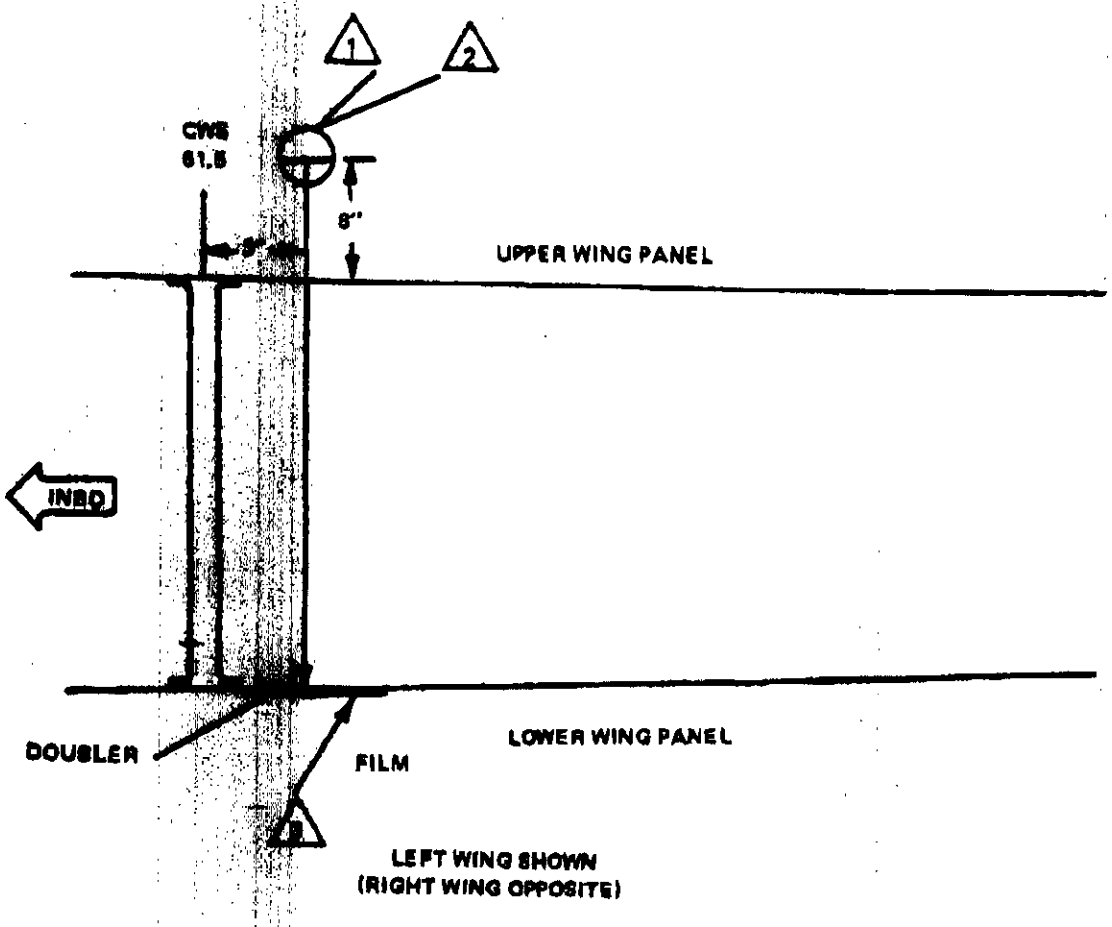
h. Inspection. Make radiographs of the inspection area in accordance with radiographic inspection data, as illustrated.

i. Mark indicated defects.

j. Defects noted in primary procedure will be confirmed by removing the repair doubler and performing an eddy current inspection of the area.

k. Mark and report indicated defects.

4-199. SYSTEM SECURING. Clean areas inspected, restore finishes, reinstall removed components and perform operational checkouts, as required, in accordance with applicable technical orders.



NOTE

1. DISTANCE OF X-RAY TUBE HEAD FROM CWS 61.5 MAY VARY DEPENDING ON DOUBLER LOCATION AND SIZE. MINIMUM DISTANCE IS 8" OUTBOARD OF CWS 61.5.
2. POSITION X-RAY TUBE SO THAT X-RAY BEAM WILL BE CENTERED AND PERPENDICULAR TO DOUBLER.
3. PLACE FILM ON BOTTOM SURFACE CENTERED OVER DOUBLER.

EXPOSURE NUMBER	FILM IDENTIFICATION	SUBJECT	KV	MA	FILM AIMING DISTANCE	TIME (SEC)	FILM TYPE	FILM SIZE
NUMBER EACH DOUBLER	IDENTIFY DOUBLER BY WING PANEL	DOUBLERS BETWEEN CWS 61.5 - 80	120	4	8" FROM TOP OF WING	75 Sec	M	14 X 17

Figure 4-30. Inspection of Center Wing Lower Doublers Between CWS 61.5 and 80.0, L/R