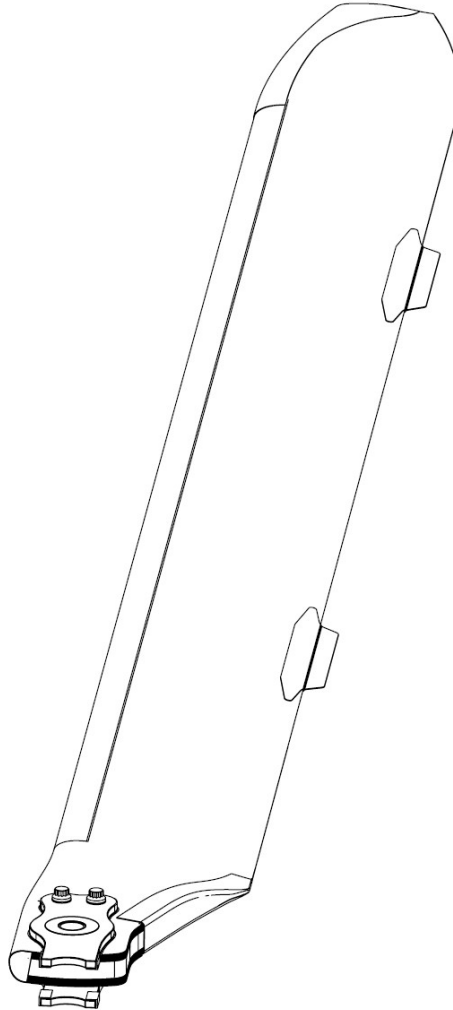




Van Horn Aviation, L.L.C.
*1510 W. Drake Drive
Tempe, Arizona 85283*

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS



ICA MANUAL No. VMM-MR-206B-503

**Main Rotor Blade Assembly 20635000-501
Eligible for Installation on Model 206B**

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REVISIONS

REV	DATE	DESCRIPTION	APPROVED
N/C	04/10/2020	Initial Release	DR
A	05/13/2020	Removed hourly tolerance from Section 5.2 & 5.3.	DR
B	05/09/2023	-Added abrasion strip crack criteria in 5.11.2.e. Instructions for sealing non-voided cracks ref TB 20630000-1. -Protective coverings at abrasion strip joints now optional -Trim tabs now optional. Introduced tracking wedges as alternative -Referenced SB-33000-3 for tab removal instructions -Modified balance guidance to refer to TB 20630000-2 -Added 5.11.2.d and 5.11.2.i -Added VHA tap hammer option to * Note of Section 5 -Added ** Note to Section 5. -Added additional blade strike instructions. -Added allowance for clamp pressure on grip plates during installation to 62.2 -Added grip plate removal instructions to 62.8	DB

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CHAPTER 0 - INTRODUCTION

0.1 SCOPE

This manual contains information, descriptions, and instructions essential for the continued airworthiness of the Van Horn Aviation L.L.C. 20635000-501 Blade Assembly.

0.2 ARRANGEMENT

This manual follows the Airline Transport Association (ATA) specification 100 numbering system where practical.

0.3 UNITS OF MEASUREMENT

All measurements, tolerances, and other numbers referenced in this manual will be in English units.

0.4 CHANGES TO THE ICA

0.4.1 Changes to text and tables, including new material on added pages shall be indicated by a vertical bar in the outer margin extending close to the entire area of the material affected.

0.4.2 Please send any comments or corrections to Van Horn Aviation L.L.C., 1510 West Drake Drive, Tempe, AZ 85283 USA, via email to info@vanhornaviation.com, or call 01.480.483.4202.

0.5 DISTRIBUTION

0.5.1 The ICA will be shipped with the original purchase of a 20635000-501 Blade Assembly.

0.5.2 The ICA can be found on Van Horn Aviation's website at www.vanhornaviation.com under the Documents tab.

CHAPTER 4 – AIRWORTHINESS LIMITATIONS

4.1. AIRWORTHINESS LIMITATIONS SCHEDULE

The Airworthiness Limitations section is FAA approved and specifies inspections and other maintenance required under §§43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

Part Number	Part Name	Life Limit
20635000-501	Blade Assembly	10,000 Hours

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MORELAND** Digitally signed by
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FAA Approved: _____

Date: August 11, 2020

CHAPTER 5 – INSPECTION/CHECK REQUIREMENTS

5.1. PRE-FLIGHT CHECK

No.	Requirements	Airworthiness Criteria
1.	Visually check the main rotor blades for any visible damage such as cracks, blisters, delaminations, abrasion strip dents or local contour deformation.	See 5.12 DAMAGE LIMITS

5.2. 300 HOUR INSPECTION AND ANNUALLY

No.	Inspection Requirements	Airworthiness Criteria
1.	Check the general condition of the rotor blade. Check for skin dents, scratches, cracks or blisters. Check the trailing edge for nicks or delaminations. Look for paint cracks around the trim tabs (if equipped); if paint cracks are found, perform tap test inspection.*	See 5.12 DAMAGE LIMITS
2.	Inspect the abrasion strips for wear, cracks, dents and edge voids. If installed, inspect any polyurethane or elastomeric protective coatings for wear or damage.	See 5.12 DAMAGE LIMITS

5.3. 2,400 HOUR INSPECTION

No.	Inspection Requirements	Airworthiness Criteria
1.	Remove the 20631020-301/-303 grip plate assemblies. Visually inspect grip plate assemblies, and bushings for cracks.** Inspect entire main rotor blade assembly for cracks, voids, blisters, or other damage. Inspect bushing holes thru blade. Inspect root plates for cracks. Conduct a tap test of the blade upper and lower surface*. (continued next page)	Contact Van Horn Aviation if any discrepancies found exceeding damage limits in 5.12.

	Reinstall the previously removed grip plate assemblies using the existing hardware, except use (2x) new NAS1804-12 nuts. Reference 62.9 GRIP PLATE ASSEMBLY REPLACEMENT for installation instructions.	
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5.4. SUDDEN STOPPAGE OR ACCELERATION

No.	Inspection Requirements	Airworthiness Criteria
1.	No inspection required	Remove the rotor blades and return to Van Horn Aviation for evaluation.

5.5. OVERSPEED – 107 PERCENT OR GREATER

No.	Inspection Requirements	Airworthiness Criteria
1.	For main rotor overspeed above 107% up to 114% Inspect main rotor blades for any visible damage such as cracks, blisters, delaminations, or local contour deformation.	No defects permitted.
2.	For main rotor overspeed above 114% Inspect main rotor blades for any visible damage such as cracks, blisters, delaminations, or local contour and dimensionally check main rotor blade attachment bushing for elongation in excess of .0015 inch.	No defects permitted.

5.6. OVERTORQUE

No.	Inspection Requirements	Airworthiness Criteria
1.	No inspection is required for overtorques between 100 to 110 percent.	N/A
2.	Overtorques 110 to 120 percent, Inspect the main rotor blades for any visible damage such as cracks, blisters, delaminations, or local contour deformation. If any of these conditions exist, remove the rotor blades and return to Van Horn Aviation for evaluation.	No defects permitted.
3.	Overtorques above 120 percent require the inspections in Step 2 above at the time of the overtorque and again after 25 hours of operation.	No defects permitted.

5.7. LIGHTNING STRIKE

No.	Inspection Requirements	Airworthiness Criteria
1.	Scrap the blades if there is any evidence of a lightning strike. Return the scrapped blades to Van Horn Aviation for testing.	N/A

5.8. BLADE STRIKE

No.	Inspection Requirements	Airworthiness Criteria
1.	Inspect the main rotor blades immediately after a blade strike has occurred. Inspect the main rotor blades for any visible damage such as cracks, blisters, delaminations, broken fibers, or local contour deformation. Inspect the abrasion strips for dents, cracks, debonds or deformation. Tap inspect the strike area for debonds greater than 1.0 inch diameter*. (continued next page)	Contact Van Horn Aviation if any discrepancies are found that exceed damage limits in 5.10.

	The strike location will sometimes show as a dent in the leading edge abrasion strip, and other times will show as a crack to the trailing edge of the abrasion strip resulting from the deformation from the impact. Tap inspect the strike area and the entire blade surface aft of the strike area, upper and lower surface. For strikes to the tip abrasion strip, tap inspect the entire tapered tip region of the blade, upper and lower surface. For all suspected impacts, tap inspect the opposite blade in the same region whether it shows evidence of impact or not.	
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5.9. HAIL

No.	Inspection Requirements	Airworthiness Criteria
1.	When the aircraft is struck by hail, whether in flight or on the ground, the fuselage will experience visible impact damage at the same hail size threshold as the 20635000-501 main rotor blades. Visible indications of hail damage are dimples in the blade skin. Conduct a tap test of the upper surface of the blade to look for voids/debonds caused by hail*.	Five (5) or less total voids not exceeding 1.0 inch diameter are acceptable on the upper surface. No other voids may exist on the blade assembly. Contact Van Horn Aviation for further evaluation if more than five (5) voids are found.

*The internal structure of the blade will cause tone changes during the tap test. Figure 5-1 shows the blades' internal components with their approximate locations and shapes. Other than the components shown, the remainder of the blades' internal structure is high density structural foam. Tone changes can be expected as the tap test traverses the various blade sections. Tone changes that are not associated with internal component boundaries should be treated as suspected voids. Van Horn Aviation recommends the use of an Abaris Tap Hammer (SKU: ABATH) or VHA Tap Hammer (P/N: VHACS0003) for performing tap inspections.

**The three bushings in the blade root area do not need to be removed unless damage is observed. See Figure 62-1. The bushings and root plate may have experienced some fretting or corrosion. Remove corrosion using red 3M™ Scotch-Brite™ to allow proper visual crack inspection.

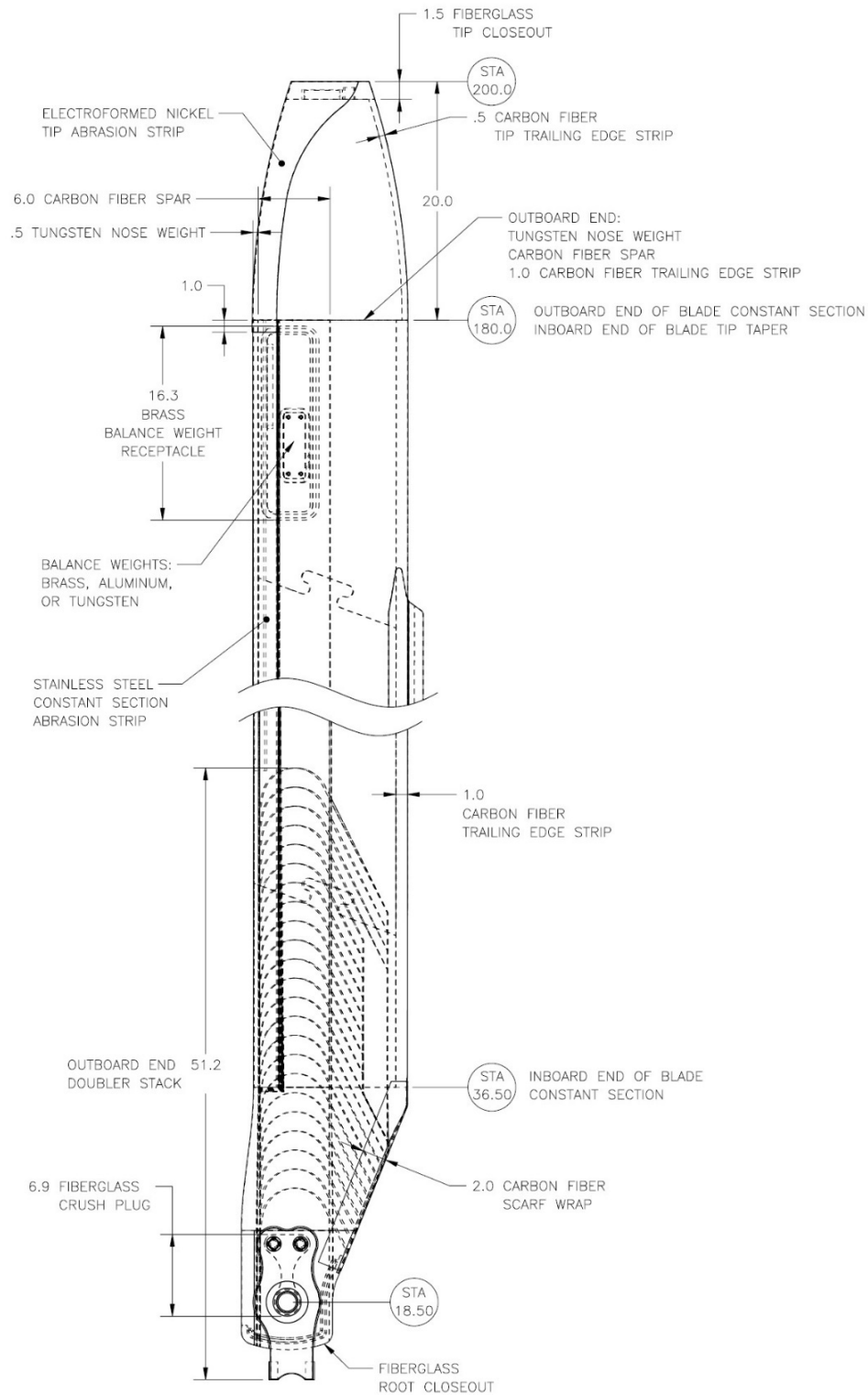


Figure 5-1
Blade Internal Component Locations and Shapes

5.10. DAMAGE LIMITS

5.10.1. Damage Description

Damage may take the form of cracks, scratches, nicks, dents, debonds, voids, abrasion and erosion. Limits are provided for each of these types of damage. Damage exceeding these limits require evaluation, and if possible, repair at an authorized FAA repair station. Minor damage may be corrected using the instructions provide in this chapter. For all other damage, contact VHA for repair station recommendations.

Carbon/epoxy material strength can be degraded by prolonged exposure to moisture and ultraviolet radiation. This rotor blade is protected from both conditions using epoxy primer, multiple coats of polyurethane topcoat, as well as a nano hybrid polymer matte clear coat. It is very important to maintain these protective coatings throughout the life of the blade by adhering to the 5.11.7 Spot Refinishing requirements.

5.10.2. Abrasion Strips

The 20635000-501 main rotor blade assembly uses two abrasion strips on the leading edge of the rotor blade. The stainless steel constant section abrasion strip starts at STA 36.50 and extends to STA 180.00. The electroformed nickel tip abrasion strip starts at STA 179.00 and extends to the blade tip, STA 200.00. The tip abrasion strip overlaps the constant section abrasion strip by approximately 1.0 inch. Some blades may have elastomeric coatings or tapes applied over abrasion strips for added protection. Refer to latest revision of VHA Technical Bulletin TB 20630000-1 if the protective coverings are damaged or detached. Protective coverings at the joints between abrasion strips are optional.

When the 20635000-501 main rotor blades are operated in marine or chemical spraying environments, operators should periodically wash the blades with unpressurized clean water and mild soap to remove chemicals, salt and other damaging contaminants. Depending on the level of activity of the aircraft, the operator may elect for daily rinses/washes, or opt for longer intervals.

Over time, the leading edge of the abrasion strips may roughen due to the erosive effects of operating in extreme conditions. To minimize the effects of moisture or corrosives operators should apply ACF-50 Anti-Corrosion Formula to the bare metal of the abrasion strips whenever it is deemed necessary.

The inspection and damage criteria listed below applies to both abrasion strips.

- a. Non-sharp dents less than 0.050 inch depth are acceptable at any location.
- b. Sharp dents are not permitted.
- c. Punctures are not permitted.

- d. Dents on the leading edge nose or paint cracks along the trailing edge of any abrasion strip are possible evidence of a leading edge impact (see Figure 5-2). Perform the Section 5.9 inspection and refer to skin void criteria in section 5.10.3.



Figure 5-2
Paint Cracks indicating leading edge impact

- d. Cracks in any abrasion strip require a tap inspection upon discovery. Tap inspect a 1.0 inch wide band either side of the crack. No debonds allowed in the 1.0 inch band. Tap inspect the blade assembly directly aft of the abrasion strip trailing edge for voids or debonds. If any voids or debonds are found, contact Van Horn Aviation for further assistance. If no debond or voids are found in the blade sub-assembly or under the abrasion strip, the cracks in the abrasion strips may remain as is. Cracks must be sealed from water intrusion before returning the blades to service. Refer to latest revision of VHA Technical Bulletin TB 20630000-1 for sealing instructions.
- e. Tap test an area 1.0 inch radius of any dent to inspect for voids.
- f. If there are no debonds or voids after tap inspecting around a dent, leave the dent exposed so that it may be monitored for evidence of cracking in the future.
- g. If debonds or voids exist, there is a possibility of underlying carbon fiber damage; therefore, evaluation at an approved FAA repair station is required. Contact VHA for repair station recommendations.

- h. Visually inspect the trailing edge of all abrasion strips for debonds. A paint crack along any edge of the three abrasion strips indicates a possible abrasion strip debond or underlying fiber damage. Report all suspected abrasion strip debonds to VHA for evaluation. If the combined length of all paint cracks along the edge of any abrasion strips is less than 8.0 inches in length, and there are no debonds in the blades sub assembly, the blade may remain in service until the blades can be scheduled for evaluation at an approved repair station. Touch up any paint cracks with epoxy primer or polyurethane paint in accordance with 5.11.7 Spot Refinishing.
- i. If abrasion strip is worn though because of erosion, send blade to an approved FAA repair station for repair. Contact VHA for repair station recommendations.
- j. If the electroformed nickel tip abrasion strip exhibits minor surface defects or blisters that are less than 0.5 inch square, and less than 0.050 inch deep, then the defect may stay as is. Dress the edges of the defect with 320 - 500 grit sandpaper and leave the area exposed for periodic monitoring.
- k. Scratches in both abrasion strips that are less than 0.001 inch deep may remain as is. Protect the scratched areas by applying ACF-50 Anti-Corrosion Formula when it is convenient to do so (recommended at regular maintenance intervals).

5.10.3. Skin

The skin is composed of 4 layers of plain weave carbon fiber fabric. Impact damage may progress from little evidence of external damage to puncture with surrounding voids, depending on impact force. In all cases of suspected skin damage, a tap test is required to determine the extent of damage.

- a. Voids not exceeding 1.0 inch diameter are acceptable at any spanwise location and may remain as is. Voids larger than 1.0 inch diameter must be evaluated for repair by an FAA authorized repair station.
- b. If voids greater than 1.0 inch diameter are detected, remove paint in the damaged area to check for broken fibers. Remove paint and primer only. Do not sand into skin plies.
- c. Broken fibers are not permitted. If broken fibers are detected, send blade to an authorized FAA repair station for evaluation, and if possible, repair. Contact VHA for repair station recommendations.
- d. Scratches, nicks, or fiber damage in the extreme trailing edge 0.10 deep or less may be blended out over a distance of at least 2.0 inches each side of the damage. See Figure 5-2.
- e. Erosion damage to the skin plies occurs when the paint layer has been compromised - exposing the skin plies to particle and water abrasion. All erosion damage to the carbon/epoxy skin plies must be repaired at the next maintenance interval. In the interim, protect all exposed fibers by applying epoxy primer to the damage area.
- f. Damage at the tip trailing edge may be removed by blending up to a 1.0 inch radius at the tip. See Figure 5-2 below.

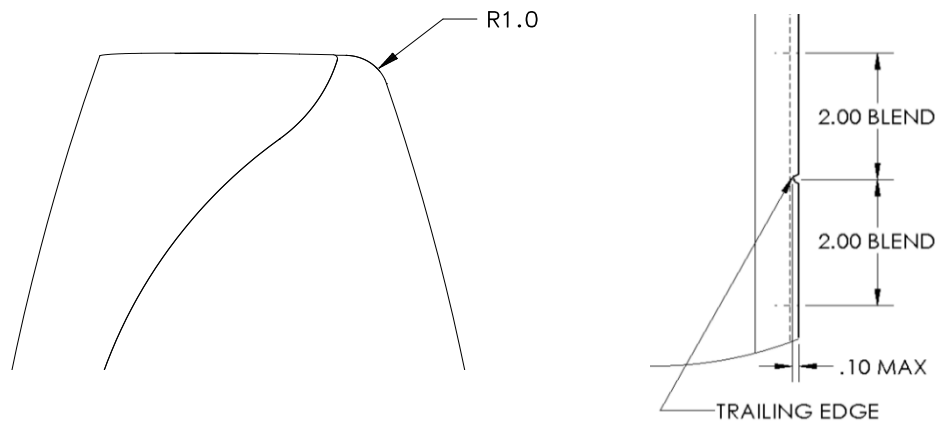


Figure 5-2
Tip and Trailing Edge Damage Limits

5.10.4. Trim Tab Assembly

Trim Tab assemblies are now optional. As an alternative to trim tabs, VHA has implemented the use of tracking wedges to achieve track and balance requirements. Refer to latest revision of VHA Technical Bulletin TB 20630000-2 for additional guidance and instructions for using tracking wedges. Instructions for removing trim tab assemblies can be found in latest revision of VHA Service Bulletin SB-33000-3. Tracking wedges are available for purchase from Van Horn Aviation.

Both the inboard and outboard trim tab assemblies are composed of identical aluminum parts and are bonded to the blade assembly with epoxy film adhesive. During installation of the trim tab assemblies, a flexible sealant is applied internally along the length of the joggle. This results in a more flexible joint and allows trim tab adjustments to be made with less force. The sealant protects the internal bondline by preventing the ingress of environmental contaminants.

- a. No debonds or delaminations permitted anywhere in the trim tab assembly. If debonds or delaminations are found, contact VHA or a VHA approved repair station for further evaluation.
- b. No paint cracks permitted around the periphery of the trim tab assembly. If paint cracks exist, tap test over trim tab assembly to look for debonds. Report any debonds to VHA or a VHA approved repair station for further evaluation.
- c. No splitting permitted between the trim tab halves. Temporarily seal any areas that are split with PR-1440 or equivalent, and contact VHA for further evaluation.
- d. Minor paint damage caused by adjusting the trim tab assemblies or handling may be spot refinished in accordance with 5.11.7 Spot Refinishing.

5.10.5. Tip Closeout

The 20635000-501 main rotor assembly is closed out at the outboard tip with a 1.5-inch-wide fiberglass block.

- a. No cracks permitted in the tip closeout. If a suspect crack exists, sand to remove the paint with 180- 320 grit sandpaper to expose the tip closeout material and inspect the area with a 10x - 40x inspection glass. If no crack is found, touch up the paint per 5-10.4 Spot Refinishing. If a crack is found, contact VHA for or VHA approved repair station for evaluation.
- b. Paint scratches, pinholes and paint erosion on the tip closeout may be touched up with paint in accordance with 5-10.4 Spot Refinishing.

5.10.6. Miscellaneous

- a. Sweep Alignment Screw. If the sweep alignment screw becomes loose, or is lost, use 3M DP420 or 3M DP460 epoxy adhesive to bond the loose screw in place, or to install a new MS21318-9 drive screw. Paint erosion or chipping around the sweep alignment screw may be touched up with paint in accordance with 5-10.4 Spot Refinishing.
- b. Span Balance Weight Cover. The span balance weight cover is secured with PR-1440 sealant. Touch up any missing or damaged sealant with PR-1440 sealant or equivalent.

5.10.7. Spot Refinishing

VHA finishes the main rotor blade surfaces with an epoxy surfacing film that is co-cured with the skin. An epoxy primer paint is applied to the cured assembly, followed by a two stage polyurethane topcoat system. The first stage of paint is a color layer, the second stage of paint is a clear coat layer which incorporates a matting agent.

- a. When preparing the blade surface for paint touch-up, do not sand into the skin plies.
- b. The primer layer and surfacing film are gray. Underneath the surfacing film is a layer of copper mesh for lightning strike protection and is bonded to the skin. Carbon fiber skin plies are black.
- c. Exposed carbon/epoxy skin not exceeding 0.50 inch aft of abrasion strip trailing edge must be protected by at least one coat of epoxy primer within 25 flight hours of exposure or 60 days whichever occurs first.
- d. Exposed carbon/epoxy skin exceeding 0.50 inch aft of abrasion strip trailing edge must be protected by at least one coat of epoxy primer within 10 flight hours of exposure or 30 days whichever occurs first.
- e. Paint peeling may occur. Feather paint edges using 320 grit or finer abrasive paper to stop peeling. Touchup paint required for appearance only if black carbon/epoxy skin is not exposed. Touch up exposed skin with one coat of epoxy primer.
- f. Paint nicks and scratches require touchup paint for appearance only if black carbon/epoxy skin is not exposed. Touch up exposed skin with one coat of epoxy primer.
- g. Paint defects such as pinholes, bare edges and small chips do not need surface preparation. Apply primer or paint directly to the defect.
- h. Paint touch-up may be performed using either a two stage or single stage method. Exact matching is difficult using single stage paint, so it is recommended using this method for small areas only. Single stage paint is Axalta Imron Elite SS Single Stage Color. Any aerospace quality polyurethane paint may be substituted. Use a

compatible epoxy primer. Two stage paint is Axalta Imron Elite Basecoat Color used with Axalta Imron Elite 8840S Clearcoat.

- i. White paint (upper blade surface except tip) is Axalta color 786255.
- j. Black paint (lower blade surface) is Axalta color 99.
- k. Coca Cola Red is Axalta color M1049.
- l. Matte clear coat is composed of Toughguard TG-NHP-701 base and 30% TG-NHP-702 Matte Additive.

CHAPTER 11 – PLACARDS AND DECALS

There are no placards or decals associated with this STC.

CHAPTER 62 – MAIN ROTOR BLADE

62.1 DESCRIPTION

The 20635000-501 main rotor blade is a composite and metallic structure incorporating the NASA-developed RC(4)-12(12% thick) rotor blade airfoil. This is a highly efficient laminar flow airfoil developed to have near zero pitching moments across a broad range of airspeeds. The blade radius and chord are the same as the existing production blade except that the tip of the blade is tapered to reduce noise and tip drag. Two machined titanium alloy plates complete the root end of the blade and are fastened to the blade using two .750-inch diameter bolts. Stainless steel bushings are bonded into the root of the blade. The basic blade section is fabricated using unidirectional carbon/epoxy tape and plain weave carbon/epoxy fabric with a rigid cell structural foam core. Span balance is accomplished using weight added in a tip weight pocket. Electroformed nickel and stainless steel abrasion strips are added for erosion protection. The blade is painted with a polyurethane coating, giving the blade assembly a matte luster.

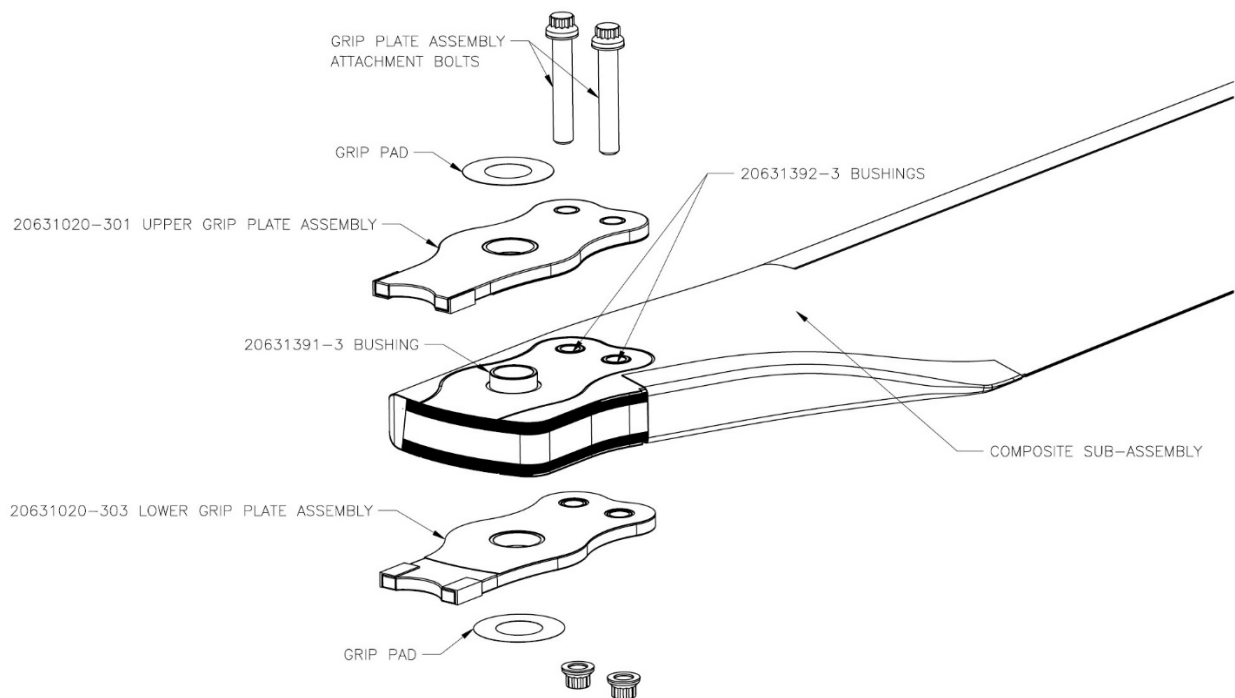


Figure 62-1
Main Rotor Blade Description

62.2 INSTALLATION

The 20635000-501 main rotor blade assembly is eligible for installation on helicopters modified per T.B. 206-91-133 MAIN ROTOR HUB ASSEMBLY, P/N 206-001-100, CONFIGURATION OF, with the following hub configurations:

206-011-100-011 small hub incorporating grip assembly 206-010-102-121

206-011-100-017 small hub incorporating grip assembly 206-010-102-121

206-011-100-021 small hub incorporating grip assembly 206-010-102-121

206-011-100-all larger hub configurations

Due to the Grip Plate Assembly Attachment Bolts clamping the outboard end of the Grip Plate Assemblies onto the composite blade surface (see Figure 62-1), it is not uncommon for the inboard end of the grip plates to be slightly raised. In some cases, this can create a visible gap beneath the inboard end of grip plates and/or cause interference with the Grip Assembly on installation. In this case, clamp pressure may be used on the grip plates, as necessary to install the root end of the blade into the hub grip. Protect the surface of the grip plates from scoring or other damage with rubber pads.

Install the 20635000-501 main rotor blade according to the current FAA accepted maintenance manual for existing production main rotor blades 206-010-200-ALL except as follows:

The 20635000-501 main rotor blade incorporates a sweep alignment screw positioned on the upper surface of the blade, 20 inches inboard from the tip. See figure 62-2. Tape the alignment cord over the alignment screw.

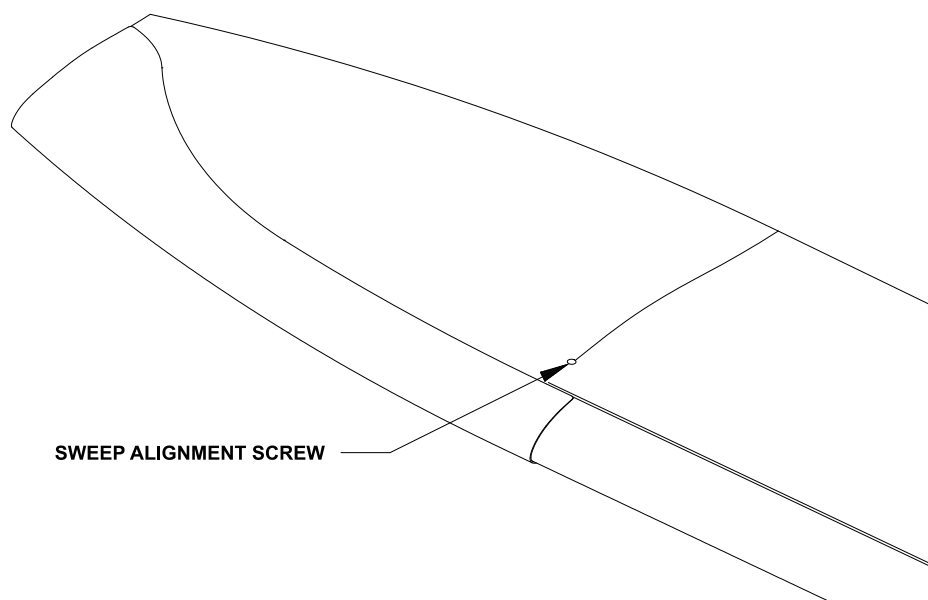


Figure 62-2
Main Rotor Blade Alignment Mark

62.3 DYNAMIC TRACKING AND BALANCING OF MAIN ROTOR BLADES

The 20635000-501 main rotor blade incorporates a different airfoil, different span and chord weight distribution. These differences have an effect on how the blades respond to normal adjustments during tracking and balancing. Blade response will be as predicted, but the magnitude of changes to adjustments may be different depending upon the equipment used.

NOTE

Use of an automated type of track and balance equipment such as RADS-AT or other systems that rely on the specific dynamics of metal production rotor blades may require additional flights to update adjustment sensitivities. Automated balance equipment with VHA-specific programs remove this step and reduce number of flights required. Use of VHA polar charts is always recommended.

62.3.1 Dynamic Balancing

Dynamically balance the 20635000-501 main rotor blades according to the current FAA accepted maintenance manual for the existing production main rotor blade 206-010-200-ALL.

62.3.2 Dynamic Tracking

Dynamically track 20635000-501 main rotor blades according to the current FAA accepted maintenance manual for the existing production main rotor blade 206-010-200-ALL. For additional track and balance guidance and instructions on using tracking wedges in lieu of trim tabs, refer to latest revision of VHA Technical Bulletin TB 20630000-2. All required polar charts are available for download from vanhornaviation.com.

62.4 WEIGHT AND BALANCE

The weight of each 20635000-501 main rotor blade is recorded on each blade's historical record (log card). Adjust the helicopter's weight and balance record as required.

62.5 CLEANING

Use a soft cloth and non-caustic, non-abrasive cleaner to clean VHA composite main rotor blades.

62.6 GRIP PAD REPLACEMENT

Grip Pad 20631341-1 (see figure 62-3) may be replaced with Bell grip pad 206-010-233-005. Install either the VHA or Bell grip pad according to the current FAA accepted component repair and overhaul (CR&O) manual for the existing production main rotor blade 206-015-001-ALL with the following exceptions and recommended practices.

- a) Titanium grip plate 20631321-3 is not shot peened. CR&O caution is N/A.

62.7 WEAR PAD REPLACEMENT

Wear pad 20631342-1 (see figure 62-3) may be replaced with Bell wear pad 206-010-242-003. Install either the VHA or Bell wear pad according to the current FAA accepted component repair and overhaul (CR&O) manual for the existing production main rotor blade 206-010-200-ALL with the following exceptions and recommended practices.

- a) Titanium grip plate 20631321-3 is not shot peened. CR&O caution is N/A.
- b) Sweep check is not required however rotor blade installation alignment is required after the wear pad replacement.

62.8 GRIP PLATE ASSEMBLY REPLACEMENT

As required, contact VHA for 20631020-301/-303 grip plate assembly replacements.

To remove grip plate assemblies, remove the grip plate attachment bolts and slide the grip plate assemblies off of the 20631391-3 bushing. See Figure 62-1.

Install the 20631020-301/-303 grip plate assemblies with the following hardware and instructions. Existing hardware may be reused, except for the NAS1804-12, 12-Point Self Locking Nut. Never reuse the NAS1804-12 nuts.

- a) Hardware required:
 - (2x) NAS 632-54 OR MS21250-12052 Bolts
 - (2x) MS20002C12 Countersunk Washers under the bolt heads
 - (2x) MS2000212 Flat Washer under the self locking nuts.
 - (2x) NAS1804-12, 12-Point Self Locking Nuts
- b) Apply primer coating TT-P-1757B or equivalent per MIL-PRF-16173, Grade 2, to shaft of bolts before installation.
- c) Apply MIL-PRF-24139 grease to the exterior of the blade root center bushing and to the interior of the grip plate center bushings.
- d) Install the countersunk washers under the bolt heads.
- e) Locate the grip plate assemblies to the blade assembly. The -301 grip plate assembly is installed on the upper surface, the -303 assembly on the lower surface.
- f) Install the bolts from the direction of the upper surface. Put Loctite Blue 242 or Loctite 248 Threadlocker on the threads of the bolts.
- g) Install the nuts and torque to 140 – 160 ft-lb.

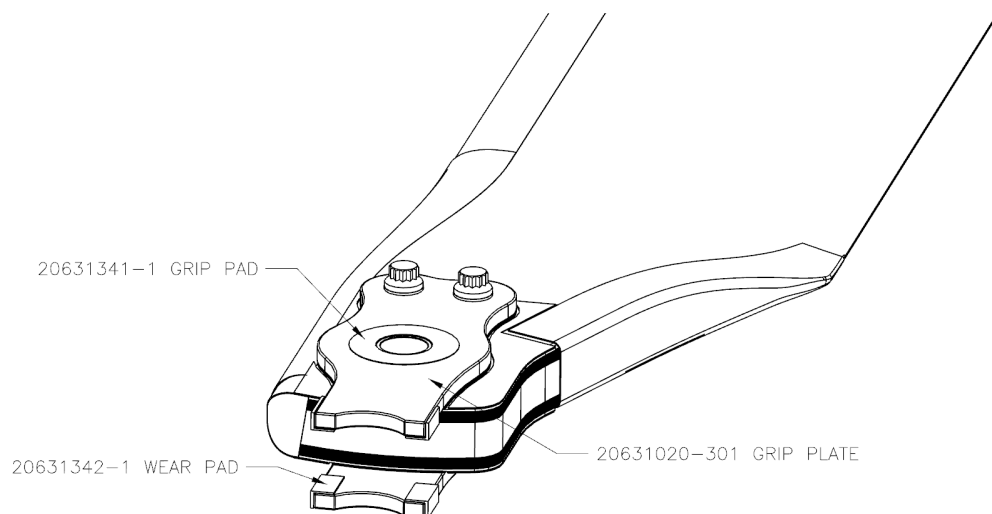


Figure 62-3
Main Rotor Blade Root Assembly