Beech Aircraft Corporation

OVERHAUL SPECIFICATION

ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

Overhaul Specification 9810

ISSUED May 4, 1954

REVISED July 14, 1954

838

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E-371

TITLE ENGINE COWLING - MODEL C-45G, C-45H, SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED July 14, 1954

1. SCOPE

1.1 Purpose.- The purpose of this specification is to authorize the use of reconditioned parts; to provide reconditioning instructions for component parts of the 84-185905, 185901, 84-185970, and 185903 upper and lower engine cowl assemblies and 1885850P-16, 1885850P-17, 1885850P-18, and 1885850P-19 wrapper sheet assemblies as installed in aircraft received for overhaul; and to provide instructions for modifications required to adapt them for installation in C-45G, C-45H, and SNB-5 aircraft in accordance with Drawings 1885850P, 185901, and 185903.

1.2 Application.- All reconditioning operations and repairs covered by this specification may be accomplished where required without further authorization. Repairs not authorized by this specification cannot be performed without further authorization.

1.3 List of Pages and Revisions.- This specification consists of the pages listed below. An asterisk (*) denotes the pages revised by the current revision.

Page	Date	Description of Revision	Serial Effectivity
* 1	7-14-54	Record Revision	Record Change
2	4-20-54		Record Change
3	4-20-54		Record Change
4	* 4-20-54		Record Change
5	4-20-54		Record Change
6	4-20-54		Record Change
7	4-20-54		Record Change
8	4-20-54		Record Change
9	4-20-54		Record Change
10	4-20-54		Record Change
11	4-20-54		Record Change
12	4-20-54		Record Change
*13	7-14-54	Change Paragraph 3.4.2(h) to delete requirement for flush patch	Record Change
14	4-20-54		Record Change
15	4-20-54		Record Change
16	4-20-54		Record Change
17	4-20-54		Record Change
18	4-20-54		Record Change
*19	7-14-54	Change Figure 5 to delete requirement for flush patch	Record Change
20	4-20-54		Record Change
21	4-20-54		Record Change
22	4-20-54		Record Change

TITLE ENGINE COWLING - MODEL C-45B, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED April 20, 1954

2. APPLICABLE PUBLICATIONS

2.1 Specifications:

2.1.1 Federal

QQ-P-416 Plating - Cadmium

2.1.2 Beech

PS 302	Finish Specification for Model SNB-5 Aircraft
PS 370A	Finish Specification for Model C-45G Aircraft
OS 7002	Cleaning Procedures for Overhauled Aircraft
OS 7003	Air Frame and Control Antifriction Bearings
OS 7007	Sheet Metal Repairs
OS 7008	General Acceptable Quality Standards
OS 7010	Removing Corrosion from Aluminum Parts

3. REQUIREMENTS

3.1 Parts Involved:

3.1.1 Parts Not Used.- The parts listed in Paragraphs 3.1.1.1 and 3.1.1.2 will not be re-used and will be disposed of at the direction of the customer.

3.1.1.1 Upper Engine Cowling 84-185905 and 185901:

1839906	Stud
1839938	Fore and aft bracket plate (steel)
404-185938	Fore and aft bracket side friction plate
404-185939	Fore and aft bracket bottom friction plate
185928	Baffle seal
84-185905-5L	Channel
84-185905-5R	Channel
84-185905-9	Angle

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revisions: T. R. Taylor REVISED April 20, 1954

3.1.1.1 Upper Engine Cowling 84-185905 and 185901.- (Continued)

185904-1	Plate
185904-2	Plate
185916	Front cowl fastener hinge
100801-X5-0785	Front cowl fastener bushing
108443	Placard
105901-502	Clip
185915	Fastener assembly (no revision)
AN-1/2-50	Dzus fastener (S-36 fastener)
GA6-1/2-375	Dzus grommet (S-36 fastener)
------	All nuts, bolts, washers, cotter pins, and safety wire

3.1.1.2 Lower Engine Cowling 84-185970 and 185903:

185905-1	Cowl nose joint plate
185905-2	Cowl nose joint plate
185904-1	Plate
185904-2	Plate
84-185970-1	Channel
185903-1	Channel
1835938	Fore and aft bracket plate (steel)
404-185938	Fore and aft bracket side friction plate
404-185939	Fore and aft bracket bottom friction plate
185989	Baffle seal

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED April 20, 1954

3.1.1.2 Lower Engine Cowling 84-185970 and 185903.- (Continued)

185987	Baffle seal
No. 74	Jack
185918	Stud
105352	Bushing (185920 fastener)
A5-40	Dzus fastener (185920 fastener)
GA5-312	Dzus grommet (185920 fastener)
SG-250	Dzus spring (front cowl fastener)
108443	Placard
AG-1/2-50	Dzus fastener (S-36 fastener)
GA6-1/2-375	Dzus grommet (S-36 fastener)
105212	Cowl flap horn assembly bushing
185971-1	Cowl flap hinge bushing
185971-2	Cowl flap hinge bushing
185972	Cowl flap hinge spacer
185988	Center flap closing strip gasket
———	All nuts, bolts, washers, cotter pins, and safety wire

3.1.2 Parts to be Reconditioned.- The following parts are to be reconditioned in accordance with the instructions contained herein. "Reconditioned" means the disassembly, cleaning, inspection and correction of discrepancies, repair and/or replacement of components, and modifications to incorporate changes to assure an operationally safe and serviceable aircraft.

3.1.2.1 Upper Engine Cowling 84-185905 and 185901.- All parts listed on Drawings 84-185905 and 185901 will be reconditioned except those parts listed in Paragraph 3.1.1.1 of this specification.

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revisions: T. H. Taylor REVISED April 20, 1954

3.1.2.2 Lower Engine Cowling 84-185970 and 185903.- All parts listed on Drawings 84-185970 and 185903 will be reconditioned except those parts listed in Paragraph 3.1.1.2 of this specification.

3.1.2.3 Wrapper Sheet Assemblies 185850P-16, 185850P-17, 185850P-18, and 185850P-19.- All parts of the wrapper sheet assemblies will be reconditioned.

3.1.3 Parts to be Supplied New.- All parts called out on Drawings 185901 and 185903 will be supplied new except those parts listed in Paragraph 3.1.2 of this specification. The special parts listed below will be supplied new as required.

Part No.	Symb As	Name
OS 9810-1	OB A22609-6	Strip reinforcement
OS 9810-3	OB A22609-2	Plug
OS 9810-5	————	Nose ring clip
OS 9810-7	OB A22609-4	Strip reinforcement
OS 9810-9	OB A22609-14	Flush patch
No number	————	Chafe patch
OS 9810-11	OB A22609-8	Ring (185901-20 furnished blank)
OS 9810-13	OB A22609-10	Ring (185903-9 furnished blank)
OS 9810-15	OB A22609-12	Ring (185903-27 furnished blank)
OS 9810-17	MRH 86115-2	Reinforcement
OS 9810-19	MRH 86115-4	Reinforcement

3.2 Cause for Rejection.- The following conditions will be cause for rejection of the part or assembly specified.

E-3330

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED April 20, 1954

3.2 Cause for Rejection.- (Continued)

(a) Damage or wear to any part or assembly which cannot be corrected by one or more of the authorized repairs listed in Paragraph 3.4 of this specification.

(b) All upper cowl assemblies that were built in accordance with Drawing 84-185901.

(c) All 84-185970 lower cowl assemblies that have -16 stiffeners according to drawings previous to A revision which incorporates CO 16502.

(d) Extensive damage to either upper or lower engine cowl assemblies that would necessitate a complete disassembly and inspection of either unit.

(e) Damage, wear, or corrosion to any minor assembly severe enough to require the replacement of a major portion of that assembly.

(f) Abrasions, cracks, or dents on cowl flap hinge or horn castings.

(g) Cowl flap hinge and horn castings with .125-inch holes that measure over .318-inch with bushing removed.

(h) Scrap 1835903A bearing plates which are cracked or show indications of wear more than .015 inch deep.

(i) Scrap 1835937 torque plates which show indications of wear more than .015 inch deep.

(j) Scrap 185929 and 185929-1 plates which are cracked or show indications of wear more than .015 inch deep.

(k) Scrap 185901-5R and 185901-5L angles which have nicks exceeding 1/8 inch in depth or are cracked.

3.3 Reconditioning Operations.- Accomplish the following reconditioning operations and finish the parts after reconditioning in accordance with PS 370A, Finish Specification for Model C-45G and C-45H, or PS 302, Finish Specification for Model SNB-5, as applicable.

E.3300

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revisions: T. R. Taylor REVISED April 20, 1954

3.3.1 Upper Engine Cowl Assembly 84-185905 and 185901.-

(a) Clean in accordance with OS 7002.

(b) Inspect for nonrepairable conditions.

(c) Remove corrosion in accordance with OS 7010.

(d) Disassemble all applicable parts to be scrapped as listed in Paragraph 3.1.1.1 of this specification.

(e) Repair as necessary as authorized herein.

(f) Rework nose joint of 84-185905 assemblies by installing 185901-23 and -24 rivet assemblies according to the latest drawings. Flush plug the AN-3 bolt holes to best shop Procedure.

(g) Rework 205399 and 205399-1 channels on 185901 assemblies to match redesigned 185916 hinge, conforming to the latest drawings.

(h) Install new 185915 front cowl fasteners on 185901 assemblies with new type 185916 hinge (Revision A), incorporating 100696-D22-11-004 spacers.

(i) Install new 404-185938 and 404-185939 phenolic strips on the cowl support brackets of all assemblies.

(j) Install new 185928 synthetic rubber baffle seals on all assemblies. OS 9810-11 shall be used when 185901-20 is unserviceable.

(k) Disassemble S-36-1 and S-36-7 cowl fasteners. Strip and cadmium plate all parts except 107462 barrel in accordance with Federal Specification QQ-P-416. Clean and buff the 107462 barrel. Install new A6-1/2-50 Dzus fasteners and GA6-1/2-375 Dzus grommets.

(l) Replace unserviceable springs with new A200 Dzus springs on all assemblies at all S-36 fastener locations.

(m) Complete the assembly of each upper cowl unit using new parts as needed to conform to Drawing 185901.

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick. Revision: T. R. Taylor REVISED April 20, 1954

3.3.2 Lower Cowl Assemblies 84-185970 and 185903:

(a) Clean in accordance with OS 7002.

(b) Inspect for nonrepairable conditions.

(c) Remove corrosion in accordance with OS 7010.

(d) Disassemble all applicable parts to be scrapped as listed in Paragraph 3.1.1.2 of this specification.

(e) Repair as necessary as authorized herein.

(f) Rework nose joint of 84-185970 assemblies by installing 185903-31 and -32 rivet assemblies in accordance with the latest drawings. Flush plug the AN-3 bolt holes to best shop procedures.

(g) Rework the 185920 cowl fasteners on the 185903 assemblies by installing new 105352 bushing, A5-40 Dzus fastener, and GA5-312 Dzus grommet.

(h) Disassemble the S-36-7 cowl fasteners. Strip and cadmium plate all parts except the 107462 barrel in accordance with Federal Specification QQ-P-416. Clean and buff the 107462 barrel. Install new A6-1/2-50 Dzus fastener and GA6-1/2-375 Dzus grommet.

(i) Replace unserviceable springs with new A200 Dzus springs on all assemblies at the S-36-7 fastener locations.

(j) Install new 404-185938 and 404-185939 phenolic strips on the cowl support brackets of all assemblies.

(k) Install new 185987 and 185989 synthetic rubber baffle seals on all assemblies. OS 9810-13 and -15 parts shall be used when 185903-9 and -27 are unserviceable.

(l) Rework the cowl flap hinges by pressing out the 185979-1, 185979-2, and 105212 bushings from the 185980, 185981, 185984, and 304918 castings. Press new 185979-4 bushings into 185980, 185981, and 304918 castings. Press new 185979-6 bushings into 185984 castings.

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED April 20, 1954

3.3.2 Lower Cowl Assemblies 84-185970 and 185903.- (Continued)

(m) Install 185988 phenolic closing strips on the 185971 flap assembly. Do not paint inside areas of 1885972 and 1885973 flap assemblies that overlap the closing strips when the cowl flaps are in the closed position.

(n) Install 1885972-2 leather chafe strips on the 1885972 upper cowl flap assemblies in accordance with drawing information.

(o) Complete the assembly of each lower cowl unit, using new parts as needed to conform to Drawing 185903.

3.3.3 Wrapper Sheet Assemblies 1885850P-16, 1885850P-17, 1885850P-18, and 1885850P-19:

(a) Clean in accordance with OS 7002.

(b) Inspect for nonrepairable conditions.

(c) Remove corrosion in accordance with OS 7010.

(d) Install new 1885850P-2 channels and trim upper edge of skin flush with channels. Install OS 9810-17 reinforcement on outside surface at upper end of wrapper sheets. Pick up first two rows of rivets and add one rivet in the center and at each end of the second row. Use AN456AD4 rivets and maintain 1/4-inch edge distance. Allow OS 9810-17 reinforcement to extend 3/16 inch beyond the 1885850P-2 channel as shown in detail A on Drawing 1885850P. Make cutouts in OS 9810-17 reinforcement to match the wrapper sheet. Make OS 9810-17 reinforcement of 24ST3 AL alclad 1-5/8 by 12-1/4 by .040.

(e) Relocate Dzus fasteners to match inner cowling and install new Dzus fasteners as required. Mislocated or damaged holes for Dzus fasteners may be repaired by patching with OS 9810-19 reinforcement. Attach reinforcement to outer surface of wrapper sheet with 1-7/8 side flush with front edge of wrapper sheet. Rivet with a minimum of four AN426AD3 rivets, one rivet in each corner of the reinforcement with 1/4-inch edge distance. Flush both ends of rivets.

(f) Finish in accordance with FS 302 or FS 370A as applicable.

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED April 20, 1954

3.4 Authorized Repairs:

3.4.1 Upper Engine Cowl Assembly 84-185905 and 185901:

(a) Skins which are worn less than .015 inch will be smoothed down and used. Repair worn spots that do not penetrate alclad by burnishing lightly. Repair worn spots that penetrate through alclad by smoothing with No. 400 wet or dry sandpaper and treating with a five percent solution, by weight, of chromic acid. Follow with a tap water rinse within 10 minutes after application of acid.

(b) Repair skins which are worn on the inside surface more than .015 inch deep but not more than .020 inch deep by adding a chafe patch as shown in Figure 7 of this specification. Make a round patch, as shown, and form to fit the cowl contour. Corrosion proof chafed area in accordance with FS 370A before installing patch.

(c) Repair skins with holes or abrasions on the outside surface deeper than .015 inch by installing a plug and doubler type patch as shown in OS 7007.

(d) Repair skins that are frayed and worn at the mating edges of the cowling by adding an OS 9810-1 strip reinforcement, as shown in Figure 1 of this specification. Remove the outside row of 1/8-inch rivets along the mating edge and the first two 5/32-inch rivets at the leading edge of the cowling. Stop drill all skin cracks that do not end in rivet holes and fall under reinforcement with a No. 50 drill. Disregard cracks running from rivets holes to the edge of the skin and cracks running between rivet holes. Make reinforcement as shown. Pick up existing rivet holes along edge with AN426AD4 rivets. Pick up the two existing 5/32-inch rivets at the leading edge. Add AN470AD4 rivets, as shown, staggered with the existing row. Maintain twice rivet diameter edge distance. Smooth all rough edges before attaching reinforcement.

(e) Skin surrounding the Dzus fastener cutout that is worn more than .015-inch deep, cracked or otherwise damaged, will be repaired by removing the damaged skin and installing an OS 9810-3 flush plug as shown in Figure 2 of this specification.

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED April 20, 1954

3.4.1 Upper Engine Cowl Assembly 84-185905 and 185901: (Continued)

(f) When replacement of skin or skins is authorized, cherry rivets may be used, as needed, at the nose ring location as shown in Figure 3 of this specification.

(g) Nose rings worn more than .020 inch deep will be repaired by adding an OS 9810-5 clip as shown in Figure 3 of this specification. Make clip from another nose ring so that proper contour can be maintained. Length of clip will be sufficient to allow the addition of one rivet on each side of the worn area. Maintain 1/4-inch edge distance on all rivets.

(h) Accessible minor skin dents and scratches will be smoothed out by best shop methods.

(i) Damaged skin adjacent to structural members requiring repair will be patched as shown in Figure 8 of this specification.

(j) When the gap between the trailing edge of the upper cowling and the leading edge of the nacelle skin is less than 1/4 inch, rework the cowling as follows:

NOTE: The gap shall be measured with both the upper and lower cowling installed and all fasteners secured.

(1) Trim the trailing edge of the upper cowl skin until the 1/4-inch minimum gap is established. Trimming into the heads and shanks of the rivets in the aft row will be allowable. However, if it is necessary to trim away more than 1/3 of any rivet shank, knock out the rivet and trim away sufficient additional skin so that all the rivet hole will be trimmed away. Keep the trailing edge of the cowl skin as straight and even as is possible.

(2) When aft row of rivets has been trimmed completely away or lacks sufficient minimum edge distance after trimming, add one extra row of rivets of the same type and size and the same spacing as the existing rivets. Place added rivets alternately spaced between the aft row of rivets, maintaining a minimum edge distance of two shank diameters.

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED April 20, 1954

3.4.1 Upper Engine Cowl Assembly 84-185905 and 185901.- (Continued).

(k) A maximum of two cracks in the 185901-9 angle may be repaired by stop drilling and adding a 1/2 by 1/2 angle doubler at each crack. Install on the forward side of the 185901-2 angle. Make the doubler from 101639-06324 extrusion and form to fit the inner contour of the cowling. The doubler shall pick up a minimum of three rivets through the cowl skin and 185901-9 angle on each side of the crack. Install a minimum of three AN470AD4 rivets through the opposite flange of the reinforcement and 185901-9 angle on each side of the crack, spaced approximately one inch apart. Maintain a minimum of 1/4-inch edge distance from the crack and the edge of the angle.

(l) Nicks not exceeding 1/8 inch in depth in the edges of the 185901-5R and 185901-5L channels shall be smoothed out to best shop practice.

3.4.2 Lower Engine Cowl Assembly 84-185970 and 185903:

(a) Skins which are worn less than .015 inch shall be smoothed down and used. Repair worn spots that do not penetrate alclad by burnishing lightly. Repair worn spots that penetrate alclad by smoothing with No. 400 wet or dry sandpaper and treating with a five percent, by weight, solution of chromic acid. Follow with a tap water rinse within ten minutes after application of the acid.

(b) Repair skins which are worn on the inside surface more than .015 inch deep, but not more than .020 inch deep, by adding a chafe patch as shown in Figure 7 of this specification. Make a round patch as shown and form to fit the cowl contour. Corrosion proof the chafed area in accordance with PS 370A before installing patch.

(c) Repair skins with holes or abrasions deeper than .015 inch on the outside surface with a plug and doubler type patch as shown in OS 7007. Repairs on skin must also conform to the requirements of Figure 6 of this specification.

(d) Skins that are worn and frayed at the mating edges of the lower cowling will be repaired by adding an OS 9810-7 strip reinforcement as shown in Figure 4 of this specification. Trim the edge of the skin flush with the 185903-1 channel. Remove the outside row of 1/8-inch rivets next to the mating edge and the first two 5/32-inch rivets on the leading edge.

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. R. Taylor REVISED July 14, 1954

3.4.2 Lower Engine Cowl Assembly 81-185970 and 185903.- (Continued)

(d) (Continued)

Stop drill skin cracks that do not exi in rivet holes and that fall under reinforcement with a No. 50 drill. Disregard cracks that run from rivet holes to the edge of the skin and cracks that run between rivet holes. Make reinforcement and install as shown in Figure 4. Maintain twice rivet diameter edge distance. Smooth all ragged edges of skin before installing reinforcement.

(e) Skin surrounding the Dzus fastener cutout that is worn more than .015 inch deep, cracked or otherwise damaged, will be required by removing the damaged skin and installing an OS 9810-3 flush plug as shown in Figure 2 of this specification.

(f) When replacement of skin or skins is authorized, cherry rivets may be used, as needed, at the nose ring location as shown in Figure 3 of this specification.

(g) Nose rings worn more than .020 inch deep will be repaired by adding an OS 9810-5 clip as shown in Figure 3 of this specification. Make clip from another nose ring so that the proper contour can be maintained. Length of clip will be sufficient to allow the addition of one rivet on each side of the worn area. Maintain 1/4-inch edge distance on all rivets.

(h) Skins that are worn .015 inch or deeper, or that have cracks not exceeding 7/8-inch in length at the trailing edge just forward of the cowl flaps, will be repaired by installing a patch as shown in Figure 5 of this specification. Cut out the skin as shown flush with the trailing edge of the 185926 stiffener. Install the patch as shown. The trailing edge of the patch shall match original trailing edge of the skin which is removed.

(i) Accessible minor skin dents and scratches will be smoothed out to best shop practices.

TITLE ENGINE COWLING - MODEL C-45G, C-45H, AND SNB-5

ISSUED May 4, 1953

WRITTEN BY H. Fitzpatrick Revision: T. H. Taylor REVISED April 20, 1954

3.4.2 Lower Engine Cowl Assembly 84-185970 and 185903.- (Continued)

(j) Damaged skin adjacent to structural members requiring repairs will be patched as shown in Figure 8 of this specification.

4. INSPECTION

4.1 General.- The parts will be inspected to the general acceptable quality standards of OS 7008 and the specific quality standards listed below.

4.2 Acceptable Standards:

(a) Inaccessible dents in all cowling will be acceptable.

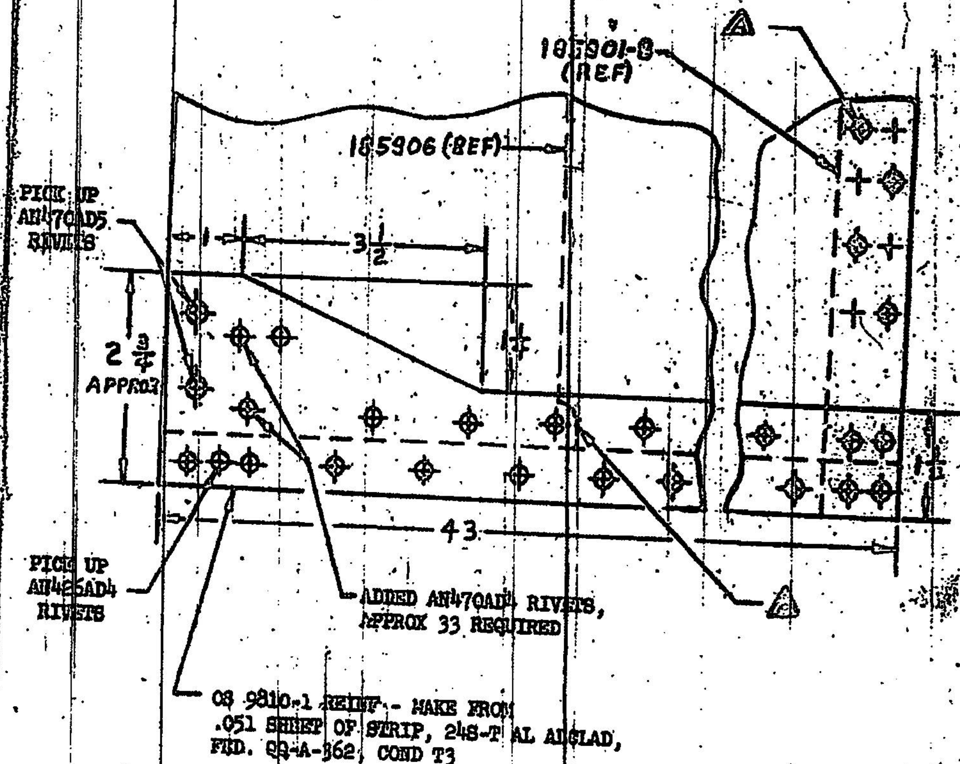
(b) Extra rivet holes in cowl baffle assemblies need not be plugged.

(c) It will be permissible for the trailing edge of the upper cowling to be somewhat higher than the leading edge of the nacelle skin. This must be held to a maximum of 1/4 inch with wrapper fasteners drawn down tight.

(d) Reference Note 3 on Drawing 694-189000 which states "3/8 Gap ±1/8" between trailing edge of cowling and leading edge of nacelle skin may be disregarded; however, the gap must be 1/4-inch minimum and not great enough to expose the rubber firewall seal. The rubber seal must be entirely covered by the cowling.

(e) The minimum acceptable clearance between the foremost parts of the engine cowling and the propeller blades shall be 5/16 inch. Clearance shall be checked with the cowling completely installed and all fasteners secured. The propeller blades must be placed in the position that affords the least amount of clearance between blades and cowling. As the position of the fore and aft brackets on the cowling may vary on each engine lug, the position of the brackets on the lugs shall be disregarded when establishing this clearance.

STRIP REINFORCEMENT



(A) When 185901-8 reinforcement is not flush with skin and gaps are evident, add AN426AD4 rivets, evenly spaced between existing rivets or spotwelds.

(B) Spotface 185906 with 1/2 spotfacer to allow clearance for rivets through reinforcement which have insufficient edge distance in 185906.

FIGURE 1

DRAWN BY R. Fitzpatrick	DATE ISSUED 5-4-53	OVERHAUL SPECIFICATION ENGINE COWLING MODEL C-45G, C-45H, AND SNB-5	
PROJECT ENGINEER			
APPROVAL	DATE REVISED	Beech Aircraft Corporation Wichita, Kansas	OVERHAUL SPECIFICATION NO. 9810 / PAGE 13
APPROVAL			

FLUSH PLUG REPAIR

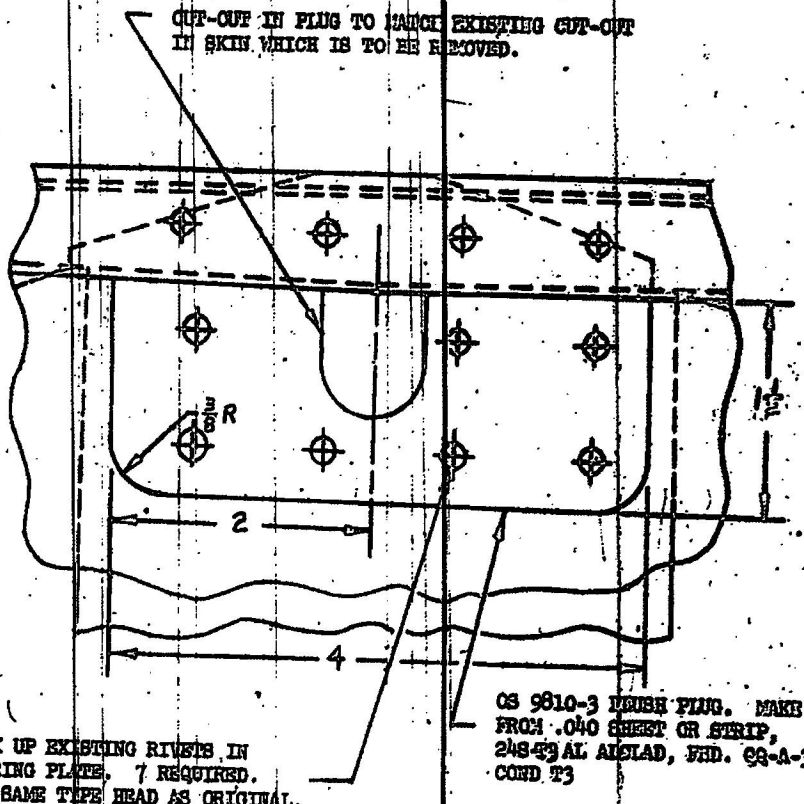


FIGURE 2

WRITTEN BY J. Fitzpatrick	DATE ISSUED 5-4-53	OVERHAUL SPECIFICATION ENGINE CONTINO MODEL C-450, C-451, AND SNB-5			
PROJECT ENGINEER					
APPROVAL	DATE REVISED	Jacob Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 9810	PAGE 14	
APPROVAL					

NOSE RING REPAIR

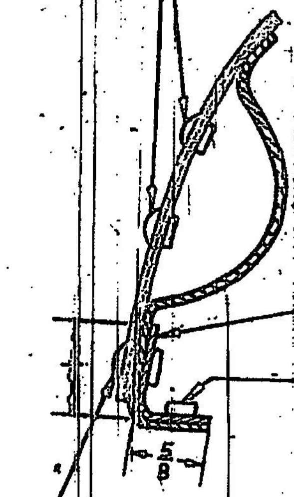


FIGURE 3

STRIP REINFORCEMENT

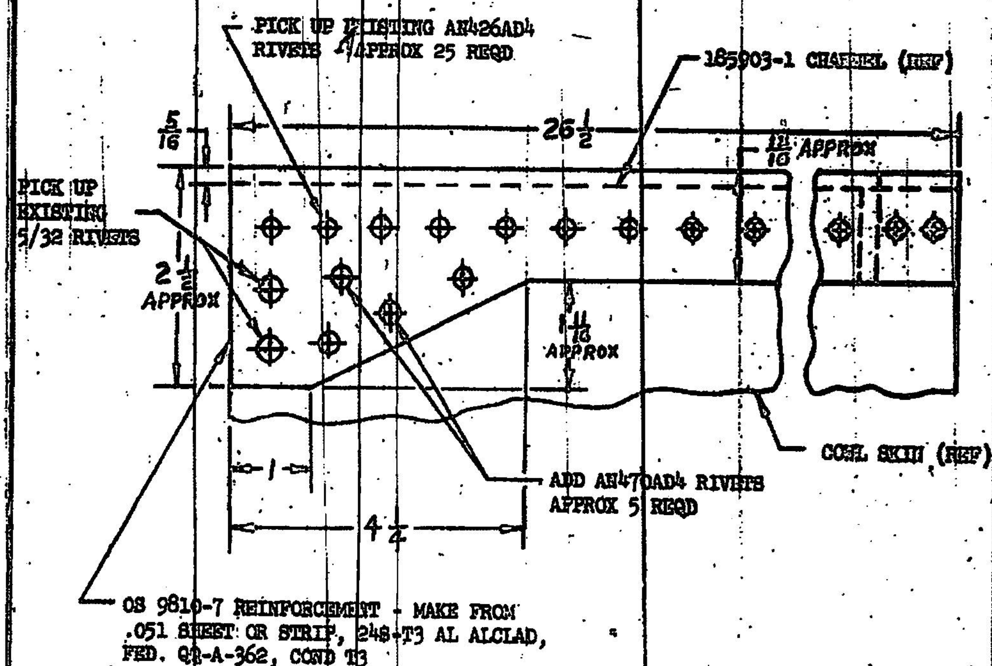


FIGURE 4

DRAWN BY K. Fitzpatrick	DATE ISSUED 5-4-53	OVERHAUL SPECIFICATION ENGINE COWLING MODEL C-45G, C-45H, AND SNB-5		
CHECKED				
APPROVAL	DATE CHANGED	Beech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 9810	PAGE 16
APPROVAL				

TRAILING EDGE FLUSH PATCH

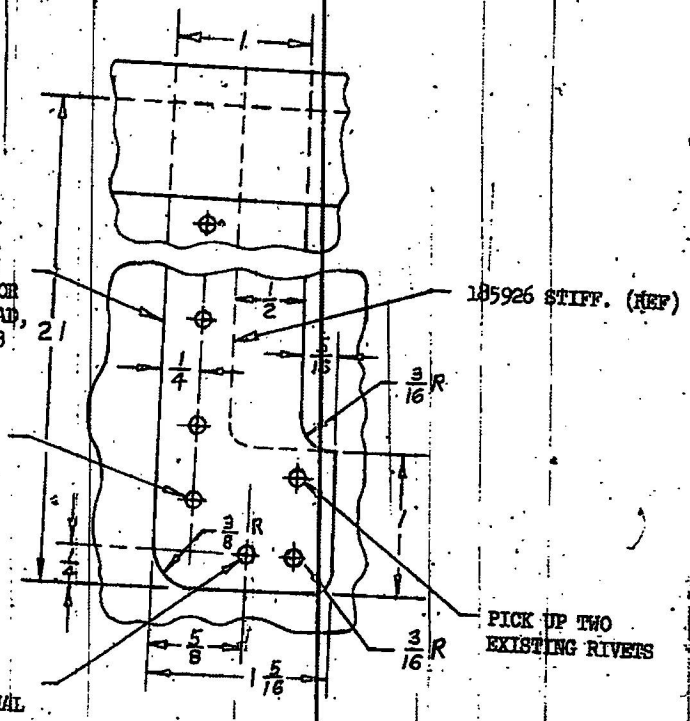
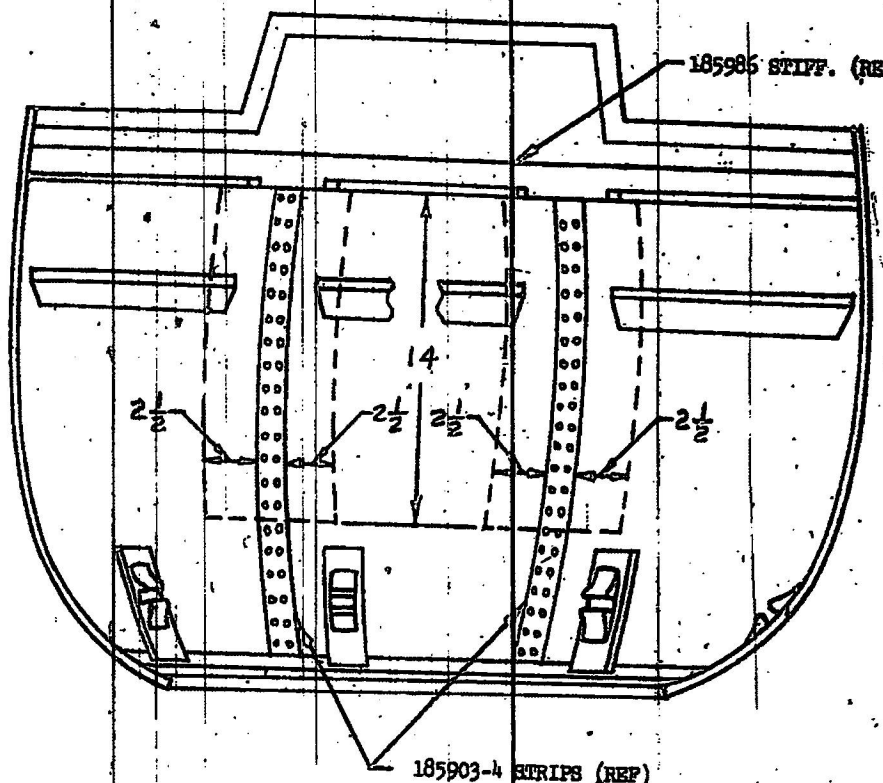


FIGURE 5

WRITTEN BY: W. Fitzpatrick	DATE REVISED: 5-1-53	OVERHAUL SPECIFICATION ENGINE COWLING MODEL C-45G, C-45H, AND SNB-5		
PROJECT ENGR:				
APPROVAL:	DATE REVISED: 7-1-54A	Beech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 9810	PAGE 19
APPROVAL:				
CHIEF ENGR:				



ALL RIVETS THAT FALL IN THE AREA DIMENSIONED ABOVE, WHEN MAKING LOWER COWLING SKIN PATCHES, WILL BE FLUSH DRIVEN ON THE INSIDE SURFACE. USE AN470 RIVETS AND MAKE PATCHES IN ACCORDANCE WITH OS 7007 AND/OR FIGURES 7 AND 8 OF THIS SPECIFICATION.

FIGURE 6

DRAWN BY B. Fitzpatrick	DATE ISSUED 5-4-53	OVERHAUL SPECIFICATION ENGINE COWLING MODEL C-450, C-5R, AND SWB-5		
CHECKED				
APPROVED	DATE REVISED	Pratt & Whitney Aircraft CORPORATION Middletown, Connecticut	OVERHAUL SPECIFICATION NO. 9810	PAGE 18
APPROVED				

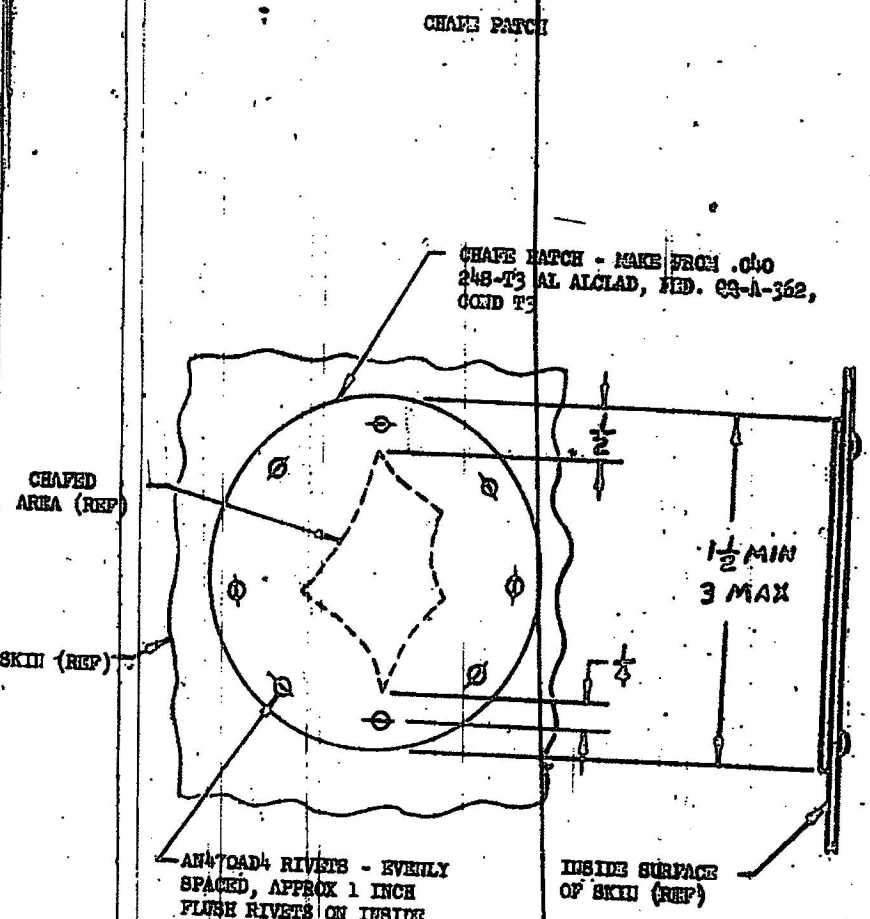


FIGURE 7

DRAWN W. Fitzpatrick	DATE ISSUED 5-4-53	OVERHAUL INSTRUCTIONS ENGINE COOLING MODEL C-450, C-455, AND SUB-5		
CHECKED				
APPROVED	DATE REVISED	Lodeb Division CONTINENTAL AVIATION & ENGINEERING CORPORATION Detroit 1, Michigan	CONTRACT DESIGNATION CO 9810	PAGE 19
APPROVED				

PATCH ADJACENT TO STRUCTURAL MEMBER

PATCHES ADJACENT TO STRUCTURAL MEMBERS WILL BE THE SAME AS THE PLUG AND DOUBLER TYPE REPAIRS SHOWN IN CS 7007 EXCEPT THE DOUBLER WILL BE CUT AS SHOWN TO PROVIDE CLEARANCE FOR REINFORCING MEMBER. THE PLUG MUST PICK UP A MINIMUM OF TWO RIVETS IN THE REINFORCING MEMBER.

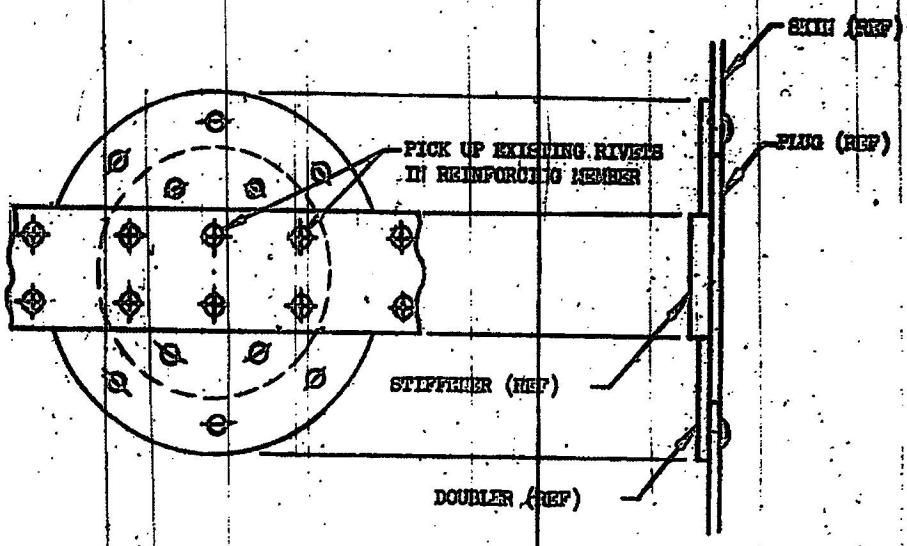


FIGURE 8

ENGINEER BY D. Fitzpatrick	DATE ISSUED 5-4-53	OVERHAUL SPECIFICATION ENGINE COWLING MODEL C-450, C-45H, AND SHB-5		
PROJECT ENGINEER				
APPROVED	DATE CANCELED	Curtiss-Wright Corporation Woodridge, New Jersey	CONTRACT CLASSIFICATION CS 9810	SHEET 20
APPROVAL				
APPROVAL				