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BY HARTZELL ENGINE TECH

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V-BAND WITH CABLE RETENTION SYSTEM MAINTENANCE MANUAL

P/N AF3003

V-Band P/Ns

490127-0000
490127-0001

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Thank you for purchasing Aeroforce™* V-band with cable retention system. We encourage you to read this manual thoroughly. It contains a wealth of information about how to properly install and maintain your v-band so that it may give you many years of safe and reliable service.

Should you have a question regarding your V-band with cable retention system that is not covered in the manual, Hartzell Engine Tech Product Support is ready to assist you. We may be reached at the following contact information:

Phone: +1.334.386.5400, option 1

E-mail: techsupport@Hartzell.aero

Fax: +1.334.386.5450

Web: www.Hartzell.aero/contact/

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WARNING:

PEOPLE WHO FLY SHOULD RECOGNIZE THAT THERE ARE VARIOUS TYPES OF RISKS INVOLVED IN THIS ACTIVITY; AND THEY SHOULD TAKE ALL PRECAUTIONS TO MINIMIZE THEM SINCE THEY CANNOT BE ELIMINATED ENTIRELY. ANY UNUSUAL OPERATION SHOULD BE INVESTIGATED AND CORRECTED, AS IT MAY BE A WARNING OF IMPENDING FAILURE.

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RECORD OF REVISIONS

Revision Level	Issue Date	Page(s) Revised	Description
NEW	02/27/2026	ALL	New Release
A	04/09/2026	3-2	Para. 3.2 C.: add CAUTION to prevent V-band clamp tensioners from interfering with the turbine housing;
		1-4	Para. 1.9, update serial number format.

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AIRWORTHINESS LIMITATIONS

A.1 General Information

CAUTION:

THE AIRWORTHINESS LIMITATIONS HEREIN ARE THOSE MANDATED BY HARTZELL ENGINE TECHNOLOGIES. THESE LIMITATIONS ARE THE MINIMUM REQUIRED TO MEET CONTINUED AIRWORTHINESS BUT MAY BE SUPERSEDED BY MORE STRINGENT REQUIREMENTS AS PUBLISHED BY THE FAA, AIRCRAFT, ROTORCRAFT OR OTHER MANUFACTURERS THAT USE THESE COMPONENTS IN THEIR APPLICATIONS. FAILURE TO OBSERVE THESE LIMITATIONS MAY COMPROMISE THE COMPONENT OR THE APPLICATION IT IS USED IN.

A.2 Airworthiness Limitations Statement

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

Airworthiness Limitation Revisions Log

Revision Number	Description of Revision

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A.3 Life Limits

A. The FAA establishes specific life limits for certain component parts as well as the complete V-band with cable retention system assembly. Such limits require replacement of the identified parts after a specified number of cycles or hours of use.

B. Additions of, or changes to, any life limit for V-band clamp components will be noted in the Airworthiness Limitation Revision Log.

C. Life Limits

(1) There are no new (or additional) Airworthiness Limitations associated with this equipment and/or installation.

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CHAPTER 1 - INTRODUCTION

1.1 General Information

WARNING:

IMPROPER OR UNAUTHORIZED APPLICATIONS OF THE INFORMATION CONTAINED IN THE MANUAL MAY RENDER THE AIRCRAFT OR THE COMPONENT UNAIRWORTHY AND RESULT IN LOSSES, DAMAGES, OR INJURY TO THE USER.

DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THE APPLICABLE AIRCRAFT/ENGINE SERVICE OR MAINTENANCE MANUAL. INFORMATION CONTAINED IN THESE MANUALS MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE.

The accuracy and applicability of this manual has not been verified for any assembly, component or part not manufactured by Hartzell Engine Tech LLC (HET). Any use of the manual for other than its intended or implied purpose is prohibited. The use of the manual for the purpose of performing any installation, maintenance, replacement, adjustment, or inspection of any assembly, component or part not manufactured by HET is not approved, endorsed, or sanctioned by HET.

This manual has been approved by Hartzell Engine Tech LLC as the proper methods and procedures that FAA or other airworthiness authority Certificated Repair Stations and A/P Mechanics should use in the inspection and maintenance of Hartzell Engine Tech V-band assemblies.

No liability will be assumed by Hartzell Engine Tech LLC for actual, consequential, incidental or other types of damages directly or indirectly resulting from the unauthorized use of this manual for other than its stated purposes.

The liability for use of the authorized data herein for the maintenance, or return to service is limited to the specific terms and conditions stated under the applicable Limited Warranty in effect for each piece part, component, assembly or whole unit sold by HET.

Because of the numerous modifications, Supplemental Type Certificates (STC), Parts Manufacturing Approvals (PMA), or Form 337 Field Approvals that may apply, it is the responsibility of the repairman, mechanic or maintenance facility to determine the proper engine or aircraft application of the V-band assembly. Please refer to the appropriate aircraft Type Certificate (TC), Supplemental Type Certificate (STC), aircraft equipment list, maintenance manuals, and/or Log Book entries for determination.

When performing installation, maintenance, replacement, adjustment, or inspection of any HET assembly, component or part, it is imperative that the latest revision of this HET manual or other product support document be referenced. Reference the HET website to be sure you have the latest revision before performing any work. (http://www.hartzell.aero/maintenance-manuals/)

All reasonable attempts were made to make this manual as complete and accurate as possible. If you have any questions, comments, corrections or require clarification of any information contained herein, please write to Hartzell Engine Tech LLC, 2900 Selma Highway, Montgomery, Alabama, 36108 USA. TEL +1.334.386.5400, FAX +1.334.386.5410, or http://hartzell.aero/contact/.

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1.2 General Specification (manual)

A. This manual follows general guidelines using JASC and iSpec 2200 standards as required. Principle units of measure used in this manual are U.S. units with International System of Units (SI) in parentheses.

B. V-band P/Ns 490127-0000 & 490127-0001 are considered herein.

C. All aircraft, rotorcraft, or engine applications are limited to the holder of the TC, STC, PMA or TSO and only at the date of that document publication or revision.

D. Only approved, competent persons with the necessary skills may do maintenance tasks described in the manual. This may include a certified pilot doing “preventative maintenance” as defined in FAR 43, Appendix A, paragraph C with guidance from AC 43.12A of latest change.

E. This manual describes maintenance on components as they are installed on aircraft and tasks that should be accomplished in a properly equipped service facility.

F. Maintenance tasks and subtasks are referenced in the manual but will have no specific identification numbers.

G. This manual contains: Description and operation, Troubleshooting, Instruction for Continued Airworthiness (ICA), and Maintenance information along with part numbers required for basic maintenance tasks.

H. Changes and updates to this manual can be found at www.Aeroforce.aero. Revisions will be tracked and recorded in the Record of Revisions section of this document.

1.3 How to use the manual

A. Make sure the manual contains information applicable to your aircraft, engine, or replacement V-band. Look for the model number on the Title Page and if applicable, the part number of the replacement or superseded component.

B. It is imperative that you read, understand, and observe all the applicable WARNINGS and CAUTIONS before you do any work on this component.

C. Use only the necessary sections, Refer to the check section to determine required periodic actions and maintenance sections for V-band service.

D. If you need to identify a part or find a part number, refer to illustrations herein or the applicable aircraft or engine service or maintenance manual.

E. Refer to the troubleshooting section to assure that the observed or reported condition lies with the V-band.

F. Utilize the aircraft and/or engine manufacturer’s service manuals and publications before returning the aircraft to service. Use the AFM or POH for aircraft operations.

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1.4 Measurements

The measurements given in this manual are taken from original manufacturing drawings.

1.5 Units of Measure

A. U.S. Units

in	Inch
lb	Pound
lbf·in	Pound-force inch

1.6 Abbreviations

A. The abbreviations given below may be found in the manual: (upper or lower case)

AFM	Aircraft Flight Manual
ALS	Airworthiness Limitations Section
ATA	Air Transport Association of America
DIA	Diameter
FAA	Federal Aviation Administration (USA)
FIG.	Figure
GAMA	General Aviation Manufacturers Association
ID	Inside Diameter
HET	Hartzell Engine Tech LLC
MAX	Maximum
MFR	Manufacturer
MIN	Minimum
NO.	Number
NOM	Nominal
N/A	Not Applicable
OD	Outside Diameter
P/N	Part Number
PARA.	Paragraph
POH	Pilots Operating Handbook

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1.7 Definitions

A. This paragraph defines the warnings and notifications used in this manual. **WARNINGS** place critical attention to use of tools, materials, procedures, or limitations, which must be followed without deviation to avoid injury to the technician or other persons. **CAUTIONS** place immediate attention to use of tools and procedures which must be followed to avoid injury, damage to equipment and/or facilities. **Notes** call attention to procedures which make the job easier.

B. The following are basic definitions of the terms used herein: (as related to this manual)

Apex	The highest point or top of a shape or object.
Backlighting	Illuminating an object from behind.
iSpec 2200	Formatting standard and data content for aviation maintenance documents (e.g., ICA vs. Overhaul structure).
JASC/ATA 100	Joint Aircraft System/Component. Standard numbering system for aviation maintenance documents.
Nominal	A value or dimension that is specified for a product, component, or system, often used as reference point or target, but not necessarily the exact actual value.
Periphery	The outer limits or edge of an area or object.
Radii	Plural of Radius.
Running Torque	The torque required to overcome friction of the mating threads plus the locking feature when unseated. Can be measured in either a loosening or a tightening direction.
TIS	Time in Service.

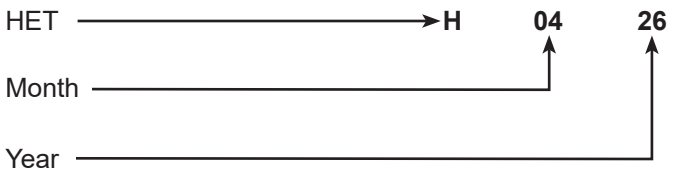
1.8 Model Identification

A. V-band P/N 490127-0000 - 3.400 Nominal ID.

B. V-band P/N 490127-0001 - 3.400 Nominal ID.

1.9 Serial number Identification

Format: HMMYY



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1.10 Warranties

A. Hartzell Engine Tech LLC (HET) offers a Limited warranty with each new V-band with cable retention assembly or component (parts) it sells through it's distribution system. If you suspect that any warranty applies to the V-band assembly, it must be returned through an authorized HET distributor in a manner prescribed by that specific distributor. The affected V-band must be received by the factory fully assembled and not altered in any way for disposition by the HET warranty department. (**Warranty shall be denied for any V-band received altered, modified, or disassembled.**)

B. The HET Limited warranty policy in affect for your V-band was delivered with the unit at the time of purchase. (As the Warranty policy is revised from time to time, you must check the policy delivered with your unit for specific terms and conditions should a warranty condition occur. If needed for reference, obtain the most current policy from the authorized HET distributor nearest you -or- visit our website at www.hartzell.aero.

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CHAPTER 2 - DESCRIPTION OF OPERATION

2.1 Basic Component Description

A. The principle components of the V-band described herein are the V-band cable retainer, hex bolt, locknut, V-band cable tensioner and V-band cable assembly, Refer to Fig. 2.1.

2.2 Technical Purpose

A. The purpose of the V-band is to couple and retain exhaust flanges together. The exhaust tailpipe V-band clamp does this by converting the radial load of the clamp cable tension or clamp body to an axial load on the flanges due to the wedging action of the ‘V’ retainer segments or clamp body.

2.3 Dimensions

A. The dimensions and typical components for the V-band PNs found herin are displayed in Fig. 2.1 & 2.1a.

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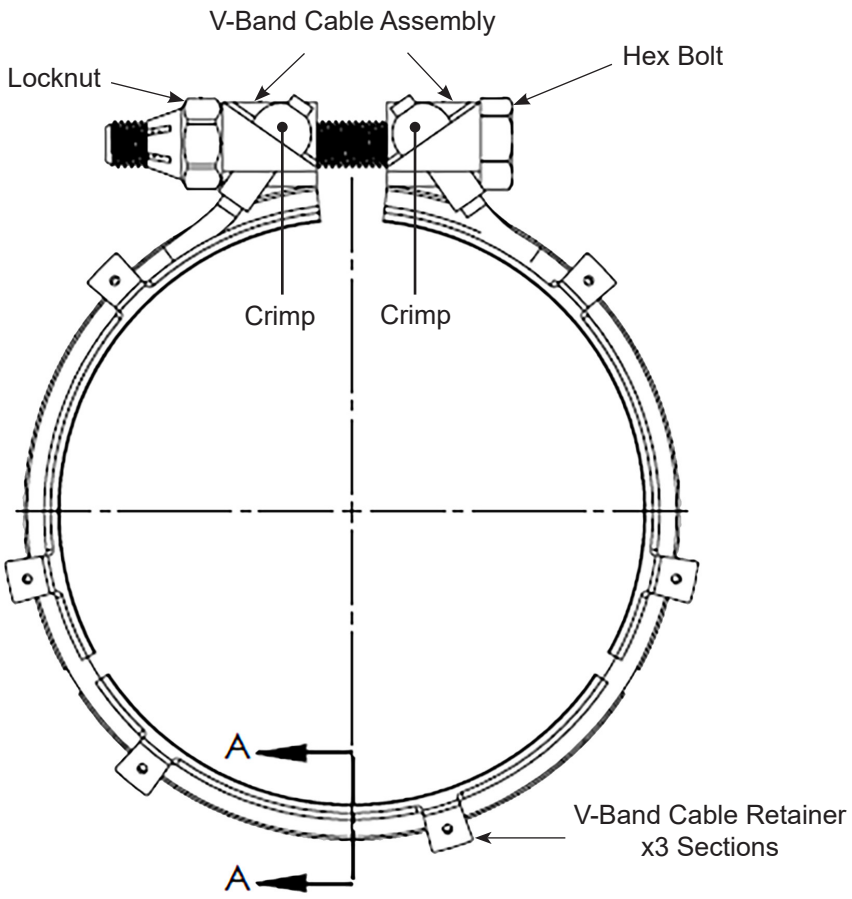

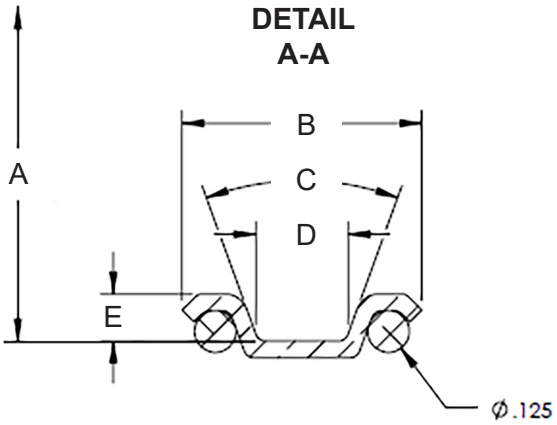

V-Band Retainer Section

NOTE: Dimensions are for reference only, not inspection limits.

V-Band P/N	Detail	Dimension
490127-0000 490127-0001 (Detail A-A)	A	ø 3.400 NOM
	B	0.720
	C	40 DEG
	D	0.276
	E	0.141

Figure 2.1 - V-Band with Cable Retention System (Typical)

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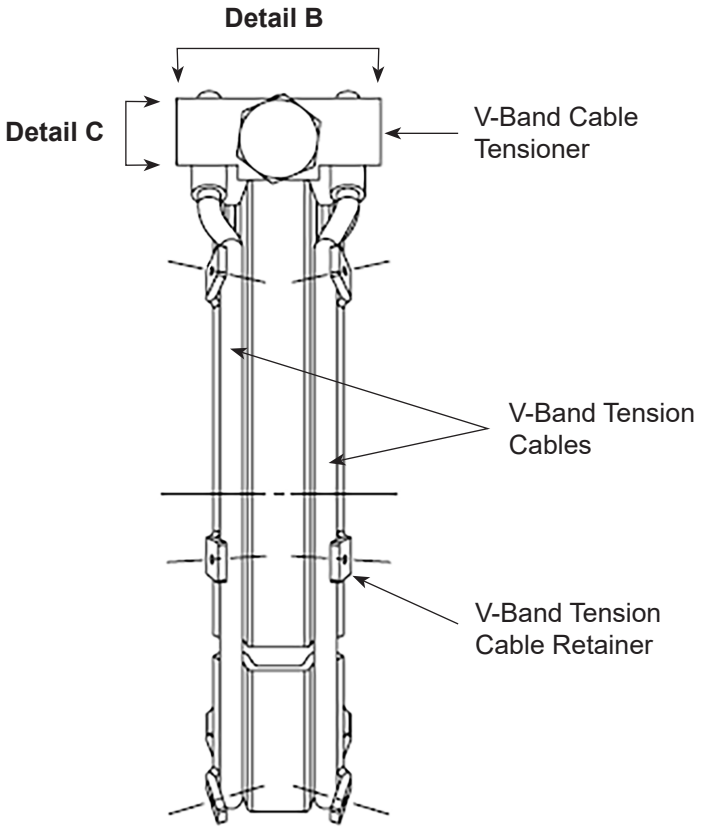

NOTE: Dimensions are for reference only, not inspection limits.

Detail B **Detail C**

Figure 2.1a - V-Band with Cable Retention System (Typical)

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CHAPTER 3 - INSTALLATION

3.1 General

A. This chapter contains instructions for V-band clamps used at the turbocharger exhaust exit to exhaust tailpipe interface only.

WARNING

CRACKS AS WELL AS INCORRECT ASSEMBLY OR INSTALLATION OF THE TURBOCHARGER EXHAUST SYSTEM CAN ADVERSELY AFFECT ENGINE OPERATION, OR RESULT IN RELEASE OF HOT AND TOXIC GASES, WHICH CAN CAUSE DAMAGE TO NEARBY COMPONENTS, SYSTEMS, AND POSSIBLY CAUSE A FIRE.

B. Precautions

NOTE: Refer to the latest applicable engine/aircraft maintenance manual and service instructions for flange preparation and joint alignment. For reference, the following precautions are suggested and apply to § 3.1 B. only.

(1) Conduct the installation when the engine is cool.

(2) Prior to installation, ensure the V-band clamp and attaching hardware are free from any physical damage to include but not limited to; cracks, gouges, tears, bulges, indentions, and/or fractures.

(3) Visually inspect the tailpipe and turbocharger exhaust exit flange for cracks, warps, gouges, nicks, grease dirt or deposits, including all weld areas in accordance with applicable engine maintenance manuals and service instructions .

(4) Assemble all tailpipe and interface exhaust components, (e.g., wastegate), hangers and supports loosely in preparation for final torque.

(5) Ensure alignment of tailpipe flange and turbo exhaust exit flange with maximum 0.005 in. gap prior to V-band clamp installation. Refer to Figure 3.1.

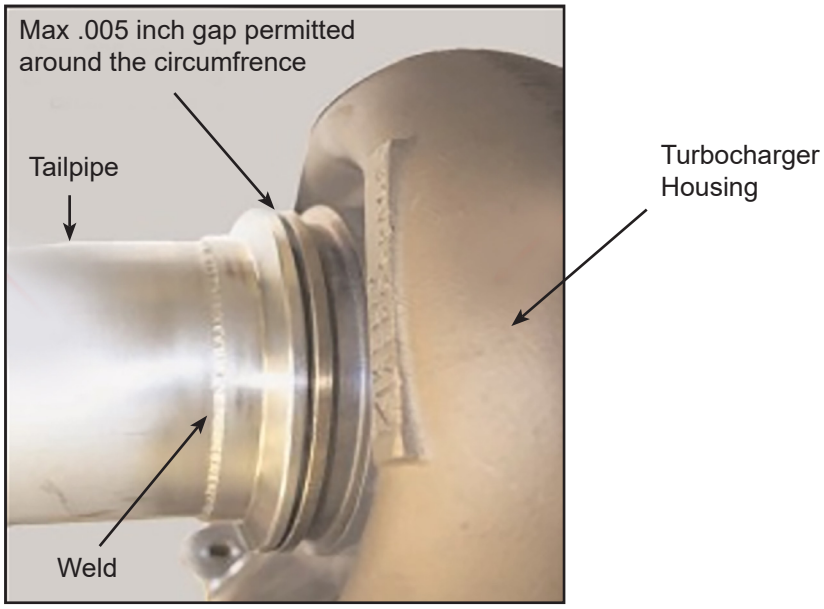

Figure 3-1 - Exhaust Exit Flange and Exhaust Tailpipe Flange Inspection

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CAUTION 1

USE CARE TO SUPPORT THE ENTIRE EXHAUST SYSTEM DURING INSTALLATION. DO NOT FORCE, PRY, OR BEND COMPONENTS DURING FINAL ALIGNMENT TO PREVENT DAMAGE TO THE PARTS.

CAUTION 2

THE SELF LOCKING NUT MUST HAVE A RUNNING TORQUE OF 15.0 TO 30.0 LBF-IN.

CAUTION 3

WHEN INSTALLING EXHAUST SYSTEM COMPONENTS, INITIALLY TIGHTEN HARDWARE FASTENERS FINGER-TIGHT. ENSURE ALL COMPONENTS ARE ALIGNED PROPERLY BEFORE APPLYING FINAL TORQUE TO FASTENERS.

C. Installation

(1) Assemble the tailpipe exhaust flange onto the turbocharger exhaust flange, using a new gasket, if applicable, per the current Instructions for Continued Airworthiness (ICA).

(2) Install the V-band clamp and tighten the nut (2) until there is slight tension in the cables.

NOTE 1: Safety wire is provided at each set of V-band tension cable retainers for ease of installation only. Refer to Fig. 3.2.

NOTE 2: Install the V-band clamp ensuring the clamp captures both flanges as the self-locking nut (2) is tightened. The V-band clamp should be loose enough to rotate, by hand, around the flanges for final positioning.

CAUTION

TO PREVENT DAMAGE, ENSURE THE TENSIONERS DO NOT CONTACT THE TURBINE HOUSING. IF NECESSARY, ROTATE THE CLAMP TO ELIMINATE ANY INTERFERENCE BETWEEN THE V-BAND CLAMP TENSIONERS AND THE TURBINE HOUSING.

(3) Inspect gaps 1 and 2 between the V-band retainers (1) and ensure that gaps exist at both positions shown in Fig. 3-2. The recommended gaps are .140 +/- .050. To obtain the desired gaps, a #2 flat-head screw driver may be placed between the ends of each retainer (e.g., at position 1 and/or 2) and rotated until the gap is achieved.

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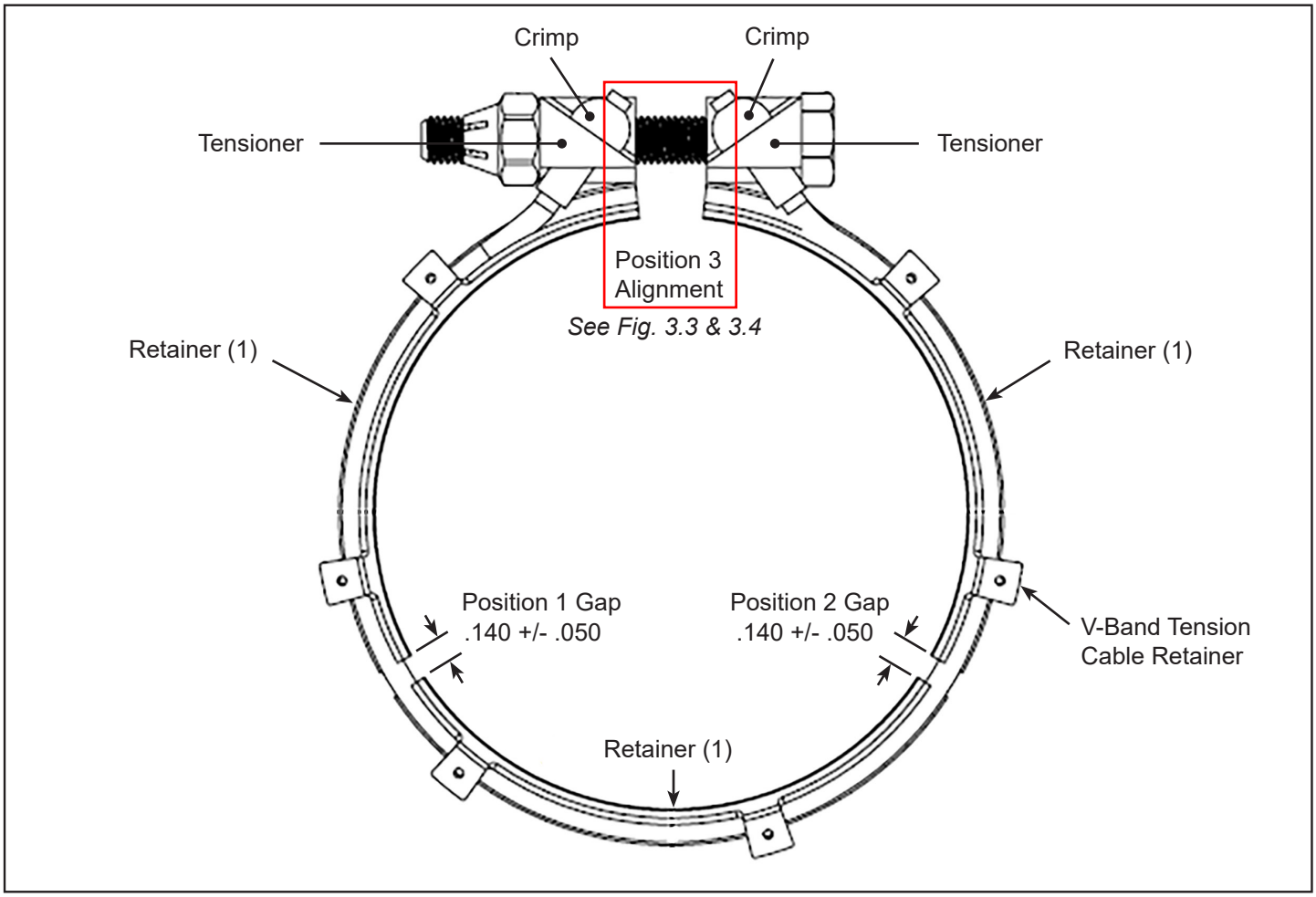

Figure 3.2 - Retainer Position Gap Limits

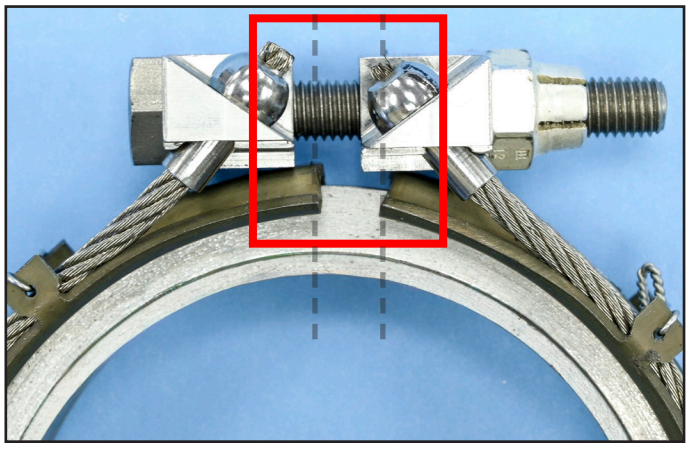

Figure 3.3 - Improper Alignment of Tensioners to Retainers

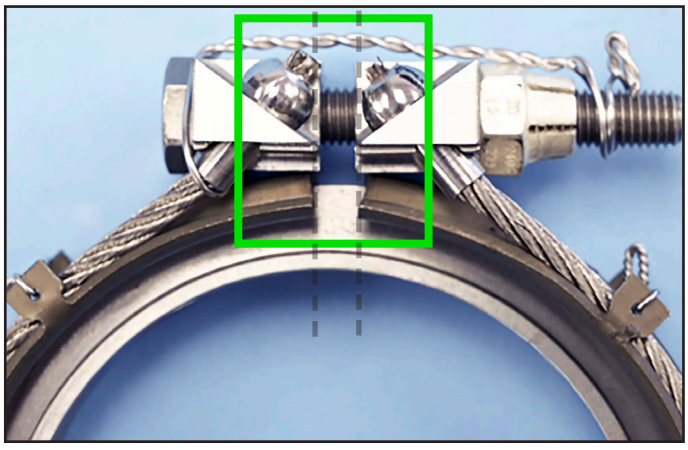

Figure 3.4 - Proper Alignment of Tensioners to Retainers

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(4) Inspect the tensioners at position 3 to make sure they are supported by the retainers (1) on each side and not unsupported. Ensure tensioners are sitting top center of retainers. Refer to Figures 3-3 & 3-4 for proper and improper alignment examples.

(5) Preload 50-70% of total V-band clamp required final torque value. Refer to Table 3.1.

(6) Lightly tap (do not deform) the V-band clamp around the periphery with a soft faced mallet to ensure proper seating and even distribution of clamping stress. Do not rely on tightening alone for proper clamp seating.

CAUTION

THE V-BAND CLAMP AT THE TURBOCHARGER EXHAUST EXIT FLANGE MUST BE CORRECTLY ALIGNED TO THE TAILPIPE FLANGE. DO NOT USE THE V-BAND CLAMP TO BRING THE EXHAUST COMPONENTS INTO ALIGNMENT. INCORRECT ALIGNMENT OF THE V-BAND CLAMP IS AN INDICATION THAT THE EXHAUST SYSTEM IS NOT CORRECTLY INSTALLED. IF THE V-BAND CLAMP DOES NOT ALIGN, ADJUST THE EXHAUST SYSTEM COMPONENTS UNTIL THE V-BAND CLAMP IS IN CORRECT ALIGNMENT. A SLIGHT ADJUSTMENT TO THE TURBOCHARGER ORIENTATION MAY ALSO PERMIT CORRECT V-BAND CLAMP ALIGNMENT.

(7) Ensure there are no gaps at other exhaust system connections and all exhaust system components are correctly aligned before the final torque of exhaust system hardware.

(8) Ensure the turbocharger exhaust exit flange and exhaust tailpipe flanges are aligned.

(9) Apply final, 100% torque in accordance Table 3.1. Do not over-torque in an attempt to force the flanges together. If at 100% torque tailpipe fit is incorrect, disassemble the exhaust system as needed to determine the cause of the problem and correct it prior to proceeding with the installation.

V-band P/N	Index No.	Preload Torque 50% MIN	Preload Torque 70% MAX	Final Torque
490127-0000	2	38-43 in-lbs	53-60 in-lbs	75-85 in-lbs
490127-0001	2	38-43 in-lbs	53-60 in-lbs	75-85 in-lbs

Table 3.1 - Torque Values (Dry)

(10) Check the V-band apex gap and foot clearances. A clearance must be maintained throughout to prevent the clamp from bottoming out on the flanges before the required loading has been achieved. Refer to Fig. 3.5.

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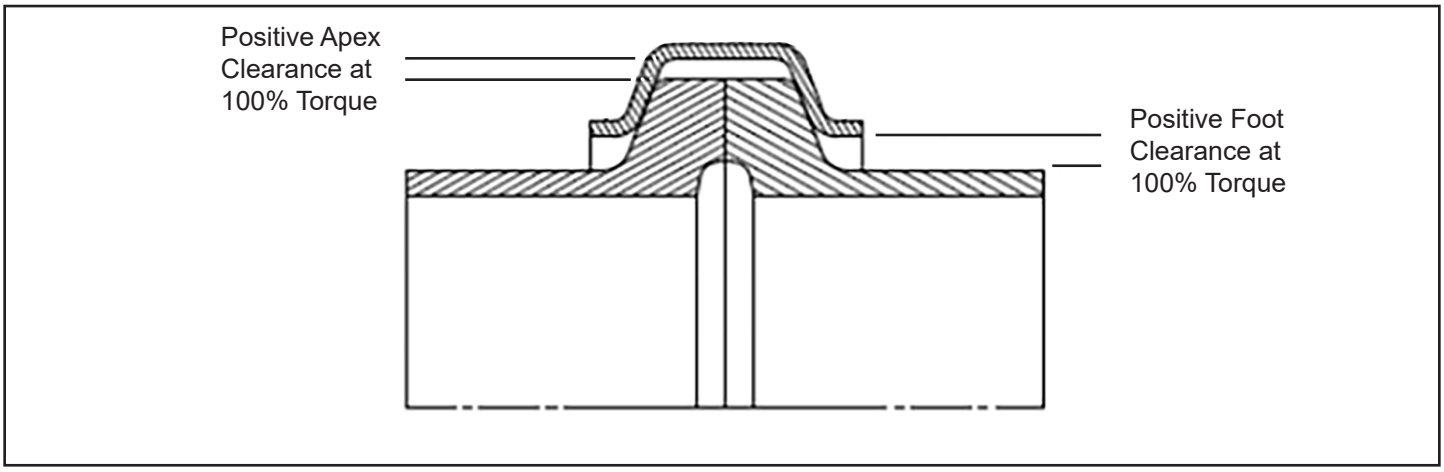

Figure 3.5 - Clearances at 100% Torque

(11) Using safety wire (0.032 in. minimum, stainless steel), safety wire the bolt head tensioner of the coupling to the nut end tensioner of the coupling as applicable to preclude opening of the coupling if the bolt or nut loosens, fails, or separates from the mating fastener after installation. Refer to Fig. 3.6.

Figure 3.6 - Tensioner Saftey Wire

(12) Properly install and torque as applicable the remaining exhaust system components, support clamps, hangers, and associated hardware in accordance with applicable aircraft/engine maintenance manuals and service documents.

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3.2 Post Installation

A. General

(1) After a V-band clamp is installed or reinstalled and torqued, verify there is space between each retainer segment, and verify there is space between both ends of a clamp (Refer to Fig. 3.2). If there is no space between the retainer segment ends or clamp ends, a new coupling/clamp should be installed prior to further flight.

(2) Relocate or reinstall any systems, cowling or access panels that have been previously removed in accordance with applicable aircraft/engine maintenance manuals and service instructions.

(3) Conduct an engine ground-run with a full heating and cool down cycle and check the security of the V-band clamp by applying rotational hand force after the engine has cooled. Adjust as necessary per § 3.1 C. above.

(4) Recheck the security of the V-Band clamp on any new or re-installed V-Band clamp after 25 hrs. time in service (TIS) per Chapter 4, § 4.2.

(5) If required, refer to aircraft and/or engine maintenance manuals and service documents for troubleshooting the turbocharger exhaust system.

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CHAPTER 4 - CHECK

4.1 General

A. This section defines the various checks and inspections needed to assure reliable and safe operation of the V-band while in service. They are listed in hours time in service (TIS) or in calendar time, whichever is applicable and are the first to occur when offered a choice. Some maintenance is one time initial and others are recurring.

B. HET recommended maintenance and checks including TIS may be superseded by the aircraft or engine manufacturer's established time limits and schedules based on experience and/or unique requirements under engine or airframe Type Certificate.

WARNING

NEVER USE HIGHLY FLAMMABLE SOLVENTS ON ENGINE EXHAUST SYSTEMS. NEVER USE A WIRE BRUSH OR ABRASIVES TO CLEAN EXHAUST SYSTEMS. DO NOT USE ETCH TOOLS, GRAPHITE LEAD PENCIL, OR SCRIBE TO APPLY AN IDENTIFIER MARK ON EXHAUST PIPES. USE A NON-GRAPHITE MARKER.

4.2 Inspection Checks (Installed)

A. **25 Hours TIS**

(1) Remove any access panels or engine cowling as necessary to gain access and visibility to the installed V-band clamp.

(2) Remove any heat shields, insulation blankets, and any other readily removable exhaust system components that facilitate a better view of the exhaust V-band installation.

(3) Loosen and/or relocate or remove any other systems that may impede the ability to inspect the connection.

(4) Check the installed V-band clamp to ensure there is no free-play in the clamp assembly.

(5) If the V-Band clamp is loose, remove the clamp and perform inspections in accordance with § 4.3. If acceptable, reinstall the clamp in accordance with § 3.1C. If the V-band clamp is not loose, continue inspection below.

(a) If the self-locking nut is suspected of failure, replace the self-locking nut. Refer to Ch. 5, Maintenance.

(6) Use a bright light and mirror to inspect the areas that cannot be seen directly. Pay particular attention to and carefully inspect the hard-to-see areas. Inspect surrounding area for signs of exhaust stains, sooting or other evidence of exhaust leakage.

(a) If surrounding areas show signs of stains, sooting, or evidence of exhaust leakage, preform an Uninstalled Inspection Check per § 4.3, below.

(7) If inspection is acceptable, reinstall the clamp in accordance with 3.1C. Refer to § 4.4 for Unstatisfactory Conditions

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4.3 Inspection Checks (Uninstalled)

A. If the V-band clamp has been removed for any reason, perform the following more detailed Uninstalled Inspection:

(1) Visually Inspect flanges for carbon deposits, cracks and distortion.

(2) Visually Inspect hex bolt for bends, distortion, cracks and thread damage.

(3) Visually Inspect the clamp V-bands for cracks.

(4) Visually inspect the V-band tension cables for damage/wear especially in the areas where the cables interface with the V-band retainers. Refer to Fig. 4.1

(5) Visually inspect the interior of the V-band clamp retainers for indications of the exhaust flanges bottoming out in the V-apex of either.

(6) Visually inspect the inner bend radii of the V-band clamp retainer segments for cracks. Inspect the radii throughout the length of the segments. Backlighting may assist here.

(7) Refer to § 4.4 for Unstatisfactory Conditions.

NOTE: If the clamp passes the above inspections, only re-install the same clamp on the same aircraft engine and turbocharger combination from which the clamp was removed.

4.4 Unstatisfactory Conditions (Installed/Uninstalled)

NOTE: It is understood that many of the unsatisfactory conditions below may not be readily accessed with the clamp installed. If clamp condition is suspect for any reason, the clamp should always be removed for a more detailed examination.

A. The following are definitions of Unsatisfactory Conditions for exhaust V-band clamps:

(1) Crack in any clamp V-retainer segment interior or exterior surface, e.g., at corner radii.

(2) Crack in the clamp V-band exterior or interior surface along the V-apex, around the perimeter.

(3) Contact of the V-retainer segments ends with one another at any location (e.g., bolt area).

(4) Bolt bent, bowed, or deformed

(5) Bolt threads damaged or missing.

(6) Locknut thread damage or a nut that has lost self-locking capability and can be installed without preload (i.e., less than a minimum running torque of 15 lbf·in.).

(7) Peening (flattening, curling) of material on the V-retainer segment ends or clamp ends from contact with each other, at any location (e.g. bolt area).

(8) Corrosion that is not easily removed with a polymer abrasive pad from any component of the clamp.

(9) Pitting of any component of the clamp base material.

(10) Permanent deformity to include, but not limited to, out of round, bowed or wavy condition (un-flat), twisted, and/or re-formed by any method.

(11) Inspect tensioners and crimps for cracks and unusual wear.

(12) Wear and/or damage to any of the V-band tension cables.

(13) Physical damage to any clamp component to include but not limited to; cracks, gouges, notches, tears, bulges, bumps, fractures.

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(14) Any repairs or any indications of past repairs.

(15) Unapproved hardware or any material or hardware substitution.

NOTE 1: If any unsatisfactory condition is found to exist on any clamp, the clamp should be considered un-airworthy and should be removed and replaced prior to further flight with a new, zero hours TIS, clamp as applicable.

NOTE 2: After any clamp is re-installed on the same engine only and torqued as required, verify there is space between the ends of each retainer segment or between the ends of the clamp. If there is no space between any retainer segment, or between the ends of the clamp, before further flight, a new clamp must be installed and restart the hours TIS for the repetitive replacement of the clamp.

4.5 Annual Inspection Checks

A. Inspection Tasks:

(1) The Annual inspection may be conducted with the clamp installed per § 4.2. If the installed condition is suspect or inspection or conditions indicate removal of the clamp is necessary to determine the clamp condition from the installed inspection, the clamp should always be removed and inspection checks in § 4.3 should be performed.

4.6 Time Before Overhaul (TBO)

A. Replace the V-band clamp at 2000 TIS or at the next engine overhaul, whichever occurs first.

NOTE: Anytime a clamp is replaced with a new clamp, a record should be made in the aircraft logbook to include date of installation, the TIS of the new clamp, manufacturer, P/N, and S/N.

4.7 Disposal

A. All V-band clamps removed from service should be permanently destroyed and not used on any other engine, aircraft, or other aircraft application.

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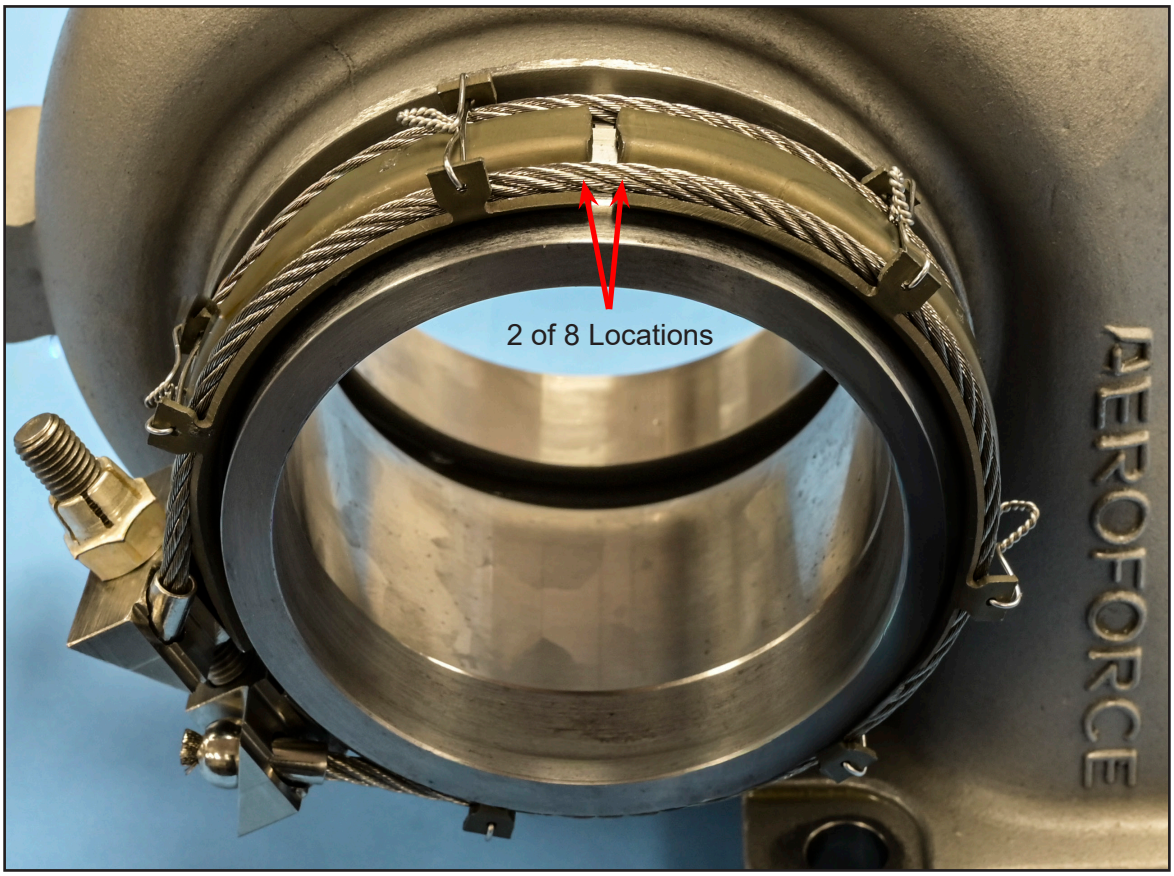

Figure 4.1 - V-Band Retainer/Cable Interface Locations

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CHAPTER 5 - MAINTENANCE

5.1 General

A. There are no maintenance practices other than recurring inspections found in Chapter 4, Checks, of this manual.

5.2 Illustrated Parts List (IPL)

A. Figure 5-1 is for reference only. Except for replacing the self-locking nut (2), referenced in § 4.2 A.(6)(a), no part of the V-band clamps found herein may be mixed, interchanged, or repaired for any reason. Replace the V-band clamp if one or more unsatisfactory conditions occur IAW Chapter 4, § 4.3 & 4.4.

5.3 Storage and Shelf Life:

A. Storage

When storing a new V-band clamp, there are several categories to consider. Short term storage or long term storage on or off the aircraft. Short term storage will be considered as storage up to but not exceeding twenty-four (24) calendar months. Long term storage will be considered as storage up to but not exceeding twelve (12) calendar years. There are different methods for each type of storage.

(1) Short term, if on the shelf, requires only that the unit be kept inside in the original packaging. If unit is on the aircraft (or unmounted engine) no additional action other than that required for the engine or aircraft is needed.

(2) Long term, if on the shelf, requires that the V-band clamp be removed from the box and from the plastic bag as originally packaged. Discard the bag. Wipe or lightly spray all parts of the V-band clamp with preservative oil. Wrap tightly with a waxed type paper (new bags may be used if specifically formulated for the storage of metal products). Place back into original shipping container and store in a cool dry environment.

(3) If it is anticipated or determined that the aircraft (or unmounted engine) will be in a long term storage situation, as soon as practicable, lightly spray all parts of the V-band clamp with preservative oil. No additional action other than that required for the engine or aircraft is needed.

(4) At the expiration of twelve (12) calendar years from date of manufacture, regardless of storage or usage, the unit must be replaced.

B. Shelf Life

(1) All V-band clamps listed herein have a shelf life of up to, but not to exceed, twelve (12) calendar years at which time the unit must be replaced. *Shelf life time applies only if storage requirements are observed.*

(2) Long term, if on the shelf, requires that the V-band clamp be removed from the box and from the plastic bag as originally packaged. Discard the bag. Wipe or lightly spray all parts of the V-band clamp with preservative oil. Wrap tightly with a waxed type paper (new bags may be used if specifically formulated for the storage of metal products). Place back into original shipping container and store in a cool dry environment.

(3) If it is anticipated or determined that the aircraft (or unmounted engine) will be in a long term storage situation, as soon as practicable, lightly spray all parts of the V-band clamp with preservative oil. No additional action other than that required for the engine or aircraft is needed.

(4) At the expiration of twelve (12) calendar years from date of manufacture, regardless of storage or usage, the unit must be replaced.

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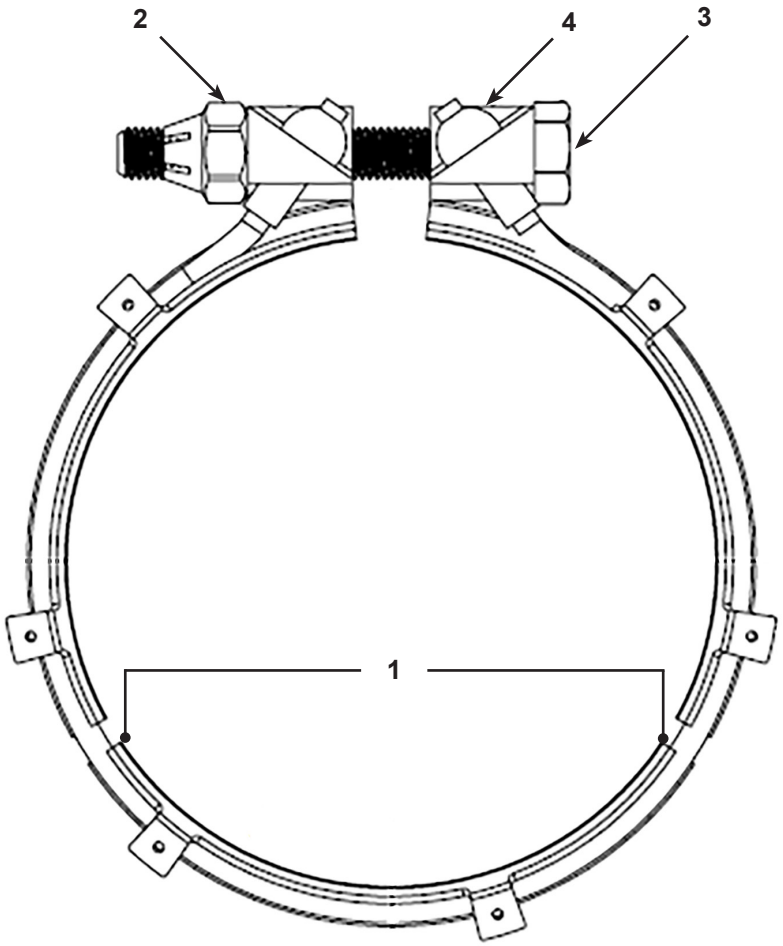

1. RETAINER, V-BAND CABLE
2 NUT, SELF-LOCKING P/N 490105
3 HEX BOLT
4 CABLE ASSEMBLY, V-BAND

NOTE: Except for replacing the self-locking nut (2), no part of the V-band clamps found herein may be repaired for any reason. Replace the V-band clamp if one or more unsatisfactory conditions occur IAW Chapter 4, § 4.3 & 4.4.

Figure 5-1 - V-band Parts Illustration, Typical

END OF DOCUMENT

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