

CRACK INSPECTION - WING ATTACH FITTINGS AND OUTBOARD WING SPAR CAPS

(BB-2 THRU BB-1157, BB-1159 THRU BB-1166, BB-1168 THRU BB-1192; BT-1 THRU BT-30; BL-1 THRU BL-72; BN-1 THRU BN-4)

Warning: Prior to reaching 10,000 hours in service, the LH outboard wing spar must be replaced on airplane serials BB-2 thru BB-161 and the RH outboard wing spar must be replaced on serials BB-2 thru BB-149.

Note: [Chart 201](#) is applicable to airplane serials BB-2 thru BB-1157, BB-1159 thru BB-1166, BB-1168 thru BB-1192; BT-1 thru BT-30; BL-1 thru BL-72; BN-1 thru BN-4 operated in the category of service for which they were originally designed.

Airplanes which are operating in a category of service other than originally designed, and have Beechcraft Corporation engineering-approved mission profiles, are listed under SPECIAL PURPOSE AIRPLANES in [Chapter 4 of the 200 Series Airworthiness Limitations Manual \(101-590010-453\)](#) or in the applicable Pilot's Manual Supplement.

If the airplane has been equipped with a spar bridge or any other type of device that will hinder the execution of the inspections in this chapter, this device must be removed. Refer to [King Air 200 Series Maintenance Manual](#) for the spar bridge removal and installation procedures.

Chart 201 Standard Flight Profile - Inspection Schedule Applicable Only To Super King Air 200 Series Airplanes (BB-2 Thru BB- 1157, BB- 1159 Thru BB-1166, BB-1168 Thru BB- 1192; BT-1 Thru BT- 30; BL-1 Thru BL- 72; BN-1 Thru BN- 4) Index No.	Figure No.	Inspection Area	Inspection Method	Possible Findings	Initial Inspection	Recurring Inspection Interval	Component Replacement Schedule
1.	201	Outboard wing panel upper and lower spar caps.	Visual	Cracks and corrosion	5 Yrs	Annually	Refer to the Limitations Section of the

Chart 201 Standard Flight Profile - Inspection Schedule Applicable Only To Super King Air 200 Series Airplanes (BB-2 Thru BB- 1157, BB- 1159 Thru BB-1166, BB-1168 Thru BB- 1192; BT-1 Thru BT- 30; BL-1 Thru BL- 72; BN-1 Thru BN- 4) Index No.	Figure No.	Inspection Area	Inspection Method	Possible Findings	Initial Inspection	Recurring Inspection Interval	Component Replacement Schedule	
							appropriate 200/B200 Series Pilot's Operating Handbook	
	2.	202	All wing-attach fitting flat surfaces, depressions, counterbores, bolt bores and barrel nut recesses.	Magnified visual and Eddy current as specified	Cracks, corrosion and mechanical damage	5 Yrs	5 Yrs	None
	3.	204	Lower forward fitting counterbores and barrel nut holes.	Eddy current	Cracks	20,000 hrs	1,200 hrs	None
	4.	205 , 206 , 207 , 208	Inconel wing bolts and nuts.	Magnified visual and fluorescent liquid penetrant as specified	Cracks, and mechanical damage	5 Yrs	5 Yrs	(Ref. NOTE) Refer to the Limitations Section of the appropriate 200/B200 Series Pilot's Operating Handbook

Chart 201 Standard Flight Profile - Inspection Schedule Applicable Only To Super King Air 200 Series Airplanes (BB-2 Thru BB- 1157, BB- 1159 Thru BB-1166, BB-1168 Thru BB- 1192; BT-1 Thru BT- 30; BL-1 Thru BL- 72; BN-1 Thru BN- 4) Index No.	Figure No.	Inspection Area	Inspection Method	Possible Findings	Initial Inspection	Recurring Inspection Interval	Component Replacement Schedule
<p style="text-align: center;">NOTE</p> <p>The wing bolts and nuts may be replaced using the kits noted in Chapter 4 of the Super King Air 200 Series Airworthiness Limitations Manual (101-590010-453).</p>							

OUTBOARD WING - MAIN SPAR CRACK AND CORROSION INSPECTION

Warning: The entire upper and lower spar cap from the wing-attach fitting to the wing tip must be inspected.

Note: Special emphasis should be placed on airplanes that have been operated and/or stored for extended periods in areas where geographical location and atmospheric conditions are conducive to corrosion.

- Visually inspect the exterior surfaces of the upper and lower spar caps for any buildup of a whitish, salt-like nonmetallic substance indicative of corrosion. If any buildup of this substance is detected, the area should receive extra attention. Wax or paint that may be trapped between the edge of the skin and the exposed portion of the spar cap should not be interpreted as corrosion (Ref. Figure 201).
- Utilizing normal cleaning procedures, wash all exposed surfaces of the upper and lower spar caps.
- Visually inspect all exposed surfaces of the spar caps for paint blisters, raised areas and/or surface distortions and cracks in metal. The exposed surface of the spar cap is extruded flat. Any of the previously noted irregularities could indicate corrosion and must be considered suspect.

Note: Spar cap surface irregularities may be detected by sliding the fingers over the surface, by moving a straightedge over the surface or by sighting down the length of the spar cap. If unusual conditions are noted which cannot be resolved locally, contact Beechcraft Technical Support.

WING BOLT, NUT AND SPAR FITTING INSPECTION

Warning: All eight wing bolts must be removed and each of the wing-attach fittings inspected. The wing bolts and nuts must be inspected or replaced as directed in [Chart 201](#).

Render unserviceable all components removed in compliance with the time limitations shown in [Chart 201](#).

New wing-attach components must be obtained only from a Beechcraft Corporation approved source.

Before removing any of the wing-attach bolts, ensure that the wing is properly supported to prevent shifting. Draw a line across each pair of fittings with a grease pencil to aide alignment of the wing, if required.

Caution: Do not scratch or scribe the fittings.

If (while using hand pressure only) wing attach bolt binding occurs, upon disengagement or installation, loosen the remaining three wing attach bolts and position the wing in a manner that releases binding of the bolt. If the wing attach fittings are separated or repositioned, the aluminum washers between the upper wing attach fittings must be replaced with new washers.

Replacement of these washers will not be required if the wing attach bolts can be removed one at a time. The preload indicating washer assembly at the lower forward attach point must be replaced with a new assembly each time the wing bolt at this point is loosened or removed.

Note: Ensure that the radiused washers used at the wing-attach points have a full radius with no sharp edges that could mark the attach fittings. Replace any washers which exhibit an incomplete radius or sharp edges.

LOWER FORWARD WING BOLT, NUT AND FITTING INSPECTION

- a. Remove the wing bolt cover, lower forward-wing-attach bolt, preload indicating washer assembly and barrel nut assembly. Using a nonmetallic brush, thoroughly clean the bolt, nut and washers with solvent ([2 or 3, Chart 208, 91-00-00](#)).

Note: The preload indicating washer cannot be reused and must be discarded at this time (Ref. [Figure 205](#)). The barrel nut assembly must be disassembled before the inspection can be performed (Ref. [Figure 203](#)).

- b. Disassemble the barrel nut assembly by moving one of the roll pins flush with the inside of the cradle and removing the nut (Ref. [Figure 203](#)).
- c. If the wing attach bolts and nuts do not exceed their specified life limit as designated in [Chart 201](#), visually inspect the wing-attach bolts and nuts with a 10X or stronger magnifying glass for cracks or mechanical damage. Scratches and markings in the cadmium plating, and or localized deterioration of the cadmium plating is not sufficient reason to reject a bolt. The cadmium plating may be discolored and may have areas exhibiting a rubbed or polished appearance, usually resulting from the installation procedures. If cracks or mechanical damage is detected, replace the component (Ref. [Figure 202](#)).
- d. Fluorescent liquid penetrant inspect (as outlined in [Chapter 20-00-00](#)) each Inconel wing bolt, nut and cradle. If the bolts, nuts and cradles prove to be free of cracks and mechanical damage, they may be reused after cleaning. Reassemble the nuts into the cradles as shown in [Figure 203](#).
- e. Clean the spar fittings and bolt bores with solvent ([2 or 3, Chart 208, 91-00-00](#)).
- f. Eddy current inspect the exposed spar fittings, focusing extra attention at the washer-seat and bolt-bore area. If scoring, corrosion pitting, crack indications, or washer impressions are found in these areas, contact Beechcraft Technical Support for consultation.
1. Perform CALIBRATION (STANDARDIZATION) procedure (Ref. [Chapter 20-00-00](#)).
2. Perform SURFACE INSPECTION WING SPAR FITTINGS procedure (Ref. [Chapter 20-00-00](#)).
3. Perform INDICATION EVALUATION FOR SURFACE INSPECTION procedure (Ref. [Chapter 20-00-00](#)).

Note: The chemical conversion coating in Step f. is not applicable to any airplane which has had the 101-110084 spar installed.

If the Eddy Current Inspections are due at this time, skip the remaining Steps in this inspection. If not, proceed with the remaining Steps.

- g. Coat the spar-fitting bolt bores and washer/nut bearing faces, the complete bolt, nut, and new preload-indicating washer assembly with corrosion preventive compound ([12, Chart 203, 91-00-00](#)).

Warning: Pay particular attention to the preload indicating washer assembly. It is a matched set and its components must not be interchanged with other preload indicating washer assemblies. It is essential that the radiused outside diameter of the flat washer portion of

the preload-indicating washer assembly be placed with the radius toward the fitting washer-seat. Refer to [Figure 205](#) for proper washer orientation.

Note: When installing a barrel nut assembly, ensure that the lubrication fitting is accessible.

- h. Install a wing-attach bolt, new preload-indicating washer assembly, and barrel nut assembly into the wing fitting.
- i. Do not tighten the lower forward wing-attach bolt at this time. Temporarily snug it down to approximately 1,200 inch-pounds.

LOWER FORWARD WING FITTING EDDY CURRENT INSPECTION

Clean the inboard and outboard wing fittings to include the counterbore area of the wing fittings with solvent ([2 or 3, Chart 208, 91-00-00](#)). Perform the Lower Forward Fittings (Center Section) Inspection and Lower Forward Fitting (Outboard Wing) Inspection with equipment setup as instructed in [Chapter 20-00-00](#).

Note: If any crack indications are noted during the eddy current inspections, contact Beechcraft Corporation Technical Support.

LOWER FORWARD FITTINGS (CENTER SECTION) INSPECTION

Note: On the lower side of the counterbore, the counterbore wall is interrupted by the cutout for the bathtub section of the wing fitting. A vertical movement of the flying dot will occur as the probe coil passes across the interrupted area (Ref. [Figure 204](#)).

- a. Eddy current inspect the exposed flat surfaces of all both the wing fittings. Also inspect the bathtub area of the fittings, to include the counterbore face (washer face areas) and the counterbore radius of all both forward lower wing attach fittings. Focus extra attention on the counterbore radius and feathered edges (Ref. [Chapter 20-00-00](#), [Figures 210, 211 and 212](#)).
 1. Perform CALIBRATION (STANDARDIZATION) procedure (Ref. [Chapter 20-00-00](#)).
 2. Perform SURFACE INSPECTION WING SPAR FITTINGS procedure (Ref. [Chapter 20-00-00](#)).
 3. Perform INDICATION EVALUATION FOR SURFACE INSPECTION procedure (Ref. [Chapter 20-00-00](#)).
- b. Utilizing probe ([4, Chart 203, 20-00-00](#)) with the probe coil in contact with the radius slowly rotate the probe through multiple 360° revolutions, a minimum of three times for each hole. Monitor the flying dots position for sharp vertical deflections.
- c. Utilizing probe ([5, Chart 203, 20-00-00](#)) scan the counterbore wall in the inboard wing fitting from the tangent of the counterbore radius to a point 1/4 inch back from the tangent of the counterbore radius. Fabricate four 1/16 inch thick washer-type spacers of phenolic, cardboard or some other nonmetallic substance, shaped to fit over the end of the probe ([5, Chart 203, 20-00-00](#)) and rest against surface that contacts the counterbore face. Insert the probe into the counterbore hole and slowly rotate the probe through multiple 360° revolutions, a minimum of three times for each hole. Monitor the flying dots position for sharp vertical deflections. Remove the probe from the hole and add one 1/16 spacer to the probe. Repeat the inspection, successively adding one spacer at a time until all the inspection are complete and all four washer have been added.
 1. Perform CALIBRATION (STANDARDIZATION) procedure (Ref. [Chapter 20-00-00](#)).
 2. Perform SURFACE INSPECTION OF WING SPAR FITTINGS USING IDEAL SPECIALTY PROBES procedure (Ref. [Chapter 20-00-00](#)).
 3. Perform INDICATION EVALUATION FOR SURFACE INSPECTION procedure (Ref. [Chapter 20-00-00](#)).
- d. Utilizing the Eddy Current Inspection method outlined in [Chapter 20-00-00](#), scan the counterbore wall in the inboard wing fitting from the tangent of the counterbore radius to a point 1/4-inch back from the tangent of the counterbore radius. Fabricate four 1/16-inch-thick washer-type spacers of phenolic, cardboard or some other nonmetallic substance, shaped to fit over the end of the probe ([5, Chart 203, 20-00-00](#)) and rest against the surface that contacts the counterbore face. With the eddy current instrument and flex shaft probe ([5, Chart 203, 20-00-00](#)) setup as described in [Chapter 20-00-00](#), place one of the washers on the end of the probe and insert the probe into the counterbore. With the probe coil in contact with the counterbore wall, slowly rotate the probe through multiple 360° revolutions while observing the meter's indicator. Repeat this Step, successively adding one spacer to the end of the probe, until the inspection is complete with a total of four spacers. Downscale movement of the indicator may be indicative of cracking. A true crack will produce a sudden signal shift, but most importantly, the signal shift will be repeatable.

LOWER FORWARD FITTING (OUTBOARD WING) INSPECTION

Note: On the lower side of the counterbore, the counterbore wall is interrupted by the cutout for the bathtub section of the wing fitting. A vertical movement of the flying dot will occur as the probe coil passes across the interrupted area (Ref. Figure 204).

- a. Eddy current inspect the exposed flat surfaces of all the wing fittings. Also inspect the bathtub area of the fittings, to include the counterbore face (washer face areas) and the counterbore radius of both forward lower wing attach fittings. Focus extra attention on the counterbore radius and the feathered edges (Ref. Chapter 20-00-00, Figures 210, 211 and 212).
1. Perform CALIBRATION (STANDARDIZATION) procedure (Ref. Chapter 20-00-00).
2. Perform SURFACE INSPECTION WING SPAR FITTINGS procedure (Ref. Chapter 20-00-00).
3. Perform INDICATION EVALUATION FOR SURFACE INSPECTION procedure (Ref. Chapter 20-00-00).
- b. Utilizing probe (2, Chart 203, 20-00-00) with the probes coil in contact with the radius slowly rotate the probe through the multiple 360° revolutions, a minimum of three times for each hole. Monitor the flying dots position for sharp vertical deflections.
- c. Utilizing probe (3, Chart 203, 20-00-00) scan the barrel nut. Insert the probe into the hole and slowly rotate the probe through 360° revolutions, a minimum of three times for each hole. Monitor the flying dots position for sharp vertical deflections. Evaluate any indications with a regular Eddy current probe.
1. Perform CALIBRATION (STANDARDIZATION) procedure (Ref. Chapter 20-00-00).
2. Perform SURFACE INSPECTION OF WING SPAR FITTINGS USING IDEAL SPECIALTY PROBES procedure (Ref. Chapter 20-00-00).
3. Perform INDICATION EVALUATION FOR SURFACE INSPECTION procedure (Ref. Chapter 20-00-00).

Note: If any crack indications are noted during the eddy current inspections, contact Beechcraft Corporation Technical Support.

- d. If the eddy current inspection results are acceptable, coat the spar fitting bolt bores and washer/nut bearing faces, THE COMPLETE BOLT, NUT AND NEW PRELOAD INDICATING WASHER ASSEMBLY with corrosion preventive compound (12, Chart 203, 91-00-00).

Warning: Pay particular attention to the preload-indicating washer assembly. It is a matched set and its components must not be interchanged with other preload-indicating washer assemblies. It is essential that the radiused outside diameter of the flat washer portion of the preload indicating washer assembly be placed with the radius toward the fitting washer seat. Refer to Figure 205 for proper orientation.

- e. Install a wing-attach bolt, new preload-indicating washer assembly and barrel nut assembly into the wing fitting.

Note: When installing barrel nut assemblies, ensure that the lubrication fittings are accessible.

- f. Do not tighten the lower forward bolt at this time. Temporarily snug it down to approximately 1200 inch-pounds. Perform the required inspections on the remaining fittings and attaching hardware. When these inspections are complete and the bolts properly torqued, tighten the lower forward bolt as instructed under LOWER FORWARD WING BOLT TIGHTENING PROCEDURE.
UPPER FORWARD, UPPER AND LOWER AFT WING BOLT, NUT AND FITTING INSPECTION

Note: These inspections should be performed one attach-point at a time with the bolt installed and properly torqued prior to moving to the next location. When removing an upper forward or upper aft wing bolt, ensure that the wing is supported in a manner which will preclude the possibility of any movement of the upper wing-attach fittings.

- a. Remove the wing bolt covers and any decals which may be attached to the fittings. Clean the accessible flat areas of the fitting with solvent (2 or 3, Chart 208, 91-00-00). Eddy current all exposed areas of the fittings.
1. Perform CALIBRATION (STANDARDIZATION) procedure (Ref. Chapter 20-00-00).
2. Perform SURFACE INSPECTION WING SPAR FITTINGS procedure (Ref. Chapter 20-00-00).
3. Perform INDICATION EVALUATION FOR SURFACE INSPECTION procedure (Ref. Chapter 20-00-00).
- b. Remove the wing bolt washers and nut and clean bolt bores and fitting recesses. Ensure that the radius on the outer circumference of the washer under the nut is adjacent to the fitting face and that the countersink in the washer under the bolt head is facing the bolt head. If a radius or

countersink is not oriented as shown in the applicable illustration, contact Beechcraft Corporation Technical Support. Refer to Figures 205, 206, 207, and 208 for proper washer orientation. If the washers are properly oriented, proceed with the inspection.

Note: The barrel nut must be disassembled before the inspection can be performed. This may be accomplished by moving one of the roll pins flush with the inside of the cradle and removing the nut.

- c. Eddy current inspect the exposed spar fittings, focusing extra attention at the washer-seat and bolt-bore area. If scoring, corrosion pitting, crack indications, or washer impressions are found in these areas, contact Beechcraft Technical Support for consultation.
1. Perform CALIBRATION (STANDARDIZATION) procedure (Ref. Chapter 20-00-00).
2. Perform SURFACE INSPECTION WING SPAR FITTINGS procedure (Ref. Chapter 20-00-00).
3. Perform INDICATION EVALUATION FOR SURFACE INSPECTION procedure (Ref. Chapter 20-00-00).

Note: It is possible that certain small cracks may be removed from the feathered edge of the counterbore and from the back side of the depression (bathtub) area. However, Beechcraft Corporation Technical Support should be consulted prior to initiation of any crack removal procedure.

- d. If the bolts and nuts do not exceed their specified life limit as designated in Chart 201, thoroughly clean the bolt, nut and washers with solvent (2 or 3, Chart 208, 91-00-00) and inspect for cracks and mechanical damage with a 10X or stronger magnifying glass. Scratches and markings in the cadmium plating, and/or localized deterioration of the cadmium plating is not sufficient reason to reject a bolt. The cadmium plating may be discolored and may have areas exhibiting a rubbed or polished appearance, usually resulting from the installation procedures. If mechanical damage or cracks are found, replace the affected component.
- e. Fluorescent liquid penetrant inspect each wing bolt and nut (as outlined in Chapter 20-00-00). If the bolts and nuts prove to be free of cracks and mechanical damage, they may be reused after cleaning.
- f. Coat the spar fittings, bolt bores and washer/nut bearing faces and THE COMPLETE BOLT, WASHER AND NUT with corrosion preventive compound (12, Chart 203, 91-00-00).

Caution: Ensure that the wing bolt wrench does not bottom out against the wing fitting. Wrench contact with the fitting could result in erroneous torque readings and fitting damage.

- g. Install the wing bolt, washer and nut. Torque the nuts (bolt at the upper forward attach point) to the proper torque as specified in Table 201. After torquing the upper forward bolt, apply corrosion preventive compound (12, Chart 203, 91-00-00) to the lubrication fitting on the upper forward barrel nut assembly. Use a good quality grease gun and an Alemite grease nozzle (P/N 314150). Apply the corrosion preventive compound until one of the following conditions is met:
 - Corrosion preventive compound emerges from between the two portions of the barrel nut assembly.
 - Corrosion preventive compound emerges from the locking portion of the barrel nut assembly.
 - The fitting will not accept corrosion preventive compound after several actuations of the grease gun.

Note: Coat the exposed threads which protrude through the nuts with corrosion preventive compound (12, Chart 203, 91-00-00).

- h. Prior to installation of the wing bolt covers, ensure that the drain holes in the upper forward and aft fittings are unobstructed and can drain freely.

Table 201 Wing Bolt Torque Values Wing Bolt Position	Torque Value
Upper Forward	2380 to 2500 inch-pounds
Upper Aft	1180 to 1300 inch-pounds
Lower Aft	1180 to 1300 inch-pounds

LOWER FORWARD WING BOLT TIGHTENING PROCEDURE

Warning: The lower forward wing-attach bolts which were not tightened after the lower forward bolt, nut and fitting inspection, should be tightened at this time. Remove any wing support before tightening the lower forward wing-attach bolt.

Caution: To prevent fitting damage, ensure that the wing bolt wrench does not bottom out against the wing fitting.

Note: For WING BOLT TOOLS identification (Ref. [Chart 202](#)).

- To tighten the lower forward wing-attach bolts, insert the pin of the tool shown in [Figure 205](#) into one of the holes in the outer ring of the preload indicating washer assembly and rotate the ring back and forth while tightening the bolt. The bolt is tight when the outer ring of the preload indicating washer assembly can no longer be turned using 30 ± 5 pounds tangential force applied to the ring as shown in [Figure 205](#). DO NOT TIGHTEN THE BOLT BEYOND THIS POINT.
- Install any wing fitting decals which were removed to facilitate the fitting inspections.
- After tightening the lower forward wing-attach bolt, apply corrosion preventive compound ([12, Chart 203, 91-00-00](#)) to the barrel nut lubrication fitting. Use a good quality grease gun and an Alemite grease nozzle (P/N 314150). Apply the corrosion preventive compound until one of the following conditions is met:
 - Corrosion preventive compound emerges from between the two portions of the barrel nut assembly.
 - Corrosion preventive compound emerges from the locking portion of the wing-attach bolt.
 - The fitting will not accept corrosion preventive compound after several actuations of the grease gun.
- Coat the exposed threads which protrude through the nuts with corrosion preventive compound.

WING BOLT MAINTENANCE

- At the first scheduled normal airplane inspection (as designated by the [Super King Air 200 Series Maintenance Manual](#)) after the bolts have been loosened and retorqued or after initial installation, check the bolts for proper torque (Ref. [Table 201](#)). Check the preload indicating washer at the lower forward attach point (Ref. [LOWER FORWARD WING BOLT TIGHTENING PROCEDURE](#)).
- Concurrent with the bolt torque check and annually thereafter, inject corrosion preventive compound ([12, Chart 203, 91-00-00](#)) into the barrel nut lubrication fittings with a Alemite grease nozzle (P/N 314150) and grease gun. Inject the compound until one of the following conditions are met:
 - Corrosion preventive compound emerges from between the two portions of the barrel nut assembly.
 - Corrosion preventive compound emerges from the locking portion of the barrel nut.
 - The fitting will not accept corrosion preventive compound after several actions of the grease gun.
- Coat the exposed threads which protrude through the nuts with corrosion preventive compound.
- Prior to installing the wing bolt covers, ensure that the drain holes in the upper fittings are unobstructed and can drain freely.

Chart 202 Wing Bolt Tools BB-2 Thru BB-1157, BB-1159 Thru BB-1166, BB-1168 Thru BB-1192; BT-1 Thru BT-30; BL-1 Thru BL-72; BN-1 Thru BN-4 Position	Bolt Part Number	Wrench Part Number	Nut Part Number	Nut Torque Adapter
Upper Forward	81784-12-32 or VCC0025	TS1176-6	80691CF-1216 (barrel nut)	None
Lower Forward	81784-16-44 or VCC0028	50-590014 or a 1 1/16-inch box-end	80691-1612 (barrel nut)	None

Chart 202 Wing Bolt Tools BB-2 Thru BB- 1157, BB-1159 Thru BB-1166, BB-1168 Thru BB-1192; BT-1 Thru BT- 30; BL-1 Thru BL-72; BN-1 Thru BN-4 Position	Bolt Part Number	Wrench Part Number	Nut Part Number	Nut Torque Adapter
		wrench with a 40- inch extension		
Upper and Lower Rear	81786-10-20 or VCN0018	TS1222-5 or 50- 590012	81783-1018	TS1176-11