HARTZELL PROPELLER INC.
One Propeller Place
Piqua, Ohio 45356-2634 U.S.A.
Telephone: 937.778.4200
Fax: 937.778.4215

MANUAL REVISION TRANSMITTAL

MANUAL 202A, VOLUME 1 (61-01-02)
Standard Practices Manual

REVISION 65 dated December 2023

Remove Pages:	**Insert Pages:**
COVER	**COVER**
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NOTE 1: Record the removal of a Temporary Revision on the Record of Temporary Revisions pages in this manual, if applicable.

NOTE 2: When the manual revision has been inserted in the manual, record the information required on the Record of Revisions pages in this manual.

NOTE 3: Pages distributed in this revision may include pages from previous revisions if they are on the opposite side of revised pages. This is done as a convenience to those users who wish to print a two-sided copy of the new revision.

This page may be discarded after proper filing of the revision.

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Manual No. 202A, Volume 1
61-01-02
Revision 65
December 2023

Standard Practices Manual
Volume 1

Chapter 1: Cleaning
Chapter 2: Paint and Finish

Hartzell Propeller Inc.
One Propeller Place
Piqua, Ohio 45356-2634 U.S.A.
Phone: 937.778.4200
Fax: 937.778.4215

REVISION 65 HIGHLIGHTS

Revision 65, dated December 2023, incorporates the following:

Front matter (Cover, Revision Highlights, etc.) has been revised to match this revision.

Minor language/format changes and renumbering, if applicable are marked with a revision bar, but are not listed below.

- PAINT AND FINISH
  - Revised the section, "Paints and Primers"
  - Revised the section, "Paint/Primer Mixtures"
  - Revised the section, "Paint/Repair Kits for Composite Blades"
  - Revised the section, "Minor Paint/Repair Kits for Composite Blades"
  - Revised the section, "Paint Kits for Aluminum Blades"
  - Added blade model E9512SK to Table 2-9, "E" Blades: Paint Scheme
  - Added blade models T10282N*2 and T10282N*3 to Table 2-19, "T" Blades: Paint Scheme

REVISION 65 HIGHLIGHTS

1. Introduction

   A. General

      (1) This is a list of current revisions that have been issued against this manual. Please compare to the RECORD OF REVISIONS page to make sure that all revisions have been added to the manual.

   B. Components

      (1) Revision No. indicates the revisions incorporated in this manual.

      (2) Issue Date is the date of the revision.

      (3) Comments indicates the level of the revision.

         (a) New Issue is a new manual distribution. The manual is distributed in its entirety. All the revision dates are the same and no change bars are used.

         (b) Reissue is a revision to an existing manual that includes major content and/or major format changes. The manual is distributed in its entirety. All the revision dates are the same and no change bars are used.

         (c) Major Revision is a revision to an existing manual that includes major content or minor format changes over a large portion of the manual. The manual is distributed in its entirety. All the revision dates are the same, but change bars are used to indicate the changes incorporated in the latest revision of the manual.

         (d) Minor Revision is a revision to an existing manual that includes minor content changes to the manual. Only the revised pages of the manual are distributed. Each page retains the date and the change bars associated with the last revision to that page.

Revision No.	Issue Date	Comments
Original	Mar/93	New
Revision 1	Jun/94	Minor Revision
Revision 2	Apr/95	Minor Revision
Revision 3	Jun/95	Minor Revision
Revision 4	Apr/96	Minor Revision
Revision 5	Nov/96	Minor Revision
Revision 6	Mar/97	Minor Revision
Revision 7	Oct/97	Minor Revision
Revision 8	Jan/98	Minor Revision
Revision 9	Jun/98	Minor Revision
Revision 10	Dec/98	Minor Revision
Revision 11	Sep/99	Minor Revision
Revision 12	Nov/00	Minor Revision
Revision 13	Sep/01	Minor Revision
Revision 14	Feb/02	Minor Revision
Revision 15	May/02	Minor Revision
Revision 16	Sep/02	Minor Revision
Revision 17	Dec/02	Minor Revision
Revision 18	Aug/03	Minor Revision
Revision 19	Sep/03	Minor Revision
Revision 20	Oct/03	Minor Revision
Revision 21	Nov/03	Minor Revision
Revision 22	Dec/03	Minor Revision
Revision 23	Feb/04	Minor Revision
Revision 24	Apr/04	Minor Revision
Revision 25	Jun/04	Minor Revision
Revision 26	Aug/04	Minor Revision
Revision 27	Oct/04	Major Revision - Volume 1
Revision 28	Dec/04	Minor Revision
Revision 29	Jun/06	Minor Revision
Revision 30	Aug/06	Minor Revision
Revision 31	Jan/07	Minor Revision
Revision 32	Dec/07	Minor Revision
Revision 33	Jun/08	Minor Revision
Revision 34	Nov/08	Minor Revision
Revision 35	Oct/09	Minor Revision
Revision 36	Nov/09	Minor Revision
Revision 37	Apr/10	Minor Revision
Revision 38	Jun/10	Minor Revision
Revision 39	Aug/10	Minor Revision
Revision 40	Sep/10	Minor Revision
Revision 41	Feb/11	Minor Revision
Revision 42	Feb/12	Minor Revision

Revision No.	Issue Date	Comments
Revision 43	Oct/12	Minor Revision
Revision 44	Apr/13	Minor Revision
Revision 45	Jun/13	Minor Revision
Revision 46	Aug/13	Minor Revision
Revision 47	Feb/14	Minor Revision
Revision 48	Sep/14	Minor Revision
Revision 49	Dec/14	Minor Revision
Revision 50	Feb/15	Minor Revision
Revision 51	Jun/15	Minor Revision
Revision 52	Dec/15	Minor Revision
Revision 53	Jul/16	Minor Revision
Revision 54	Aug/16	Minor Revision
Revision 55	Nov/16	Reissue
Revision 56	Oct/17	Minor Revision
Revision 57	Nov/18	Minor Revision
Revision 58	Mar/20	Minor Revision
Revision 59	Dec/20	Minor Revision
Revision 60	Sep/21	Major Revision
Revision 61	Nov/21	Minor Revision
Revision 62	Feb/23	Major Revision
Revision 63	Sep/23	Minor Revision
Revision 64	Nov/23	Minor Revision
Revision 65	Dec/23	Minor Revision

RECORD OF REVISIONS

This is a record of revisions inserted into this manual.
Revision 62 includes all prior revisions.

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27	Oct/04	Oct/04	HPI
28	Dec/04	Dec/04	HPI
29	Jun/06	Jun/06	HPI
30	Aug/06	Aug/06	HPI
31	Jan/07	Jan/07	HPI
32	Dec/07	Dec/07	HPI
33	Jun/08	Jun/08	HPI
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37	Apr/10	Apr/10	HPI
38	Jun/10	Jun/10	HPI
39	Aug/10	Aug/10	HPI
40	Sep/10	Sep/10	HPI
41	Feb/11	Feb/11	HPI
42	Feb/12	Feb/12	HPI
43	Oct/12	Oct/12	HPI
44	Apr/13	Apr/13	HPI
45	Jun/13	Jun/13	HPI
46	Aug/13	Aug/13	HPI

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47	Feb/14	Feb/14	HPI
48	Sep/14	Sep/14	HPI
49	Dec/14	Dec/14	HPI
50	Feb/15	Feb/15	HPI
51	Jun/15	Jun/15	HPI
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60	Sep/21	Sep/21	HPI
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62	Feb/23	Feb/23	HPI
63	Sep/23	Sep/23	HPI
64	Nov/23	Nov/23	HPI
65	Dec/23	Dec/23	HPI

RECORD OF REVISIONS

This is a record of revisions inserted into this manual.
Revision 62 includes all prior revisions.

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RECORD OF TEMPORARY REVISIONS

Update this page to show all temporary revisions inserted into this manual.
Revision 62 includes all prior temporary revisions, up to and including TR-048.

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RECORD OF TEMPORARY REVISIONS

Update this page to show all temporary revisions inserted into this manual.
Revision 62 includes all prior temporary revisions, up to and including TR-048.

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SERVICE DOCUMENT LIST

CAUTION 1: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THE SERVICE DOCUMENT. INFORMATION CONTAINED IN A SERVICE DOCUMENT MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH INFORMATION CONTAINED IN A SERVICE DOCUMENT OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE.

CAUTION 2: THE INFORMATION FOR THE DOCUMENTS LISTED INDICATES THE REVISION LEVEL AND DATE AT THE TIME THAT THE DOCUMENT WAS INITIALLY INCORPORATED INTO THIS MANUAL. INFORMATION CONTAINED IN A SERVICE DOCUMENT MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. REFER TO THE APPLICABLE SERVICE DOCUMENT INDEX FOR THE MOST RECENT REVISION LEVEL OF THE SERVICE DOCUMENT.

Service Document Number	Incorporation Rev./Date
Service Advisories:	
SA54	Orig., Mar/93

Service Document Number	Incorporation Rev./Date
Service Letters:	
HC-SL-61-229, R2	Rev. 35 Oct/09
HD-SL-61-041	Rev. 35 Oct/09
HC-SL-61-281	Rev. 39 Aug/10

Service Document Number	Incorporation Rev./Date
Service Bulletins:	

Service Document Number	Incorporation Rev./Date

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1. General (Rev. 1)

   A. Statement of Purpose

      (1) This manual has been reviewed and accepted by the FAA. Additionally, this manual contains data that has been approved in a manner acceptable to the FAA Administrator.

      (2) This manual provides maintenance and overhaul procedures for use in propeller repair stations by personnel that are trained and experienced with Hartzell Propeller Inc. products.

         (a) This manual does not provide complete information for an inexperienced technician to attempt propeller overhaul without supervision.

      (3) This manual is intended to be the primary source of maintenance and overhaul information for the applicable Hartzell propeller/component models.

         (a) Propeller models addressed in this manual may be Type Certificated by the FAA, or may be experimental. Experimental parts must not be installed on a Type Certificated propeller. Always use the current illustrated parts list for the assembly of any propeller. Always refer to the aircraft Type Certificate (TC) or Supplemental Type Certificate (STC) to determine installation eligibility of any propeller. If installation eligibility is not identifiable, an additional installation approval, such as FAA form 337 field approval or Supplemental Type Certificate may be required. If in doubt, contact Hartzell Propeller Inc. Product Support.

         (b) Information published in Service Bulletins, Service Letters, Service Advisories, and Service Instructions may supersede information published in this manual. The reader must consult active Service Bulletins, Service Letters, Service Advisories, and Service Instructions for information that may have not yet been incorporated into the latest revision of this manual.

      (4) This manual makes reference to other Hartzell Propeller Inc. manuals that provide important details for procedures such as anodizing, penetrant inspection, and overhaul procedures for hub units.

      (5) Where possible, this manual is written in the format specified by ATA iSpec 2200.

B. Item References

(1) Item references throughout the text in this manual refer to item numbers in the Illustrated Parts List chapter of this manual. The item numbers appear in parentheses directly following the part name. Only the item base number will appear in the text of the manual. Item base numbers and the alpha variants of the base numbers will appear in the illustrated parts list. There are two reasons for the use of alpha variants:

(a) A part may be superseded, replaced, or obsoleted by another part. For example, the pitch change block unit (105733) that is item 320 was superseded by the pitch change block unit (105733-1) that is item 320A.

(b) An Illustrated Parts List may contain multiple configurations. Effectivity codes are used to distinguish different part numbers within the same list. For example, one configuration may use a piston (B-2419) that is item 80, yet another configuration uses a piston (104256) that is item 80A. Effectivity codes are very important in the determination of parts in a given configuration.

2. Reference Publications

A. Hartzell Propeller Inc. Publications

(1) Information published in Service Bulletins, Service Letters, Service Advisories, and Service Instructions may supersede information published in this manual. The reader must consult active Service Bulletins, Service Letters, Service Advisories, and Service Instructions for information that may have not yet been incorporated into the latest revision of this manual.

(3) In addition to this manual, one or more of the following publications are required for information regarding specific recommendations and procedures to maintain propeller assemblies that are included in this manual.

Manual No. (ATA No.)	Available at www.hartzellprop.com	Hartzell Propeller Inc. Manual Title
n/a	Yes	Active Hartzell Propeller Inc. Service Bulletins, Service Letters, Service Instructions, and Service Advisories
Manual 159 (61-02-59)	Yes	Application Guide
Manual 165A (61-00-65)	Yes	Illustrated Tool and Equipment Manual
Manual 180 (30-61-80)	Yes	Propeller Ice Protection System Manual
Manual 202A (61-01-02)	Vol. 7, Yes Vol. 11, Yes	Standard Practices Manual, Volumes 1 through 11

B. Vendor Publications

None.

3. Personnel Requirements (Rev. 1)

   A. Service and Maintenance Procedures in this Manual

      (1) Personnel performing the service and maintenance procedures in this manual are expected to have the required equipment/tooling, training, and certifications (when required by the applicable Aviation Authority) to accomplish the work in a safe and airworthy manner.

      (2) Compliance to the applicable regulatory requirements established by the Federal Aviation Administration (FAA) or international equivalent, is mandatory for anyone performing or accepting responsibility for any inspection and/or repair and/or overhaul of any Hartzell Propeller Inc. product.

         (a) Maintenance records must be kept in accordance with the requirements established by the Federal Aviation Administration (FAA) or international equivalent.

         (b) Refer to Federal Aviation Regulation (FAR) Part 43 for additional information about general aviation maintenance requirements.

4. Special Tooling and Consumable Materials (Rev. 1)

   A. Special Tooling

      (1) Special tooling may be required for procedures in this manual. For further tooling information, refer to Hartzell Propeller Inc. Illustrated Tool and Equipment Manual 165A (61-00-65).

         (a) Tooling reference numbers appear with the prefix “TE” directly following the tool name to which they apply. For example, a template that is reference number 133 will appear as: template TE133.

   B. Consumable Materials

      (1) Consumable materials are referenced in certain sections throughout this manual. Specific approved materials are listed in the Consumable Materials chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

         (a) Consumable material reference numbers appear with the prefix “CM” directly following the material to which they apply. For example, an adhesive that is reference number 16 will appear as: adhesive CM16. Only the material(s) specified can be used.

5. Safe Handling of Paints and Chemicals (Rev. 1)

A. Instructions for Use

(1) Always use caution when handling or being exposed to paints and/or chemicals during propeller overhaul and/or maintenance procedures.

(2) Before using paint or chemicals, always read the manufacturer's label on the container(s) and follow specified instructions and procedures for storage, preparation, mixing, and/or application.

(3) Refer to the product's Material Safety Data Sheet (MSDS) for detailed information about the physical properties, health, and physical hazards of any paint or chemical.

6. Calendar Limits and Long Term Storage (Rev. 2)

A. Calendar Limits

(1) The effects of exposure to the environment over a period of time create a need for propeller overhaul regardless of flight time.

(2) A calendar limit between overhauls is specified in Hartzell Propeller Inc. Service Letter HC-SL-61-61Y.

(3) Experience has shown that special care, such as keeping an aircraft in a hangar, is not sufficient to permit extension of the calendar limit.

(4) The start date for the calendar limit is when the propeller is first installed on an engine.

(5) The calendar limit is not interrupted by subsequent removal and/or storage.

(6) The start date for the calendar limit must not be confused with the warranty start date, that is with certain exceptions, the date of installation by the first retail customer.

B. Long Term Storage

(1) Propellers that have been in storage have additional inspection requirements before installation. Refer to the Packaging and Storage chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

7. Component Life and Overhaul (Rev. 2)

WARNING: CERTAIN PROPELLER COMPONENTS USED IN NON-AVIATION APPLICATIONS ARE MARKED WITH DIFFERENT PART NUMBERS TO DISTINGUISH THEM FROM COMPONENTS USED IN AVIATION APPLICATIONS. DO NOT ALTER THE PART NUMBERS SHOWN ON PARTS DESIGNATED FOR NON-AVIATION APPLICATIONS OR OTHERWISE APPLY THOSE PARTS FOR USE ON AVIATION APPLICATIONS.

A. Component Life

(1) Component life is expressed in terms of hours of service (Time Since New, TSN) and in terms of hours of service since overhaul (Time Since Overhaul, TSO).

NOTE: TSN/TSO is considered as the time accumulated between rotation and landing, i.e., flight time.

(2) Time Since New (TSN) and Time Since Overhaul (TSO) records for the propeller hub and blades must be maintained in the propeller logbook.

(3) Both TSN and TSO are necessary for defining the life of the component. Certain components or in some cases an entire propeller, may be "life limited", which means that they must be replaced after a specified period of use (TSN).

(a) It is a regulatory requirement that a record of the Time Since New (TSN)be maintained for all life limited parts.

(b) Refer to the Airworthiness Limitations chapter in the applicable Hartzell Propeller Inc. Owner's Manual for a list of life limited components.

(4) When a component or assembly undergoes an overhaul, the TSO is returned to zero hours.

(a) Time Since New (TSN) can never be returned to zero.

(b) Repair without overhaul does not affect TSO or TSN.

(5) Blades and hubs are sometimes replaced while in service or at overhaul.

(a) Maintaining separate TSN and TSO histories for a replacement hub or blade is required.

(b) Hub replacement

1 If the hub is replaced, the replacement hub serial number must be recorded (the entry signed and dated) in the propeller logbook.

2 The propeller will be identified with the serial number of the replacement hub.

NOTE: Propeller assembly serial numbers are impression stamped on the hub. For stamping information, refer to the Parts Identification and Marking chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

3 The TSN and TSO of the replacement hub must be recorded and maintained in the propeller logbook.

4 If tracking any component(s) other than the hub/blades, maintain these TSN/TSO records separately in the propeller logbook.

NOTE: Hub replacement does not affect the TSN/TSO of any other propeller components.

B. Overhaul

(1) Overhaul is the periodic disassembly, cleaning, inspecting, repairing as necessary, reassembling, and testing in accordance with approved standards and technical data approved by Hartzell Propeller Inc.

(2) The overhaul interval is based on hours of service, i.e., flight time, or on calendar time.

(a) Overhaul intervals are specified in Hartzell Propeller Inc. Service Letter HC-SL-61-61Y.

(b) At such specified periods, the propeller hub assembly and the blade assemblies must be completely disassembled and inspected for cracks, wear, corrosion, and other unusual or abnormal conditions.

(3) Overhaul must be completed in accordance with the latest revision of the applicable component maintenance manual and other publications applicable to, or referenced in, the component maintenance manual.

(a) Parts that are not replaced at overhaul must be inspected in accordance with the check criteria in the applicable Hartzell Propeller Inc. component maintenance manual.

(b) Parts that must be replaced at overhaul are identified by a "Y" in the O/H column of the Illustrated Parts List in the applicable Hartzell Propeller Inc. component maintenance manual.

(4) The information in this manual supersedes data in all previously published revisions of this manual.

8. Damage/Repair Types (Rev. 1)

A. Airworthy/Unairworthy Damage

(1) Airworthy damage is a specific condition to a propeller component that is within the airworthy damage limits specified in the applicable Hartzell Propeller Inc. component maintenance manual.

(a) Airworthy damage does not affect the safety or flight characteristics of the propeller and conforms to its type design.

(b) Airworthy damage does not require repair before further flight, but should be repaired as soon as possible to prevent degradation of the damage.

(2) Unairworthy damage is a specific condition to a propeller component that exceeds the airworthy damage limits specified in the applicable Hartzell Propeller Inc. component maintenance manual.

(a) Unairworthy damage can affect the safety or flight characteristics of the propeller and does not conform to its type design.

(b) Unairworthy damage must be repaired before the blade is returned to service.

B. Minor/Major Repair

(1) Minor Repair

(a) Minor repair is that which may be done safely in the field by a certified aircraft mechanic.

1 For serviceable limits and repair criteria for Hartzell propeller components, refer to the applicable Hartzell Propeller Inc. component maintenance manual.

(2) Major Repair

(a) Major repair cannot be done by elementary operations.

(b) Major repair work must be accepted by an individual that is certified by the Federal Aviation Administration (FAA) or international equivalent.

1 Hartzell recommends that individuals performing major repairs also have a Factory Training Certificate from Hartzell Propeller Inc.

2 The repair station must meet facility, tooling, and personnel requirements and is required to participate in Hartzell Propeller Inc. Sample Programs as defined in the Approved Facilities chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

9. Propeller Critical Parts (Rev. 1)

A. Propeller Critical Parts

(1) Procedures in this manual may involve Propeller Critical Parts (PCP).

(a) These procedures have been substantiated based on Engineering analysis that expects this product will be operated and maintained using the procedures and inspections provided in the Instructions for Continued Airworthiness (ICA) for this product.

(b) Refer to the Illustrated Parts List chapter in the applicable Hartzell Propeller Inc. maintenance manual to identify the Propeller Critical Parts.

(2) Numerous propeller system parts can produce a propeller Major or Hazardous effect, even though those parts may not be considered as Propeller Critical Parts.

(a) The operating and maintenance procedures and inspections provided in the ICA for this product are, therefore, expected to be accomplished for all propeller system parts.

10. Warranty Service (Rev. 1)

A. Warranty Claims

(1) If you believe you have a warranty claim, contact the Hartzell Propeller Inc. Product Support Department to request a *Warranty Application* form. Complete this form and return it to Hartzell Product Support for evaluation **before proceeding with repair or inspection work**. Upon receipt of this form, the Hartzell Product Support Department will provide instructions on how to proceed.

(a) For Hartzell Propeller Inc. Product Support Department contact information, refer to the “Contact Information” section in this chapter.

11. Hartzell Propeller Inc. Contact Information (Rev. 2)

A. Product Support Department

(1) Contact the Product Support Department of Hartzell Propeller Inc. about any maintenance problems or to request information not included in this publication.

NOTE: When calling from outside the United States, dial (001) before dialing the telephone numbers below.

(a) Hartzell Propeller Inc. Product Support may be reached during business hours (8:00 a.m. through 5:00 p.m., United States Eastern Time) at (937) 778-4379 or at (800) 942-7767, toll free from the United States and Canada.

(b) Hartzell Propeller Inc. Product Support can also be reached by fax at (937) 778-4215, and by e-mail at techsupport@hartzellprop.com.

(c) After business hours, you may leave a message on our 24 hour product support line at (937) 778-4376 or at (800) 942-7767, toll free from the United States and Canada.

1 A technical representative will contact you during normal business hours.

2 Urgent AOG support is also available 24 hours per day, seven days per week via this message service.

(d) Additional information is available on the Hartzell Propeller Inc. website at www.hartzellprop.com.

B. Technical Publications Department

(1) For Hartzell Propeller Inc. service literature and revisions, contact:

Hartzell Propeller Inc.
Attn: Technical Publications Department
One Propeller Place
Piqua, Ohio 45356-2634 U.S.A.

Telephone: 937.778.4200
Fax: 937.778.4215
E-mail: manuals@hartzellprop.com

C. Recommended Facilities

(1) Hartzell Propeller Inc. recommends using Hartzell-approved distributors and repair facilities for the purchase, repair, and overhaul of Hartzell propeller assemblies or components.

(2) Information about the Hartzell Propeller Inc. worldwide network of aftermarket distributors and approved repair facilities is available on the Hartzell website at www.hartzellprop.com.

12. Definitions (Rev. 4)

A basic understanding of the following terms will assist in maintaining and operating Hartzell Propeller Inc. propeller systems.

Term	Definition
Annealed	Softening of material due to overexposure to heat
Aviation Certified	Intended for FAA or international equivalent type certificated aircraft applications. A TC and PC number must be stamped on the hub, and a PC number must be stamped on blades.
Aviation Experimental	Intended for aircraft/propeller applications not certified by the FAA or international equivalent. Products marked with an “X” at or near the end of the model number or part number are not certified by the FAA or international equivalent and are not intended to use on certificated aircraft.
Beta Operation	A mode of pitch control that is directed by the pilot rather than by the propeller governor
Beta Range	Blade angles between low pitch and maximum reverse blade angle
Beta System	Parts and/or equipment related to operation (manual control) of propeller blade angle between low pitch blade angle and full reverse blade angle
Blade Angle	Measurement of blade airfoil location described as the angle between the blade airfoil and the surface described by propeller rotation
Blade Centerline	An imaginary reference line through the length of a blade around which the blade rotates
Blade Station	Refers to a location on an individual blade for blade inspection purposes. It is a measurement from the blade “zero” station to a location on a blade, used to apply blade specification data in blade overhaul manuals Note: Do not confuse *blade station* with *reference blade radius*; they may not originate at the same location.
Blemish	An imperfection with visible attributes, but having no impact on safety or utility
Brinelling	A depression caused by failure of the material in compression

Term	Definition
Bulge	An outward curve or bend
Camber	The surface of the blade that is directed toward the front of the aircraft. It is the low pressure, or suction, side of the blade. The camber side is convex in shape over the entire length of the blade.
Chord	A straight line distance between the leading and trailing edges of an airfoil
Chordwise	A direction that is generally from the leading edge to the trailing edge of an airfoil
Co-bonded	The act of bonding a composite laminate and simultaneously curing it to some other prepared surface
Composite Material	Kevlar®, carbon, or fiberglass fibers bound together with, or encapsulated within an epoxy resin
Compression Rolling	A process that provides improved strength and resistance to fatigue
Constant Force	A force that is always present in some degree when the propeller is operating
Constant Speed	A propeller system that employs a governing device to maintain a selected engine RPM
Corrosion (Aluminum)	The chemical or electrochemical attack by an acid or alkaline that reacts with the protective oxide layer and results in damage of the base aluminum. Part failure can occur from corrosion due to loss of structural aluminum converted to corrosion product, pitting, a rough etched surface finish, and other strength reduction damage caused by corrosion.
Corrosion (Steel)	Typically, an electrochemical process that requires the simultaneous presence of iron (component of steel), moisture and oxygen. The iron is the reducing agent (gives up electrons) while the oxygen is the oxidizing agent (gains electrons). Iron or an iron alloy such as steel is oxidized in the presence of moisture and oxygen to produce rust. Corrosion is accelerated in the presence of salty water or acid rain. Part failure can occur from corrosion due to loss of structural steel converted to corrosion product, pitting, a rough etched surface finish and other strength reduction damage caused by corrosion.

Term	Definition
Corrosion Product (Aluminum)	A white or dull gray powdery material that has an increased volume appearance (compared to non-corroded aluminum). Corrosion product is not to be confused with damage left in the base aluminum such as pits, worm holes, and etched surface finish.
Corrosion Product (Steel)	When iron or an iron alloy such as steel corrode, a corrosion product known as rust is formed. Rust is an iron oxide which is reddish in appearance and occupies approximately six times the volume of the original material. Rust is flakey and crumbly and has no structural integrity. Rust is permeable to air and water, therefore the interior metallic iron (steel) beneath a rust layer continues to corrode. Corrosion product is not to be confused with damage left in the base steel such as pits and etched surface finish.
Crack	Irregularly shaped separation within a material, sometimes visible as a narrow opening at the surface
Debond	Separation of two materials that were originally bonded together in a separate operation
Defect	An imperfection that affects safety or utility
Delamination	Internal separation of the layers of composite material
Dent	The permanent deflection of the cross section that is visible on both sides with no visible change in cross sectional thickness
Depression	Surface area where the material has been compressed but not removed
Distortion	Alteration of the original shape or size of a component
Edge Alignment	Distance from the blade centerline to the leading edge of the blade
Erosion	Gradual wearing away or deterioration due to action of the elements
Exposure	Leaving material open to action of the elements

Term	Definition
Face	The surface of the blade that is directed toward the rear of the aircraft. The face side is the high pressure, or thrusting, side of the blade. The blade airfoil sections are normally cambered or curved such that the face side of the blade may be flat or even concave in the midblade and tip region.
Face Alignment	Distance from the blade centerline to the highest point on the face side perpendicular to the chord line
Feathering	The capability of blades to be rotated parallel to the relative wind, thus reducing aerodynamic drag
Fraying	A raveling or shredding of material
Fretting	Damage that develops when relative motion of small displacement takes place between contacting parts, wearing away the surface
Galling	To fret or wear away by friction
Gouge	Surface area where material has been removed
Hazardous Propeller Effect	The hazardous propeller effects are defined in Title 14 CFR section 35.15(g)(1)
Horizontal Balance	Balance between the blade tip and the center of the hub
Impact Damage	Damage that occurs when the propeller blade or hub assembly strikes, or is struck by, an object while in flight or on the ground
Inboard	Toward the butt of the blade
Intergranular Corrosion	Corrosion that attacks along the grain boundaries of metal alloys
Jog	A term used to describe movement up/down, left/right, or on/off in short incremental motions
Laminate	To unite composite material by using a bonding material, usually with pressure and heat
Lengthwise	A direction that is generally parallel to the pitch axis
Loose Material	Material that is no longer fixed or fully attached
Low Pitch	The lowest blade angle attainable by the governor for constant speed operation

Term	Definition
Major Propeller Effect	The major propeller effects are defined in Title 14 CFR section 35.15(g)(2)
Minor Deformation	Deformed material not associated with a crack or missing material
Monocoque	A type of construction in which the outer skin carries all or a major part of the load
Nick	Removal of paint and possibly a small amount of material
Non-Aviation Certified	Intended for non-aircraft application, such as Hovercraft or Wing in Ground Effect (WIG) applications. These products are certificated by an authority other than FAA. The hub and blades will be stamped with an identification that is different from, but comparable to TC and PC.
Non-Aviation Experimental	Intended for non-aircraft application, such as Hovercraft or Wing-In-Ground effect (WIG) applications. Products marked with an “X” at or near the end of the model number or part number are not certified by any authority and are not intended for use on certificated craft.
Onspeed	Condition in which the RPM selected by the pilot through the propeller control/condition lever and the actual engine (propeller) RPM are equal
Open Circuit	Connection of high or infinite resistance between points in a circuit which are normally lower
Outboard	Toward the tip of the blade
Overhaul	The periodic disassembly, inspection, repair, refinish, and reassembly of a propeller assembly to maintain airworthiness
Overspeed	Condition in which the RPM of the propeller or engine exceeds predetermined maximum limits; the condition in which the engine (propeller) RPM is higher than the RPM selected by the pilot through the propeller control/condition lever
Pitch	Same as “Blade Angle”
Pitting	Formation of a number of small, irregularly shaped cavities in surface material caused by corrosion or wear

Term	Definition
Pitting (Linear)	The configuration of the majority of pits forming a pattern in the shape of a line
Porosity	An aggregation of microvoids. See “voids”.
Propeller Critical Parts	A part on the propeller whose primary failure can result in a hazardous propeller effect, as determined by the safety analysis required by Title 14 CFR section 35.15
Reference Blade Radius	Refers to the propeller reference blade radius in an assembled propeller, e.g., 30-inch radius. A measurement from the propeller hub centerline to a point on a blade, used for blade angle measurement in an assembled propeller. An adhesive stripe (blade angle reference tape CM160) is usually located at the reference blade radius location. Note: Do not confuse *reference blade radius* with *blade station*; they may not originate at the same point.
Reversing	The capability of rotating blades to a position to generate reverse thrust to slow the aircraft or back up
Scratch	Same as “Nick”
Short Circuit	Connection of low resistance between points on a circuit between which the resistance is normally much greater
Shot Peening	Process where steel shot is impinged on a surface to create compressive surface stress, that provides improved strength and resistance to fatigue
Single Acting	Hydraulically actuated propeller that utilizes a single oil supply for pitch control
Split	Delamination of blade extending to the blade surface, normally found near the trailing edge or tip
Station Line	See "Blade Station"
Synchronizing	Adjusting the RPM of all the propellers of a multi-engine aircraft to the same RPM
Synchrophasing	A form of propeller sychronization in which not only the RPM of the engines (propellers) are held constant, but also the position of the propellers in relation to each other

Term	Definition
Ticking	A series of parallel marks or scratches running circumferentially around the diameter of the blade
Track	In an assembled propeller, a measurement of the location of the blade tip with respect to the plane of rotation, used to verify face alignment and to compare blade tip location with respect to the locations of the other blades in the assembly
Trailing Edge	The aft edge of an airfoil over which the air passes last
Trimline	Factory terminology referring to where the part was trimmed to length
Underspeed	The condition in which the actual engine (propeller) RPM is lower than the RPM selected by the pilot through the propeller control/condition lever
Unidirectional Material	A composite material in which the fiber are substantially oriented in the same direction
Variable Force	A force that may be applied or removed during propeller operation
Vertical Balance	Balance between the leading and trailing edges of a two-blade propeller with the blades positioned vertically
Voids	Air or gas that has been trapped and cured into a laminate
Windmilling	The rotation of an aircraft propeller caused by air flowing through it while the engine is not producing power
Woven Fabric	A material constructed by interlacing fiber to form a fabric pattern
Wrinkle (aluminum blade)	A wavy appearance caused by high and low material displacement
Wrinkle (composite blade)	Overlap or fold within the material

13. Abbreviations (Rev.2)

Abbreviation	Term
AD	Airworthiness Directives
AMM	Aircraft Maintenance Manual
AOG	Aircraft on Ground
AR	As Required
ATA	Air Transport Association
CSU	Constant Speed Unit
FAA	Federal Aviation Administration
FH	Flight Hour
FM	Flight Manual
FMS	Flight Manual Supplement
Ft-Lb	Foot-Pound
HMI	Human Machine Interface
ICA	Instructions for Continued Airworthiness
ID	Inside Diameter
In-Lb	Inch-Pound
IPL	Illustrated Parts List
IPS	Inches Per Second
kPa	Kilopascals
Lb(s)	Pound(s)
Max.	Maximum
Min.	Minimum
MIL-X-XXX	Military Specification
MPI	Major Periodic Inspection (Overhaul)
MS	Military Standard
MSDS	Material Safety Data Sheet
N	Newtons

Abbreviation	Term
N/A	Not Applicable
NAS	National Aerospace Standards
NASM	National Aerospace Standards, Military
NDT	Nondestructive Testing
NIST	National Institute of Standards and Technology
N•m	Newton-Meters
OD	Outside Diameter
OPT	Optional
PC	Production Certificate
PCP	Propeller Critical Part
PLC	Programmable Logic Controller
PMB	Plastic Media Blasting (Cleaning)
POH	Pilot's Operating Handbook
PSI	Pounds per Square Inch
RF	Reference
RPM	Revolutions per Minute
SAE	Society of Automotive Engineers
STC	Supplemental Type Certificate
TBO	Time Between Overhaul
TC	Type Certificate
TSI	Time Since Inspection
TSN	Time Since New
TSO	Time Since Overhaul
UID	Unique Identification
WIG	Wing-In-Ground-Effect

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CLEANING - CONTENTS

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WARNING: ADHESIVES AND SOLVENTS ARE FLAMMABLE AND TOXIC TO THE SKIN, EYES, AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION ARE REQUIRED. AVOID PROLONGED CONTACT AND BREATHING OF VAPORS. USE SOLVENT RESISTANT GLOVES TO MINIMIZE SKIN CONTACT AND WEAR SAFETY GLASSES FOR EYE PROTECTION. USE IN A WELL VENTILATED AREA AWAY FROM SPARKS AND FLAME. READ AND OBSERVE ALL WARNING LABELS.

CAUTION: INSTRUCTIONS AND PROCEDURES IN THIS SECTION MAY INVOLVE PROPELLER CRITICAL PARTS. REFER TO THE INTRODUCTION CHAPTER OF THIS MANUAL FOR INFORMATION ABOUT PROPELLER CRITICAL PARTS. REFER TO THE ILLUSTRATED PARTS LIST CHAPTER OF THE APPLICABLE OVERHAUL MANUAL(S) FOR THE IDENTIFICATION OF SPECIFIC PROPELLER CRITICAL PARTS.

1. Cleaning of Aluminum Parts

CAUTION: ANY SOLVENT USED IN CLEANING PROCEDURES MUST NEITHER SOFTEN NOR DESTROY THE BOND BETWEEN CHEMICALLY ATTACHED PARTS.

A. Materials

(1) Refer to the Consumable Materials chapter Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

(a) Solvent, CM23 or equivalent

CAUTION 1: DO NOT USE STEAM CLEANING FOR AN ALUMINUM PART.

CAUTION 2: DO NOT USE A CHLORINATED CHEMICAL WHEN CLEANING AN ALUMINUM PART.

B. Procedure

(1) Using a clean cloth or brush dampened with solvent CM23 or equivalent, remove dirt, grease, etc. If the part is to be immersed in the solution make sure to limit the amount of time the part remains in the solution.

(2) Let the part dry.

(3) After an aluminum part has been cleaned, store it in a clean, dry place until time for inspection and rework procedures.

2. Cleaning of Steel Parts

CAUTION: ANY SOLVENT USED IN CLEANING PROCEDURES MUST NEITHER SOFTEN NOR DESTROY THE BOND BETWEEN CHEMICALLY ATTACHED PARTS.

A. Materials

(1) Refer to the Consumable Materials chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

(a) Solvent, CM23 or equivalent

(b) Corrosion preventative, CM108 or equivalent

B. Procedure

(1) Using a clean cloth or brush dampened with solvent CM23 or equivalent, remove dirt, grease, etc.

(a) If the part is to be immersed in the solution make sure to limit the amount of time the part remains in the solution.

(b) Steam cleaning a steel part is an acceptable alternative to using a solvent.

(3) Let the part dry.

(4) After the steel part has been cleaned and is dry, immediately apply corrosion preventative CM108 or equivalent to the part.

(5) After a steel part has been cleaned, store it in a clean, dry place until time for inspection and rework procedures.

3. Cleaning of Titanium Parts

CAUTION: ANY SOLVENT USED IN CLEANING PROCEDURES MUST NEITHER SOFTEN NOR DESTROY THE BOND BETWEEN CHEMICALLY ATTACHED PARTS.

A. Titanium Parts

(1) The following is a list of parts made of titanium:

(a) B-3361 - Feathering Spring

(b) D-4905 - Pitch Change Rod

(c) B-1046 - Feathering Spring

(d) B-1047 - Feathering Spring

(e) B-1033 - Pitch Change Knob Bracket

(f) B-1093 - Spring

(g) E13890( ) - blade plug

(h) 100460 - Piston

B. Materials

(1) Refer to the Consumable Materials chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

(a) Solvent, CM23 or equivalent

C. Procedure

CAUTION 1: DO NOT USE A CHLORINATED CLEANING SOLVENT.

CAUTION 2: DO NOT USE STEAM CLEANING FOR A COMPOSITE BLADE.

(1) Using a clean cloth or brush dampened with solvent CM23 or equivalent, remove dirt, grease, etc. If the part is to be immersed in the solution make sure to limit the amount of time the part remains in the solution.

NOTE: Except for composite blade plugs, steam cleaning a titanium part is an acceptable alternative to using a solvent.

(2) Let the part dry.

(3) After a titanium part has been cleaned, store it in a clean, dry place until time for inspection and rework procedures.

4. Plastic Media Cleaning

CAUTION: DO NOT USE PLASTIC MEDIA CLEANING TO ATTEMPT THE REMOVAL OF ANODIZED COATINGS.

A. Overview

(1) Plastic media cleaning is a common method used for the cleaning and stripping of paint and epoxy from parts.

(2) There is a wide variety of cleaning equipment and plastic media available; therefore, Hartzell Propeller Inc. permits the operator to make the decision about what type of equipment and plastic media to use.

(3) Hartzell Propeller Inc. approves the plastic media cleaning process if it adheres to the following guidelines.

B. Guidelines

(1) Etching and Inspection After Plastic Media Cleaning

CAUTION: DO NOT ETCH A TITANIUM PART.

(a) Etch an aluminum part before penetrant inspection.

NOTE: Typically, a part is given dye penetrant or other inspections after plastic media cleaning. It is possible that plastic residue or paint particles could become embedded in a crack and interfere with subsequent inspection; therefore, to eliminate potential contamination, an aluminum part must be etched before penetrant inspection.

(b) Etching or additional cleaning is not required for a part to be inspected by magnaflux or eddy current.

(2) Quality Control of the Plastic Media Cleaning Process

(a) Operation

1 Using a calibrated pressure gauge installed on the compressed air inlet line, regulate the air pressure to 40 PSI (2.8 bar) maximum.

2 For best performance, hold the nozzle at least 6 inches from the part during operation. A 45 degree impingement angle is preferred.

3 Continuously move the nozzle across the part at all times.

(b) Periodic Test Specimens

1 Procedures must be established and periodically re-verified by evaluation of typical parts to confirm that the parts are not being damaged during plastic media cleaning.

(c) Protection of the Part

1 As much as practical, controls must be established to minimize deviations from approved procedures.

NOTE: There is often a desire to accelerate the cleaning process by methods such as increasing air pressure, holding the nozzle closer to the part, or other means. The result is increased risk of damage to the part.

(d) Re-Cycling/Filtering of Media

CAUTION: DO NOT CONTAMINATE THE PLASTIC MEDIA.

1 Carefully follow the manufacturer's recommendations.

2 Media must be periodically inspected to make sure that it is being properly filtered.

(e) Operator Training

NOTE: Plastic media cleaning can appear to be a harmless procedure and there may be a tendency to minimize operator training. This could be a costly error. An operator must be aware of the potential damage caused by improper use of equipment.

1 Train the operator regarding:

a Media contamination

b Air pressure

c Nozzle manipulation (distance from part, impingement angle, dwell time)

d Equipment manufacturer's safety procedures

(3) Composite Propeller Blades

CAUTION: DO NOT USE PLASTIC MEDIA CLEANING FOR THE REMOVAL OF PAINT FROM THE AREAS OF COMPOSITE MATERIAL ON A COMPOSITE BLADE.

(a) Plastic media cleaning may only be used on the metal shank parts of a composite blade.

(b) Any composite surface damaged by cleaning must be retired or returned to the Hartzell Propeller Inc. factory for evaluation.

(4) Metal Abrasion

NOTE: In extreme cases such as high air pressure or unusually abrasive plastic media, metal abrasion can occur.

(a) Parts must be examined frequently for evidence of metal abrasion.

(b) If metal abrasion damage is found, damage may be repaired within the limits of existing repair tolerances and procedures.

(5) Waste Disposal

(a) Unless the chemical composition of the material being cleaned is known to be safe, consider waste material hazardous and discard it in an approved manner.

(6) Anodic or Chemical Coating

NOTE: Plastic media cleaning can have a detrimental effect on anodic or corrosion preventative coatings. Even though an anodized surface appears satisfactory after cleaning, its actual corrosion resistance could be degraded.

(a) Re-anodize or apply chemical conversion coating following plastic media cleaning.

(7) Fatigue Life

(a) To date there has been no information that indicates a detrimental effect upon fatigue in aluminum parts with thickness of 0.070 inch (1.778 mm) or greater because of plastic media cleaning.

5. Glass Media Cleaning

CAUTION: DO NOT USE GLASS MEDIA CLEANING ON BLADES.

A. Overview

CAUTION: IT IS VERY IMPORTANT TO REMEMBER THAT METAL ABRASION OCCURS DURING THE GLASS MEDIA CLEANING PROCESS, ESPECIALLY WHEN USING THE PROCESS ON ALUMINUM PARTS.

(1) Glass bead cleaning using media in accordance with Table 1-1 in this chapter is an acceptable cleaning method; however, controls (using minimal pressure, duration, etc.) must be used to prevent abrasion.

(2) Use care when removing defects from a hub surface that has been shot peened. Shot peen marks may appear as tooling marks and should not be removed.

(3) There is a wide variety of cleaning equipment and glass media available; therefore, Hartzell Propeller Inc. permits the operator to make the decision of what type of equipment and glass media to use.

(4) Hartzell Propeller Inc. approves the glass media cleaning process for corrosion removal if it adheres to the following guidelines.

Option	Media Description	U.S Sieve Size
1	Size 10 per Mil-PRF-9954	100-170
2	Size 11 per Mil-PRF-9954	120-200
3	Size 12 per Mil-PRF-9954	140-230
4	Size 13 per Mil-PRF-9954	170-325
5	Any brand, glass bead media that is U.S. sieve size 100 or higher sieve number, i.e., glass bead size diameter 0.0059 inch or smaller, with a minimum of 80 percent round particles	
NOTE: Crushed glass or glass grit is not acceptable.		

Glass Media Options for Cleaning
Table 1-1

B. Guidelines

(1) Inspection

CAUTION: DO NOT ETCH A TITANIUM PART.

(a) Etch an aluminum part before penetrant inspection.

NOTE: Typically, a part is given dye penetrant or other inspections after glass media cleaning. It is possible that glass residue or particles of corrosion could become embedded in a crack and interfere with inspection; therefore, to eliminate potential contamination, an aluminum part must be etched before penetrant inspection.

(b) Etching or additional cleaning is not required for a part to be inspected by magnaflux or eddy current.

(2) Quality Control

(a) Operation

1 Using a calibrated pressure gauge installed on the compressed air inlet line, regulate the air pressure to 80 PSI (5.5 bar) maximum.

2 For best performance, hold the nozzle at least 6 inches from the part during operation. A 45 degree impingement angle is preferred.

3 Continuously move the nozzle across the part at all times.

(b) Periodic Test Specimens

1 Procedures must be established and periodically re-verified by evaluation of typical parts to confirm that the parts are not being damaged during glass media cleaning.

(c) Protection of the Part

CAUTION: DO NOT ATTEMPT TO ACCELERATE THE CORROSION REMOVAL PROCESS BY METHODS SUCH AS INCREASING AIR PRESSURE, HOLDING THE NOZZLE CLOSER TO THE PART, OR OTHER MEANS. THE RESULT WILL BE DAMAGE TO THE PART.

1 As much as practical, controls must be established to minimize deviations from approved procedures.

(d) Re-Cycling/Filtering of Media

CAUTION: DO NOT CONTAMINATE THE GLASS MEDIA.

1 Carefully follow the manufacturer's recommendations.

2 Media must be periodically inspected to make sure that it is being properly filtered.

(e) Operator Training

NOTE: Glass media cleaning is an aggressive procedure. Minimizing operator training could be a costly error. An operator must be aware of the potential damage caused by improper use of equipment.

1 Train the operator regarding:

a Media contamination

b Air pressure

c Nozzle manipulation (distance from part, impingement angle, dwell time)

d Equipment manufacturer's safety procedures

(3) Metal Abrasion

CAUTION: IT IS VERY IMPORTANT TO REMEMBER THAT METAL ABRASION OCCURS DURING THE GLASS MEDIA CLEANING PROCESS.

(a) Parts must be examined frequently for evidence of metal abrasion.

(b) If metal abrasion damage is found, damage may be repaired within the limits of existing repair tolerances and procedures.

(4) Waste Disposal

(a) Unless the chemical composition of the material being cleaned is known to be safe, consider waste material hazardous and discard it in an approved manner.

(5) Anodic or Chemical Coating

CAUTION: GLASS MEDIA CLEANING BREAKS DOWN ANODIC OR CORROSION PREVENTATIVE COATINGS. GLASS CLEANING IS NOT AN ALTERNATE METHOD OF REMOVING ANODIZE.

(a) Chromic acid anodize may be reapplied or chemical conversion coating may be applied at overhaul if permitted. Refer to the Check chapter of the applicable overhaul manual for the specific part.

(b) Sulfuric acid anodize may not be reapplied to hard anodized parts.

(6) Fatigue Life

(a) To date there has been no information that indicates a detrimental effect upon fatigue in aluminum parts with thickness of 0.070 inch (1.778 mm) or greater.

6. Water Soluble Cleaners

A. General

(1) Locally procurable water soluble cleaners that meet the criteria given in this section may be used for surface cleaning and preparation for processes included in Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

B. Criteria for Cleaners

CAUTION: SOME COMMERCIAL CLEANERS AND SURFACE PREPARATIONS ARE NOT RECOMMENDED FOR USE WITH HIGH-COPPER CONTENT ALUMINUM ALLOYS. DO NOT USE THESE PRODUCTS ON HARTZELL PROPELLER INC. ALUMINUM COMPONENTS. CONSULT THE PRODUCT TECHNICAL DATA SHEET BEFORE USING.

(1) Must have an alkaline pH

(2) Contains no chlorine or corrosive agents

(3) Is non-abrasive

(4) Leaves no residue when rinsed

(5) Cleans surface with no breaks in the water when rinsing, i.e., “water break" free

(6) Does not harm base material

PAINT AND FINISH - CONTENTS

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CAUTION: INSTRUCTIONS AND PROCEDURES IN THIS CHAPTER MAY INVOLVE PROPELLER CRITICAL PARTS. REFER TO THE INTRODUCTION CHAPTER OF THIS MANUAL FOR INFORMATION ABOUT PROPELLER CRITICAL PARTS. REFER TO THE ILLUSTRATED PARTS LIST CHAPTER OF THE APPLICABLE OVERHAUL MANUAL(S) FOR THE IDENTIFICATION OF SPECIFIC PROPELLER CRITICAL PARTS.

1. Overview

A. General

(1) Using masking tape or paper, mask all areas of parts that are not to be primed and painted.

(2) Cheesecloth, such as CM159, is recommended for use as a lint-free cloth.

(3) Refer to the Consumable Materials chapter in Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02), for the shelf life, pot life, cure time, and storage temperature of paints, primers, and other materials used in this chapter.

(4) Dispose of material in accordance with the local requirements.

(5) The Tip Paint Schemes, Tip Paint Patterns, and Paint Finish Schemes (listed in the applicable blade paint scheme table - Table 2-6 through Table 2-21) are the specifications to paint a blade to look as it did when new from Hartzell Propeller Inc.

CAUTION: MAKE SURE OF THE VISIBILITY OF THE BLADE TIP IF USING A TIP PAINT PATTERN OR A TIP SCHEME OTHER THAN THOSE SPECIFIED IN THE PAINT SCHEME TABLES.

(a) Blade tip stripes may be painted using any pattern that makes the blade tip visible.

(b) A blade may be painted using any color Polane® T paint in accordance with paint procedures in this chapter.

2. Equipment

A. General

(1) Apply all Sherwin-Williams Polane® T paints with a high volume, low pressure, air spray gun. Examples of appropriate air spray guns are:

(a) DeVilbiss MBC that uses an “E” tip needle and a No. 30 air cap, or equivalent, at 40 - 50 psi (2.7 - 3.4 bars) atomizing pressure.

(b) Binks Mach 1 HVLP that uses the test gauge air cap assembly to adjust the inlet pressure to attain a nozzle atomizing pressure of 5.5 - 7.5 psi (0.38 - 0.52 bar).

(2) Application with an automated paint system is acceptable, as long as the system is capable of applying the paint finish scheme, tip paint scheme, and tip paint pattern to the specifications within this chapter.

(3) Mixture 9, Lightning Guard may be applied with a standard air gun, cup gun, or pressure pot. An agitation system to keep the coating in suspension is required.

(4) Anti-static paint must be sprayed with an air pressure feed system only, at approximately 40 psi (2.7 bars) air pressure.

(5) A total minimum top coat (final color) paint thickness of 2 mils dry is required.

(a) The equivalency of 5 mils wet coat = 2 mils dry coat can be measured using a Sherwin-Williams wet film/mil gauge standard.

(b) An alternative to the Sherwin-Williams wet film/mil gauge standard is an eddy current-type thickness checker. Use in accordance with the manufacturer's directions.

3. Paints and Primers

A. General

(1) All mixtures are measured by volume only.

(2) Use Polane Reducer CM32 to thin Sherwin-Williams Polane® T Paints.

(a) Use Polane Reducer CM32 only when mixing a new batch of paint.

(3) Use reducer CM167 to thin Sherwin-Williams Acrylic Urethane Paints.

(a) Use reducer CM167 only when mixing a new batch of paint.

(4) Use thinner CM316 to thin chromate primer TT-P-1757, Type I, Class C CM67.

(a) Up to 15% by volume of thinner CM316 may be used.

(5) Prepare wash primer CM410 with wash primer catalyst CM411 and 99% isopropyl alcohol CM412.

(6) When catalyst CM30 is used, add accelerator CM31 to accelerate drying.

NOTE: Based on 30 fluid ounces of paint, add 1/4 to 1 fluid ounce of accelerator CM31. On very humid days use 1/4 fluid ounce; on less humid days up to 1 fluid ounce may be needed to speed drying.

(7) When mixing various volumes of paint and primers, keep the ratio of component volumes constant.

(8) Pour the mixtures through a paint filter before pouring into a paint cup.

(9) Batch sizes are the typical amounts of each item per mixture. Typical sizes are:

Polane® T Paints	Wash Primer	All Others
30 fluid ounces Polane® T paint	32 fluid ounces wash primer (CM410)	Mix volume as needed using item ratios
5 fluid ounces catalyst	8 fluid ounces wash primer catalyst (CM411)	
5 - 15 fluid ounces reducer	24 fluid ounces 99% isopropyl alcohol (CM412)	
1/4 to 1 fluid ounce accelerator		

4. Quality Control

CAUTION: DO NOT APPLY PAINT WHEN THE ROOM TEMPERATURE IS LOWER THAN 60° F (15° C).

A. General

(1) Apply all mixtures when the room temperature is 60° F (15° C) or above.

(2) Spray or roll the Spray Fill (CM84) no more than 3 mils thickness dry. Adhesion strength weakens after 4 mils and impact adhesion is completely void at 8 mils of thickness.

(3) Curing time for maximum abrasion resistance and impact strength is seven days.

CAUTION: DO NOT SAND MIXTURE 13, CONDUCTIVE COATING, EXCEPT AS INSTRUCTED. SANDING MAY DAMAGE THE STATIC PATH.

(4) Maximum recommended time between coats for adequate layer-to-layer adhesion for paint coats is four hours.

(a) Application of a subsequent layer or finish coat to the previous layer, after four hours of cure, requires that the cured surface be lightly sanded and cleaned before the next application of paint.

(b) Refer to the appropriate section of this chapter for sanding and application instructions.

(5) Do not install plastic bags in an airtight configuration over any part that has not cured for a minimum of 24 hours because it may slow the curing of the paint.

(6) Pot Life

(a) Polane® T Paint

1 The pot life for a Polane® T paint mixture is eight hours at 77° F (25° C).

2 If accelerator is added to the Polane® T paint mixture, the pot life is approximately four hours at 77° F (25° C), depending on the amount of accelerator used.

(b) Acrylic Urethane Paint

1 The pot life for an Acrylic Urethane paint mixture is six hours at 75° F (24° C) with Hardener (CM169).

Temperature of Paint Room	Description	CM Number	Blend (humidity 65% or less)	Blend (humidity greater than 65%)
60-70°F (16-21°C)	Acry Glo® Reducer, Low Temperature	CM285	100%	75%
	Urethane Grade MEK	CM288	0%	25%
70-80°F (21-27°C)	Acry Glo® Reducer, Medium Temperature	CM284	100%	75%
	Urethane Grade MEK	CM288	0%	25%
80-90°F (27-32°C)	Acry Glo® Reducer, Medium Temperature	CM284	90-95%	67.5-71.25%
	Acry Glo® Reducer, High Temperature	CM286	5-10%	3.75-7.5%
	Urethane Grade MEK	CM288	0%	25%
Above 90°F (32°C)	Acry Glo® Reducer, Medium Temperature	CM284	75-90%	56.25-67.5%
	Acry Glo® Reducer, High Temperature	CM286	10-25%	7.5-18.75%
	Urethane Grade MEK	CM288	0%	25%

Acry Glo® Series 571 Reducer Components and Blend Requirements
Table 2-1

5. Paint/Primer Mixtures

NOTE: Refer to the sections, Blade Paint/Repair Kits for Composite Blades, Minor Paint/Repair Kits for Composite Blades, and Paint Kits for All Except Composite Blades, in this chapter for lists of paint kits.

WARNING 1: THE INGREDIENTS OF FINISH MATERIALS ARE FLAMMABLE. KEEP THEM AWAY FROM HEAT AND FLAME.

WARNING 2: USE FINISH MATERIALS ONLY WHERE THERE IS ADEQUATE VENTILATION. AVOID BREATHING VAPORS AND SPRAY MISTS. AVOID CONTACT WITH SKIN AND EYES.

A. Mixture 1, Primer Filler

6 parts Spray Fill (CM84)
1 part Catalyst (CM85)
Polane Reducer (CM32), as needed, up to 25%

B. Mixture 2, Dark Gray Primer Sealer

13 parts Primer Sealer (CM29)
1 part Catalyst (CM30)
1 - 3.25 parts Polane Reducer (CM32), as needed to spray
Accelerator (CM31), as needed

C. Mixture 3, Washer Primer

4 parts Wash Primer (CM24)
4 parts Reducer, Wash Primer (CM25)
1 part Acid Diluent (CM26)
Let stand 30 minutes before using

NOTE: The Hartzell Propeller Inc. required mix ratio is as shown here. The mix ratio differs from the manufacturer's label. Make sure to use the mix ratio that is specified by Hartzell Propeller Inc.

Alternate Mixture 3, Washer Primer

4 parts Wash Primer (CM410)
1 part Wash Primer Catalyst (CM411)
3 parts 99% Isopropyl Alcohol (CM412)

D. Mixture 4, Gray Polane® T

6 parts Paint, Gray Polane® T (CM34)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

E. Mixture 5, Black Polane® T

6 parts Paint, Black Polane® T (CM33)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

F. Mixture 6, Flat White Polane® T

6 parts Paint, Flat White Polane® T (CM36)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

G. Mixture 7, “P” Static - Obsolete

Replaced by Mixture 13, Conductive Coating

H. Mixture 8, Gray Metallic Polane® T

6 parts Paint, Gray Metallic Polane® T (CM35)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

I. Mixture 9, Lightning Guard

1 part Curing Solution - Part A (part of CM170, not sold separately)
7 parts Base - Part B (part of CM170, not sold separately)
0.25 parts Retardant - Part C (part of CM170, not sold separately)
3.7 to 7 parts Toluene (CM41) (viscosity adjustment)

J. Mixture 10, Yellow Polane® T

6 parts Paint, Yellow Polane® T (CM165)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

K. Mixture 11, Red Polane® T

6 parts Paint, Red Polane® T (CM120)
1 part Catalyst (CM30)
1 -3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

L. Mixture 12, Static Black Polane® T - Obsolete

Replaced by Mixture 5, Black Polane® T

M. Mixture 13, Conductive Coating

1 part Conductive Coating Base, Black (part of CM164, not sold separately)
1 part Conductive Coating Activator (part of CM164, not sold separately)

N. Mixture 14, Gold Metallic

4 parts Paint, Acrylic Urethane, Gold Metallic (CM168)
2 parts Reducer, Acrylic Urethane (CM167)
1 part Hardener, Acrylic Urethane (CM169)

O. Mixture 15, Matterhorn White Polane® T

3 parts Paint, Matterhorn White Acry Glo (CM282)
1 part Catalyst (CM283)
1 -3 parts Reducer (CM288), as required to achieve desired dry thickness
(Refer to Table 2-1)
Accelerator (CM287), as needed

P. Mixture 16, Silver Polane® T

6 parts Paint, Silver Polane® T (CM163)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

Q. Mixture 17, Cream Polane® T

6 parts Paint, Cream Polane® T (CM63)
1 part Catalyst (CM30)
1 -3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

R. Mixture 18, Bright Red Polane® T

6 parts Paint, Bright Red Polane® T (CM200)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

S. Mixture 19, Bright Yellow Polane® T

6 parts Paint, Bright Yellow Polane® T (CM201)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

T. Mixture 20, Bright Silver Polane® T

6 parts Paint, Bright Silver Polane® T (CM203)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

U. Mixture 21, Prop Gold Polane® T

6 parts Paint, Prop Gold Polane® T (CM204)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

V. Mixture 22, Photoluminescent Paint Base Coat

6 parts Paint, Polane White, PL Base (CM224)
2 parts Reducer, Photoluminescent (CM228)
1 part Hardener, PL Base Coat (CM225)

W. Mixture 23, Photoluminescent Paint PL Coat

10 parts Paint, Polane White, PL Base (CM226)
2 parts Reducer, Photoluminescent (CM228)
2 parts Hardener, Photoluminescent (CM227)

X. Mixture 24, Photoluminescent Paint Clear Coat

6 parts Coating, PL Clear Coat (CM229)
1.5 parts Reducer, PL Clear Coat (CM230)
1 part Hardener, PL Clear Coat (CM231)

Y. Mixture 25, Metallic Sterling Silver

3 parts Paint, Metallic Sterling Silver Acry Glo (CM291)
1/2 part Catalyst (CM283)
1 -3 parts Reducer (CM288), as required to achieve desired dry thickness
(Refer to Table 2-1)
Accelerator (CM287), as needed

Z. Mixture 27, Sterling Silver Polane® T

6 parts Paint, Sterling Polane® T (CM303)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

AA. Mixture 28, Ghost Gray Polane® T

6 parts Paint, Ghost Gray Polane® T (CM317)
1 part Catalyst (CM30)
1 - 3 parts Polane Reducer (CM32), as required to achieve desired dry thickness
Accelerator (CM31), as needed

AB. Mixture 29, Dark Gray Primer Sealer

13 parts Primer Sealer, Gray (CM318)
1 part Catalyst (CM30)
1 - 3.25 parts Polane Reducer (CM32), as needed
Accelerator (CM31), as needed

6. Paint/Repair Kits for Composite Blades

WARNING 1: THE INGREDIENTS OF FINISH MATERIALS ARE FLAMMABLE. KEEP THEM AWAY FROM HEAT AND FLAME.

WARNING 2: USE FINISH MATERIALS ONLY WHERE THERE IS ADEQUATE VENTILATION. AVOID BREATHING VAPORS AND SPRAY MISTS. AVOID CONTACT WITH SKIN AND EYES.

NOTE: A one quart paint kit will paint approximately 8 blades.

A. A-2328 Repair/Paint Kit, M10877K Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
32 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
64 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
32 fluid ounces Paint, Metallic Gray Polane® T (CM35)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

B. A-2328-1 Repair/Paint Kit, LM10585( ) Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
32 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
64 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
32 fluid ounces Paint, Gray Polane® T (CM34)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
5 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

C. A-2328-3 Repair/Paint Kit, M10083(K) Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
40 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
32 fluid ounces Lightning Guard Base, Part B (part of CM170, not sold separately)
4 fluid ounces Lightning Guard Curing Solution, Part A (part of CM170, not sold separately)
1 fluid ounce Lightning Guard Retardant, Part C (part of CM170, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
32 fluid ounces Toluene (CM41)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

D. A-2328-4 Repair/Paint Kit, E10950P(C)(B,K) Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
32 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
64 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Polane® T, Flat White (CM36)
32 fluid ounces Paint, Polane® T, Black (CM33)
32 fluid ounces Paint, Polane® T, Metallic Gray (CM35)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

E. A-2328-5 Repair/Paint Kit, E12902K Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
64 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
16 fluid ounces Paint, Red Polane® T (CM120)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

F. A-2328-6 Repair/Paint Kit, ( )7690( ) Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
40 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

G. A-2328-22 Repair/Paint Kit, A10460( ) and E11990( ) Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
40 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

H. A-2328-23 Repair/Paint Kit, A10460( ) and E11990( ) Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
64 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
32 fluid ounces Paint, Gray Polane® T (CM34)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

I. A-2328-24 Repair/Paint Kit, E13890K and E9193B Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
40 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 each 104 Carbon Cloth 12 Inches X 12 inches (CM111)

J. A-2328-28 Repair/Paint Kit, 7890( ) Blades

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
40 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
16 fluid ounces Paint, Red Polane® T (CM120)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

K. A-2328-29 Repair/Paint Kit, E8190K Blades

32 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Flat White Polane® T (CM36)
32 fluid ounces Paint, Black Polane® T (CM33)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

7. Minor Paint/Repair Kits for Composite Blades

WARNING 1: THE INGREDIENTS OF FINISH MATERIALS ARE FLAMMABLE. KEEP THEM AWAY FROM HEAT AND FLAME.

WARNING 2: USE FINISH MATERIALS ONLY WHERE THERE IS ADEQUATE VENTILATION. AVOID BREATHING VAPORS AND SPRAY MISTS. AVOID CONTACT WITH SKIN AND EYES.

A. A-2328-8 Repair/Paint Kit, Lightning Guard

32 fluid ounces Lightning Guard Base, Part B (Part of CM170, not sold separately)
4 fluid ounces Lightning Guard Curing Solution, Part A (Part of CM170, not sold separately)
1 fluid ounce Lightning Guard Retardant, Part C (Part of CM170, not sold separately)
32 fluid ounces Toluene (CM41)

B. A-2328-9 Repair/Paint Kit, Minor Kevlar Repair

16 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
1 each Adhesive (CM14)
5 ounces (by weight) Milled Fiberglass (CM56)
2 each E-glass 12 inches X 12 inches (CM55)

C. A-2328-10 Repair/Paint Kit, Minor Carbon Repair

16 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
1 each Adhesive (CM14)
2 each Carbon Cloth 2 inches X 12 inches (CM111)

D. A-2328-11 Repair/Paint Kit, White Polane® T Paint Tip

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Flat White Polane® T (CM36)

E. A-2328-12 Repair/Paint Kit, Primer Fill

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)

F. A-2328-13 Repair/Paint Kit, Conductive Coating (quart)

16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)

G. A-2328-14 Repair/Paint Kit, Metallic Gray Polane® T

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Metallic Gray Polane® T (CM35)

H. A-2328-15 Repair/Paint Kit, Primer Sealer

32 fluid ounces Primer Sealer (CM29)
4 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
4 fluid ounces Polane Reducer (CM32)

I. A-2328-17 Repair/Paint Kit, Red Polane® T

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Red Polane® T (CM120)

J. A-2328-18 Repair/Paint Kit, Black Polane® T

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Black Polane® T (CM33)

K. A-2328-19 Repair/Paint Kit, Gray Polane® T

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Gray Polane® T (CM34)

L. A-2328-21 Repair/Paint Kit, Adhesive "Misc. Repairs"

1 each Adhesive (CM14)

M. A-2328-30 Repair/Paint Kit, Conductive Coating (two gallon)

128 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
128 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)

N. A-2328-31 Repair/Paint Kit, Bright Red Polane® T

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Bright Red Polane® T (CM200)

O. A-2328-32 Repair/Paint Kit, Bright Yellow Polane® T

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Polane® T, Bright Yellow (CM201)

P. A-2328-33 Repair/Paint Kit

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
40 fluid ounces Polane Reducer (CM32)
16 fluid ounces Paint, Polane® T, Flat White (CM36)
32 fluid ounces Paint, Polane® T, Black (CM33)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-Glass 12 inches X 12 inches (CM55)

Q. A-2328-34 Repair/Paint Kit

32 fluid ounces Spray Fill (CM84)
4 fluid ounces Catalyst (CM85)
32 fluid ounces Primer Sealer (CM29)
16 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
40 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Black Polane® T (CM33)
16 fluid ounces Conductive Coating Base, Black (part of CM164, not sold separately)
16 fluid ounces Conductive Coating Activator (part of CM164, not sold separately)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)
5 fluid ounces Industrial Sealant (CM9) or Sealant (CM161)
1 each Adhesive (CM14)
2 ounces (by weight) Milled Fiberglass (CM56)
2 each E-Glass 12 inches X 12 inches (CM55)
16 fluid ounces Paint, Bright Yellow Polane® T (CM201)
16 fluid ounces Paint, Bright Red Polane® T (CM200)

R. A-2328-35 Repair/Paint Kit, Bright Silver Polane® T

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Bright Silver Polane® T (CM203)

S. A-2328-36 Repair/Paint Kit, Prop Gold Polane® T

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
32 fluid ounces Paint, Prop Gold Polane® T (CM204)

T. 106561 Repair/Paint Kit, Composite Blade Minor Repair Kit

Vacuum Bag, 16 inch Tube x 0.004 inch Thick Polybutylene x foot (CM45)
12 fluid ounces Silver, Paint, Touch-up (CM190)
6 fluid ounces Paint, Touch-up, Red (CM149)
6 fluid ounces Paint, Touch-up, White (CM147)
12 fluid ounces Paint, Touch-up, Black (CM145)
(2) Adhesive, EZ Pack, 25 grams (CM14)
Cloth, Carbon, 38 inch wide x foot (CM111)
E-Glass 38 inch wide x foot (CM55)
Fiberglass, Fabric, 2 ounce, 38 inch wide x foot (CM42)

8. Paint Kits for Aluminum Blades

WARNING 1: THE INGREDIENTS OF FINISH MATERIALS ARE FLAMMABLE. KEEP THEM AWAY FROM HEAT AND FLAME.

WARNING 2: USE FINISH MATERIALS ONLY WHERE THERE IS ADEQUATE VENTILATION. AVOID BREATHING VAPORS AND SPRAY MISTS. AVOID CONTACT WITH SKIN AND EYES.

NOTE: A one quart paint kit will paint approximately 8 blades.

A. A-2742 Paint Kit, Gray (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Gray Polane® T (CM34)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)

B. A-2742-1 Paint Kit, Gray (gallon)

1 quart Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
2 quarts Polane Reducer (CM32)
1 gallon Paint, Gray Polane® T (CM34)
2 quarts Wash Primer (CM410)
16 fluid ounces Wash Primer Catalyst (CM411)
1-1/2 quarts 99% Isopropyl Alcohol (CM412)

C. A-2742-2 Paint Kit, Black (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Black Polane® T (CM33)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)

D. A-2742-3 Paint Kit, Black (gallon)

1 quart Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
2 quarts Polane Reducer (CM32)
1 gallon Paint, Black Polane® T (CM33)
2 quarts Wash Primer (CM410)
16 fluid ounces Wash Primer Catalyst (CM411)
1-1/2 quarts 99% Isopropyl Alcohol (CM412)

E. A-2742-4 Paint Kit, Yellow (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Yellow Polane® T (CM165)

F. A-2742-5 Paint Kit, Yellow (gallon)

1 quart Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
2 quarts Polane Reducer (CM32)
1 gallon Paint, Yellow Polane® T (CM165)

G. A-2742-6 Paint Kit, Red (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Red Polane® T (CM120)

H. A-2742-7 Paint Kit, Red (gallon)

1 quart Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
2 quarts Polane Reducer (CM32)
1 gallon Paint, Red Polane® T (CM120)

I. A-2742-8 Paint Kit, Static Black (quart) - Obsolete

Replaced by A-2742-2 Paint Kit, Black (quart)

J. A-2742-9 Paint Kit, Static Black (gallon) - Obsolete

Replaced by A-2742-3 Paint Kit, Black (gallon)

K. A-2742-10 Paint Kit, White Tip (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Flat White Polane® T (CM36)

L. A-2742-11 Paint Kit, White Tip (gallon)

24 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
2 quarts Polane Reducer (CM32)
1 gallon Paint, Flat White Polane® T (CM36)

M. A-2742-12 Paint Kit, Gold Tip (pint)

4 fluid ounces Hardener, Acrylic Urethane (CM169)
8 fluid ounces Reducer, Acrylic Urethane (CM167)
16 fluid ounces Paint, Acrylic Urethane, Gold Metallic (CM168)

N. A-2742-13 Paint Kit, Silver Metallic (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Silver Polane® T (CM163)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)

O. A-2742-14 Paint Kit, Silver Metallic (gallon)

1 quart Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
2 quarts Polane Reducer (CM32)
1 gallon Paint, Silver Polane® T (CM163)
2 quarts Wash Primer (CM410)
16 fluid ounces Wash Primer Catalyst (CM411)
1-1/2 quarts 99% Isopropyl Alcohol (CM412)

P. A-2742-15 Paint Kit, Wash Primer

16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)

Q. A-2742-16 Paint Kit, Cream (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Cream Polane® T (CM63)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)

R. A-2742-17 Paint Kit, Cream (gallon)

1 quart Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
2 quarts Polane Reducer (CM32)
1 gallon Paint, Cream Polane® T (CM63)
2 quarts Wash Primer (CM410)
16 fluid ounces Wash Primer Catalyst (CM411)
1-1/2 quarts 99% Isopropyl Alcohol (CM412)

S. A-2742-18 Paint Kit, Bright Silver (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Bright Silver Polane® T (CM203)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)

T. A-2742-19 Paint Kit, Bright Silver (gallon)

1 quart Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
2 quarts Polane Reducer (CM32)
1 gallon Paint, Bright Silver Polane® T (CM203)
2 quarts Wash Primer (CM410)
16 fluid ounces Wash Primer Catalyst (CM411)
1-1/2 quarts 99% Isopropyl Alcohol (CM412)

U. A-2742-20 Paint Kit, Prop Gold (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Prop Gold Polane® T (CM204)
16 fluid ounces Wash Primer (CM410)
4 fluid ounces Wash Primer Catalyst (CM411)
12 fluid ounces 99% Isopropyl Alcohol (CM412)

V. A-2742-21 Paint Kit, Sterling Silver (quart)

8 fluid ounces Catalyst (CM30)
4 fluid ounces Accelerator (CM31)
16 fluid ounces Polane Reducer (CM32)
1 quart Paint, Sterling Silver Polane® T (CM303)
2 quarts Wash Primer (CM410)
16 fluid ounces Wash Primer Catalyst (CM411)
1-1/2 quarts 99% Isopropyl Alcohol (CM412)

9. Paint Kits for Composite/Aluminum Blades

A. A-6741-233-1 Paint Kit, PL (Photoluminescent)

Category/ Painting Phase	Quantity	Item Name/CM Number	Identification Label/ CM Number	Label Color
Base Coat	6 fluid ounces	Paint, Polane White, PL Base	AG108 (CM224)	Red Dot
	1 fluid ounce	Hardener, PL Base Coat	AG109 (CM225)	Red Dot
	2 fluid ounces	Reducer, Photoluminescent	AG112 (CM228)	Red Dot
PL Coat	10 fluid ounces	Paint, Photoluminescent	AG110 (CM226)	Green Dot
	2 fluid ounces	Hardener, Photoluminescent	AG111 (CM227)	Green Dot
	2 fluid ounces	Reducer, Photoluminescent	AG112 (CM228)	Green Dot
During Loiter - used between PL coat layers to flush the paint gun	16 fluid ounces	Reducer, Photoluminescent	AG112 (CM228)	Green Dot
Clear Coat	6 fluid ounces	Coating, PL Clear Coat	AG113 (CM229)	Yellow Dot
	1.5 fluid ounces	Reducer, PL Clear Coat	AG114 (CM230)	Yellow Dot
	1 fluid ounce	Hardener, PL Clear Coat	AG115 (CM231)	Yellow Dot
Consumable, Paint Mix Prep	3	Funnel/Filter	AG106 (CM222)	n/a
Consumable, Paint Mix Prep	3	Stick, Stir	AG107 (CM223)	n/a
Consumable, Blade Surface Prep	1	Rag, Tac	AG116 (CM232	n/a
Consumable, Blade Surface Prep	1 roll	Tape, Vinyl, 1/4 inch width	AG105 (CM221)	n/a
Consumable, Blade Surface Prep	1 roll	Tape, Vinyl, 1/8 inch width	AG104 (CM220)	n/a
NOTE: One PL Paint Kit will provide enough paint to complete 20 propeller blade tips on one side. Some extra paint is included for equipment set up, small spills, and trial applications.				

WARNING 1: THE INGREDIENTS OF FINISH MATERIALS ARE FLAMMABLE. KEEP THEM AWAY FROM HEAT AND FLAME.

WARNING 2: USE ALL FINISH MATERIALS IN AN ADEQUATELY VENTILATED AREA. AVOID BREATHING VAPORS AND SPRAY MISTS. AVOID CONTACT WITH SKIN AND EYES.

CAUTION: ANY REFINISHING PROCEDURE WILL ALTER PROPELLER BALANCE. PROPELLERS THAT ARE OUT OF BALANCE MAY EXPERIENCE EXCESSIVE VIBRATIONS WHILE IN OPERATION.

10. Finish Procedures

A. General

(1) Refer to the Paint Scheme tables in this chapter for the blade preparation scheme number, blade paint finish scheme number, blade tip paint scheme number, and blade tip pattern number applicable to each blade/installation.

NOTE: A blade can be finished using any blade paint finish scheme. The blade finishes in this chapter describe how Hartzell Propeller Inc. produces the blades to meet customer requirements.

(2) Apply masking material, i.e., tape, paper, or shields, as required to restrict overspray.

(3) Blade preparation schemes are listed in the Blade Preparation Procedures section in this chapter.

(4) Blade paint finish schemes are listed in Table 2-2, "Blade Paint Scheme" in this chapter.

(5) Blade tip patterns are shown in Figure 2-5 through Figure 2-5.21 in this chapter.

(6) Blade tip paint schemes are listed in Table 2-3, "Tip Paint Scheme" in this chapter.

(7) When mixture numbers (Mix _) are called out in this chapter, refer to the sections, "Application of Blade Preparation Materials" and "Application of Blade Finish Materials" in this chapter for application, curing, and post cure treatment (sanding) of the mixture.

(8) The Minor Blemish Correction procedure may be performed at anytime before the application of the final coating.

CAUTION: DO NOT USE A VIBRATORY SANDER ON THE COMPOSITE BLADE RETENTION RADIUS AND MACHINED WINDINGS.

(9) The composite blade retention radius and machined windings must be hand sanded only. The use of a turning lathe is permitted.

CAUTION: PAINT MUST DRY A MINIMUM OF EIGHT HOURS BEFORE CONTINUING ASSEMBLY PROCEDURES.

(10) After painting, let the paint dry for a minimum of eight hours before continuing assembly procedures.

WARNING: SOLVENTS ARE FLAMMABLE AND TOXIC TO THE SKIN, EYES, AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION ARE REQUIRED. AVOID PROLONGED CONTACT AND BREATHING OF VAPORS. USE SOLVENT RESISTANT GLOVES TO MINIMIZE SKIN CONTACT AND WEAR SAFETY GLASSES FOR EYE PROTECTION. USE IN A WELL VENTILATED AREA AWAY FROM SPARKS AND FLAME. READ AND OBSERVE ALL WARNING LABELS.

B. Application of Blade Preparation Materials

(1) Mixture 1, Primer Filler

(a) Recommended Film Thickness

Apply a minimum thickness for filling pits and blemishes.

(b) Application

NOTE: Minor Blemish Correction procedure, described in the section, "Application of Blade Finish Materials" in this chapter, may be performed during any step of this operation.

1 Using 240 grit or finer sandpaper, sand the erosion shield to remove any oxide from the surface of the nickel.

2 Using clean, cheese cloth CM159 dampened with solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219, wipe the entire blade.

3 Let the solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219 dry.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

4 Apply Mixture 3, Washer Primer to the erosion shield.

a After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

b If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield and begin the process again.

5 Let Mixture 3, Washer Primer dry.

6 Prepare the Mixture 1, Primer Filler according to the mixture proportions in this chapter.

CAUTION: DO NOT APPLY MIXTURE 1, PRIMER FILLER TO AN EROSION SHIELD THAT HAS NOT BEEN SANDED, CLEANED, AND HAD MIXTURE 3 WASH PRIMER APPLIED.

7 Roll a light layer of Mixture 1, Primer Filler onto the entire blade surface.

8 Let Mixture 1, Primer Filler dry for three to four hours at room temperature of 65° F to 77° F (18° C to 25° C) or one hour at 140° F to 150° F (60° C to 65° C).

9 Sand the blade using a vibratory sander with 80 grit or finer sandpaper as required, leaving a minimum thickness of Mixture 1, Primer Filler for filling pits and blemishes only.

a Remove as much Mixture 1, Primer Filler as possible.

b Except as necessary for filling pits and blemishes, remove all Mixture 1, Primer Filler from the erosion shield.

10 Using 140 or finer sandpaper, sand the blade to smooth the blade surface.

a If primer filler was applied to the winding and bearing radius or blade seal groove, hand sand those areas to leave the minimal amount of primer filler, while providing a smooth surface.

NOTE: Use the corner or edge of the sandpaper to define the steps in the winding and blade seal groove.

b Remove all loose strands of winding material.

11 Using clean cheese cloth CM159 dampened with solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219, wipe the entire blade.

12 Let the solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219 dry.

(2) Mixture 2, Dark Gray Primer Sealer

(a) Recommended Film Thickness

Two coats measuring a total of approximately 2 mils when dry.

(b) Application

NOTE: Minor Blemish Correction procedure, described in the section, "Application of Blade Finish Materials" in this chapter, may be performed during any step of this operation.

1 Using 240 grit or finer sandpaper, sand the erosion shield to remove any oxide from the surface of the nickel.

2 Using clean, cheese cloth CM159 dampened with solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219, wipe the entire blade.

3 Let the solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219 dry.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

4 Apply Mixture 3, Washer Primer to the erosion shield.

a After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

b If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield and begin the process again.

5 Let Mixture 3, Washer Primer dry.

6 Prepare the Mixture 2, Dark Gray Primer Sealer according to the mixture proportions in this chapter.

CAUTION: DO NOT APPLY MIXTURE 2, DARK GRAY PRIMER SEALER TO AN EROSION SHIELD THAT HAS NOT BEEN SANDED, CLEANED, AND HAD MIXTURE 3 WASHER PRIMER APPLIED.

7 Spray one layer of Mixture 2, Dark Gray Primer Sealer over the blade, no thicker than 2 mils when dry. Refer to the section, "Application of Blade Finish Materials" in this chapter for areas of application.

8 If any pronounced fibers are present, soak a clean cheesecloth with solvent denatured alcohol CM11 and wipe the effected area to force fibers down.

9 Let the solvent denatured alcohol CM11 dry.

CAUTION: DO NOT ROUND OFF THE CORNERS OF THE STEPS IN THE WINDING OR BLADE SEAL GROOVE.

10 Sand the blade using 140 or finer sandpaper to smooth the blade surface.

a If primer sealer was applied to the winding and bearing radius or blade seal groove, hand sand those areas to leave the minimal amount of primer sealer, while providing a smooth surface.

NOTE: Use the corner or edge of the sandpaper to define the steps in the winding and blade seal groove.

b Remove all loose strands of winding material.

11 Wipe the entire blade with solvent acetone CM173, denatured alcohol CM11, MEK CM106 or MPK CM219.

12 Let the solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219 dry.

13 If applicable, apply masking material to cover the OD of the blade seal groove.

14 Spray a second layer of Mixture 2, Dark Gray Primer Sealer on the blade.

a Include the winding, if necessary, to make sure that there is complete Mixture 2, Dark Gray Primer Sealer coverage.

15 Let Mixture 2, Dark Gray Primer Sealer dry for at least one hour at room temperature of 65° F to 77° F (18° C to 25° C) before applying additional layers.

a Before sanding, up to eight hours of drying time may be required, depending on environmental conditions.

b Optionally, the coating may be heat cured in an oven at 140° F +10° F (60° C +5° C). Typically, one hour is sufficient to let further processing.

16 Using 400 grit sandpaper, sand the blade surface by hand until it has the desired finish and the Mixture 2, Dark Gray Primer Sealer is no thicker than 2 mils.

17 Except as necessary for filling pits and blemishes, remove all Mixture 2, Dark Gray Primer Sealer from the erosion shield.

a Use of an air oscillating rotary sander with 140 grit or finer sandpaper is acceptable for exposing the erosion shield.

b Initial sanding may be performed with 140 grit or finer sandpaper, but the entire surface must be finish sanded with 400 grit sandpaper.

18 Remove the masking material that was applied to cover the OD of the blade seal groove.

19 Inspect the finish of the blade for smoothness.

a Repeat the above steps as required to achieve the desired surface quality while maintaining the recommended film thickness and coverage.

20 Wipe the entire blade with solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219.

21 Let the solvent acetone CM173, denatured alcohol CM11, MEK CM106, or MPK CM219 to dry.

(3) Mixture 3, Washer Primer

(a) Application

1 Prepare the Mixture 3, Washer Primer according to the mixture proportion in this chapter.

2 Spray one light layer of Mixture 3, Washer Primer on the exposed area of the erosion shield.

a Slight overspray on the blade does not cause damage.

3 Let Mixture 3, Washer Primer dry for approximately five minutes.

(4) Mixture 7, "P" Static
(Use Mixture 13, Conductive Coating)

NOTE: Mixture 7, "P" Static was replaced by Mixture 13, Conductive Coating.

(5) Mixture 9, Lightning Guard (Copper)

(a) Recommended Film Thickness, measures approximately 2 mil when dry.

(b) Application

1 Prepare Mixture 9, Lightning Guard in accordance with the mixture proportion in this chapter.

CAUTION: APPLY MIXTURE 9, LIGHTNING GUARD ONLY WITH AN AIR PRESSURE FEED SPRAY SYSTEM. AN AGITATION SYSTEM IS REQUIRED TO KEEP THE COPPER SUSPENDED IN THE SOLUTION.

2 Spray one layer of Mixture 9, Lightning Guard over the entire blade surface.

3 Let Mixture 9, Lightning Guard dry for one hour.

4 Using 400 grit or finer sandpaper, lightly hand sand the Mix #9, Lightning Guard.

(6) Mixture 13, Conductive Coating

NOTE: Recommended Film Thickness, approximately 0.6 to 1.0 mil when dry.

CAUTION 1: MIXTURE 13, CONDUCTIVE COATING SHOULD ONLY BE APPLIED WHEN IT IS KNOWN THAT IT WILL BE COVERED BY ADDITIONAL PAINT WITHIN 24 HOURS.

CAUTION 2: MIXTURE 13, CONDUCTIVE COATING SHOULD NOT BE SANDED. IT WILL BE FEATHERED INTO THE SURFACE OF THE LEADING EDGE AS DIRECTED IN THE APPLICABLE BLADE PREP SCHEME.

(a) Application

1 Prepare Mixture 13, Conductive Coating mixture according to the mixture proportion in this chapter.

2 Spray one layer of Mixture 13, Conductive Coating over the entire blade surface.

3 Let Mixture 13, Conductive Coating dry.

C. Application of Blade Finish Materials

CAUTION: DO NOT APPLY POLANE® T PAINT IN TEMPERATURES BELOW 60° F (16° C). THIS COULD CAUSE IMPROPER CURING. THE HIGHER THE RELATIVE HUMIDITY, THE FASTER THE PAINT WILL CURE, BECAUSE MOISTURE CAUSES THE CATALYST TO REACT (CURE).

(1) Blade Painting

(a) Full completed coverage is 2 to 4 mils dry thickness of paint.

(b) The curing time of paint for maximum abrasion resistance and impact strength is seven days.

(c) To achieve the full paint coverage required

1 Paint the camber and/or face of the blade with the specified paint mix using a smooth, even spraying motion until the entire surface to be painted is covered. Use three passes over the blade surface to accomplish this.

NOTE: Three passes of paint over the blade surface is considered one coat of paint.

2 Let the painted blade surface dry.

3 Using 400 grit sandpaper, lightly sand any imperfections from the painted surface and wipe it with a clean, dry, lint-free cloth to remove any paint dust.

4 Let a painted blade dry between coats of paint.

NOTE: One hour in a humidity elevated environment is usually sufficient drying time.

5 Repeat the paint application, using three passes to apply a second coat of paint, until the area to be painted has been fully covered.

(d) For adequate layer-to-layer paint adhesion, the maximum time between coats of paint is four hours. If it has been longer than four hours since the previous coat of paint was applied, lightly sand the cured surface using 400 grit sandpaper, and wipe it with a clean, dry cloth before applying a subsequent layer of paint.

(e) Plastic bags should not be installed over a blade in an airtight configuration until the blade has cured for a minimum of 24 hours. This will retard paint curing.

(2) Minor Blemish Correction

WARNING: WEAR VINYL OR LATEX PROTECTIVE GLOVES FOR THIS PROCEDURE.

(a) Apply a small amount of adhesive CM71 to the blemish area (pitting, pinholes, etc.).

(b) Quickly wipe off the excess adhesive CM71 and immediately apply a small amount of talc CM72.

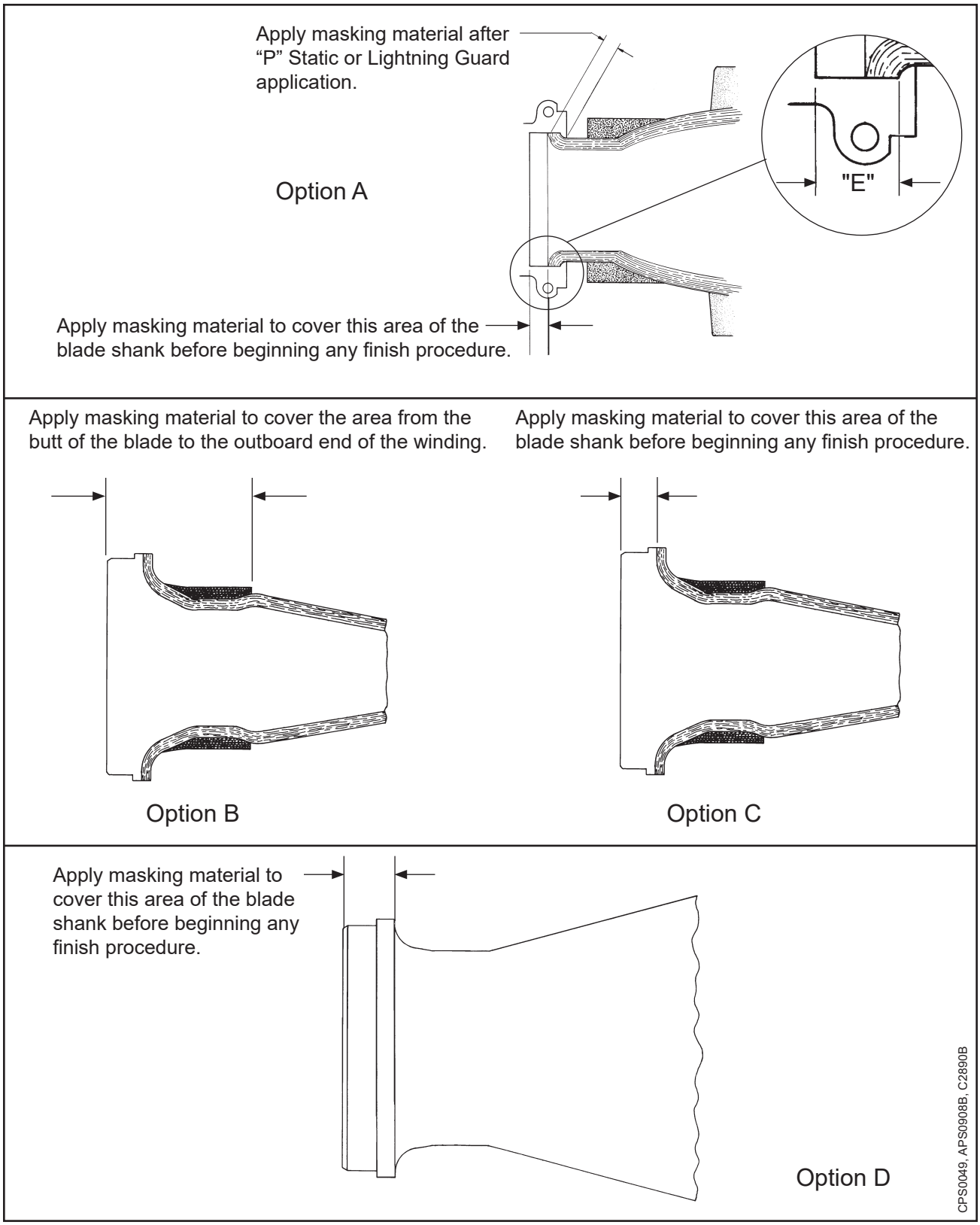
(c) Let adhesive CM71 dry.

(d) Sand the area smooth using the appropriate grit sandpaper and equipment for the stage of finish being accomplished.

(e) Wipe the blade with approved solvent CM11 or CM106.

(f) Let solvent CM11 or CM106 dry.

(g) Repeat this procedure as necessary to assure smoothness.



Masking Options
Figure 2-1

WARNING: SOLVENTS ARE FLAMMABLE AND TOXIC TO THE SKIN, EYES, AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION ARE REQUIRED. AVOID PROLONGED CONTACT AND BREATHING OF VAPORS. USE SOLVENT RESISTANT GLOVES TO MINIMIZE SKIN CONTACT AND WEAR SAFETY GLASSES FOR EYE PROTECTION. USE IN A WELL VENTILATED AREA AWAY FROM SPARKS AND FLAME. READ AND OBSERVE ALL WARNING LABELS.

CAUTION: HARTZELL PROPELLER INC. RECOMMENDS THAT THE PROCEDURES WITHIN THIS SECTION ARE PERFORMED BY AN APPROVED CERTIFIED REPAIR STATION. FOR A LIST OF CERTIFIED REPAIR STATIONS, REFER TO HARTZELL PROPELLER INC. WEBSITE AT WWW.HARTZELLPROP.COM.

D. Blade Preparation Procedures

(1) Blade Preparation Scheme 1

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Clean the surface to be painted with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the blade shank area in accordance with Figure 2-1, Option D.

1 For Y, D, or E-shank blades with a counterweight knob, apply masking material to cover the machined face of the counterweight knob.

(d) Before painting a blade, apply one light coat of Mixture 3, Washer Primer to the entire surface of the masked blade.

(e) Let Mixture 3, Washer Primer dry.

(f) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(2) Blade Preparation Scheme 2

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Clean the surface to be painted with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the blade shank area in accordance with Figure 2-1, Option B.

1 Apply masking material to cover the pitch change knob, if applicable.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

(i) Apply masking material to cover the erosion shield leaving 0.25 to 0.50 inch (6.3 mm to 12.7 mm) of the trailing edge exposed on the face and camber sides of the blade.

(j) Perform Mixture 13, Conductive Coating application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(k) Perform Mixture 2, Dark Gray Primer Sealer application procedure over the conductive coating.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(l) Remove the masking material from the erosion shield. Use an air oscillating rotary sander with 140 grit or finer sandpaper to feather the edge of the paint line to expose the entire erosion shield.

(m) Wipe the entire blade with solvent CM11 or CM106.

(n) Let solvent CM11 or CM106 dry.

(o) Apply masking material to cover the erosion shield on the camber side of the blade.

(p) Perform Mixture 3, Washer Primer application procedure to the exposed section of the erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(q) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(3) Blade Preparation Scheme 3

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the area of the blade shank in accordance with Figure 2-1, Option B.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade, outboard of the winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

(i) Apply masking material to cover the erosion shield on the camber side of the blade. The masking material must not wrap over to the face side of the blade or extend off the trailing edge of the erosion shield on the camber side of the blade. Make sure that the masking material on the erosion shield is not overlapping any painted surface. The shank and winding should still be masked.

(j) Perform Mixture 3, Washer Primer application procedure to the exposed erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(k) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(4) Blade Preparation Scheme 4

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the aluminum section of the blade shank in accordance with Figure 2-1, Option A.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

(i) Apply masking material to cover the erosion shield leaving 0.25 to 0.50 inch (6.3 to 12.7 mm) of the trailing edge exposed on both the face and camber sides.

(j) Perform Mixture 9, Lightning Guard application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(k) Remove the masking material from the erosion shield. Use an air oscillating rotary sander with 140 grit or finer sandpaper to feather the edge of the paint line and expose the entire erosion shield.

(l) Sand the entire copper surface with 400 grit or finer sandpaper.

(m) Wipe the entire blade with a clean dry cloth and using pressurized air, blow the surface clean.

(n) Apply masking material to cover the aluminum section of the blade shank and the retention radius in accordance with Figure 2-1, Option A.

(o) Perform Mixture 3, Washer Primer application procedure to the exposed erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(p) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade. Do not remove the primer sealer from the erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(q) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(5) Blade Preparation Scheme 5

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the blade shank area in accordance with Figure 2-1, Option B.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

(i) Apply masking material to cover the erosion shield leaving 0.125 to 0.25 inch (3.17 mm to 6.3 mm) of the trailing edge exposed on the face and camber sides of the blade.

(j) Perform Mixture 13, Conductive Coating application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(k) Perform Mixture 2, Dark Gray Primer Sealer application procedure over the conductive coating.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(l) Remove the masking material from the erosion shield.

(m) Use an air oscillating rotary sander with 140 grit or finer sandpaper to feather the edge of the paint line to expose the entire erosion shield.

(n) Wipe the entire blade with solvent CM11 or CM106.

(o) Let solvent CM11 or CM106 dry.

(p) Apply masking material to cover the erosion shield on the face and camber sides of the blade. For applications with de-ice boots, only apply masking material to the face and camber sides of the erosion shield from the tip to within 0.50 inch (12.7 mm) of outboard edge of the de-ice boot location.

NOTE: If the blade has a functioning internal heating element and an external de-ice boot will not be installed, apply masking material to the entire erosion shield.

(q) Perform Mixture 3, Washer Primer application procedure to the exposed section of the erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(r) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(6) Blade Preparation Scheme 6

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the area of the blade shank in accordance with Figure 2-1, Option A.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

(i) Perform Mixture 3, Washer Primer application procedure to the entire erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(j) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(7) Blade Preparation Scheme 7

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the aluminum section of the blade shank in accordance with Figure 2-1, Option A.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

(i) Apply masking material to cover the erosion shield leaving 0.25 to 0.50 inch (6.3 mm to 12.7 mm) of the trailing edge exposed on both the face and camber sides.

(j) Perform Mixture 3, Washer Primer application procedure to the exposed erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(k) Perform Mixture 13, Conductive Coating application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(l) On the face and camber sides of the blade, use an air oscillating rotary sander with 140 grit or finer sandpaper to blend the coatings with the erosion shield while maintaining 0.25 to 0.50 inch (6.3 to 12.7 mm) overlap onto the trailing edge of the erosion shield.

(m) Wipe the entire blade with a clean dry cloth.

(n) Apply masking material to the shank to cover the aluminum section and the retention radius in accordance with Figure 2-1, Option A.

(o) Perform Mixture 3, Washer Primer application procedure to the entire erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(p) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(q) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(8) Blade Preparation Scheme 8

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Masking:

1 Apply masking material to cover the aluminum section of the blade shank in accordance with Figure 2-1, Option C.

2 Apply masking material to cover both parting lines where the blade retention bearing race will make contact with the blade retention radius. Use 0.50 inch (12.7 mm) wide tape to cover the parting lines.

NOTE: The parting line is formed where the face and camber laminates meet at the leading and trailing edges of the blade. The fibers project outward from the surface of the blade in the parting line and if they are painted, they may restrict the seating of the bearing race.

3 Apply masking material to cover the blade seal and 0.25 inch (6.3 mm) directly adjacent to both edges of the seal.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade, outboard of the winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade including the winding and retention radius.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

(i) Apply masking material to cover the face and camber side of the erosion shield from the inboard end of the erosion shield to the outboard end of the de-ice boot area.

1 Separately, apply masking material to cover the camber side of the erosion shield outboard from the end of the de-ice boot area to the tip of the erosion shield. Leave 0.25 to 0.50 inch (6.3 mm to 12.7 mm) along the trailing edges of the erosion shield exposed wherever there is masking material.

(j) Perform Mixture 3, Washer Primer application procedure to the exposed section of the erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(k) Perform Mixture 13, Conductive Coating application procedure to the entire exposed surface of the blade including the winding and the bearing radius.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(l) Remove the masking material outboard of the de-ice boot area.

(m) On the camber side of the blade, use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the outboard section of the erosion shield and blend the coating into the blade surface.

(n) On the face side of the blade, use an air oscillating rotary sander with 140 grit or finer sandpaper to blend the coatings with the erosion shield while maintaining 0.25 to 0.50 inch (6.3 to 12.7 mm) overlap onto the trailing edge of the erosion shield.

(o) Wipe the entire blade with a clean dry cloth.

(p) Apply masking material to cover the blade butt.

1 If the blade has a counterweight, apply masking material to the outboard end of the counterweight location.

2 If the blade does not have a counterweight, apply masking material to the outboard end of the primary winding.

NOTE: Some clamps are not symmetrical and will require masking material of the appropriate length to be applied.

(q) Perform Mixture 3, Washer Primer application procedure to the exposed erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(r) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(s) Remove the masking material from the erosion shield.

(t) Use an air oscillating rotary sander with 140 grit or finer disk to feather coatings and expose the entire erosion shield under the de-ice boot area.

(u) Lightly hand sand the exposed blade surface with 400 grit sandpaper to achieve the desired smoothness with a maximum thickness of no more than 2.0 mils.

(v) Wipe the entire blade with solvent CM11 or CM106.

(w) Let solvent CM11 or CM106 dry.

(x) Perform Mixture 3, Washer Primer application procedure to the exposed erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(y) Apply masking material to cover the erosion shield in the de-ice area.

1 The shank, winding, and counterweight locations should still be masked.

(z) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(9) Blade Preparation Scheme 9

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Masking:

1 Apply masking material to cover the aluminum section of the blade shank in accordance with Figure 2-1, Option C.

2 Apply masking material to cover both parting lines where the blade retention bearing race will make contact with the blade retention radius. Use 0.50 inch (12.7 mm) wide tape to cover the parting lines.

NOTE: The parting line is formed where the face and camber laminates meet at the leading and trailing edges of the blade. The fibers project outward from the surface of the blade in the parting line and if they are painted, they may restrict the seating of the bearing race.

3 Apply masking material to cover the blade seal and 0.25 inch (6.3 mm) directly adjacent to both edges of the seal.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade, outboard of the winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade, including the winding and retention radius.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

(i) Apply masking material to cover the face side of the erosion shield from the inboard end of the erosion shield to the outboard end of the de-ice boot area.

1 Separately, apply masking material to cover the camber side the erosion shield to the tip of the shield. Leave 0.25 to 0.50 inch (6.3 mm to 12.7 mm) along the trailing edges of the shield exposed wherever there is masking material.

(j) Perform Mixture 3, Washer Primer application procedure to the exposed section of the erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(k) Perform Mixture 13, Conductive Coating application procedure to the entire exposed surface of the blade, including the winding and the bearing radius.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(l) On the face side of the blade, use an air oscillating rotary sander with 140 grit or finer sandpaper to blend the coatings outboard the de-ice boot area. The coating in this area must be blended to the erosion shield while maintaining 0.25 to 0.50 inch (6.3 to 12.7 mm) overlap onto the trailing edge of the erosion shield.

(m) Wipe the entire blade with a clean dry cloth.

(n) Apply masking material to cover the blade butt to the outboard end of the counterweight, if applicable. If the blade does not have a counterweight, apply masking material to the outboard end of the primary winding.

NOTE: Some clamps are not symmetrical and will require masking of the appropriate length.

(o) Perform Mixture 3, Washer Primer application procedure to the exposed erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(p) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(q) Remove the masking material from the erosion shield.

(r) Use an air oscillating rotary sander with 140 grit or finer sandpaper to feather paint and to expose the entire erosion shield on the camber side of the blade and the area under the de-ice boot on the face side of the erosion shield.

(s) Wipe the entire blade with solvent CM11 or CM106.

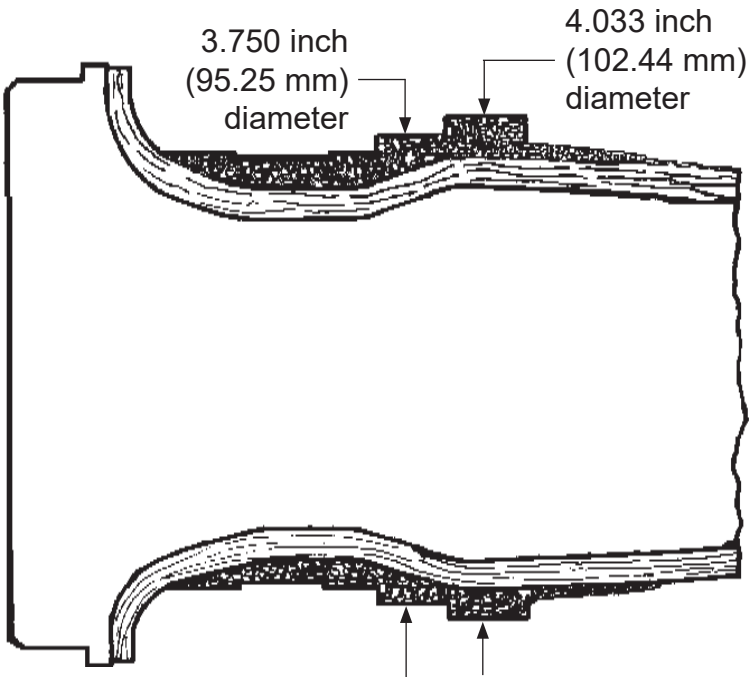
(t) Let solvent CM11 or CM106 dry.

(u) Perform Mixture 3, Washer Primer application procedure to the de-ice boot area of the erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(v) Apply masking material both sides of the erosion shield in the de-ice boot area.

(w) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.



Primary Winding Diameters
Figure 2-2

(10) Blade Preparation Scheme 10

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the blade shank in accordance with Figure 2-1, Option B.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade, outboard of the machined winding.

NOTE: If there is a secondary winding, it starts immediately outboard of the machined winding and tapers to the surface of the blade. Apply Primer Filler and Sealer to the secondary winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Remove the masking material from the 3.750 inch (95.25 mm) diameter and the 4.033 inch (102.44 mm) diameter steps of the primary winding.

1 Refer to Figure 2-2 for the location of the diameters.

(f) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade including the exposed winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(g) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(h) Wipe the entire blade with solvent CM11 or CM106.

(i) Let solvent CM11 or CM106 dry.

(j) Apply masking material to cover the camber side of the erosion shield from outboard of the de-ice boot location to the tip.

(k) Perform Mixture 3, Washer Primer application procedure to the exposed erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(l) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(11) Blade Preparation Scheme 11

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Apply masking material to cover the metal shank components.

(b) If Primer Filler and Primer Sealer are desired, use the following steps:

1 Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade.

a Refer to the section, "Application of Blade Preparation Materials" in this chapter.

2 Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

a Refer to the section, "Application of Blade Preparation Materials" in this chapter.

CAUTION 1: MAKE SURE THAT THE ENTIRE EXPOSED EROSION SHIELD HAS BEEN SANDED TO REMOVE ANY OXIDE FROM THE SURFACE OF THE NICKEL.

CAUTION 2: APPLY MIXTURE 3, WASHER PRIMER TO THE EROSION SHIELD IMMEDIATELY AFTER SANDING AND CLEANING.

(c) Using 240 grit or finer sandpaper, sand the camber side of the erosion shield to remove any oxide from the surface of the nickel.

(d) Using clean, cheese cloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the entire blade.

(e) Let solvent MEK CM106 or MPK CM219 dry.

(f) Apply Mixture 3, Washer Primer to the camber side of the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(g) Apply Mixture 13, Conductive Coating to the entire blade.

(h) Let Mixture 13, Conductive Coating dry.

(i) Apply masking material to cover the surface of the blade 0.25 inch (6.3 mm) from the outboard end of the shank.

(j) Using an air oscillating rotary sander with 240 or finer grit, feather Mixture 13, Conductive Coating to the erosion shield on the camber side of the blade only, leaving 0.125 to 0.25 inch (3.17 mm to 6.3 mm) of Mixture 3, Conductive Coating overlapping the erosion shield from the inboard end of the erosion shield outboard 6 to 8 inches (152 to 203 mm).

(k) Using 240 grit or finer sandpaper, sand the face side of the erosion shield to remove the remainder of the conductive coating.

(l) Using clean dry cheese cloth CM159, wipe the dust from the blade.

(m) Using clean compressed air, blow air on the entire blade.

(n) Using clean cheese cloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the exposed erosion shield.

(o) Let solvent MEK CM106 or MPK CM219 dry.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

(p) Apply Mixture 3, Washer Primer to the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(q) Let Mixture 3, Washer Primer dry.

(r) Apply Mixture 2, Dark Gray Primer Sealer to the entire blade outboard of the blade shank.

(s) Let Mixture 2, Dark Gray Primer Sealer dry for 1 hour.

(t) Total dry thickness of the primer sealer must not exceed 2 mils.

(u) Using 400 grit sandpaper, lightly hand sand the entire blade surface.

(v) Using clean dry cheese cloth CM159, wipe the dust from the blade.

(w) Using clean compressed air, blow air on the entire blade.

(x) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(12) Blade Preparation Scheme 12

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

(b) Let solvent CM11 or CM106 dry.

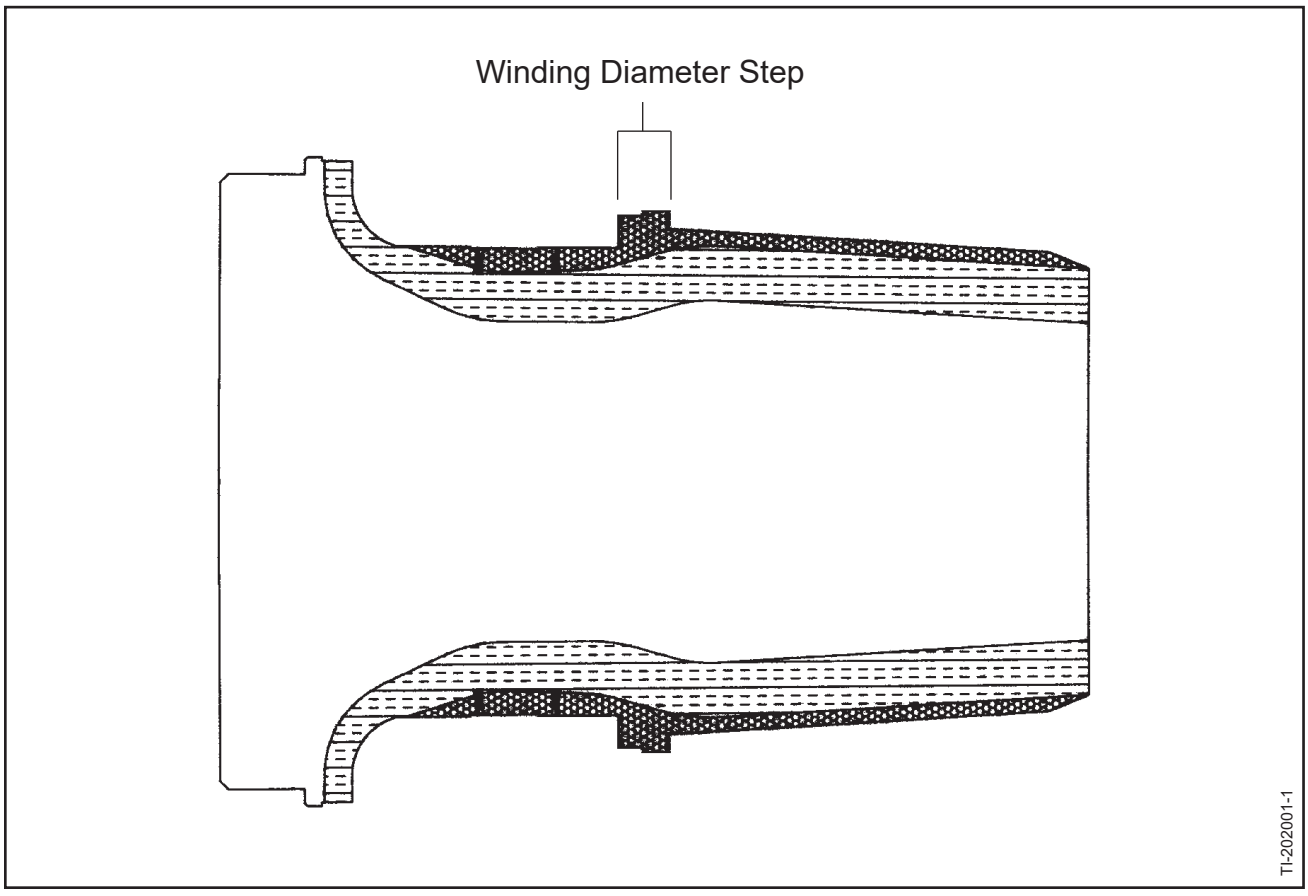
(c) Apply masking material to cover the blade shank in accordance with Figure 2-1, Option B.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade, outboard of the machined winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(e) Remove the masking material from the winding diameter step of the winding.

1 Refer to Figure 2-3 for the location of the diameter.



Winding Diameter Step
Figure 2-3

(f) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade, including the exposed winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(g) Using 140 grit or finer sandpaper, remove all material from the erosion shield and blend the coatings into the blade surface.

(h) Wipe the entire blade with solvent CM11 or CM106.

(i) Let solvent CM11 or CM106 dry.

(j) Apply masking material to cover the camber side of the erosion shield, making sure that the masking material does not extend beyond the trailing edges of the erosion shield or wrap over to the face side of the erosion shield outboard of the 21.35 station.

(k) Apply masking material to cover the face side of the erosion shield from the 21.35 inch station inboard.

(l) Apply masking material from inboard of the winding diameter step to the butt of the blade.

(m) Perform Mixture 3, Washer Primer application procedure to the exposed erosion shield.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(n) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(13) Blade Preparation Scheme 13

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Apply masking material to cover the metal shank components.

(b) If Primer Filler and Primer Sealer are desired, use the following steps:

1 Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade.

a Refer to the section, "Application of Blade Preparation Materials" in this chapter.

2 Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

a Refer to the section, "Application of Blade Preparation Materials" in this chapter.

CAUTION 1: MAKE SURE THAT THE ENTIRE EXPOSED EROSION SHIELD HAS BEEN SANDED TO REMOVE ANY OXIDE FROM THE SURFACE OF THE NICKEL.

CAUTION 2: APPLY MIXTURE 3, WASHER PRIMER TO THE EROSION SHIELD IMMEDIATELY AFTER SANDING AND CLEANING.

(c) Using 240 grit or finer sandpaper, sand the camber side of the erosion shield to remove any oxide from the surface of the nickel.

(d) Using clean cheese cloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the entire blade.

(e) Let solvent MEK CM106 or MPK CM219 dry.

(f) Apply Mixture 3, Washer Primer to the camber side of the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(g) Apply Mixture 13, Conductive Coating to the entire blade.

(h) Let Mixture 13, Conductive Coating dry.

(i) Apply masking material to cover the surface of the blade 0.25 inch (6.3 mm) from the outboard end of the shank.

(j) Apply Mixture 2, Dark Gray Primer Sealer to the entire blade outboard of the shank.

(k) Let Mixture 2, Dark Gray Primer Sealer dry for 1 hour.

1 The maximum permitted total dry thickness of the Mixture 2, Primer Sealer is 2 mils.

(l) Using an air oscillating rotary sander with 240 or finer grit, feather Mixture 13, Conductive Coating and the Mixture 2, Primer Sealer to the erosion shield on the camber side of the blade only, leaving 0.125 to 0.25 inch (3.17 mm to 6.3 mm) of the Mixture 13, Conductive Coating overlapping the erosion shield from the inboard end of the erosion shield outboard 6 to 8 inches (152 to 203 mm).

(m) Using 240 grit or finer sandpaper, sand the face side of the erosion shield to remove the remainder of the conductive coating.

(n) Using 400 grit or finer sandpaper, lightly hand sand all surfaces of the blade that have a layer of Mixture 2, Dark Gray Primer Sealer.

(o) Using clean dry cheese cloth CM159, wipe the dust from the blade.

(p) Using clean compressed air, blow air on the entire blade.

(q) Using clean cheese cloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the exposed erosion shield.

(r) Let solvent MEK CM106 or MPK CM219 dry.

(s) On the camber side of the blade, apply masking material to the entire length of the erosion shield from the centerline of the leading edge to 0.50 inch (12.7 mm) inboard.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

(t) Apply Mixture 3, Washer Primer to the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(u) Let Mixture 3, Washer Primer dry.

(v) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(w) Remove any remaining masking material.

(x) Using 1200 grit sandpaper, sand to break the paint edge on the erosion shield that remains after the removal of the masking material.

(y) Using 1200 grit sandpaper, sand the exposed erosion shield for a uniform appearance.

(14) Blade Preparation Scheme 14

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Apply masking material to cover the metal shank components.

(b) If Primer Filler and Primer Sealer are desired, use the following steps:

1 Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade.

a Refer to the section, "Application of Blade Preparation Materials" in this chapter.

2 Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

a Refer to the section, "Application of Blade Preparation Materials" in this chapter.

CAUTION: MAKE SURE THAT THE ENTIRE EXPOSED EROSION SHIELD HAS BEEN SANDED TO REMOVE ANY OXIDE FROM THE SURFACE OF THE NICKEL.

(c) Using 240 grit or finer sandpaper, sand the entire erosion shield to remove any oxide from the surface of the nickel.

(d) Using clean cheese cloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the entire blade.

(e) Let solvent MEK CM106 or MPK CM219 dry.

(f) On the camber side of the blade, apply masking material to the entire length of the erosion shield from the centerline of the leading edge to 0.50 inch (12.7 mm) inboard.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

(g) Apply Mixture 3,Washer Primer to the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(h) Let Mixture 3, Washer Primer dry.

(i) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(j) Remove any remaining masking material.

(k) Using 1200 grit sandpaper, sand to break the paint edge on the erosion shield that remains after the removal of the masking material.

(l) Using 1200 grit sandpaper, sand the exposed erosion shield for a uniform appearance.

(15) Blade Preparation Scheme 16

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Wipe the entire blade with solvent CM11 or CM106.

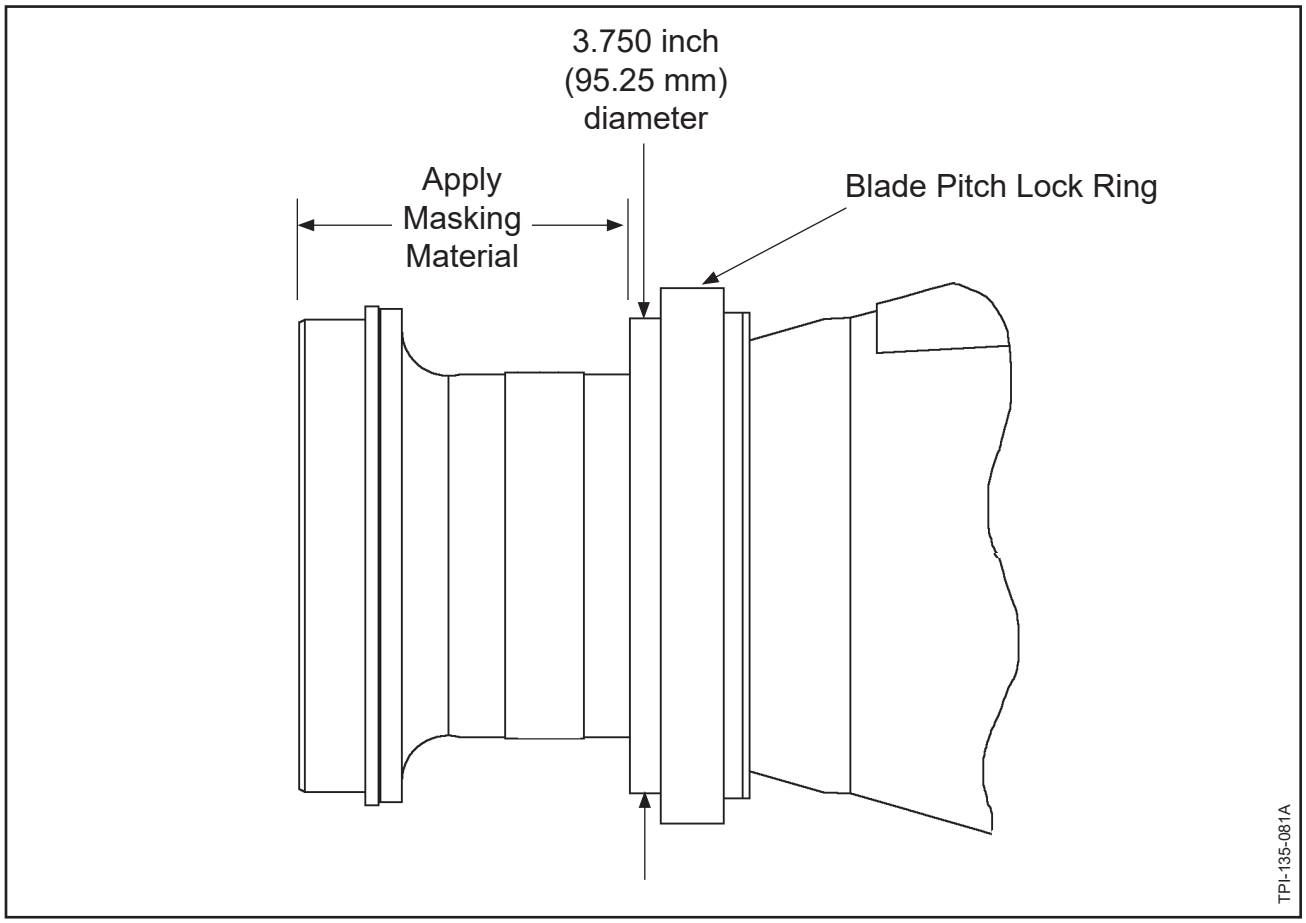
(b) Let solvent CM11 or CM106 dry.

(c) Apply masking material to cover the blade shank from inboard of the 3.750 inch (95.25 mm) diameter to the blade butt. Refer to Figure 2-4.

(d) Perform Mixture 1, Primer Filler application procedure to the exposed section of the blade, outboard of the machined winding.

NOTE: If there is a secondary winding, it starts immediately outboard of the machined winding and tapers to the surface of the blade. Apply Primer Filler and Sealer to the secondary winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.



Masking Area
Figure 2-4

(e) Perform Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade including the exposed winding.

1 Refer to the section, "Application of Blade Preparation Materials" in this chapter.

(f) Use an air oscillating rotary sander with 140 grit or finer sandpaper to remove all material from the erosion shield and blend the coatings into the blade surface.

(g) Wipe the entire blade with solvent CM11 or CM106.

(h) Let solvent CM11 or CM106 dry.

CAUTION 1: MAKE SURE THAT THE ENTIRE EXPOSED EROSION SHIELD HAS BEEN SANDED TO REMOVE ANY OXIDE FROM THE SURFACE OF THE NICKEL.

CAUTION 2: APPLY MIXTURE 3, WASHER PRIMER TO THE EROSION SHIELD IMMEDIATELY AFTER SANDING AND CLEANING.

(i) Using 240 grit or finer sandpaper, sand the camber side of the erosion shield to remove any oxide from the surface of the nickel.

(j) Using clean cheese cloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the entire blade.

(k) Let solvent MEK CM106 or MPK CM219 dry.

(l) Apply Mixture 3, Washer Primer to the erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(m) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(16) Blade Preparation Scheme 17

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

CAUTION: DO NOT SAND THE ALUMINUM BLADE SHANK.

(a) Using 240 grit or finer sandpaper, sand the erosion shield to remove any oxide from the surface of the nickel.

1 The entire length of the leading edge of the erosion shield must be bare to accept the 0.50 inch (12.7 mm) masking material that is applied later in this process.

2 The remainder of the erosion shield may have primer sealer on both the face and the camber sides.

(b) Using a clean cheesecloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the entire blade shank and blade.

(c) Let solvent MEK CM106 or MPK CM219 dry.

CAUTION: APPLY MIXTURE 3, WASHER PRIMER TO THE BLADE SHANK AND THE EROSION SHIELD IMMEDIATELY AFTER SANDING AND CLEANING.

(d) Apply Mixture 3, Washer Primer to the entire blade shank and to the entire exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(e) Apply masking material on the aluminum shank to prevent overspray.

(f) Using 0.50 inch (12.7 mm) wide masking material, starting at the centerline of the leading edge of the erosion shield, cover the camber side and the face side of the erosion shield.

1 For booted blades, the masking material must begin 0.50 inch (12.7 mm) outboard of the de-ice boot end station and extend to the tip of the blade.

2 For non-booted blades, the masking material must begin 1 inch (25 mm) outboard of the inboard end of the erosion shield and extend to the tip of the blade.

(g) Spray the entire blade with Mixture 13, Conductive Coating.

(h) Let Mixture 13, Conductive Coating dry.

(i) Apply masking material to cover the surface of the blade from 0.25 inch (6.3 mm) outboard of the shank, inboard.

(j) Apply Mixture 2, Dark Gray Primer Sealer Gray to the entire blade outboard of the blade shank.

(k) Let Mixture 2, Dark Gray Primer Sealer Gray dry in ambient air or dry in an oven heated to 140° F ±10° F (60° C ±5° C).

(l) Remove the masking material from the erosion shield.

(m) Using an air oscillating rotary sander with 240 grit or finer sandpaper, feather Mixture 13, Conductive Coating and Mixture 2, Dark Gray Primer Sealer Gray to the erosion shield.

CAUTION: MAKE SURE THAT THE ENTIRE EXPOSED EROSION SHIELD HAS BEEN SANDED TO REMOVE ANY OXIDE FROM THE SURFACE OF THE NICKEL.

(n) Using 400 grit or finer sandpaper, lightly sand Mixture 2, Dark Gray Primer Sealer surface.

(o) Blow compressed air over the entire blade.

(p) Using a clean cheesecloth CM159, wipe the remaining dust from the blade.

(q) Using a clean cheesecloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the exposed erosion shield clean.

(r) Let solvent MEK CM106 or MPK CM219 dry.

(s) Apply 0.50 inch (12.7 mm) wide masking material to the entire length of the camber side of the erosion shield.

CAUTION: MIXTURE 3, WASHER PRIMER MUST IMMEDIATELY BE APPLIED TO THE EROSION SHIELD AFTER SANDING.

(t) Apply Mixture 3, Washer Primer, to the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(u) Let Mixture 3, Washer Primer dry.

(v) Remove the masking material from the blade shank.

(w) Apply masking material to the area within 0.84 inch (21.3 mm) from the butt of the blade.

(x) If applicable, apply masking material to the top of the counterweight knob.

(y) Apply masking material to the blade shank on the 0.045 x 45° chamfer and the outboard face.

(z) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(aa) Remove any remaining masking material.

(ab) Using 1200 grit sandpaper, sand to break the paint edge on the erosion shield that remains after the removal of the masking material.

(ac) Using 1200 grit sandpaper, sand the exposed erosion shield for a uniform appearance.

(17) Blade Preparation Scheme 19

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Apply masking material on the metal blade shank components to prevent overspray.

(b) Apply 0.50 inch (12.7 mm) wide masking material to both parting lines of the retention radius.

1 The masking material must only cover the area of the parting lines that will make contact with the bearing race.

(c) Using 240 grit or finer sandpaper, sand the entire erosion shield to remove any oxide from the nickel.

(d) Using a clean cheesecloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the entire blade starting with the erosion shield.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

(e) Apply Mixture 3, Washer Primer, to the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(f) Spray the entire blade with Mixture 13, Conductive Coating.

1 The Mixture 13, Conductive Coating, will be removed from most of the erosion shield later in this procedure. If desired, masking may be used to cover this area.

(g) Let Mixture 13, Conductive Coating dry.

(h) If applicable, apply masking material to cover the blade butt to the outboard end of the counterweight.

1 If the blade does not have a counterweight, apply the masking material to the outboard end of the primary winding.

2 Some clamps are not symmetrical and will require that masking material of the appropriate length be applied.

(i) Apply Mixture 2, Dark Gray Primer Sealer to the entire blade.

1 The primer sealer will be removed from the camber side of the erosion shield in the next step. If desired, masking material may be used to cover the camber side of the erosion shield.

(j) Using an air oscillating rotary sander with 240 grit or finer sandpaper, remove Mixture 2, Dark Gray Primer Sealer and Mixture 13, Conductive Coating on the entire erosion shield, except on the face side, leaving 0.25 to 0.50 inch (6.3 to 12.7 mm) of Mixture 2, Dark Gray Primer Sealer and Mixture 13, Conductive Coating feathered to the erosion shield from the inboard end of the shield to 6 to 8 inches (152 to 203 mm) outboard.

(k) Using 240 grit or finer sandpaper, sand the entire exposed erosion shield to remove any oxide from the nickel.

(l) Using a clean cheesecloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the exposed erosion shield.

(m) Apply masking material to cover the camber side of the erosion shield between the trailing edge of the erosion shield and the center line of the leading edge radius, making sure that the masking material does not extend beyond the trailing edges of the erosion shield or wrap over to the face side of the erosion shield.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

(n) Apply Mixture 3, Washer Primer, to the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield again and begin the process again.

(o) Complete the appropriate paint finish in accordance with Table 2-2, "Blade Paint Scheme" and Table 2-3, "Tip Paint Scheme" in this chapter.

(p) Remove any remaining masking material.

(q) Using 1200 grit sandpaper, sand to break the paint edge on the erosion shield that remains after the removal of the masking material.

(r) Using 1200 grit sandpaper, sand the exposed erosion shield for a uniform appearance.

(18) Blade Preparation Scheme 20

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade preparation scheme number applicable to each blade/installation.

(a) Apply masking material on the metal blade shank components to prevent overspray.

(b) If Mixture 1, Primer Filler and Mixture 2, Dark Gray Primer Sealer are desired, use the following steps:

1 Perform the Mixture 1, Primer Filler application procedure to the exposed section of the blade.

a Refer to the section, "Application of Blade Preparation Materials" in this chapter.

2 Perform the Mixture 2, Dark Gray Primer Sealer application procedure to the exposed section of the blade.

a Refer to the section, "Application of Blade Preparation Materials" in this chapter.

CAUTION: MAKE SURE THAT THE ENTIRE EXPOSED EROSION SHIELD HAS BEEN SANDED TO REMOVE ANY OXIDE FROM THE SURFACE OF THE NICKEL.

(c) Using 240 grit or finer sandpaper, sand the entire erosion shield to remove any oxide from the nickel.

1 The entire length of the leading edge of the erosion shield must be bare to accept the 0.50 inch (12.7 mm) masking material that is applied later in this process.

2 The remainder of the erosion shield may have primer sealer on both the face and the camber sides.

(d) Using clean cheesecloth CM159 dampened with solvent MEK CM106 or MPK CM219, wipe the entire blade starting with the erosion shield.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

(e) Apply Mixture 3, Washer Primer to the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield and begin the process again.

(f) Using 0.75 inch (19.0 mm) wide masking material, starting at the centerline of the leading edge of the erosion shield, mask the camber and face sides of the erosion shield.

1 On booted blades, masking should begin 0.50 inch (12.7 mm) outboard of the de-ice boot end station and extend to the tip of the blade.

2 On non-booted blades, masking should begin 1 inch (25 mm) outboard of the inboard end of the erosion shield.

(g) Spray the entire blade with Mixture 13, Conductive Coating.

1 The Mixture 13, Conductive Coating will be removed from most of the erosion shield later in this procedure.

2 If desired, masking may be used to cover this area.

(h) Let Mixture 13, Conductive Coating dry.

(i) Using an air oscillating rotary sander with 240 grit or finer sandpaper, feather Mixture 13, Conductive Coating to the erosion shield.

(j) Using 240 grit or finer sandpaper, sand the entire exposed erosion shield to remove any oxide from the nickel.

1 The entire length of the leading edge of the erosion shield must be bare to accept the 0.50 inch (12.7 mm) mask later in the process.

2 The remainder of the erosion shield that is not covered with conductive coating may have small areas of primer sealer.

(k) Blow clean, compressed air over the entire blade.

(l) Using a clean cheesecloth CM159, wipe the remaining dust from the blade.

(m) Apply masking material to cover the surface of the blade from 0.25 inch (6.3 mm) outboard of the shank, inboard.

(n) Using 0.50 inch (12.7 mm) wide masking material, starting at the centerline of the leading edge of the erosion shield, mask the camber side of the erosion shield.

1 On booted blades, masking should begin 0.50 inch (12.7 mm) outboard of the de-ice boot end station and extend to the tip of the blade.

2 On non-booted blades, masking should begin 1.00 inch (25.4 mm) outboard of the inboard end of the erosion shield.

CAUTION: MIXTURE 3, WASHER PRIMER MUST BE IMMEDIATELY APPLIED TO THE EROSION SHIELD AFTER SANDING AND CLEANING.

(o) Apply Mixture 3, Washer Primer to the exposed erosion shield.

1 After sanding and cleaning, immediately apply Mixture 3, Washer Primer to the erosion shield.

2 If Mixture 3, Washer Primer is not immediately applied after sanding and cleaning, sand the erosion shield and begin the process again.

(p) Let Mixture 3, Washer Primer dry.

(q) Refer to the applicable paint finish in Table 2-2, "Blade Paint Scheme" in this chapter.

(r) Apply the specified finish coat in accordance with the following requirements:

1 The dry finished coat thickness must be 3 to 5 mils.

2 On blades with different face and camber paint colors, the full thickness of paint must be the specified color.

3 The coating can be applied in any number of coats, as long as they are evenly applied.

4 The finish coat can be dried using any of the following methods:

a Ambient room

b Humidity room

c 140° ±10° F (60° ±5° C) oven

5 Sanding is required between layers if the oven cure option was used or if it has been more than four hours since the previous coat was applied. Sanding is optional for all other cases.

a Using 400 grit or finer paper, lightly sand until the surface is evenly abraded.

b After sanding, use a clean, dry cloth or a clean cloth dampened with MEK CM106, MPK CM219, or polane reducer CM32 to remove sanding dust.

6 On blades that have different paint colors on the face and camber, the colors must meet at the leading edge and trailing edge.

a Masking may be used to get a crisp line and to eliminate overspray.

(s) Refer to the applicable blade tip paint scheme in Table 2-3, "Tip Paint Scheme" in this chapter.

(t) Apply masking material to the blade to get the specified tip pattern and to prevent overspray, as necessary.

(u) Apply the specified tip stripes in accordance with the following requirements:

1 If the oven cure option was used or if it has been more than four hours since the previous coat was applied, sanding is required before tip paint application. Sanding is optional for all other cases.

a Using 400 grit or finer paper, lightly sand until the surface is evenly abraded.

b After sanding, use a clean, dry cloth or a clean cloth dampened with MEK CM106, CM219, or polane reducer CM32 to remove sanding dust.

2 There is no thickness requirement for tip stripes, but tip paint must be applied thick enough to completely cover the base color.

3 Tip paint may be dried using any of the following methods:

a Ambient room

b Humidity room

c 140° ±10° F (60° ±5° C) oven

(v) Remove any remaining masking material.

(w) Using 1200 grit sandpaper, sand to break the paint edge on the erosion shield that remains after the removal of the masking material.

(x) Using 1200 grit sandpaper, sand the exposed erosion shield to get a uniform appearance.

(y) Apply the identification label or ink stamp and the Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS CURED FOR A MINIMUM OF EIGHT HOURS.

(z) Cure the paint for a minimum of eight hours before beginning the de-ice boot installation procedure.

Blade Paint Scheme	Face	Camber
1	Mix 5	Mix 4
2	Mix 4	Mix 5
3	Mix 5	Mix 5
5	Mix 4	Mix 4
6	Mix 5	Mix 16
7	Mix 8 and Mix 5	Mix 8
8	Mix 4 and Mix 5	Mix 4
9	Mix 8	Mix 8
10	Mix 16	Mix 5
11	Mix 5	Mix 6
12	Mix 5	Mix 17
13	Mix 27	Mix 27
16	Mix 16 and Mix 5	Mix 20 and Mix 5
17	Mix 6	Mix 6

NOTE 1: Mix 16 may be used as a substitute for Mix 4 as topcoat paint on any Hartzell Propeller Inc. propeller blade. Owner/operators of multi-engine aircraft are advised to use the same color topcoat paint for all propellers installed on the aircraft.

NOTE 2: Mix (Mixtures) are located in the section, "Paint/Primer Mixtures" in this chapter.

Blade Paint Scheme
Table 2-2

Tip Paint Scheme	Side(s)	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
0	No Tip Stripe(s)								
1	Camber Only	Mix 6	Base	Mix 6					
2	Face Only	Mix 6	Base	Mix 6					
3	Camber & Face	Mix 6	Base	Mix 6					
4	Camber Only	Mix 6							
5	Camber Only	Mix 10	Base	Mix 10					
6	Camber Only	Mix 10							
7	Camber Only	Mix 14	Mix 11	Mix 14					
8	Camber Only	Mix 6	Mix 11 over Mix 6						
9	Camber Only	Mix 11	Mix 6	Mix 11					
10	Camber Only	Mix 6	Mix 11	Mix 6					
11	Face Only	Mix 10							
12	Camber & Face	Mix 10							
13	Face Only	Mix 10							
	Camber Only	Mix 6	Mix 11	Mix 6					
14	Camber & Face	Mix 6	Mix 11	Mix 6					
15	Camber Only	Mix 5	Mix 6	Mix 5					
16	Camber Only	Mix 6	Mix 5	Mix 6					
17	Camber Only	Base	Mix 5	Base	Mix 5				
18	Camber Only	Mix 5	Base	Mix 5					
19	Camber Only	Mix 19	Base	Mix 18					
20	Camber Only	Mix 20	Base	Mix 20					
21	Camber Only	Mix 21	Base	Mix 21					
22	Camber Only	Mix 19	Mix 18	Mix 19					
23	Camber Only	Refer to the section "Blade Tip Paint Procedures" in this chapter							
24	Camber Only	Mix 16	Base	Mix 16					

NOTE 1: For "Base" number, refer to Table 2-2, "Blade Paint Scheme".

NOTE 2: Mix (Mixtures) are located in the section, "Paint/Primer Mixtures" in this chapter.

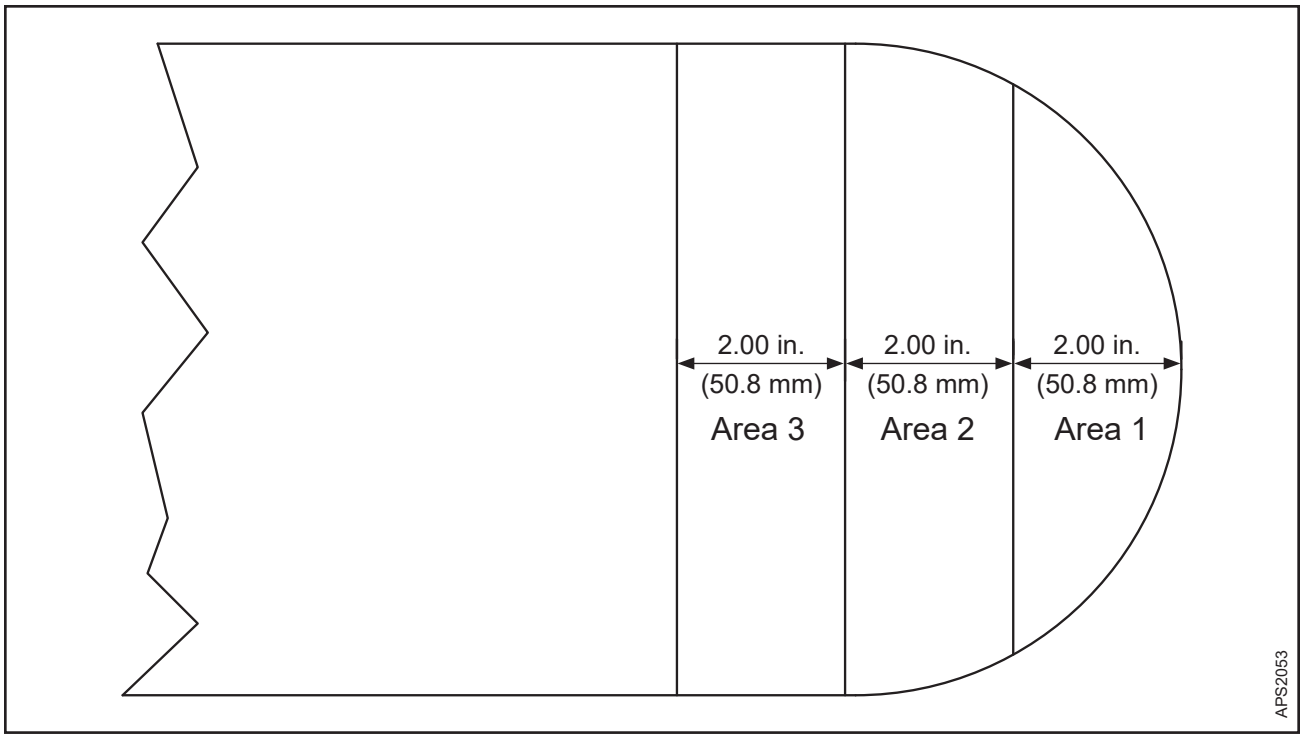
Tip Paint Scheme
Table 2-3, page 1 of 2

Tip Paint Scheme	Side(s)	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
25	Camber Only	Mix 11							
26	Face Only	Mix 16	Base	Mix 16					
	Camber Only	Mix 5	Base	Mix 5					
27	Face Only	Mix 6							
	Camber Only	Mix 6	Base	Mix 6					
28	Face Only	Mix 16	Base	Mix 16					
	Camber Only	Mix 16	Base	Mix 16					
29	Camber Only	Mix 11	Base	Mix 11					
30	Camber Only	Mix 6	Base (Mix 5 & 16)						
31	Camber Only	Mix 6	Base	Mix 18	Base	Mix 6			
32	Camber & Face	Mix 10	Base	Mix 10					
33	Camber Only	Mix 6	Base	Mix 18					
34	Face Only	Mix 6							
	Camber Only	Mix 6	Base	Mix 6					
35	Camber & Face	Base	Mix 5	Base	Mix 5	Base	Mix 5	Base	Mix 5
36	Camber & Face	Mix 5	Base	Mix 5	Base	Mix 5	Base	Mix 5	Base

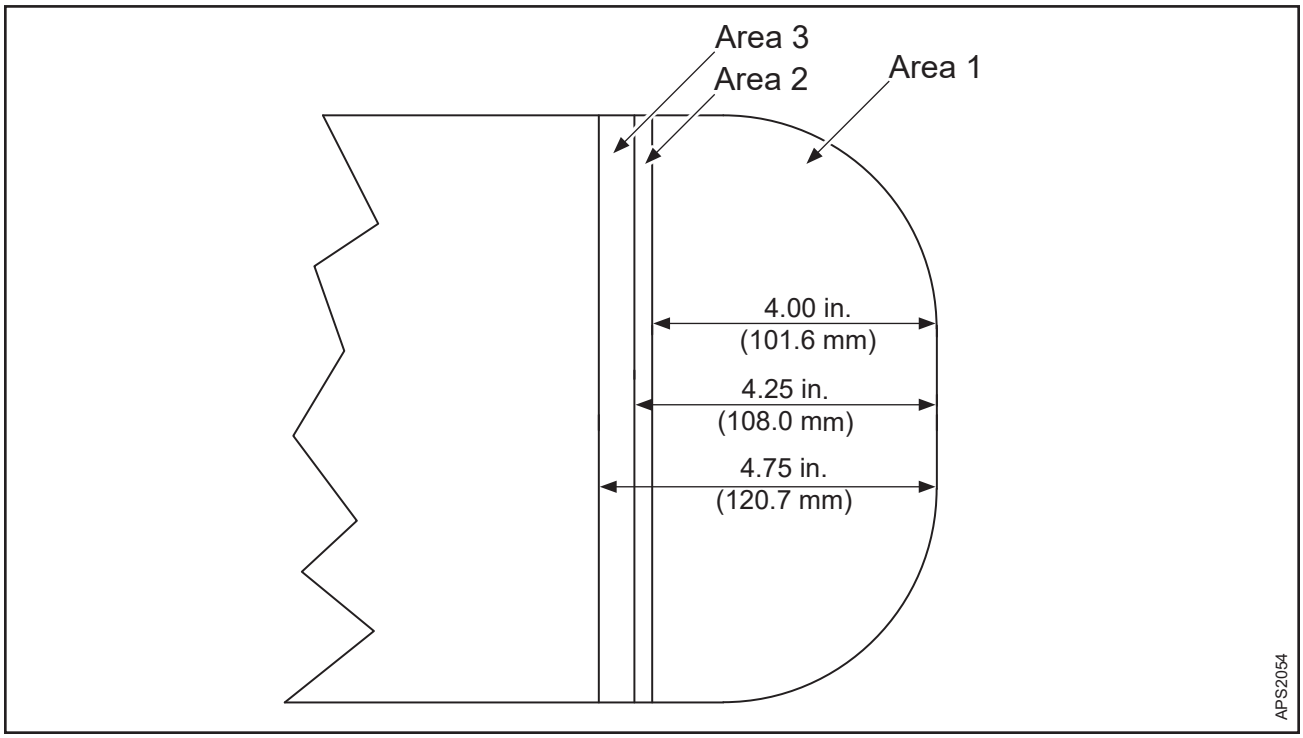
NOTE 1: For "Base" number, refer to Table 2-2, "Blade Paint Scheme".

NOTE 2: Mix (Mixtures) are located in the section, "Paint/Primer Mixtures" in this chapter.

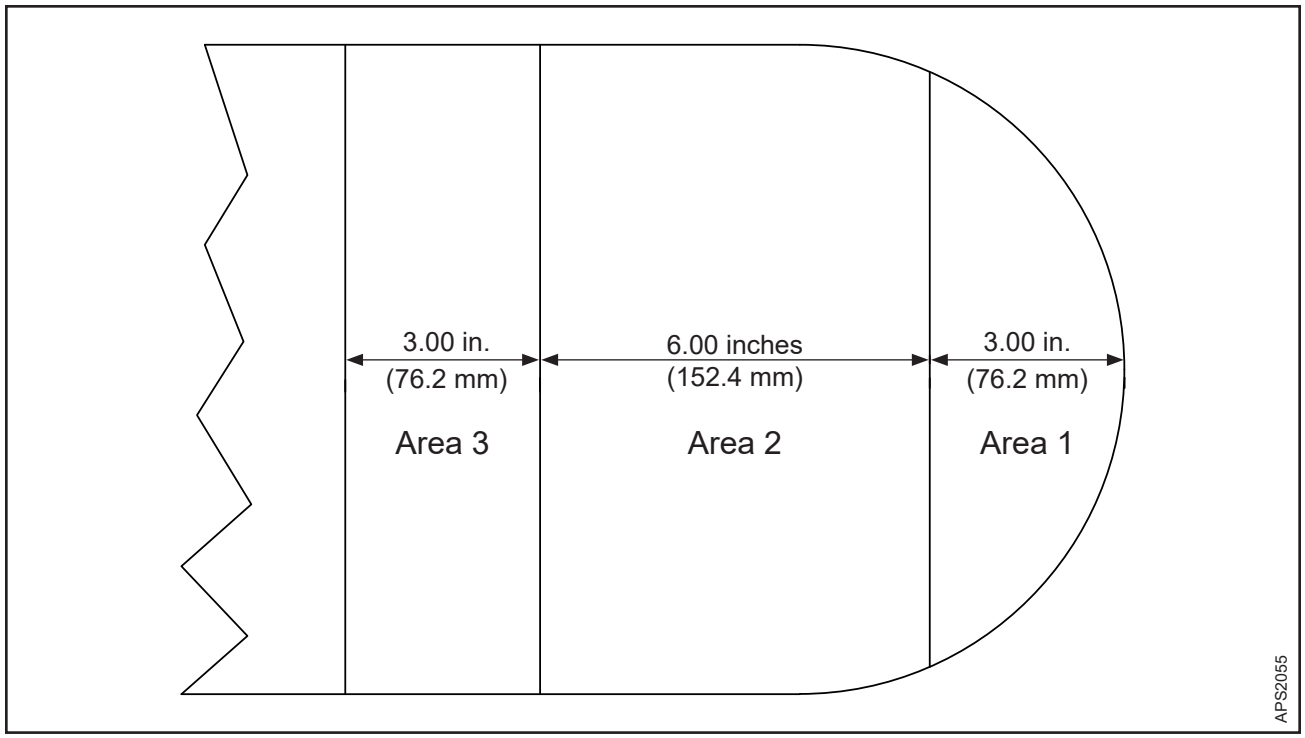
Tip Paint Scheme
Table 2-3, page 2 of 2



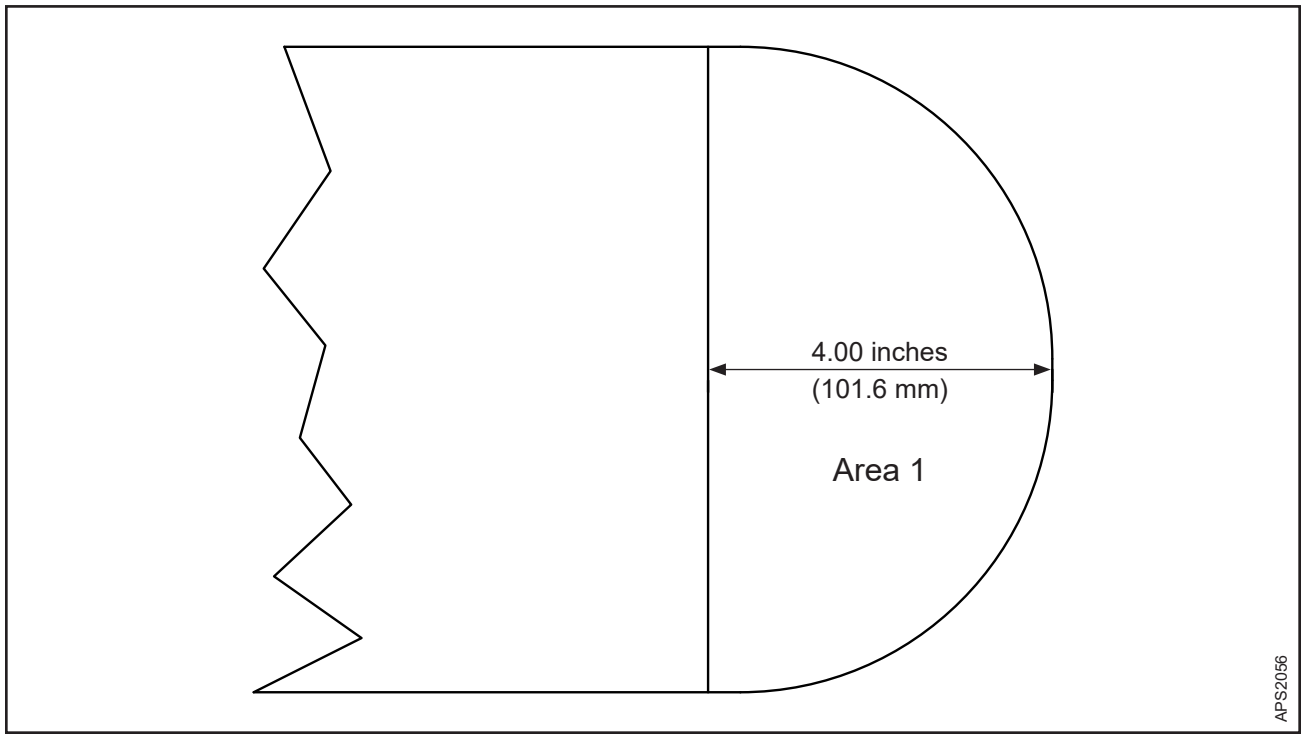
Tip Paint Pattern #1
Figure 2-5



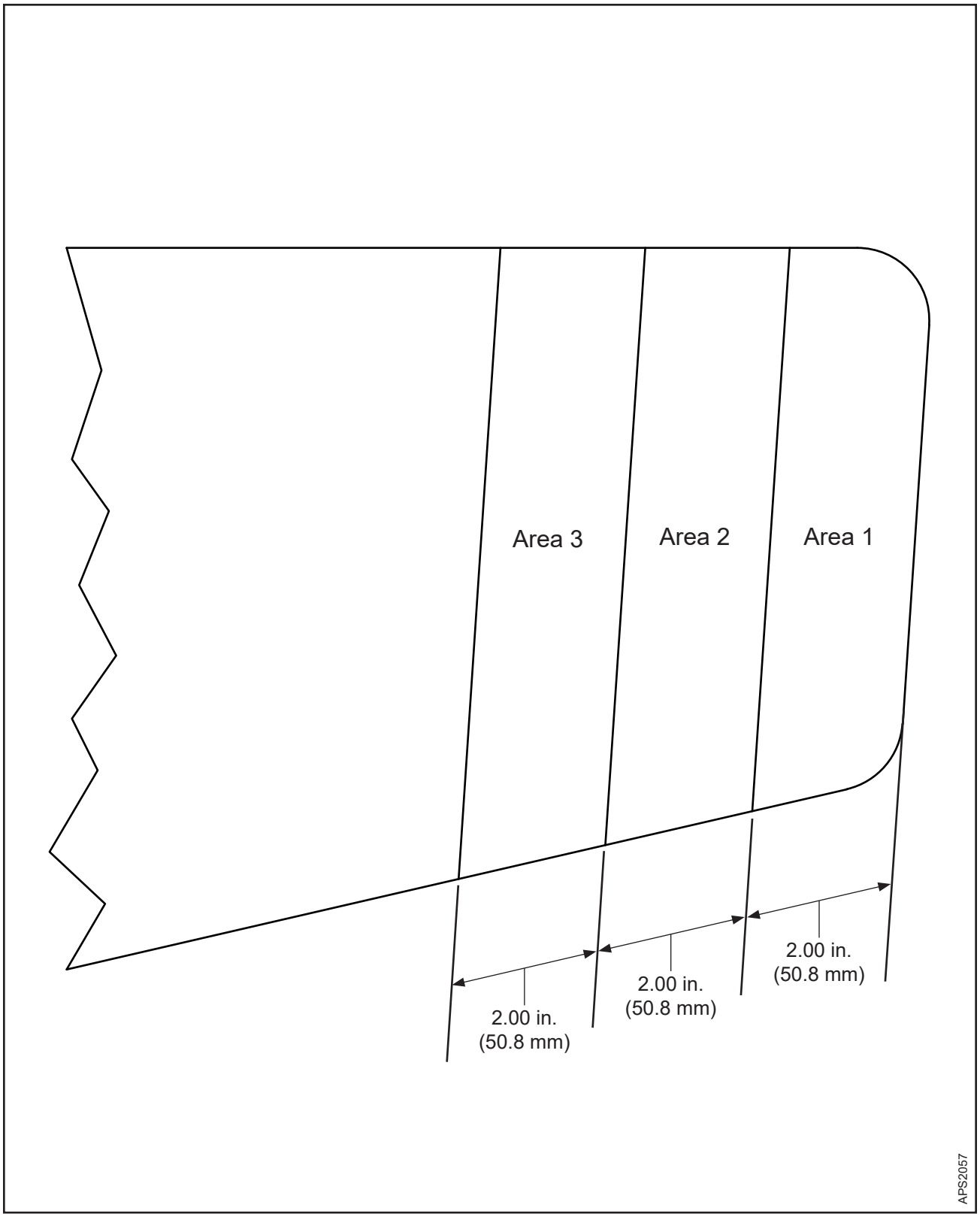
Tip Paint Pattern #2
Figure 2-5.1



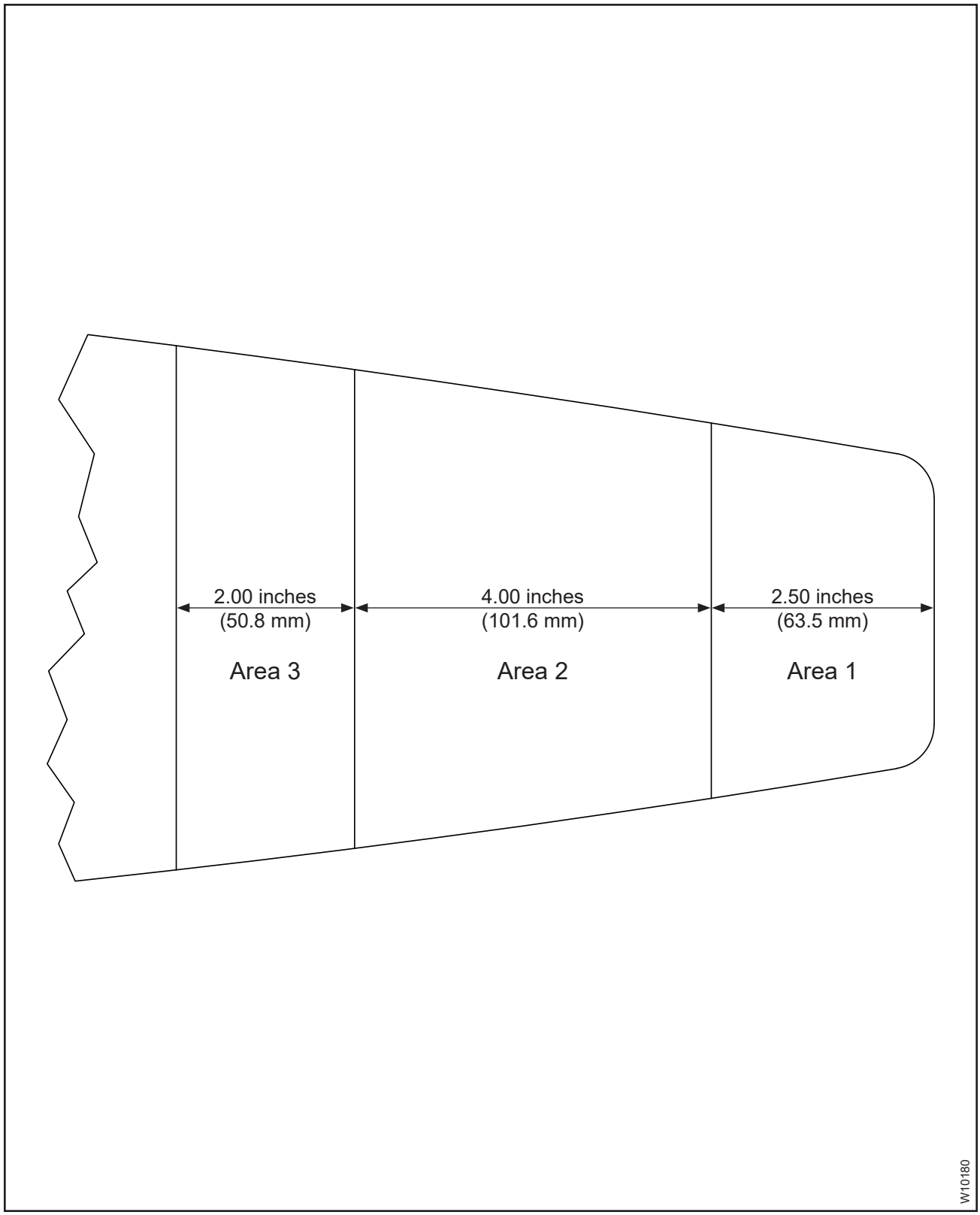
Tip Paint Pattern #3
Figure 2-5.2



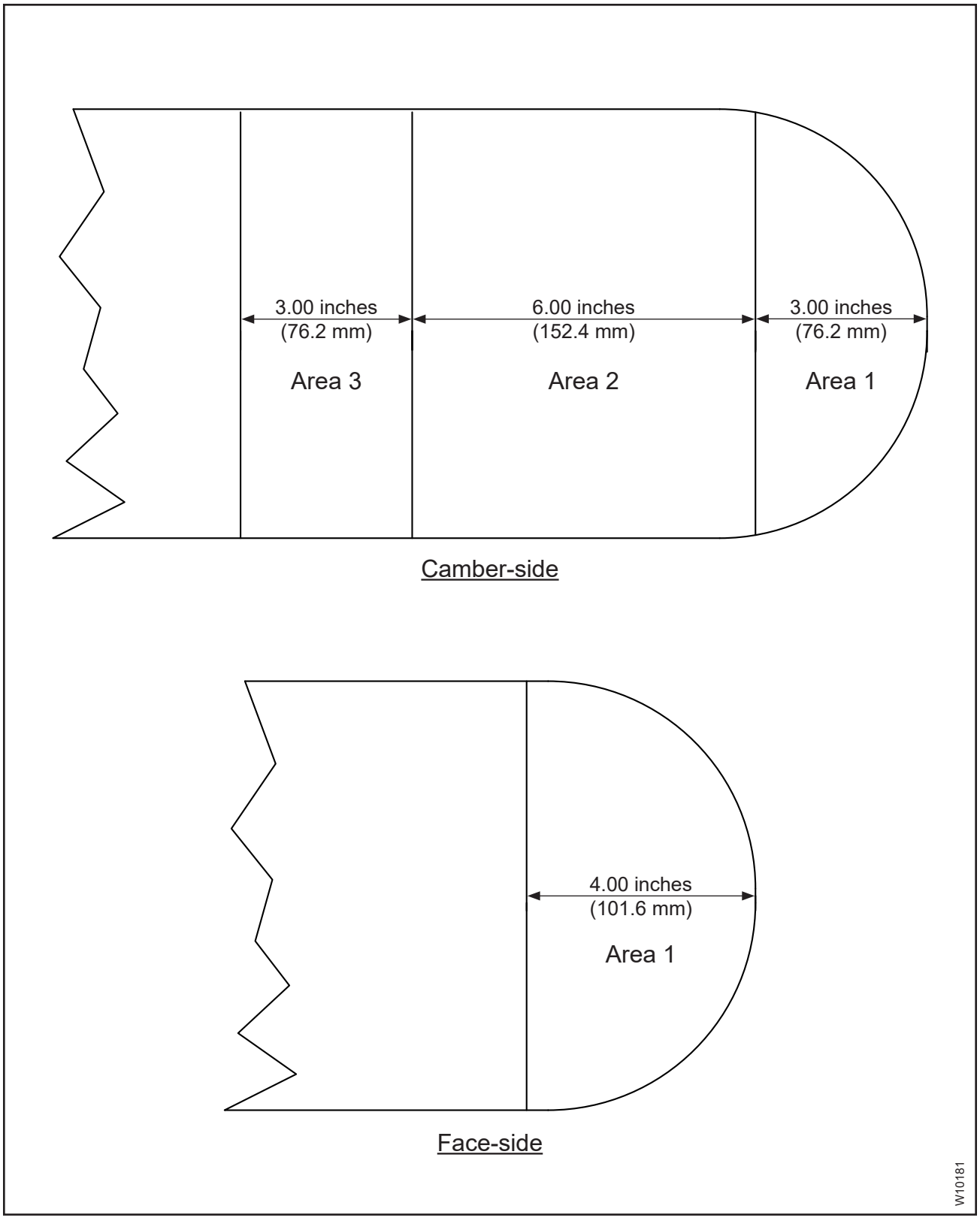
Tip Paint Pattern #4
Figure 2-5.3



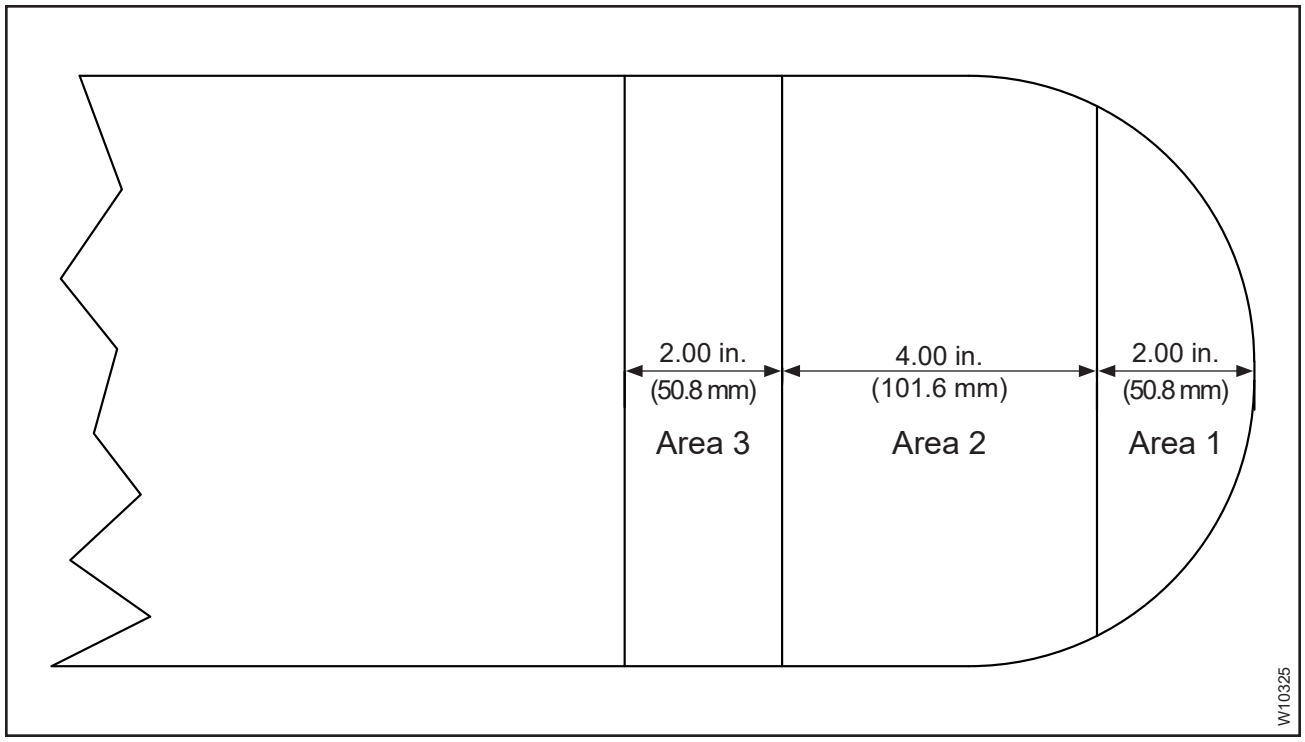
Tip Paint Pattern #5
Figure 2-5.4



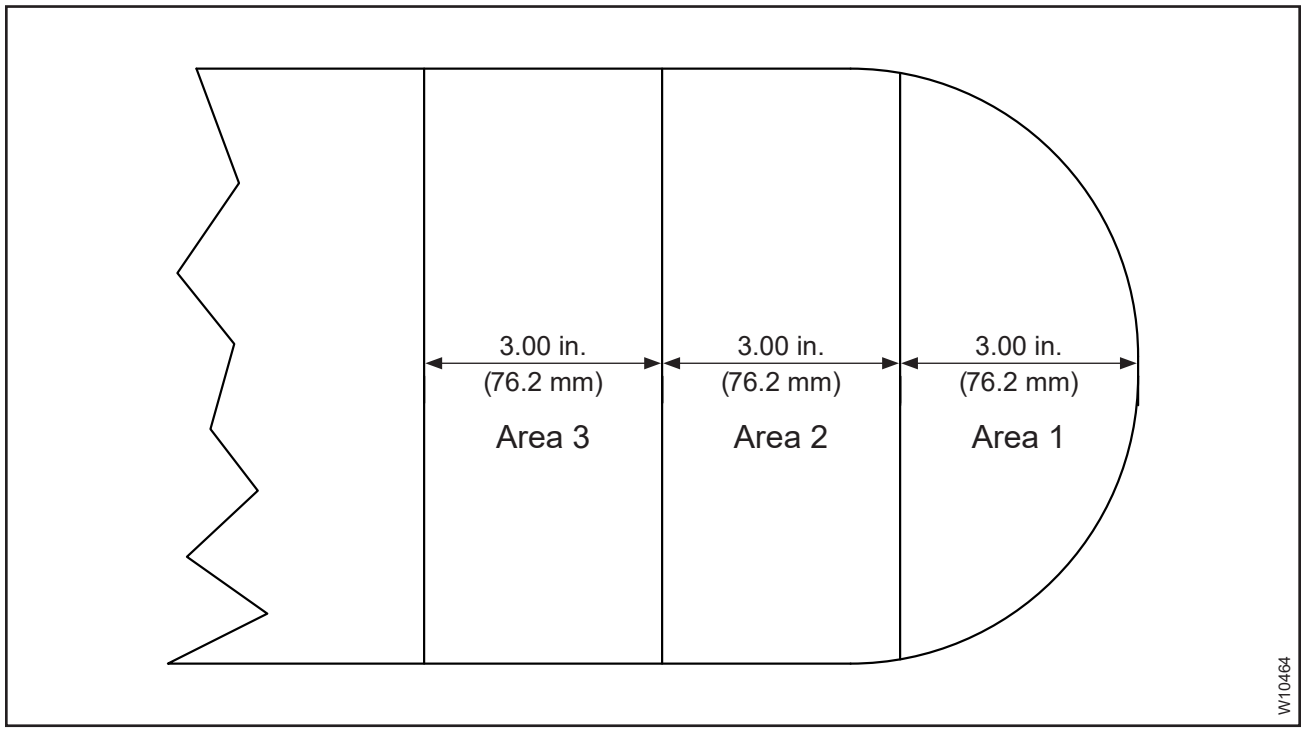
Tip Paint Pattern #7
Figure 2-5.5



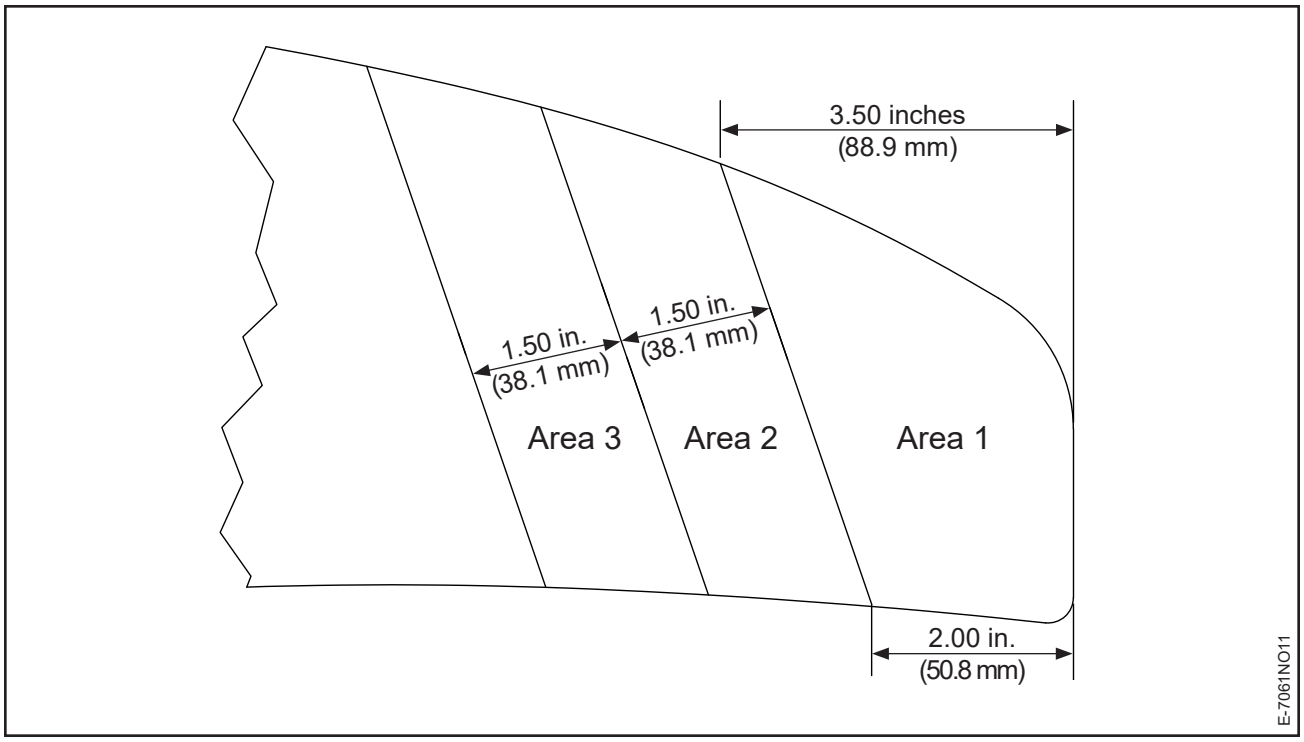
Tip Paint Pattern #8
Figure 2-5.6



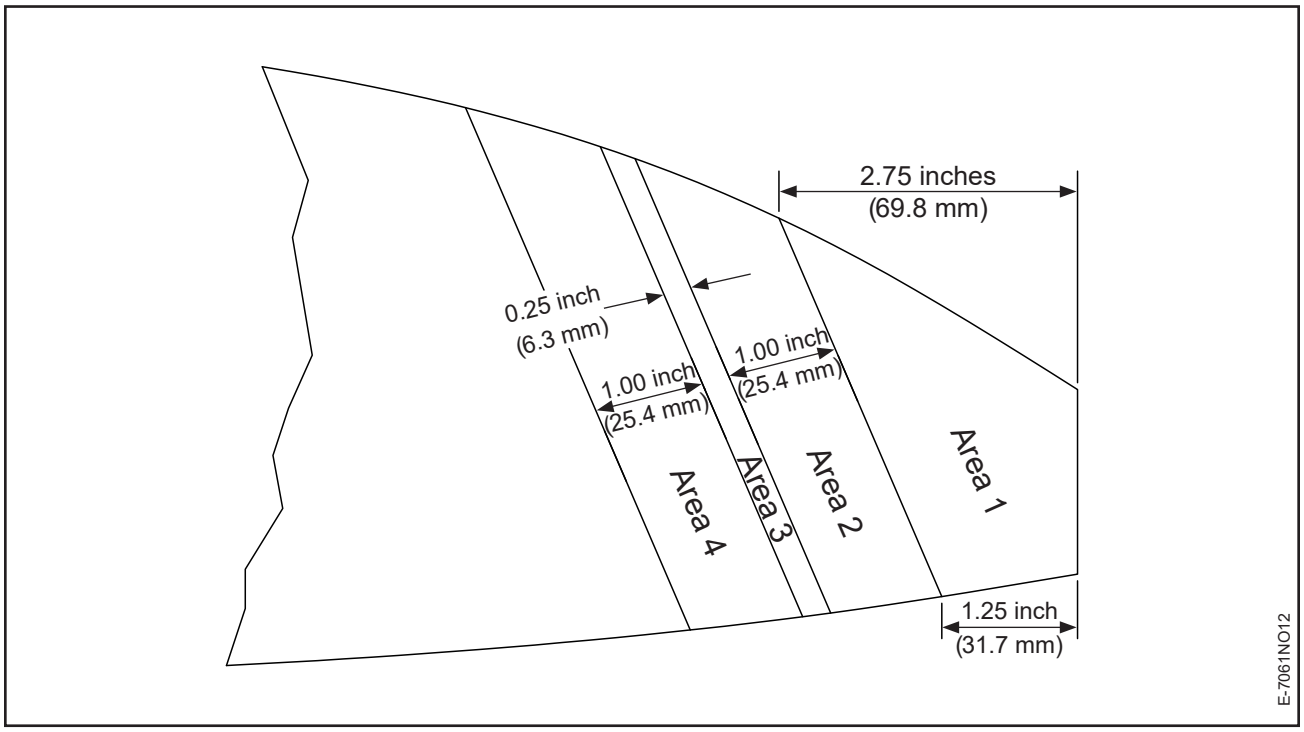
Tip Paint Pattern # 9
Figure 2-5.7



Tip Paint Pattern #10
Figure 2-5.8

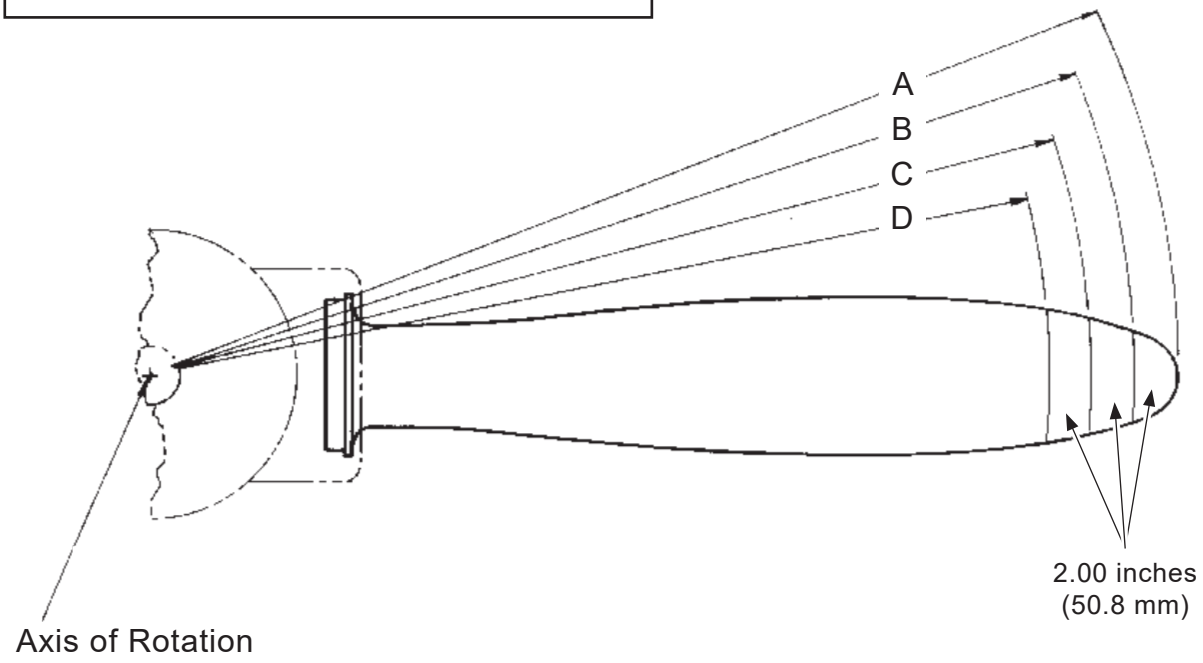


Tip Paint Pattern #11
Figure 2-5.9



Tip Paint Pattern #12
Figure 2-5.10

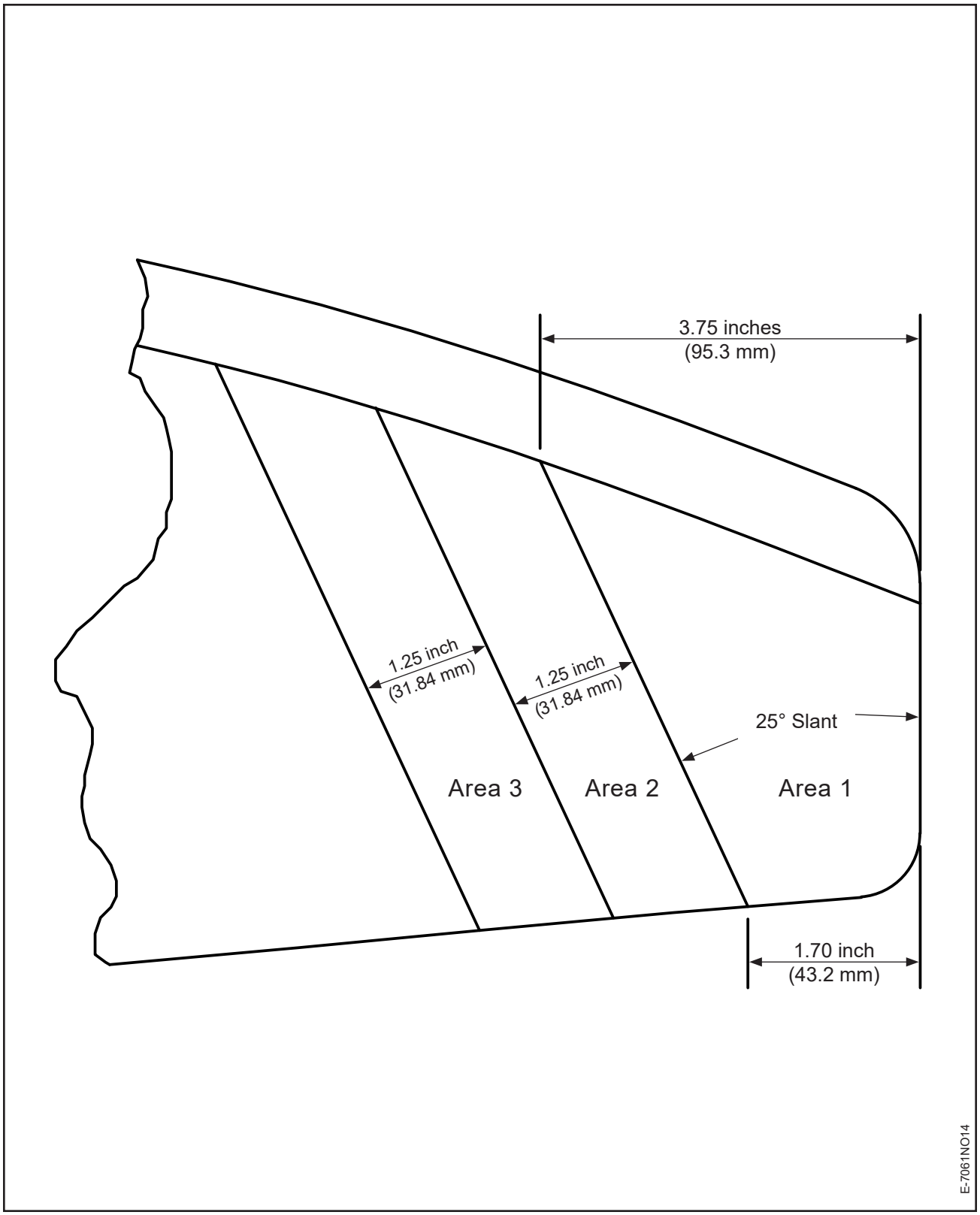
A - Propeller Radius
B - Radius minus 2.00 inches (50.8 mm)
C - Radius minus 4.00 inches (101.6 mm)
D - Radius minus 6.00 inches (152.4 mm)



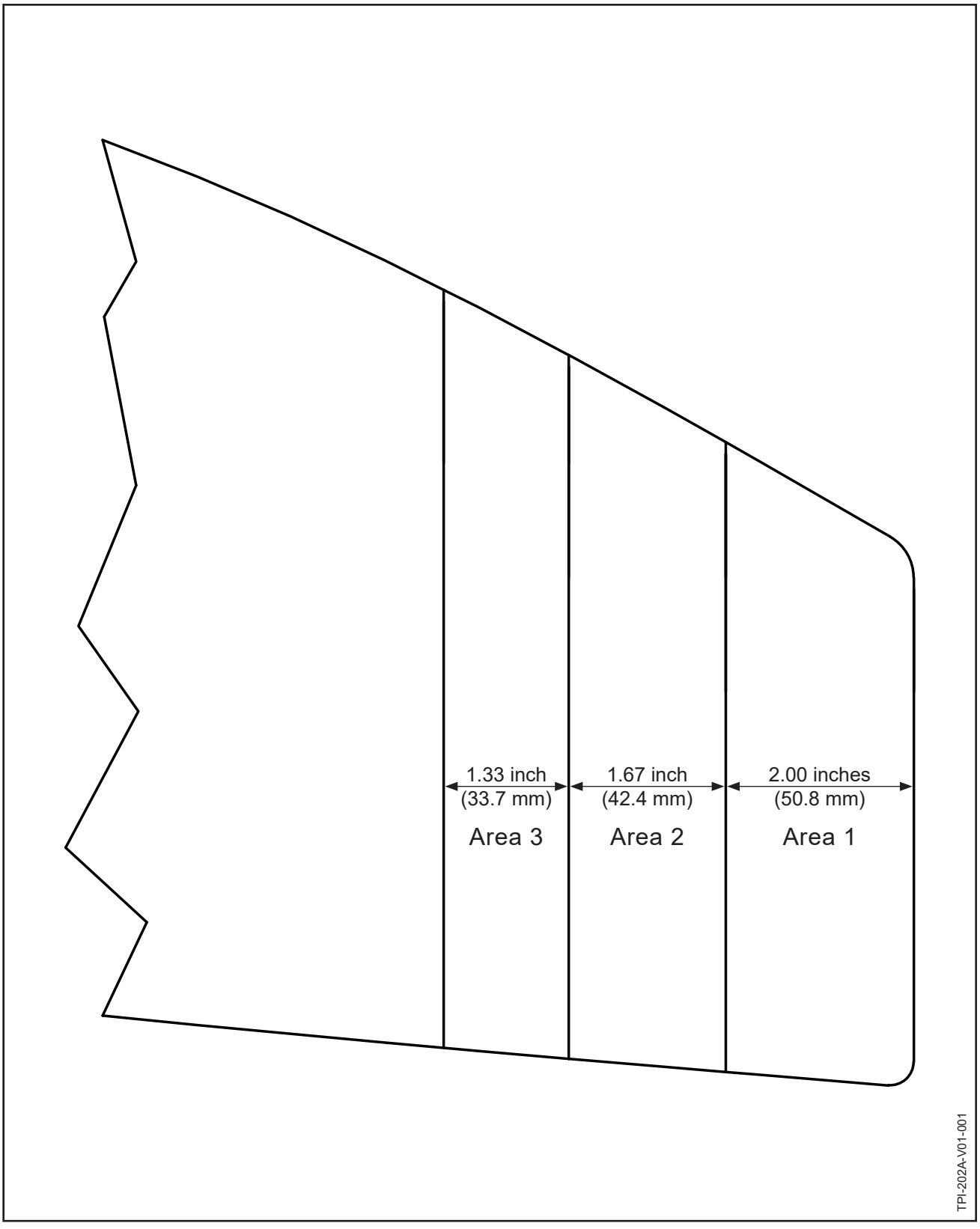
NOTE: Curved Stripes - it is important to pivot the radius at the true axis of rotation of the hub. Listed below are the distances from the butt of the blade to the axis of rotation of the hub needed to form the correct arc of the stripes.

Blade Design	Distance From Center of Rotation to Butt of Blade
M10877	5.23 inches (132.9 mm)
E10950P	2.87 inches (73.0 mm)

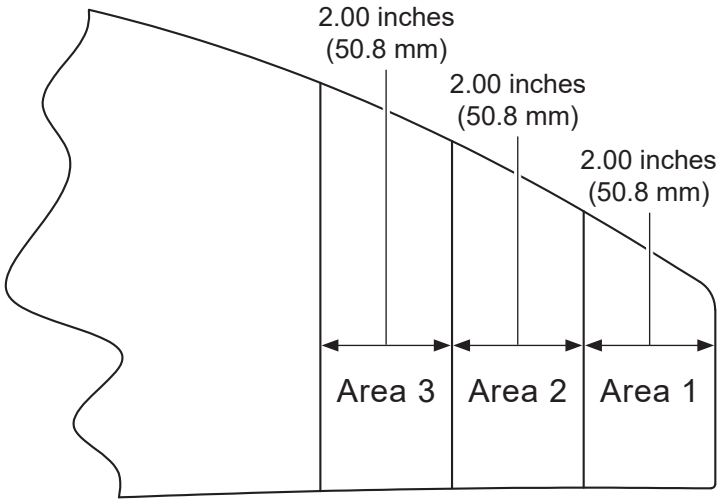
Tip Paint Pattern #13 - Curved Stripes
Figure 2-5.11



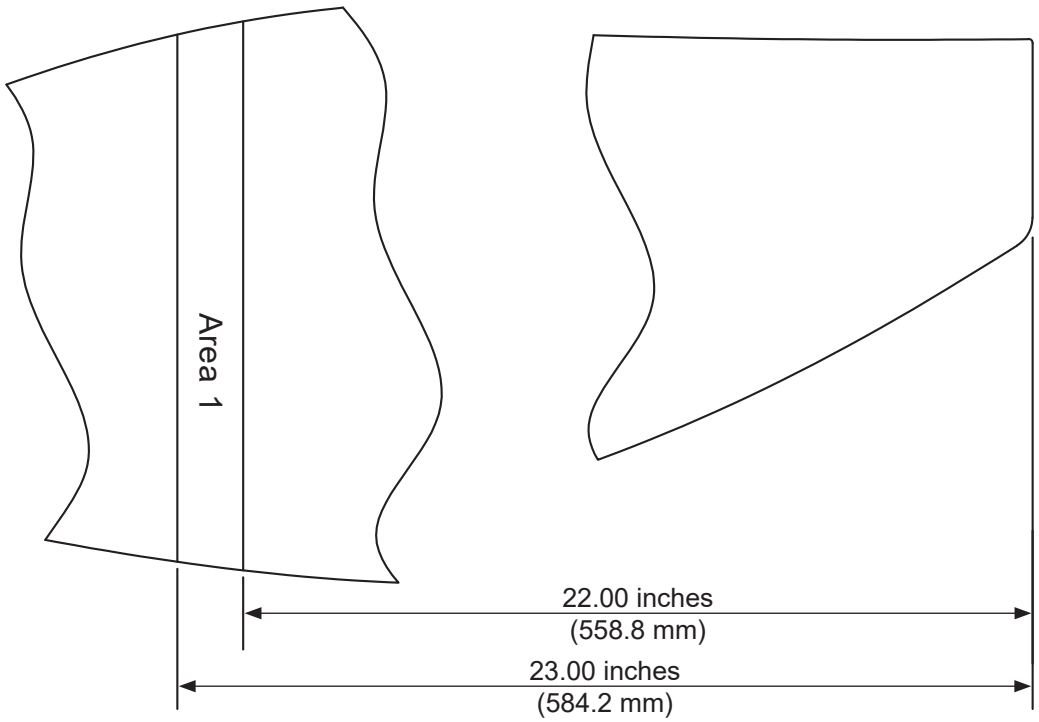
Tip Paint Pattern #14
Figure 2-5.12



Tip Paint Pattern #15
Figure 2-5.13



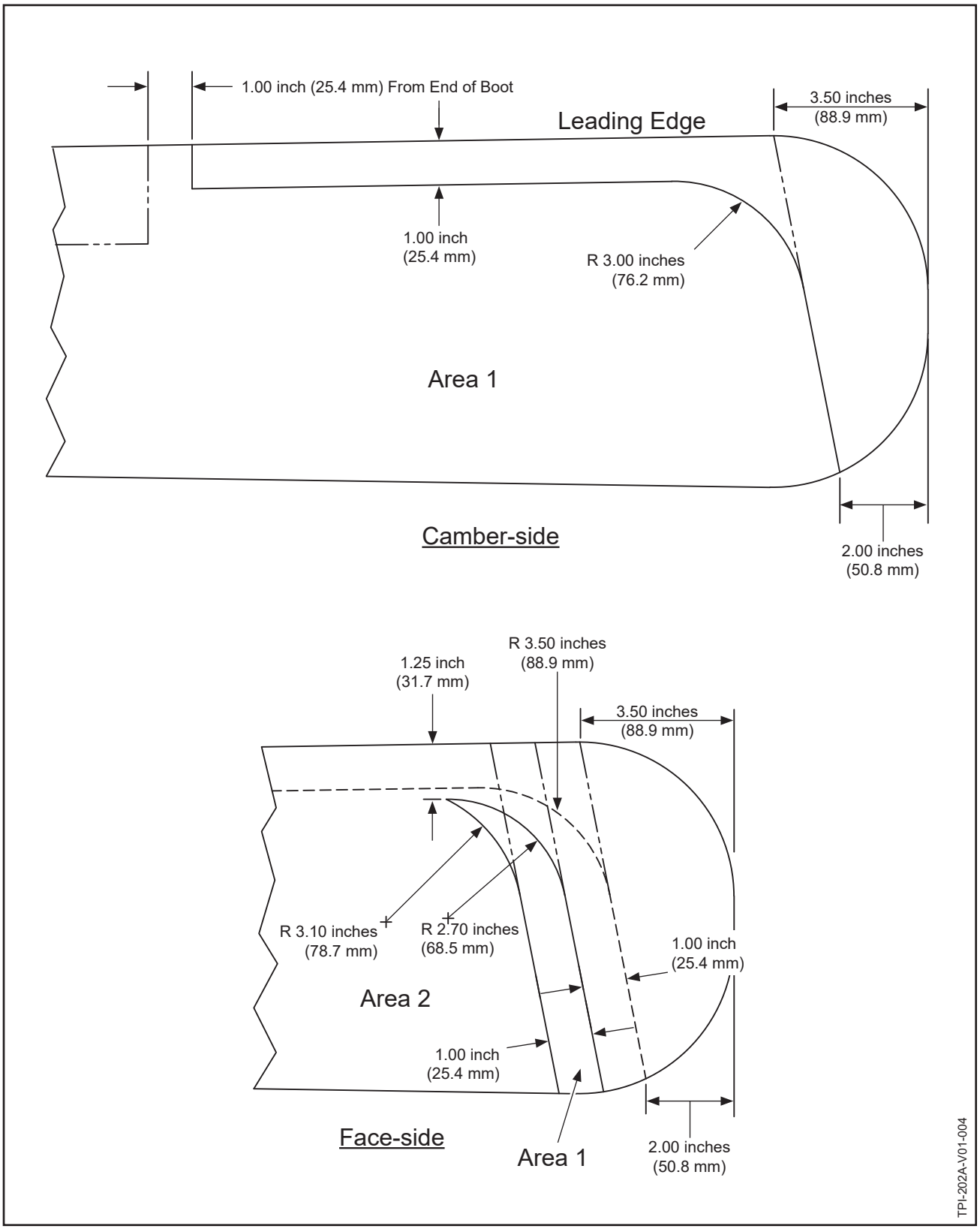
Camber-side



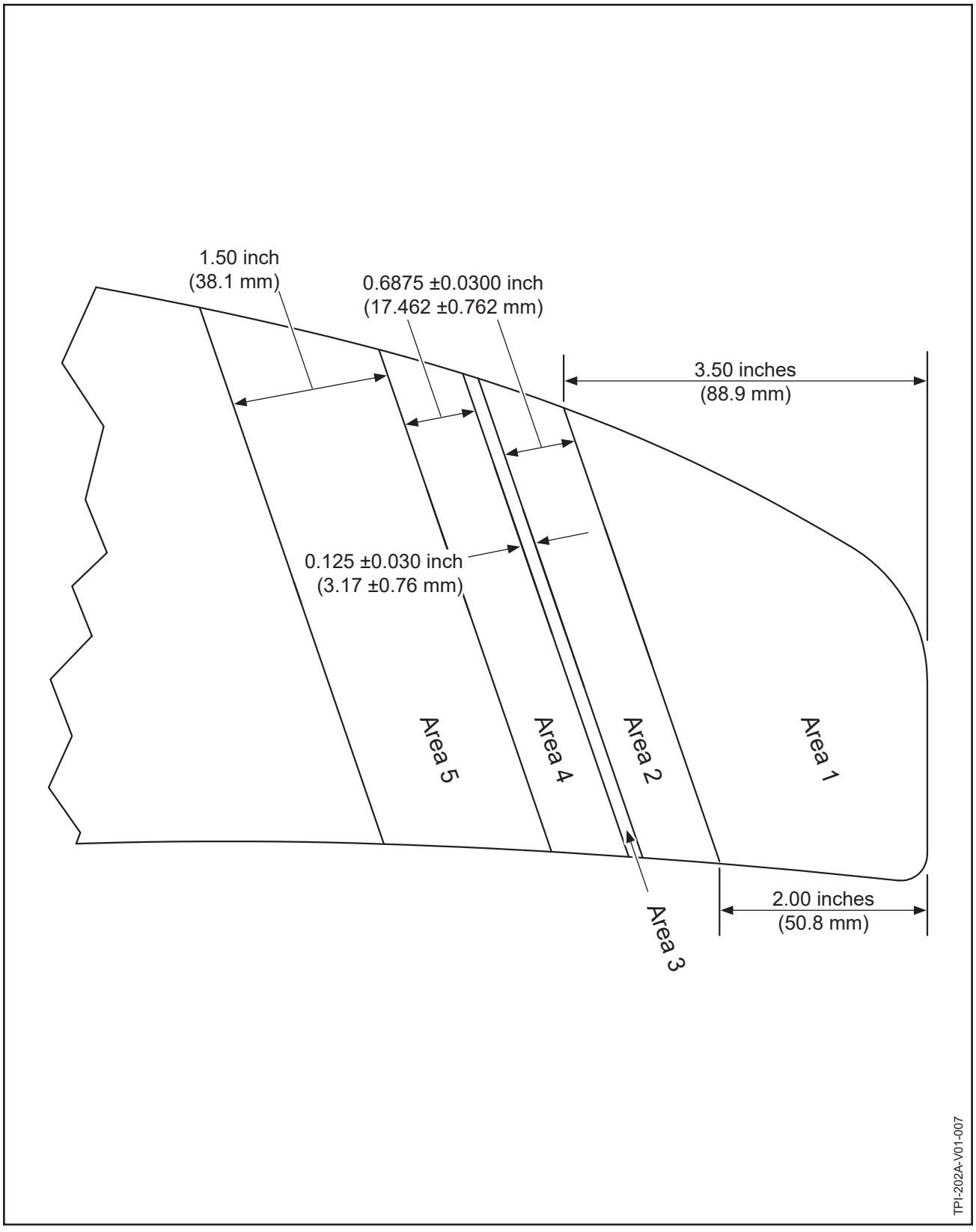
Face-side

TI-202-01-002

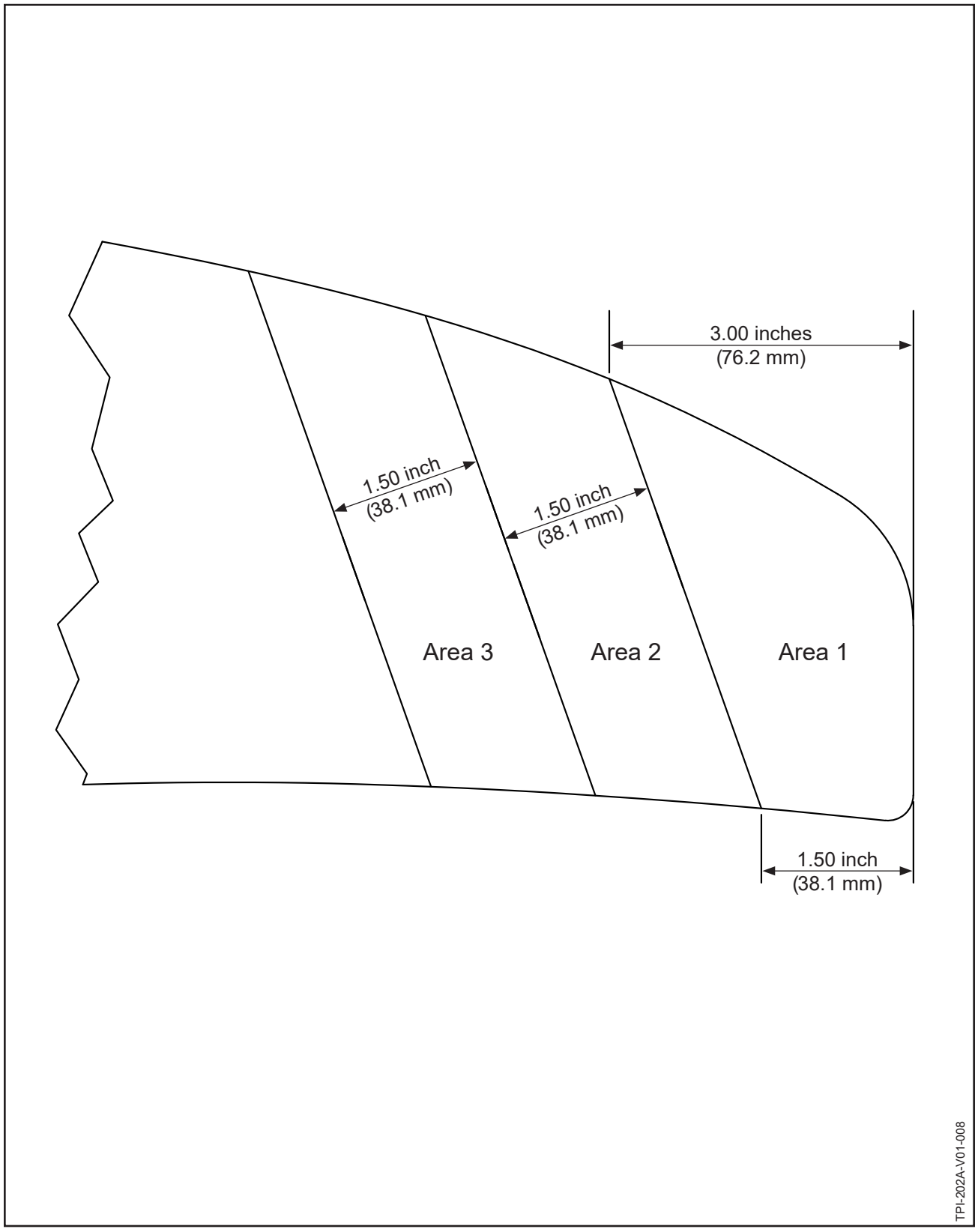
Tip Paint Pattern #16
Figure 2-5.14



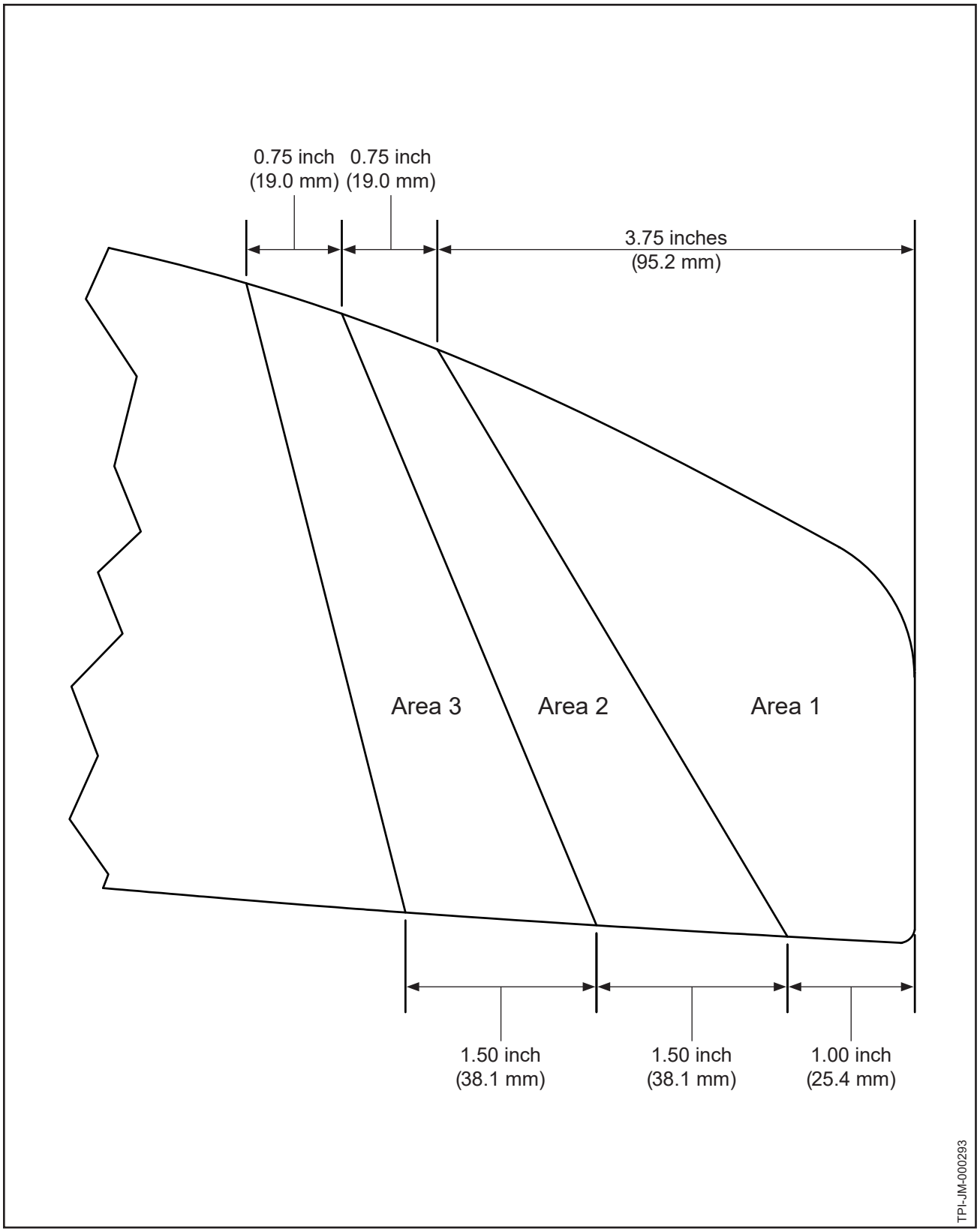
Tip Paint Pattern #17
Figure 2-5.15



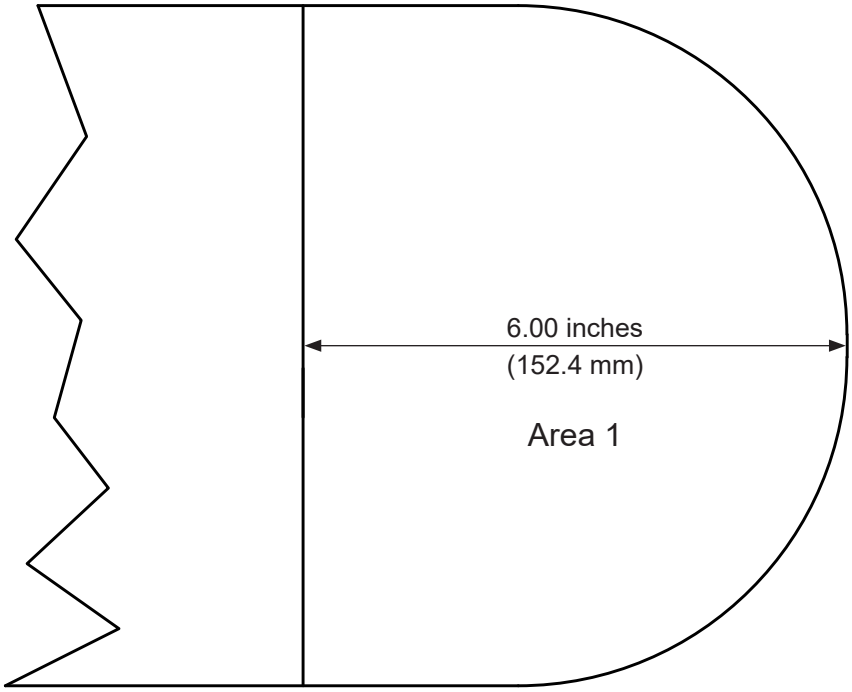
Tip Paint Pattern #18
Figure 2-5.16



Tip Paint Pattern #19
Figure 2-5.17



Tip Paint Pattern #20
Figure 2-5.18



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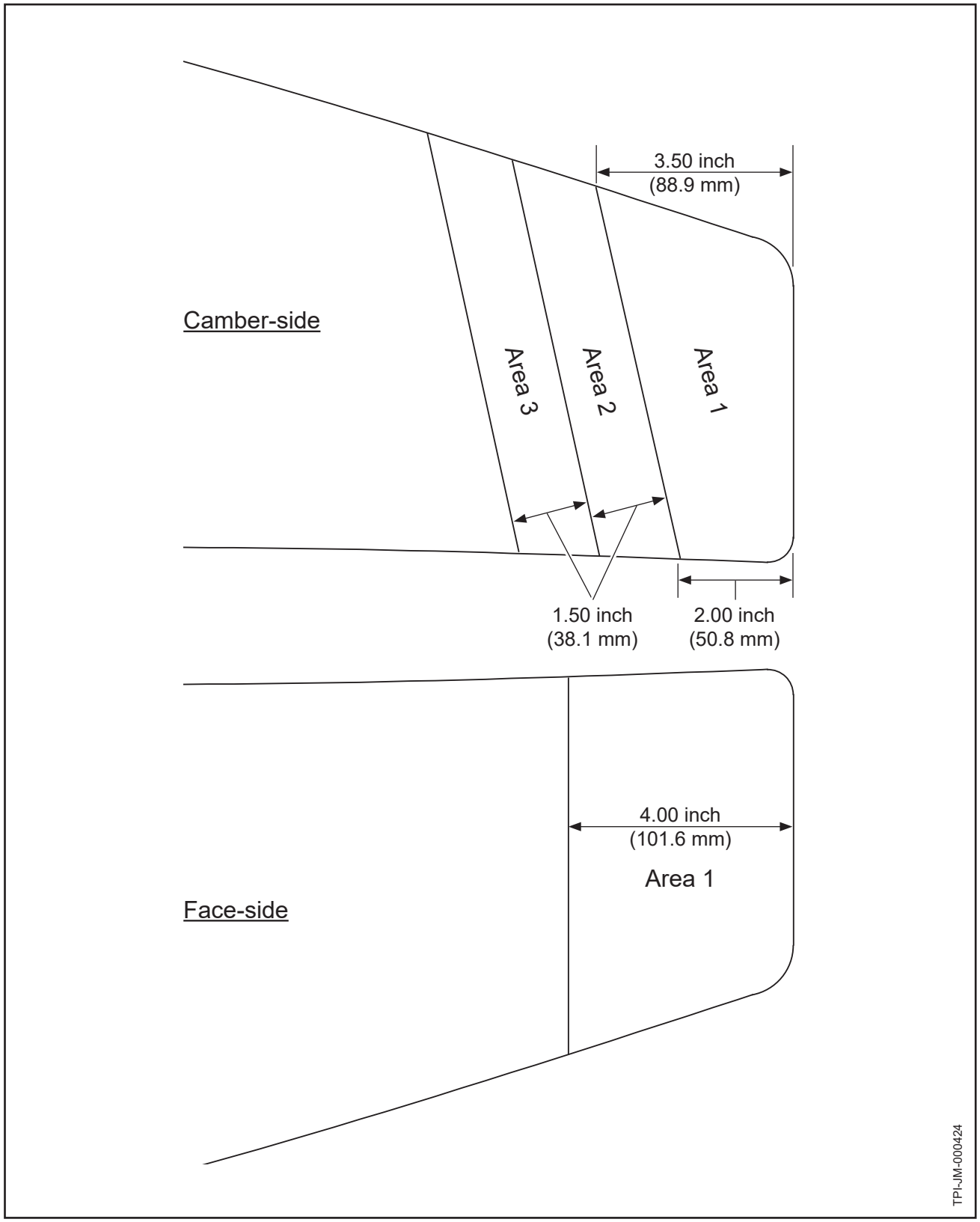
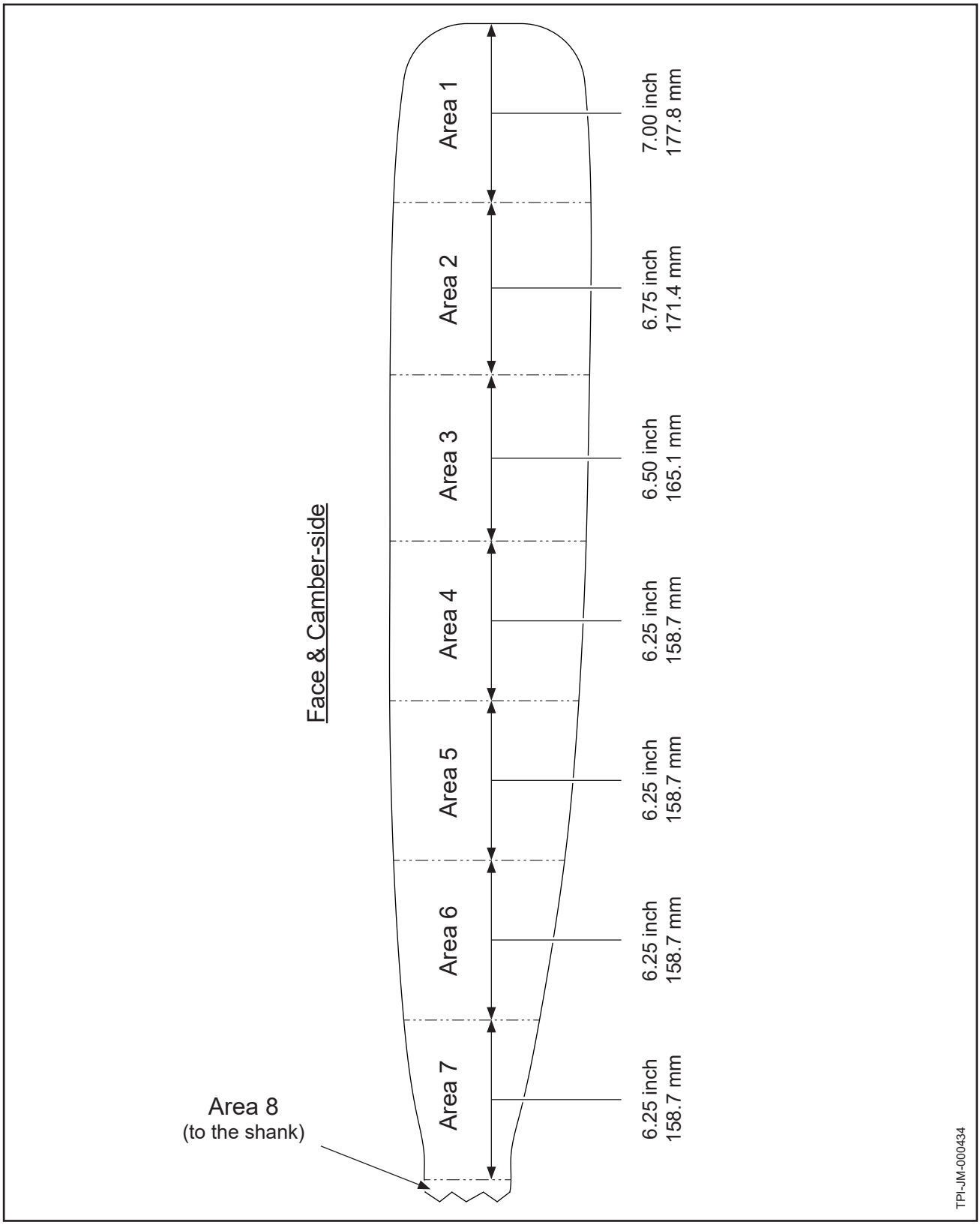
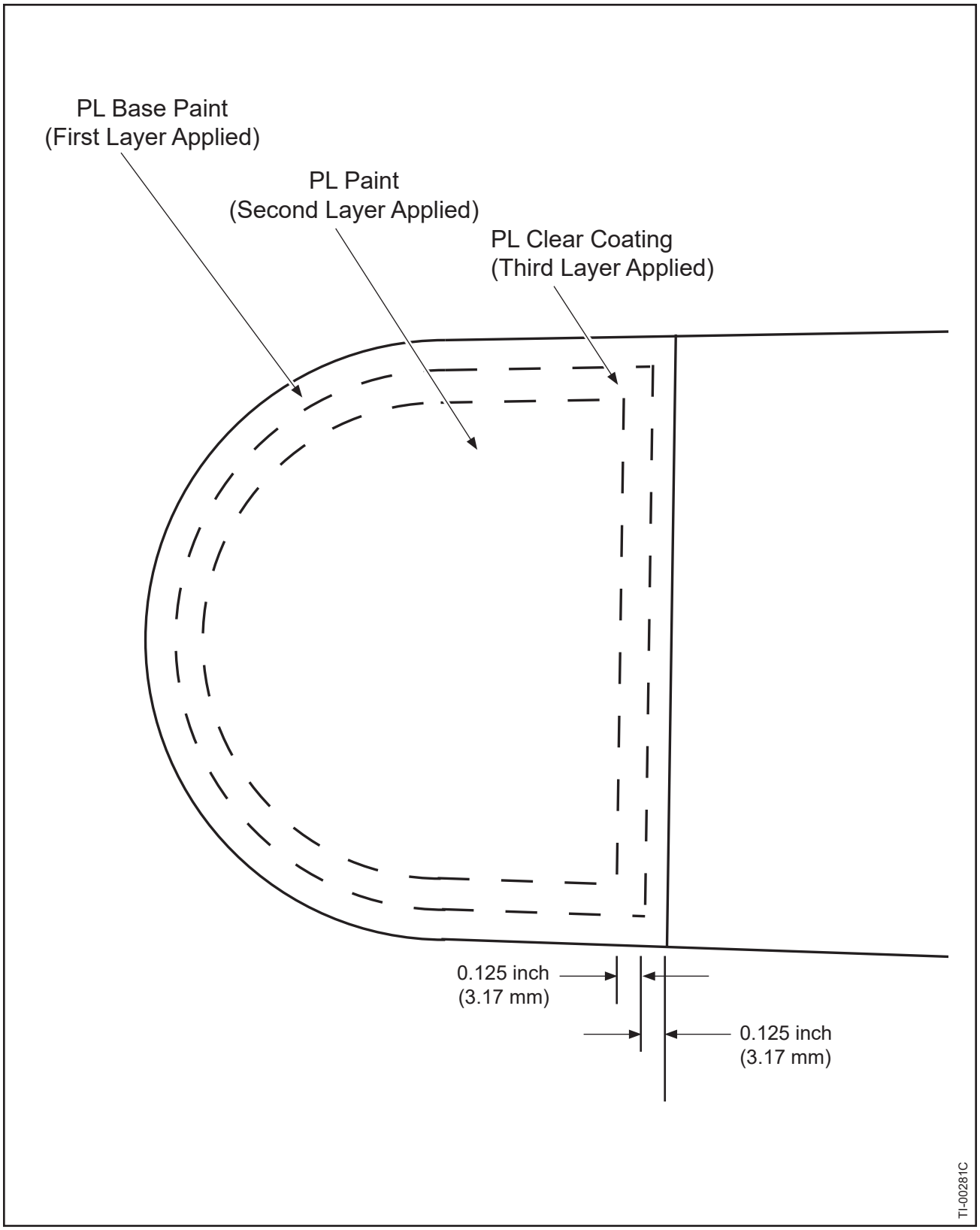
Tip Paint Pattern #21
Figure 2-5.19



Tip Paint Pattern #22
Figure 2-5.20



Tip Paint Pattern #23
Figure 2-5.21



Overview of the PL Paint System Layers
Figure 2-6

E. Blade Tip Paint Procedures

(1) General

(a) To find the tip paint scheme and tip paint pattern for a particular blade, refer to the applicable Blade Paint Scheme table in the section, "Paint Scheme" of this chapter.

(b) For painting tip stripes, use the applicable paint mix and tip paint scheme in accordance with Table 2-3, "Tip Paint Scheme".

1 When applying photoluminescent tip stripe paint, use the instructions in this section and the components in PL Paint Kit CM233.

2 The instructions for applying photoluminescent tip stripe paint may be used for any shape blade.

(2) Photoluminescent Tip Stripe Paint Application

(a) General Information for Photoluminescent (PL) Painting

NOTE: Scheduling the painting of multiple blade tips is advisable because the PL paint kit provides enough paint to complete 20 blade tips on one side.

CAUTION: USE THE PL PAINT KIT IMMEDIATELY AFTER OPENING BECAUSE UNUSED PAINT CANNOT BE STORED AND MUST BE DISCARDED.

1 All components of the PL paint kit CM233 must be used immediately after it is opened.

a Leftover paint is unusable and must be discarded.

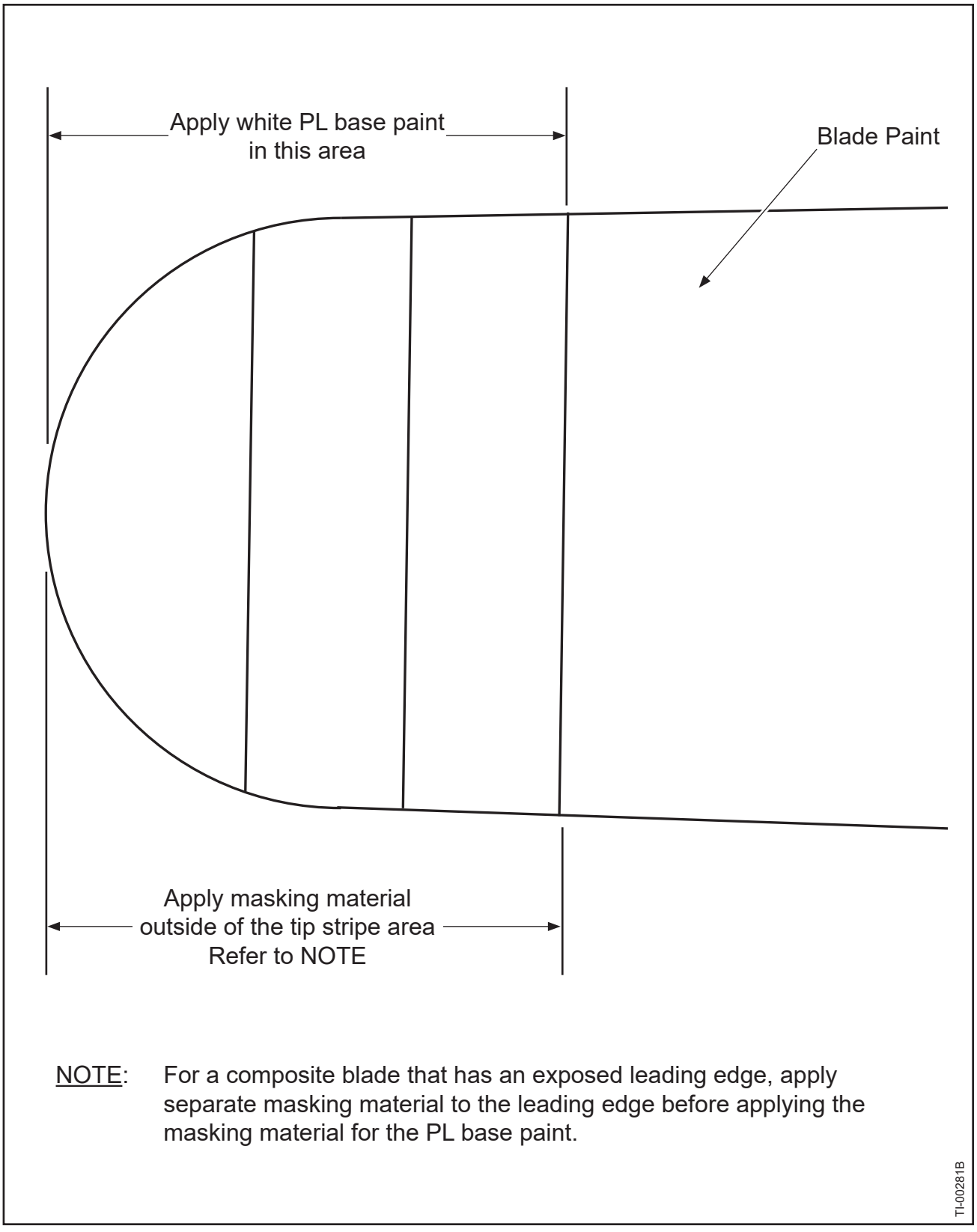
2 The PL paint system has three individual components: the white PL base paint, the photoluminescent (PL) paint, and the PL clear coat. Refer to Figure 2-6.

a These components are applied in multiple layers.

b Careful preparation of the blade and layering of the three individual components is required.

c The components of the PL paint system are included in PL Paint Kit Hartzell Propeller Inc. Part number A-6741-233-1. For information about the kit, refer to the section "Paint Kits - For All Except Composite Blades" in this manual and the Consumable Materials chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

3 To minimize erosion and protect the PL paint system, the PL paint is off-set from the edges of the blade and covered with a PL clear coating layer.



Applying Masking Material for PL White Base Coat
Figure 2-7

4 The PL paint system is applied to the propeller blade at the tip.

a When painting a blade that has tip stripes, apply the PL tip stripe paint to cover the existing tip stripes.

b When painting a blade that does not have tip stripes, apply the PL tip stripe paint on the camber side of the blade and, if applicable, on the face side of the blade in accordance with Blade Tip Pattern 4.

CAUTION: GUARD AGAINST OVERSPRAY WHEN PAINTING PROPELLER BLADES ON THE AIRCRAFT.

5 The propeller blades may be painted when on or off the aircraft.

a Propeller balance will not be affected if the paint system is applied equally on each blade.

6 If not previously painted, paint the blade, except for the tip stripes, in accordance with the procedures in this chapter.

7 If previously painted, the tip stripes will be covered by the white PL base layer.

(b) Photoluminescent (PL) Painting Procedure

CAUTION: FOLLOW THE INSTRUCTIONS CAREFULLY. FAILURE TO FOLLOW THE INSTRUCTIONS CAN CAUSE BOTH DECREASED VISIBILITY AND DECREASED BLADE EROSION PROTECTION.

1 Tape and apply masking material to the blade for the layer of white PL base paint CM224.

a If previously painted, cover the tip stripes with the white PL base paint CM224.

NOTE: The PL paint and PL clear coating are applied over the white PL base paint.

b Apply masking material to the camber side of the blade to expose only the area to be painted with the white PL base paint CM224. Refer to Figure 2-7.

c Using a cloth moistened with Acetone CM173, MEK CM106, or MPK CM219, wipe the surface to be painted.

d Using a cloth that is free from lint, for example tac rag CM232 that is provided in the PL Paint Kit CM233, wipe the surface dry.

2 Mixing and applying the white PL base paint (red dot labels)

NOTE 1: After the PL base coat hardener is mixed in, the pot life is four hours for the white PL base paint.

NOTE 2: For optimum paint performance, an HVLP (high volume low pressure), gravity feed paint gun with a 1.4/1.5 mm Nozzle is recommended. Generally speaking, 50 PSI at the source (compressor) will provide 35 PSI at the paint gun, which will develop 15 PSI at the nozzle.

a Shake the white PL base paint CM224 by hand for approximately 10 minutes.

b Using a stirring tool, for example stir stick CM223 that is provided in the PL Paint Kit CM233, mix (stir) the PL reducer CM228 and the PL base coat hardener CM225 in a container with the white PL base paint CM224 and mix thoroughly for approximately 2 minutes.

c After mixing, let stand for 15 minutes before applying the layer of white PL base paint mixture to the prepared surface.

d Using a filter, for example funnel/filter CM222 that is provided in the PL Paint Kit CM233, filter the PL base paint mixture into the paint gun.

e Using an HVLP paint sprayer, apply one layer of the white PL base paint mixture to the masked area of the propeller tip.

f Let the layer of white PL base paint mixture dry for a minimum of 15 minutes between each application.

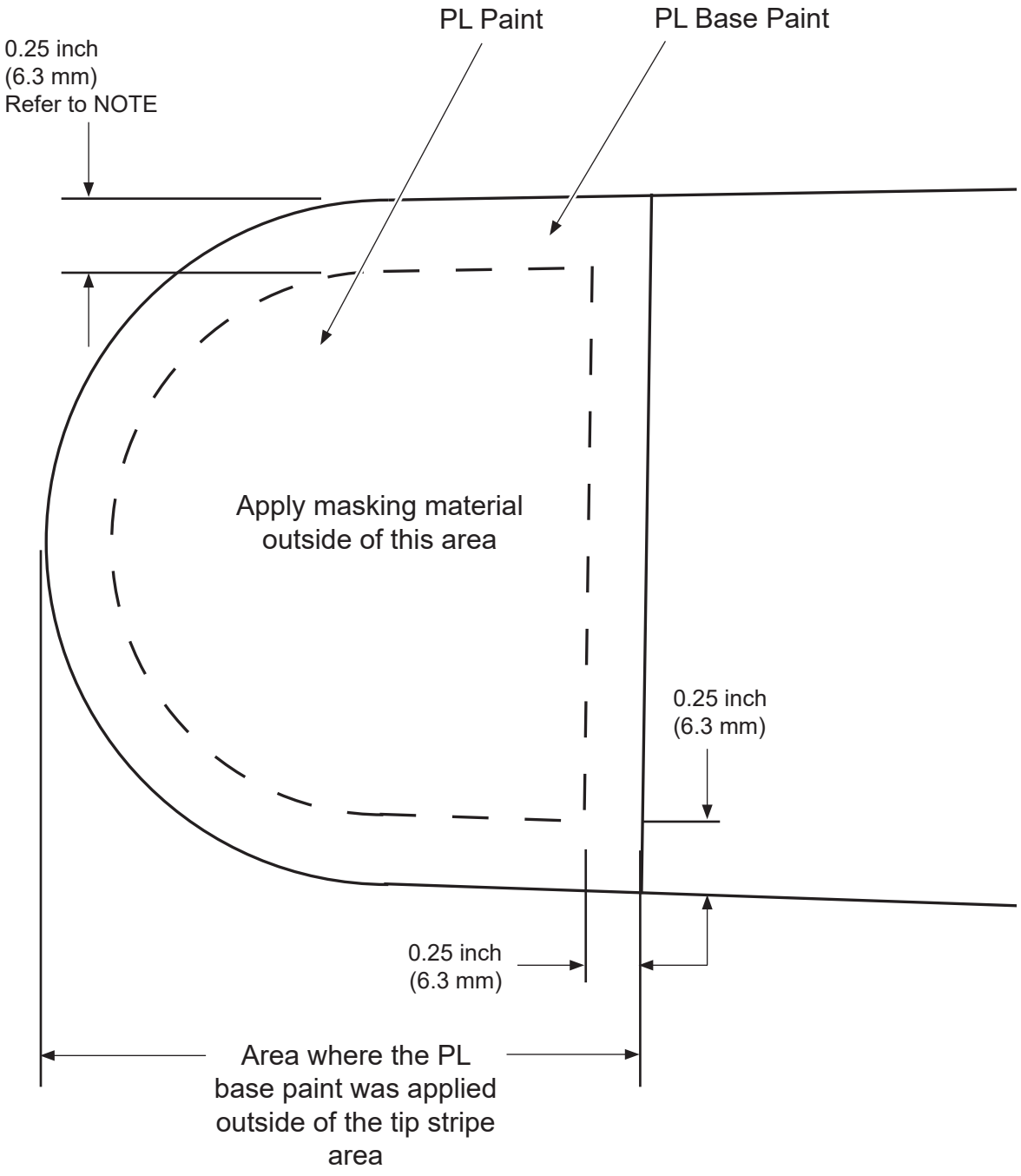
g Using an HVLP paint sprayer, apply another layer of the white PL base paint mixture to the masked area of the propeller tip.

h Visually inspect the painted area of the blade to verify complete coverage with the white PL base paint mixture layer.

i If there are tip stripes visible, apply another layer of the white PL base paint mixture.

CAUTION: DO NOT REMOVE LEADING EDGE MASKING MATERIAL IF APPLICABLE.

j If there is complete paint coverage and tip stripes are not visible if applicable, remove the masking materials, retaining the leading edge masking if applicable.



Applying Masking Material for PL Paint
Figure 2-8

3 Applying Masking Material for the PL Paint

a Using 0.25 inch (6.3 mm) masking material, for example vinyl tape CM221 that is provided in the PL Paint Kit CM233, apply masking around the inside perimeter of the layer of white PL base paint CM224 where the PL paint CM226 is to be applied. Refer to Figure 2-8.

NOTE 1: For a composite blade that has an exposed leading edge, the edge of the white PL base paint layer and the edge of the blade are not the same because of the leading edge masking.

NOTE 2: This will let the final PL clear coat layer to encase the PL paint layer.

4 Mixing and Applying the PL Paint (green dot labels)

NOTE: After the PL hardener CM227 is mixed in, the pot life for the PL paint mixture is four hours.

a Using a mechanical paint shaker, shake the PL paint CM226 for a minimum of 20 minutes to make sure it is thoroughly mixed. Additional shaking time and stirring may be required to thoroughly mix the paint.

b Using a stirring tool, for example stir stick CM223 that is provided in the PL Paint Kit CM233, add the PL reducer CM228 and stir for approximately 2 minutes until completely mixed.

c Add the PL hardener CM227 and stir for approximately 2 minutes until completely mixed.

d Let the PL paint mixture stand for 15 minutes.

e Thoroughly stir the PL paint mixture before filtering the PL paint mixture into the paint gun.

f Using a filter, for example CM222 that is provided in the PL Paint Kit CM233, filter the PL paint mixture into the paint gun.

CAUTION: THE PL PAINT IS HEAVILY LOADED WITH PIGMENT AND REQUIRES CONSTANT STIRRING TO KEEP FROM SETTLING. STIR THE PL PAINT COMPLETELY BETWEEN APPLICATIONS. EVIDENCE OF SETTLING WILL BE NOTICEABLE AFTER 5 MINUTES.

g Using an HVLP paint sprayer, apply one layer of the PL paint mixture to the masked area.

CAUTION: MAKE SURE TO FLUSH THE PAINT GUN IMMEDIATELY BETWEEN LAYERS OF PL PAINT. THE PAINT GUN MAY BE SERIOUSLY DAMAGED IF NOT FLUSHED.

h Using approximately 3 ounces of PL reducer CM228 (used to flush gun), flush (not completely clean) the HVLP paint gun between each layer of PL paint mixture.

CAUTION: DO NOT LET THE PL PAINT MIXTURE DRY FOR MORE THAN 30 MINUTES BEFORE APPLYING AN ADDITIONAL LAYER.

i Let the PL paint mixture dry for 20 to 30 minutes between layers.

j Repeat the application of the PL paint mixture until four light layers of the PL paint mixture have been applied.

k Application of four light layers of the PL paint mixture should cover the white PL base layer and achieve a 10 mil thickness.

l Additional thickness of the PL paint mixture will not provide additional brightness.

m Visually inspect the painted area to confirm that the PL paint layer completely covers the unmasked white PL base layer.

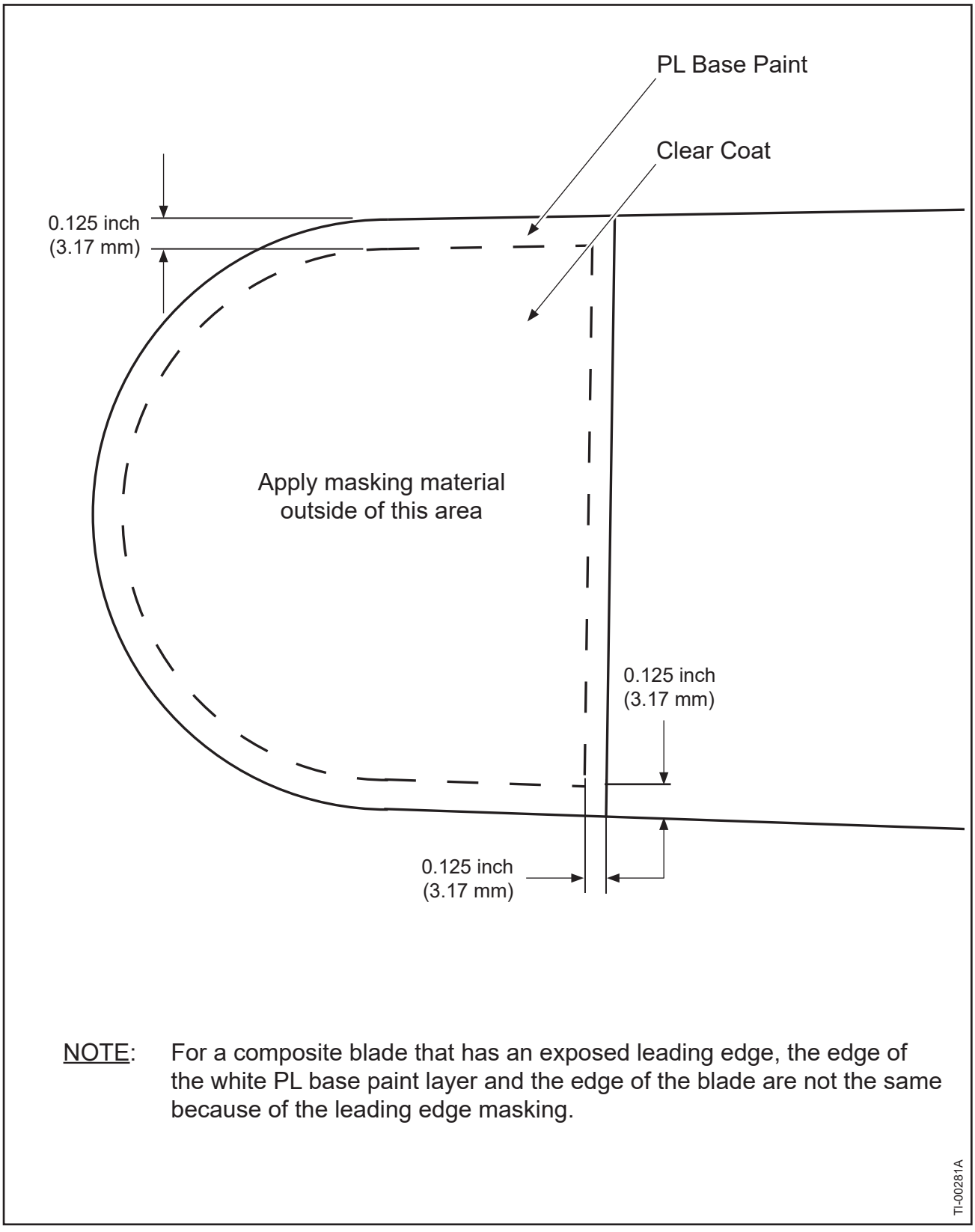
n If the white PL base paint layer is visible, apply another layer of the PL paint mixture.

CAUTION: DO NOT REMOVE LEADING EDGE MASKING MATERIAL IF APPLICABLE.

o If the white PL base paint layer is not visible, remove the masking materials, retaining the leading edge masking if applicable.

CAUTION: DO NOT LET THE PL PAINT MIXTURE DRY FOR MORE THAN 24 HOURS BEFORE APPLYING PL CLEAR COATING.

p Let the PL paint dry for at least 12 hours (no longer than 24 hours) before applying the PL clear coating CM229.



NOTE: For a composite blade that has an exposed leading edge, the edge of the white PL base paint layer and the edge of the blade are not the same because of the leading edge masking.

Applying Masking Material for PL Clear Coat
Figure 2-9

5 Applying Masking Material for the PL Clear Coating Layer

a Using 0.125 inch (3.17 mm) masking material, for example vinyl tape CM220 that is provided in the PL Paint Kit CM233, apply masking around the inside perimeter of the white PL base layer where the PL paint layer was applied. Refer to Figure 2-9.

NOTE 1: For a composite blade that has an exposed leading edge, the edge of the white PL base paint layer and the edge of the blade are not the same because of the leading edge masking.

NOTE 2: This results in a 0.125 inch (3.17 mm) overlap area between the white PL base paint layer and the PL paint layer that will help to encase the PL paint layer when the final PL clear coating layer is applied.

6 Mixing and Applying the PL Clear Coating Layer (yellow dot labels)

NOTE: After the PL clear coat hardener CM231 is mixed in, the pot life is four hours for the PL clear coating mixture.

a Using a stirring tool, for example stir stick CM223 that is provided in the PL Paint Kit CM233, mix (by stirring) the PL clear coat reducer CM230 and the PL clear coat hardener CM231 into a container with the PL clear coating CM229.

b Let the PL clear coating mixture stand for 15 minutes.

c Using a filter, for example CM222 that is provided in the PL Paint Kit CM233, filter the PL clear coating mixture into the paint gun.

d Using an HVLP paint sprayer, apply one layer of the PL clear coating mixture in the area to be painted.

e Let the PL clear coating mixture dry for 15 minutes.

f Apply another layer of the PL clear coating mixture.

g Let the PL clear coating mixture dry for 10 minutes.

h Remove all of the masking materials.

CAUTION: LET THE PAINT DRY FOR 24 HOURS BEFORE ENGINE START-UP.

i Let the PL clear coating mixture dry for 24 hours before engine start-up. Rotating the propeller by hand will not affect the paint curing.

7 Maintenance of the PL Paint.

a If the brightness of the paint has lessened, lightly clean the areas painted with the PL paint with a non-solvent cleaner and a clean cloth.

b If the edges of the PL paint are nicked or damaged, apply a layer of customer procured clear acrylic aerosol spray to protect the edges.

(1) Using the customer procured clear acrylic aerosol spray, spray the bristles of a paint brush.

(2) Using the paint brush covered with the clear acrylic aerosol spray, apply a very thin layer to the edges of the blade where the PL paint layer or the PL clear coating layer have been damaged.

F. Blade Paint Finish Procedures

NOTE: A blade can be finished using any blade paint finish scheme. The blade finishes in this chapter describe how Hartzell Propeller Inc. produces the blades to meet customer requirements.

(1) Blade Paint Scheme 1 - B, P, R, V, M, T, MV, W, and Z-shank Blades

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 4, Gray Polane® T to the camber side of the blade.

1 Optionally, apply Mixture 4, Gray Polane® T to both sides of the blade.

(c) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

(f) Apply necessary masking material to the lead and trail edges to prevent over-spray.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(g) Paint the tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(h) Remove the blade tip pattern masking material from the blade.

(i) Let the blade tip air dry.

(j) Apply Mixture 5, Black Polane® T to the face side of the blade.

(k) Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the gray or tip surfaces of the blade.

(l) Follow the general blade painting procedures in this chapter until the required mil thickness is achieved.

1 Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the gray or tip surfaces of the blade after each coat of paint is applied.

(m) Remove all remaining masking material from the blade.

(n) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(o) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(2) Blade Paint Scheme 1 - D, E, and Y-shank Blades

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 4, Gray Polane® T around the shank 360 degrees, covering the bearing radius to approximately 3 inches (76 mm) outboard of the bearing radius lip.

NOTE: Do not apply masking material to the shank to define the outboard limit.

(c) Apply Mixture 4, Gray Polane® T to the camber side of the blade.

1 Optionally, apply Mixture 4, Gray Polane® T to both sides of the blade.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

(f) Apply necessary masking material to the lead and trail edges to prevent over-spray when applying black paint.

(g) Mark a line 1.37 inch (34.7 mm) from the bearing radius lip on the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

1 Apply masking material to cover the shank outboard of the line.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(h) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(i) Remove the blade tip pattern masking from the blade.

(j) Let the blade tip air dry.

(k) Paint 360 degrees around the O-ring area of the shank with Mixture 5, Black Polane® T, inboard of the masking.

(l) Apply Mixture 5, Black Polane® T to the camber side of the blade.

(m) Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the gray or tip surfaces of the blade.

(n) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

1 Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the gray or tip surfaces of the blade after each coat of paint is applied.

(o) Remove all remaining masking material from the blade, if applicable.

(p) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(q) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(3) Blade Paint Scheme 2 - B, P, R, V, M, T, MV, W, and Z-shank Blades

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 4, Gray Polane® T to the face side of the blade.

1 Optionally, apply Mixture 4, Gray Polane® T to both sides of the blade.

(c) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

(f) Apply necessary masking material to the lead and trail edges to prevent over-spray.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(g) Paint the tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(h) Remove the blade tip pattern masking material from the blade.

(i) Let the blade tip air dry.

(j) Apply Mixture 5, Black Polane® T to the camber side of the blade.

(k) Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the gray or tip surfaces of the blade.

(l) Follow the general blade painting procedures in this chapter until the required mil thickness is achieved.

1 Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the gray or tip surfaces of the blade after each coat of paint is applied.

(m) Remove all remaining masking material from the blade.

(n) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(o) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(4) Blade Paint Scheme 2 - D, E, and Y-shank Blades

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 4, Gray Polane® T around the shank 360 degrees, covering the bearing radius to approximately 3 inches (76 mm) outboard of the bearing radius lip.

NOTE: Do not apply masking material to the shank to define the outboard limit.

(c) Apply Mixture 4, Gray Polane® T to the face side of the blade.

1 Optionally, apply Mixture 4, Gray Polane® T to both sides of the blade.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

(f) Apply necessary masking material to the lead and trail edges to prevent over-spray when applying black paint.

(g) Mark a line 1.37 inch (34.7 mm) from the bearing radius lip on the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

1 Apply masking material to cover the shank outboard of the line.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(h) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(i) Remove the blade tip pattern masking from the blade.

(j) Let the blade tip air dry.

(k) Paint 360 degrees around the O-ring area of the shank with Mixture 5, Black Polane® T, inboard of the masking.

(l) Apply Mixture 5, Black Polane® T to the camber side of the blade.

(m) Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the gray or tip surfaces of the blade.

(n) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

1 Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the gray or tip surfaces of the blade after each coat of paint is applied.

(o) Remove all remaining masking material from the blade, if applicable.

(p) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(q) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(5) Blade Paint Scheme 3

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 5, Black Polane® T to both sides of the blade.

(c) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(f) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(g) Remove the blade tip masking material from the blade.

(h) Let the blade air dry.

(i) Remove all remaining masking material from the blade, if applicable.

(j) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(k) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(6) Blade Paint Scheme 5

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 4, Gray Polane® T to both sides of the blade, including the bearing radius lip.

(c) Follow the general painting procedures in this section until the required mil thickness is achieved.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(f) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(g) Remove the blade tip pattern masking material from the blade.

(h) Let the blade air dry.

(i) Remove all remaining masking material from the blade.

(j) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(k) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(7) Blade Paint Scheme 6

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 16, Silver Polane® T around the shank 360 degrees, covering the bearing radius to approximately 3 inches (76 mm) outboard of the bearing radius lip.

NOTE: Do not apply masking material to the shank to define the outboard limit.

(c) Apply Mixture 16, Silver Polane® T to the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

1 Optionally, apply Mixture 16, Silver Polane® T to both sides of the blade.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

(f) Apply necessary masking material to the lead and trail edges to prevent over-spray when applying black paint.

(g) Mark a line 1.375 inches (34.92 mm) from the bearing radius lip on the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

1 Apply masking material to cover the shank outboard of the line.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(h) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(i) Remove the blade tip masking material from the blade.

(j) Let the blade air dry.

(k) Paint 360 degrees around the O-ring area of the shank, inboard of the masking material with Mixture 5, Black Polane® T.

(l) Apply Mixture 5, Black Polane® T to the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

(m) Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the silver metallic or tip surfaces of the blade.

(n) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

1 Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the silver metallic or tip surfaces of the blade after each coat of paint is applied.

(o) Remove all remaining masking material from the blade, if applicable.

(p) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(q) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(8) Blade Paint Scheme 7

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 8, Gray Metallic Polane® T to the exposed sections of both sides of the blade.

(c) Let the finish dry to the touch at room temperature.

(d) Apply masking material as required to protect the camber side of the blade.

(e) Apply Mixture 5, Black Polane® T to the face side of the blade. Maximum thickness is 1 mil when dry.

(f) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(g) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(h) Remove the blade tip masking material from the blade.

(i) Let the blade air dry.

(j) Remove all remaining masking material from the blade, if applicable.

(k) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(l) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(9) Blade Paint Scheme 8

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

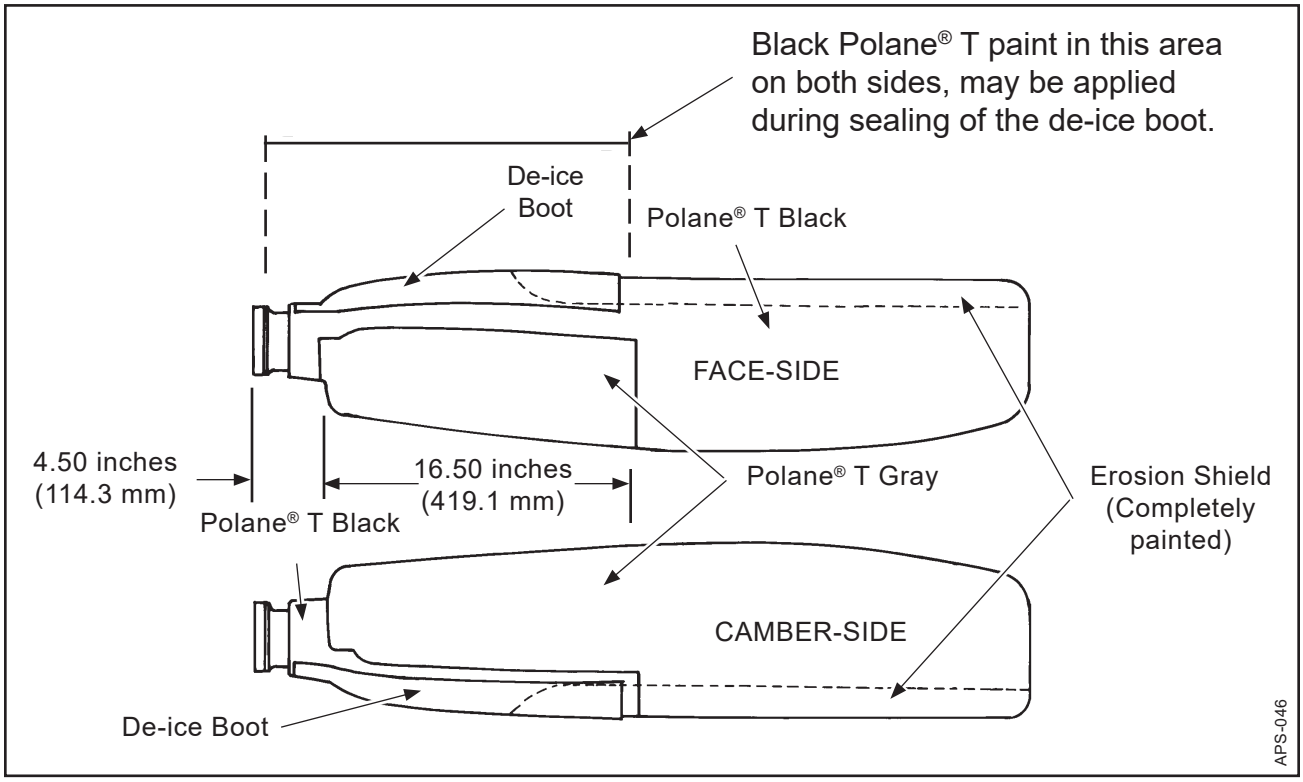
(b) Apply masking material to cover the OD of the blade shank in accordance with Figure 2-1, Option A - area "E".

(c) Apply Mixture 4, Gray Polane® T to all exposed areas of both sides of the blade.

(d) Let the finish dry to the touch at room temperature.

(e) Apply full width masking on the face side of the blade from 4.50 inches (114.3 mm) outboard of the butt to 21 inches (533 mm) outboard of the butt, as shown in Figure 2-10. Apply masking material as required, to protect the camber side of the blade between 4.50 inches (114.3 mm) from the butt of the blade to the tip.

NOTE: The winding should be exposed all the way around the blade for the next application. The de-ice seal application, to be completed later, will provide the proper amount of black that will be visible on the inboard face section of the blade.



Blade Paint Scheme 8
Figure 2-10

(f) Remove the masking material that was applied to cover the OD of the blade shank. Refer to Figure 2-1, Option A - area "E".

(g) Apply Mixture 5, Black Polane® T to the exposed face side of the blade. Maximum thickness is 1 to 2 mil when dry.

(h) Apply Mixture 5, Black Polane® T over the entire circular area of the winding material inboard of the blade cuff. Maximum thickness is 1 to 2 mil when dry.

(i) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(j) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(k) Remove the blade tip masking material from the blade.

(l) Let the blade air dry.

(m) Remove all remaining masking material from the blade, if applicable.

(n) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(o) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(10) Blade Paint Scheme 9

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 8, Gray Metallic Polane® T over the entire blade surface.

1 Optionally, apply Mixture 4, Gray Polane® T to both sides of the blade.

(c) Let the finish dry to the touch at room temperature.

(d) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(e) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(f) Remove the blade tip pattern masking material from the blade.

(g) Let the blade air dry.

(h) Remove all remaining masking material from the blade.

(i) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(j) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(11) Blade Paint Scheme 10

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 16, Silver Polane® T around the shank 360 degrees, covering the bearing radius to approximately 3 inches (76 mm) outboard of the bearing radius lip.

NOTE: Do not apply masking material to the shank to define the outboard limit.

(c) Apply Mixture 16, Silver Polane® T to the side of the blade in accordance with Table 2-2, "Blade Paint Scheme".

1 Optionally, apply Mixture 16, Silver Polane® T to both sides of the blade.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

(f) Apply masking material to the lead and trail edges of the blade to prevent over-spray when applying black paint.

(g) Mark a line 1.37 inch (34.7 mm) from the bearing radius lip on the side of the blade in accordance with Table 2-2, "Blade Paint Scheme".

1 Apply masking material to cover the shank outboard of the line.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(h) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(i) Remove the blade tip masking from the blade.

(j) Let the blade air dry.

(k) Paint 360 degrees around the O-ring area of the shank with Mixture 5, Black Polane® T inboard of the masking.

(l) Apply Mixture 5, Black Polane® T to the side of the blade in accordance with Table 2-2, "Blade Paint Scheme".

(m) Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the silver or tip surfaces of the blade.

(n) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

1 Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the silver or tip surfaces of the blade after each coat of paint is applied.

(o) Remove all remaining masking material from the blade, if applicable.

(p) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(q) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(12) Blade Paint Scheme 11

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 6, Flat White Polane® T around the shank 360 degrees, covering the bearing radius to approximately 3 inches (76 mm) outboard of the bearing radius lip.

NOTE: Do not apply masking material to the shank to define the outboard limit.

(c) Apply Mixture 6, Flat White Polane® T to the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

1 Optionally, apply Mixture 6, Flat White Polane® T to both sides of the blade.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade for the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

(f) Apply masking material to the lead and trail edges of the blade to prevent over-spray when applying black paint.

(g) Mark a line 1.37 inch (34.7 mm) from the bearing radius lip on the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

1 Apply masking material to cover the shank outboard of the line.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(h) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(i) Remove the blade tip masking from the blade.

(j) Let the blade air dry.

(k) Paint 360 degrees around the O-ring area of the shank with Mixture 5, Black Polane® T inboard of the masking.

(l) Apply Mixture 5, Black Polane® T to the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

(m) Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the white or tip surfaces of the blade.

(n) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

1 Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the white or tip surfaces of the blade after each coat of paint is applied.

(o) Remove all remaining masking material from the blade, if applicable.

(p) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(r) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(13) Blade Paint Scheme 12

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 17, Cream Polane® T around the shank 360 degrees, covering the bearing radius to approximately 3 inches (76 mm) outboard of the bearing radius lip. Do not apply masking material to the shank to define the outboard limit.

(c) Apply Mixture 17, Cream Polane® T to the side of the blade in accordance with Table 2-2, Blade Paint Scheme" in this chapter.

1 Optionally, apply Mixture 17, Cream Polane® T to both sides of the blade.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade in accordance with the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

(f) Apply masking material to the lead and trail edges of the blade to prevent over-spray when applying black paint.

(g) Mark a line 1.37 inches (34.7 mm) from the bearing radius lip on the side of the blade in accordance with Table 2-2, Blade Paint Scheme" in this chapter.

1 Apply masking material to cover the shank outboard of the line.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(h) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(i) Remove the blade tip masking from the blade.

(j) Let the blade air dry.

(k) Paint 360 degrees around the O-ring area of the shank with Mixture 5, Black Polane® T inboard of the masking.

(l) Apply Mixture 5, Black Polane® T to the side of the blade in accordance with Table 2-2, "Blade Paint Scheme" in this chapter.

(m) Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the cream or tip surfaces of the blade.

(n) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

1 Using a cloth dampened with Polane Reducer CM32, carefully wipe any black paint over-spray from the cream or tip surfaces of the blade after each coat of paint is applied.

(o) Remove all remaining masking material from the blade, if applicable.

(p) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(q) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(14) Blade Paint Scheme 13

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 27, Sterling Silver Polane® T to both sides of the blade.

(c) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade in accordance with the applicable blade tip pattern. Refer to Figure 2-5 through Figure 2-5.21.

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(f) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(g) Remove the blade tip masking material from the blade.

(h) Let the blade air dry.

(i) Remove all remaining masking material from the blade, if applicable.

(j) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(k) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(15) Blade Paint Scheme 16

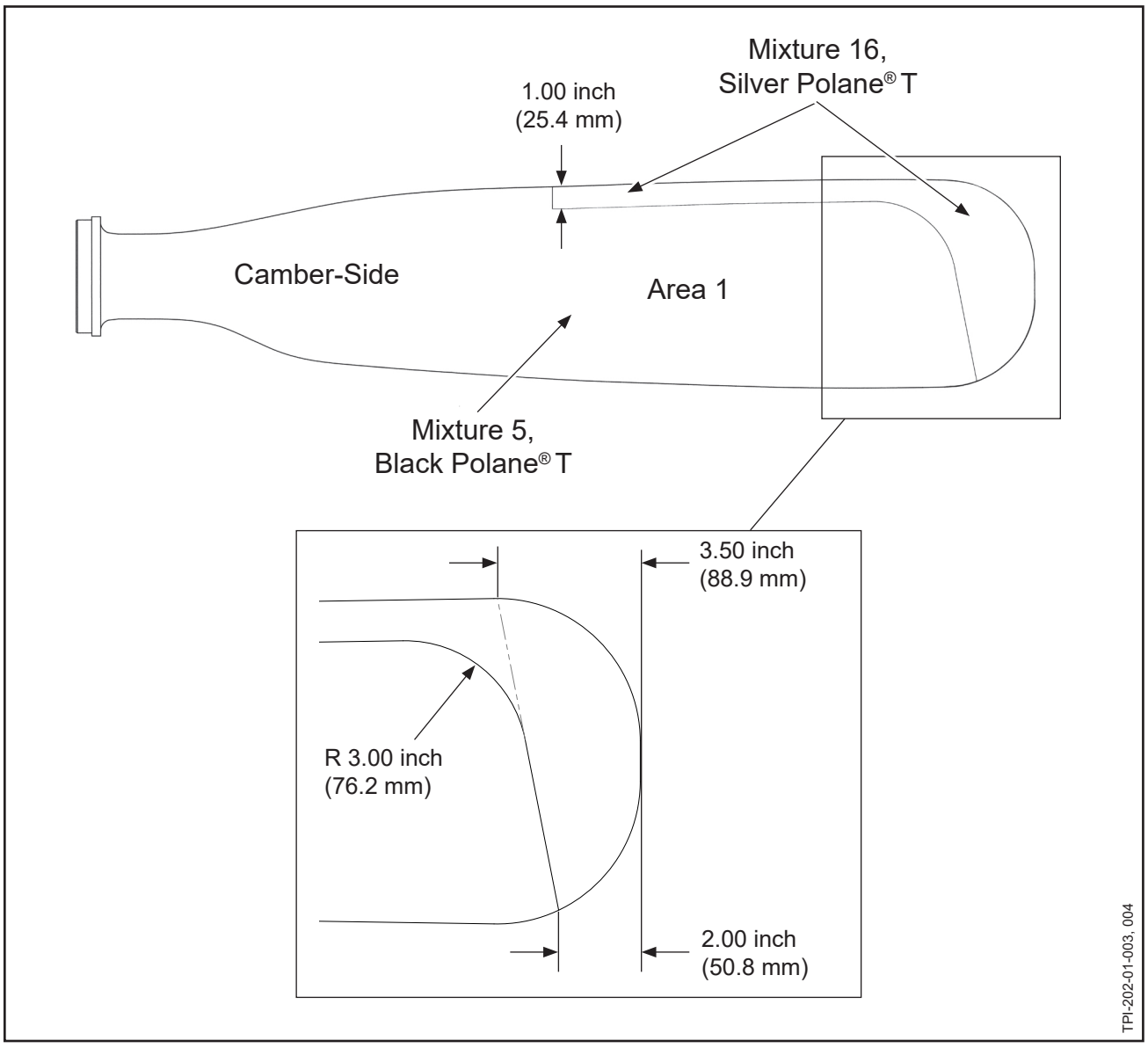
NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 16, Silver Polane® T to the exposed sections of both sides of the blade.

1 The maximum thickness is 2 to 3 mil when dry.

(c) Let the finish dry to the touch at room temperature.



Blade Paint Scheme 16
Figure 2-11

(d) To the camber side of the blade beginning 1.00 inch (25.4 mm) outboard of the de-ice boot, apply masking material to the remaining length of the leading edge of the blade from the centerline of the leading edge to 1.00 inch (25.4 mm) towards the trailing edge of the blade. Refer to Figure 2-11, "Blade Paint Scheme 16".

(e) Apply masking material to the tip of the blade in accordance with Figure 2-11, "Blade Paint Scheme 16".

(f) Apply Mixture 5, Black Polane® T to the face side and camber side of the blade. The maximum thickness is 1 to 2 mil when dry.

(g) Let the finish dry to the touch at room temperature.

(h) Apply masking material to Area 2 to cover the blade in accordance with Figure 2-20, "Tip Paint Pattern #17".

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(i) Paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" in this chapter.

(j) Remove the blade tip masking material from the blade.

(k) Let the blade air dry.

(l) Remove all remaining masking material from the blade, if applicable.

(m) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

(n) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure.

(16) Blade Paint Scheme 17

NOTE: Refer to Table 2-6 through Table 2-21 in this chapter for the blade paint scheme number applicable to each blade/installation.

(a) Refer to the section, "General" in this chapter for paint masking and primer application.

(b) Apply Mixture 6, White Polane® T to both sides of the blade.

(c) Follow the general painting procedures in this chapter until the required mil thickness is achieved.

(d) Let the finish dry to the touch at room temperature.

(e) Apply masking material to cover the blade in accordance with Figure 2-5.21, "Tip Paint Pattern #23".

CAUTION: FOR ADEQUATE LAYER-TO-LAYER PAINT ADHESION, THE MAXIMUM TIME PERMITTED BETWEEN COATS OF PAINT IS FOUR HOURS. IF IT HAS BEEN LONGER THAN FOUR HOURS SINCE THE PREVIOUS COAT OF PAINT WAS APPLIED, LIGHTLY SAND THE CURED SURFACE USING 400 GRIT SANDPAPER, AND WIPE IT WITH A CLEAN, DRY CLOTH BEFORE APPLYING A SUBSEQUENT LAYER OF PAINT.

(f) Using Mixture 5, Black Polane® T, paint the blade tip pattern in accordance with Table 2-3, "Tip Paint Scheme" and Figure 2-5.21, "Tip Paint Pattern #23" in this chapter.

(g) Remove the blade tip masking material from the blade.

(h) Let the blade air dry.

(i) Remove all remaining masking material from the blade, if applicable.

(j) Apply the identification label or ink stamp and Hartzell Propeller Inc. logo in accordance with the section, "Blade Identification" in this chapter.

CAUTION: DO NOT INSTALL THE DE-ICE BOOT UNTIL THE PAINT HAS DRIED FOR A MINIMUM OF EIGHT HOURS.

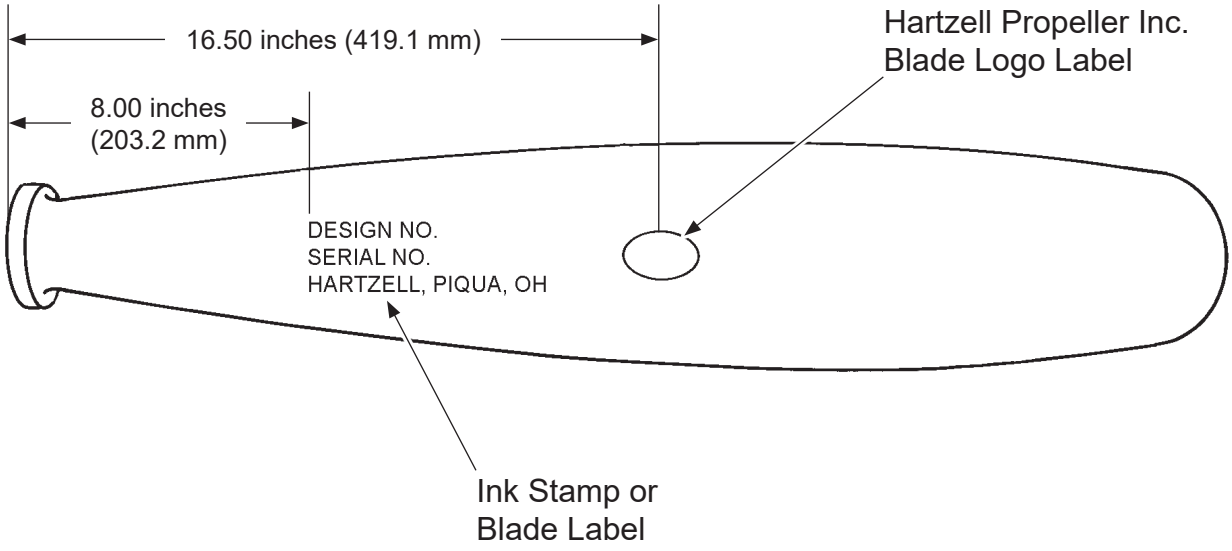
(k) Let the paint dry for a minimum of eight hours before beginning the de-ice boot installation procedure, if applicable.

BLADE MODEL	BLADE LOGO LABEL & STAMP POSITION
A, B, C, D, E, F, FC, FJ, FJC	Camber
FL	Face
GC, H, JE	Camber
HE, LE	Face (Refer to NOTE)
L, LD, LV, LMV, LW	Face
M, MV, N, NC, NG, R, V, W	Camber
LT Turbo Blades	Camber
T10173(**N**)+1 T10173(**N**)-11R (Beech NAVY) T10282(**N**) (Black)	Camber (White)
T10173(**N**)3R (Beech ARMY)	Camber (no identification)
T10178(**N**)-11	Camber
All Other T-shanks	Camber
NOTE: (L,H)E8218 blade model has the blade logo label on the face and camber.	

Blade Logo Label and Stamp Markings
Table 2-4

BLADE LOGO	BLADE ASSEMBLY/UNIT NUMBER			
106947	Refer to the NOTE.			
106947-1	86DB01	GC11114	JNC10904	JNC10905
	NC10245	NC10445	NC8834	
106947-D31	D9290	D9515	E10479	
106947-D31-1	NC10320			
NOTE: 106947 is used on all blades unless specified within this table.				

Blade Logo Labels
Table 2-5



NOTE 1: This figure is not to Scale

NOTE 2: (L,H)E8218 blades only: Install the blade logo label mid-way between the leading and trailing edges with its outboard edge at the 26.125 inch (663.57 mm) blade station.

NOTE 3: M10476(N) blades only: Install the blade logo label with its center located 17 inches (431 mm) from the blade butt and 3 inches (76 mm) from the trailing edge.

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Blade Logo Label and Stamp Locations on Metal Blades
Figure 2-12

G. Blade Identification

(1) Aluminum Blades

(a) Installing the Blade Logo Label

1 Apply a Hartzell Propeller Inc. blade logo label on the blade in accordance with Table 2-4, Table 2-5, Figure 2-12, and the procedures in this section.

2 With the label readable from the trailing edge of the blade, center the label visually between the lead and trail edge of the blade, 16.50 inches (419.1 mm) from the butt of the blade.

3 If necessary, move the blade logo label toward the trail edge to avoid covering the label with a de-ice or anti-ice boot.

4 Put a pattern, cut out around the blade logo label, over the blade.

5 Using protective spray CM129, or equivalent, apply a protective layer over the blade logo label.

6 Let the protective layer dry before handling.

(b) Installing the Blade Serial Number Label

1 General

a Previously, each blade in a propeller assembly was identified with a blade serial number label, P/N A-6573-( ).

b Hartzell Propeller Inc. has determined that an individual label or ink stamp on each blade in a propeller assembly is not required, but may be used if desired.

c A label located on the propeller assembly that provides the blade design, the serial number of each blade, and the location of each blade in the propeller assembly is permitted.

d A new propeller assembly or blade for Hartzell Propeller Inc. will have the blade serial number label P/N 102751.

2 Option A - Propeller Label - Preferred

a As needed, at each propeller overhaul, make a record of each blade designation and blade serial number in the applicable location on the blade serial number label P/N 102751.

b Put the label on the external piston or cylinder, as applicable, in a location that will not interfere with spinner forward bulkhead installation.

c If a spinner forward bulkhead is used, install the label where it will not contact the bulkhead.

3 Option B - Blade Ink Stamping

a Put a permanent ink stamp showing the blade design number, serial number, and "Hartzell, Piqua, Ohio" on the side of the blade in accordance with Table 2-4, "Label and Stamp Markings" in this chapter.

b With the ink stamp readable from the trailing edge of the blade, visually center the ink stamp between the lead and trail edges of the blade in accordance with Figure 2-12.

c If necessary, put the ink stamp toward the trail edge to avoid covering the label with a de-ice or anti-ice boot.

d Use opaque white ink CM69 or equivalent when ink-stamping the information on a black blade.

e Use opaque black ink CM70 or equivalent when ink-stamping the information on a blade that is not black.

f Put a pattern, cut out around the ink stamping, over the blade.

g Using protective spray CM129, or equivalent, apply a protective layer over the ink stamping.

h Let the protective layer dry before handling.

4 Option C - Blade Label

a Put a printed adhesive label showing the blade design number, serial number, and "Hartzell, Piqua, Ohio" on the side of the blade in accordance with Table 2-4, "Label and Stamp Markings" in this chapter.

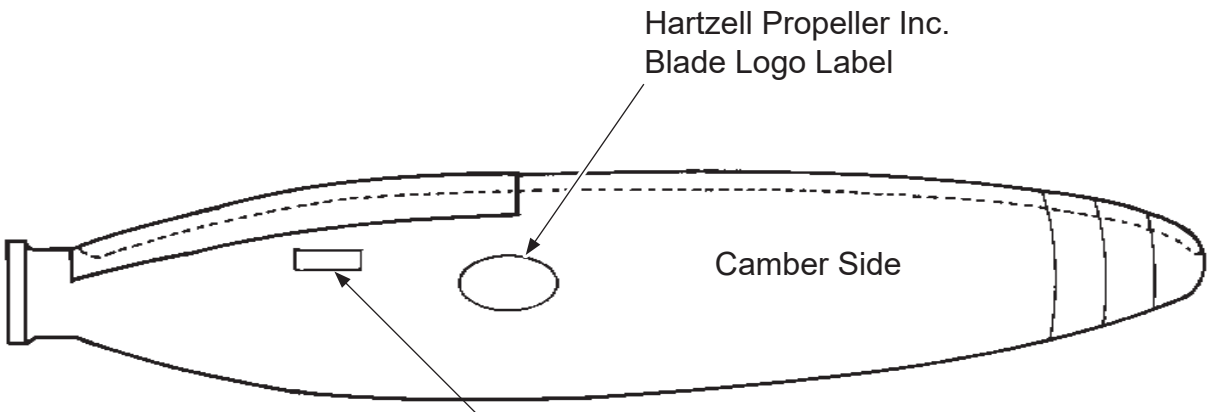
b With the label readable from the trailing edge of the blade, visually center the label between the lead and trail edges of the blade in accordance with Figure 2-12.

c If necessary, put the blade label toward the trail edge to avoid covering the label with a de-ice or anti-ice boot.

d Put a pattern, cut out around the blade label, over the blade.

e Using protective spray CM129, or equivalent, apply a protective layer over the blade label.

f Let the protective layer dry before handling.



NOTE: This figure is not to scale

APS0050C

Blade Logo Label and Stamp Locations on Composite Blades
Figure 2-13

(2) Composite Blades

(a) Installing the Blade Logo Label

1 Apply a Hartzell Propeller Inc. blade logo label on the blade in accordance with Table 2-4, Table 2-5, Figure 2-13, and the procedures in this section.

2 With the label readable from the trailing edge of the blade, center the label between the lead and trail edge of the blade.

NOTE: If the Blade Model number is not listed below, use the Blade Description for location of the logo label.

a Blades with a de-ice boot, maintain a minimum of 0.50 inch (12.7 mm) from the de-ice seal.

Blade Model/Description	Location of Logo Label
non-N-shank blade shorter than 40 inches (1016 mm)	17.00 inches (431.8 mm) from the butt of the blade
N-shank blade shorter than 40 inches (1016 mm)	16.50 inches (419.1 mm) from the butt of the blade
Blade longer than 40 inches (1016 mm)	24.00 inches (609.6 mm) from the butt of the blade
7690, 7890, 8190, 8891	Over the 15.5 inch station
7421	Over the 21.5 inch station
10460, 10585, 10083, 10877	Over the 21.5 inch station, approximately 1 inch (25 mm) from the de-icer trailing edge
108MH92, 10950, 13890	Over the 23 inch station, approximately 1 inch (25 mm) from the de-icer trailing edge
9193	Over the 19 inch station
11990, 12902	Over the 24 inch station

(b) Installing the Blade Serial Number Label

1 General

a Previously, each blade in a propeller assembly was identified with a blade serial number label, P/N A-6573-( ).

b Hartzell Propeller Inc. has determined that an individual label or ink stamp on each blade in a propeller assembly is not required, but may be used if desired.

c A label located on the propeller assembly that provides the blade design, the serial number of each blade and the location of each blade in the propeller assembly is acceptable.

d A new propeller assembly or blade for Hartzell Propeller Inc. will have the blade serial number label P/N 102751.

2 Option A - Propeller Label - Preferred

a As needed, at each propeller overhaul, make a record of each blade designation and blade serial number in the applicable location on the blade serial number label P/N 102751.

b Put the label on the external piston or cylinder, as applicable, in a location that will not interfere with spinner forward bulkhead installation.

c If a spinner forward bulkhead is used, install the label where it will not contact the bulkhead.

d If desired for the HD-E6C-3( )( ) propeller, install the blade serial number label, P/N 102751, on hub arm #2.

NOTE: Service Bulletin Compliance Label A-6411 is installed on hub arm #1.

3 Option B - Blade Ink Stamping

a On the camber side of the blade, put a permanent ink stamp showing the blade design number, serial number, and "Hartzell, Piqua, Ohio".

b The ink stamp must be readable from the trailing edge of the blade, visually centered between the lead and trail edges of the blade.

c If the blade has a de-ice boot, center the ink stamp between the trailing edge of the de-ice boot and the trailing edge of the blade.

d For blades shorter than 40 inches (1016 mm) put the identification 8.50 inches (215.9 mm) from the butt of the blade; for blades longer than 40 inches (1016 mm) put the identification 11.00 inches (279.4 mm) from the butt of the blade. Refer to Figure 2-13.

e Use opaque white ink CM69 or equivalent when ink-stamping the information on a black blade.

f Use opaque black ink CM70 or equivalent when ink-stamping the information on a blade that is not black.

g Put a pattern, cut out around the ink stamping, over the blade.

h Using protective spray CM129, or equivalent, apply a protective layer over the ink stamping.

i Let the protective layer dry before handling.

4 Option C - Blade Label

a On the camber side of the blade, put a printed adhesive label showing the blade design number, serial number, and "Hartzell, Piqua, Ohio".

b With the label readable from the trailing edge of the blade, visually center the label between the lead and trail edges of the blade.

c If the blade has a de-ice boot, center the blade label between the trailing edge of the de-ice boot and the trailing edge of the blade.

d Once positioned on the blade, use a soft roller or plastic spatula to press the label firmly onto the blade.

e Put a pattern, cut out around the blade label, over the blade.

f Using protective spray CM129, or equivalent, apply a protective layer over the blade label.

g Let the protective layer dry before handling.

(c) For E13890K Blades Only

1 Previously, the blade "Group Number" was recorded on the blade serial number label on each blade.

2 Currently, when blade balance is performed and blade "Group Number" is determined, make a record of the blade "Group Number" on the blade log card, Form 163-BLD.

NOTE: This log card is part of the propeller logbook, Dual Acting Propeller & Propeller Control System Log Book 163 (61-00-63).

11. Paint Touch-Up

A. General

CAUTION: PAINT MUST DRY A MINIMUM OF EIGHT HOURS BEFORE CONTINUING ASSEMBLY PROCEDURES.

(1) After painting, let the paint dry for a minimum of eight hours before continuing assembly procedures.

B. Procedure for Aluminum Blades

CAUTION: REPAIR AND REFINISH IS RECOMMENDED AS SOON AS POSSIBLE TO PREVENT CORROSION IN THE DAMAGED, EXPOSED BLADE SURFACE.

(1) The paint finish requires repair and refinish if the aluminum material of the blade is exposed.

(a) Visually inspect the damaged paint finish to confirm if the blade material is affected.

(b) If the blade material is damaged, it must be repaired in accordance with the specifications contained in this manual.

(c) After repair of damage, sand the edges of the damaged paint to a feather edge with 240 grit abrasive aluminum oxide.

(d) Clean the repair area with solvent CM11 or CM106.

(e) Apply masking material to cover the area adjacent to the repair to avoid over-spray.

(f) Spray on one light coat of Mixture 3, Washer Primer.

(g) Spray on one light coat of the appropriate color external Polane® T paint.

C. Procedure for Composite Blades

(1) For the paint touch-up procedure for composite blades, refer to the section, "Refinishing After Repair" in the Finish Procedures chapter of Hartzell Propeller Inc. Composite Propeller Blade Maintenance Manual 135F (61-13-35).

D. Alternate Touch-Up Paint Procedures for Aluminum Blades

NOTE: The use of an alternate, aerosol-type touch-up paint for blade refinishing is an option because polyurethane enamel paint application for touch up is both expensive and time consuming.

(1) These alternate touch-up paint procedures do not apply for a blade overhaul. Because of its superior resistance to corrosion, only Polyurethane enamel paint may be used when complete blade refinishing is required.

(2) Use touch-up paint for erosion, or after a minor repair. For touch up paint part numbers, refer to the Consumable Materials chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

CAUTION: REPAIR AND REFINISH IS RECOMMENDED AS SOON AS POSSIBLE TO PREVENT CORROSION IN THE DAMAGED, EXPOSED BLADE SURFACE.

(3) The paint finish requires repair and refinishing if the aluminum material of the blade is exposed.

WARNING: SOLVENTS ARE FLAMMABLE AND TOXIC TO THE SKIN, EYES AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION IS REQUIRED. AVOID PROLONGED CONTACT. USE IN A WELL VENTILATED AREA.

(a) Using approved solvent CM11, CM22, or CM106, wipe the surface of the blade to remove any contaminants.

(b) Feather the existing coatings away from the eroded or repaired area with 120 to 180 grit sandpaper.

NOTE: Erosion damage is typically very similar on all blades in a propeller assembly. If one blade has more extensive damage, e.g., in the blade tip area, all the blades should be worked in the blade tip area to simulate the repair of the most severely damaged blade tip. This practice is essential in maintaining balance after refinishing.

(c) Using approved solvent CM11, CM22, or CM106, wipe the surface of the blade.

(d) Let solvent CM11, CM22, or CM106 evaporate.

(e) Before refinishing, the blades must have their corrosion preventive coating reapplied by applying an approved chemical conversion coating (CM99, CM100, CM126) in accordance with the Chromic Acid Anodize chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

(f) Apply masking material to cover the de-ice boot and blade tip stripes, as needed.

WARNING: FINISH COATINGS (CM145, CM146, CM147, CM148, CM149, AND CM150) ARE FLAMMABLE AND TOXIC TO THE SKIN, EYES AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION ARE REQUIRED. AVOID PROLONGED CONTACT. USE IN A WELL VENTILATED AREA.

CAUTION: APPLY FINISH COATING ONLY TO THE DEGREE REQUIRED TO UNIFORMLY COVER THE REPAIR/EROSION. AVOID EXCESSIVE PAINT BUILDUP ALONG THE TRAILING EDGE TO AVOID CHANGING BLADE PROFILE.

(g) Apply the appropriate finish coating (CM145, CM146, or CM148) to achieve 2 to 4 mil thickness when dry. Re-coat before 30 minutes or after 48 hours.

(h) Remove masking material from blade tip stripes and re-apply masking material to cover for blade tip stripe refinishing as appropriate.

(i) Apply the appropriate blade tip stripe coating (CM147, CM149, or CM150) to achieve 2 to 4 mil thickness when dry. Re-coat before 30 minutes or after 48 hours.

(j) Optionally, perform dynamic balancing or static balancing as appropriate, in accordance with the procedures and limitations specified in the Static and Dynamic Balance chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02) and the airframe manufacturers instructions.

E. Alternate Touch-Up Paint Procedures for Composite Blades

(1) For the paint touch-up procedure for composite blades, refer to the section, "Refinishing After Repair" in the Finish Procedures chapter of Hartzell Propeller Inc. Composite Propeller Blade Maintenance Manual 135F (61-13-35).

CAUTION: INSTRUCTIONS AND PROCEDURES IN THIS SECTION MAY INVOLVE PROPELLER CRITICAL PARTS. REFER TO THE INTRODUCTION CHAPTER OF THIS MANUAL FOR INFORMATION ABOUT PROPELLER CRITICAL PARTS. REFER TO THE ILLUSTRATED PARTS LIST CHAPTER OF THE APPLICABLE OVERHAUL MANUAL(S) FOR THE IDENTIFICATION OF SPECIFIC PROPELLER CRITICAL PARTS.

12. Paint Scheme

A. Description of Columns

(1) Blade Configuration

(a) Provides Blade Model Number and blade model configuration (when applicable).

(b) Each character of the blade configuration number is the same as the type certified blade model number, except for the number to the right of the asterisk (*).

(c) A change (as indicated by an asterisk and number to the right of the asterisk) is only added when there is a difference in paint, de-ice, or counterweight from the "standard configuration" blade. This number has specific meaning only to an individual blade configuration and does not represent the same change(s) in blade design for other blade models.

NOTE 1: Examples of Blade Configurations:

FC7663-2R	=	Standard paint finish scheme with B-3202H-5 counterweight
FC7663-2R*1	=	Standard paint finish scheme with B-3202H-2 counterweight
FC7663B-2R*1	=	Standard paint finish scheme with 4E2303-10 de-ice boot and B-3202H-5 counterweight

NOTE 2: When a new blade is ordered, the model number that is stamped on the blade will reflect only the certified model number. It will not contain the asterisk (*) and the number to the right of the asterisk. All corresponding paperwork will show the certified model number with the asterisk (*) and the number to the right of the asterisk.

(2) Paint Prep Scheme

(a) Provides masking and prep coat application information.

(b) The scheme number in this column relates to the Blade Preparation procedures in this chapter.

(3) Blade Paint Scheme

(a) Provides blade paint finish coat color(s) application information.

(b) The scheme number in this column relates to Table 2-2, "Blade Paint Scheme" in this chapter.

(c) When a blade finish is shown as numbers, for example [3,1,1], the first number is the blade paint scheme.

(4) Tip Paint Scheme

(a) Provides blade tip color(s).

(b) The scheme number in this column relates to Table 2-3, "Tip Paint Scheme" in this chapter.

(c) When a blade finish is shown as numbers, for example [3,1,1], the middle number is the blade tip paint scheme.

(5) Tip Paint Pattern

(a) Provides blade tip masking information.

(b) Refer to the Blade Tip Pattern figures in this chapter.

(c) When a blade finish is shown as numbers, for example [3,1,1], the last number is the blade tip paint pattern.

(6) Comment

(a) Provides additional information for a blade model.

(b) The letter in this column relates to the table at the bottom of the page. A comment applies only to the listing in which it appears.

(7) For de-ice and anti-icing boot location information, refer to the Hartzell Propeller Inc. Propeller Ice Protection System Manual 180 (30-61-80) - Available on the Hartzell Propeller Inc. website at www.hartzellprop.com.

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
7214	1	N/A	N/A	N/A	
7214-2	1	N/A	N/A	N/A	
7214-2M	1	N/A	N/A	N/A	
7214-4	1	N/A	N/A	N/A	
7214-4M	1	N/A	N/A	N/A	
7214M	1	N/A	N/A	N/A	
7414	1	N/A	N/A	N/A	
7414M	1	N/A	N/A	N/A	
75A01-2( )	14	3	1	1	
75A01D	14	3	1	1	
76C03-2	17	3	1	1	
76C03-2*2	17	3	24	1	
76C03-7	17	3	1	1	
76C04-2	17	3	1	19	
76C04B-0.6	17	3	1	19	
76C04B-0.6*1	17	3	24	19	
7636-4	1	1	1	1	
7636D	1	1	1	1	
7636D-4	1	1	1	1	
7690E	19	3	1	1	
7690E*1	19	11	9	1	
7690J	19	3	1	1	
7890B	9	3	10	1	
7890K	9	3	10	1	
7890K*1	9	3	10	14	
78D01AB	20	3	20	19	
78D01B	20	6	1	11	
78D01B*2	20	3	20	19	
78D01BX*2	20	3	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
N/A	No Paint		

Paint Scheme: Blades without Letter Prefix
Table 2-6, page 1 of 4

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
8032-6	1	N/A	N/A	N/A	
80C01	17	3	1	11	
80C01-2	17	3	1	11	
80C01-4	17	3	1	11	
80C01W	17	3	1	11	
80C01W-2	17	3	1	11	
80C01W-4	17	3	1	11	
80CS01	20	3	1	11	
80CS01-2	20	3	1	11	
80CS01-4	20	3	1	11	
80CS01W	20	3	1	11	
80CS01W-2	20	3	1	11	
80CS01W-4	20	3	1	11	
8428	1	N/A	N/A	N/A	
8428-1	1	N/A	N/A	N/A	
8428+2	1	N/A	N/A	N/A	
8428-2	1	N/A	N/A	N/A	
8428-6	1	N/A	N/A	N/A	
8428C	1	N/A	N/A	N/A	
8433	1	1	1	1	
8433-1	1	1	1	1	
8433-2	1	1	1	1	
8433-4	1	1	1	1	
8433-6	1	1	1	1	
8433-7	1	1	1	1	
8433-10	1	1	1	1	
8433-12	1	1	1	1	
8447	1	1	1	1	
8447-1.9	1	1	1	1	
8447-12	1	1	1	1	
8447-12A	1	1	1	1	
8447-12R	1	1	1	1	
8447A-12A	1	1	1	1	
8447A-12R	1	1	1	1	
8447AB-12A	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
N/A	No Paint		

Paint Scheme: Blades without Letter Prefix
Table 2-6, page 2 of 4

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
8447AB-12R	1	1	1	1	
8447AN-12A	1	1	1	1	
8447AN-12R	1	1	1	1	
8447ANB-12A	1	1	1	1	
8447ANB-12R	1	1	1	1	
8447B-12A	1	1	1	1	
8447B-12R	1	1	1	1	
8447N	1	1	1	1	
8447N-1.9	1	1	1	1	
8447N-12	1	1	1	1	
8447N-12A	1	1	1	1	
8447N-12R	1	1	1	1	
8447NB-12A	1	1	1	1	
8447NB-12R	1	1	1	1	
86DB01B	20	3	1	20	
8833-2	1	1	3	1	
8833-4	1	1	1	1	
8847	1	1	1	1	
8847N	1	1	1	1	
91D17B	20	3	1	11	
9333C	1	1	1	1	
9333C-3	1	1	1	1	
9349	1	1	3	1	
9349+1/2	1	1	1	1	
9349-3R	1	1	1	1	
9349-5	1	1	1	1	
9349-6.5	1	1	3	1	
9349-9	1	1	1	1	
9349N	1	1	3	1	
9349N+1/2	1	1	1	1	
9349N-3R	1	1	1	1	
9349N-5	1	1	1	1	
9349N-6.5	1	1	3	1	
9349N-9	1	1	1	1	
9350-5	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

Paint Scheme: Blades without Letter Prefix
Table 2-6, page 3 of 4

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
9350N-5	1	1	1	1	
10133D-3	1	1	1	1	
10151-8	1	1	1	1	
10151-8R	1	1	1	1	
10151B-8	1	1	1	1	
10151B-8R	1	1	1	1	
10151C	1	1	1	1	
10151C-5	1	1	1	1	
10151CN	1	1	1	1	
10151CN-5	1	1	1	1	
10151N-8	1	1	1	1	
10151N-8R	1	1	1	1	
10151NB-8	1	1	1	1	
10151NB-8R	1	1	1	1	
10152-5.5	1	1	1	1	
10152N-5.5	1	1	1	1	
10152NB-5.5	1	1	1	1	
10160-6	1	1	1	1	
10160-8	1	1	1	1	
10160-12E	1	1	1	1	
10160N-6	1	1	1	1	
10160N-8	1	1	1	1	
10160N-12E	1	1	1	1	
108MH92	16	3	0	**NO**	
138MH91	16	3	0	**NO**	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
NO	No Tip Stripe(s)		

Paint Scheme: Blades without Letter Prefix
Table 2-6, page 4 of 4

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BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
A10460	5	3	1	1	
A10460E	5	3	1	1	
A10460EK	5	3	1	1	
A10460K	5	3	1	1	
B7421	2	1	1	1	
C7690E	19	3	1	1	
C7690EX	19	3	1	1	
C7690EX*1	19	11	9	1	
C7690F	19	3	1	1	
C7690G	19	3	1	1	
C7690J	19	3	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"A", "B", "C" Blades: Paint Scheme
Table 2-7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
D8292	1	1	1	1	
D8292-2	1	1	1	1	
D8292B	1	1	1	1	
D8292B*1	1	3	1	1	
D8292B-2	1	1	1	1	
D8292B-2*1	1	1	1	1	
D8295	1	3	1	1	
D8295-2	1	3	1	1	
D8295B-2	1	3	1	1	
D8990	1	1	1	1	
D8990K	1	1	1	1	
D8990K*1	1	1	1	1	
D8990S	1	1	1	1	
D8990SB	1	1	1	1	
D8990SB*1	1	3	1	1	
D8990SK	1	1	1	1	
D8990SK*1	1	1	1	1	
D8990SK*2	1	3	1	1	
D9290	1	1	1	1	
D9290-9	1	1	1	1	
D9290K	1	1	1	1	
D9290S	1	1	1	1	
D9290SK	1	1	1	1	
D9327K	1	1	1	1	
D9383K	1	1	1	1	
D9390SK-1R	1	1	1	1	
D9390SK-1R*2	1	3	6	21	
D9391K	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"D" Blades: Paint Scheme
Table 2-8, page 1 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
D9510	1	1	3	11	
D9510K	1	1	3	11	
D9510SK	1	6	26	11	
D9511F	1	1	1	1	
D9511F-4	1	1	1	1	
D9511F*1	1	1	1	1	
D9511F*2	1	3	1	1	
D9511FAS	1	1	1	1	
D9511FAS-2	1	1	1	1	
D9511FASK	1	1	1	1	
D9511FASK*1	1	1	1	1	
D9511FK	1	1	1	1	
D9511FK*1	1	1	1	1	
D9511FK*2	1	1	1	1	
D9511FK*3	1	1	1	1	
D9511FK*5	1	3	1	1	
D9511FK-2	1	1	1	1	
D9511FS	1	6	16	1	
D9511FSB	1	1	1	1	
D9511FSK	1	6	1	1	
D9512A	1	1	1	1	
D9512AEK	1	1	1	1	
D9512AF	1	1	1	1	
D9512AFK	1	1	12	4	
D9512AK	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"D" Blades: Paint Scheme
Table 2-8, page 2 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
D9515	1	6	26	11	
D9515*1	1	1	1	11	
D9515B*1	1	1	1	11	
D9515K	1	6	26	11	
D9515K*1	1	6	18	11	
D9515K*2	1	1	1	11	
D9587-11	1	1	1	1	
D9690	1	1	1	1	
D9690B	1	1	1	1	
D9900	1	1	1	1	
D9900K	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"D" Blades: Paint Scheme
Table 2-8, page 3 of 3

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BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
E8190K	9	3	1	1	
E8501	1	1	1	1	
E8501-3.5	1	1	1	1	
E8501B-3.5	1	1	1	1	
E8501B-3.5*1	1	1	1	1	
E8501K	1	1	1	1	
E8501K-3.5*1	1	16	30	17	
E9083SK	1	1	1	1	
E9083SK*1	1	1	1	1	
E9193B	12	3	1	1	
E9193K	12	3	1	1	
E9193K*2	12	3	1	1	
E9512CB-1	1	1	1	1	
E9512CB-1*1	1	1	6	1	
E9512CB-1*2	1	1	23	4	
E9512G-1	1	1	1	1	
E9512GB-1	1	1	1	1	
E9512GB-1*1	1	1	6	1	
E9512GB-1*2	1	1	23	4	
E9512GB-1*3	1	1	6	4	
E9512SK	1	1	1	1	
E9612	1	3	4	4	
E9612K	1	3	9	7	
E9673	1	3	4	4	
E9673S	1	3	4	4	
E10477K	1	6	1	1	
E10477K*1	1	1	1	1	
E10477SK	1	6	1	1	
E10478SK	1	1	1	1	
E10479SK	1	6	18	11	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"E" Blades: Paint Scheme
Table 2-9, page 1 of 2

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
E10703S	1	6	16	11	
E10950PB	8	7	1	13	
E10950PCB	8	7	1	13	
E10950PCK	8	7	1	13	
E10950PK	8	7	1	13	
E11990K	9	3	1	1	
E12902K	9	3	14	1	
E13890K	10	3	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"E" Blades: Paint Scheme
Table 2-9, page 2 of 2

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F7063	1	1	1	1	
F7063Q	1	1	1	1	
F7068-2	1	1	1	5	
F7282	1	6	1	1	
F7282*1	1	3	1	1	
F7382	1	1	1	1	
F7391D-3	1	1	1	1	
F7391D-3*1	1	3	1	1	
F7392	1	1	1	1	
F7392*1	1	3	1	1	
F7392*2	1	6	1	1	
F7392-1	1	1	1	1	
F7392-1*1	1	3	1	1	
F7392-1*2	1	3	24	1	
F7392S-1	1	1	1	1	
F7392S-1*1	1	3	1	1	
F7392S-1*2	1	3	24	1	
F7453	1	1	1	1	
F7468D	1	1	1	1	
F7468D-2	1	1	1	1	
F7490	1	1	1	1	
F7495S	1	6	16	11	
F7496	1	6	1	11	
F7496*1	1	3	1	11	
F7496*1X	1	3	1	11	
F7496-2	1	6	1	11	
F7496-2*1	1	3	1	11	
F7496-2*1X	1	3	1	11	
F7497	1	6	1	11	
F7497*1	1	6	16	11	
F7497*2	1	6	15	11	
F7497*4	1	3	6	4	
F7497*4X	1	3	6	4	
F7497*5	1	11	9	11	
F7497*6	1	3	1	11	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"F" Blades: Paint Scheme
Table 2-10, page 1 of 9

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F7497-2	1	6	1	11	
F7497-2*1	1	3	6	4	
F7497-2*1X	1	3	6	4	
F7497-2*2	1	3	1	11	
F7497-2*2X	1	3	1	11	
F7497-2*5X	1	11	9	11	
F7497D-2	1	6	1	11	
F7498	1	6	1	1	
F7498(B)*1	1	6	1	11	
F7498K	1	6	1	1	
F7498K*1	1	6	1	11	
F7499	1	6	1	11	
F7499-2	1	6	1	11	
F7499D	1	6	1	11	
F7590	1	6	1	5	
F7590*1	1	3	1	5	
F7590D	1	1	1	5	
F7590D-1	1	1	1	5	
F7663	1	1	1	1	
F7663-2Q	1	1	1	1	
F7663-2R	1	1	1	1	
F7663-3	1	1	1	1	
F7663-4	1	1	1	1	
F7663-4Q	1	1	1	1	
F7663-4R	1	1	1	1	
F7663-4T	1	6	1	1	
F7663-4T*1	1	3	1	1	
F7663-6Q	1	1	1	1	
F7663-6Q*1	1	3	1	1	
F7663A-2R	1	1	1	1	
F7663A-2R*1	1	3	1	1	
F7663A-2R*2	1	6	1	1	
F7663A-3	1	1	1	1	
F7663A-3.5	1	1	1	1	
F7663A-4	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"F" Blades: Paint Scheme
Table 2-10, page 2 of 9

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F7663A-6	1	1	1	1	
F7663D-2Q	1	1	1	1	
F7663D-2R	1	1	1	1	
F7663D-3	1	1	1	1	
F7663D-4	1	1	1	1	
F7663D-6	1	1	1	1	
F7663D-6Q	1	1	1	1	
F7663DB-6Q	1	1	1	1	
F7663DR	1	1	1	1	
F7663DRB	1	1	1	1	
F7663K-2R	1	1	1	1	
F7663R	1	1	1	1	
F7663R*1	1	3	1	1	
F7663R*2	1	6	1	1	
F7663R*3	1	6	16	11	
F7666	1	1	1	1	
F7666-2	1	1	1	1	
F7666-4	1	1	1	1	
F7666A	1	1	1	1	
F7666A*1	1	3	1	1	
F7666A-2	1	1	1	1	
F7666A-2A	1	1	1	1	
F7666A-2R	1	1	1	1	
F7666A-3Q	1	1	1	1	
F7666A-3R	1	1	1	1	
F7666A-4	1	1	1	1	
F7666A-4*1	1	3	1	1	
F7666A-4Q	1	1	1	1	
F7673DR	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"F" Blades: Paint Scheme
Table 2-10, page 3 of 9

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F7691	1	1	1	5	
F7691*1	1	3	1	5	
F7691*2	1	3	7	5	
F7691*3	1	3	1	12	
F7691-1	1	1	1	5	
F7691+2	1	6	1	5	
F7691B+2	1	6	1	5	
F7691D	1	1	1	5	
F7691D-1	1	1	1	5	
F7691DK-1	1	1	1	5	
F7691DK-1*1	1	1	1	5	
F7691F	1	1	1	5	
F7693DF	1	1	1	1	
F7693DF*1	1	6	1	1	
F7693DF*2	1	11	15	11	
F7693DF*3	1	6	18	11	
F7693DF*4	1	3	20	11	
F7693DF*5	1	3	1	11	
F7693DF*6	1	3	21	1	
F7693DF*7	1	3	24	11	
F7693DF*8	1	3	5	11	
F7693DF+2	1	6	1	11	
F7693DF+2*1	1	6	16	11	
F7693DF-2*1	1	6	1	1	
F7693DFB	1	11	15	11	
F7693DFB*1	1	6	18	11	
F7693DFB*2	1	12	17	12	
F7693DFB*3	1	3	19	11	
F7693DFB*4	1	3	1	11	
F7693DFB*5	1	3	20	11	
F7693DFB*6	1	3	21	11	
F7693DFB*7	1	3	24	11	
F7693DFB-2	1	6	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"F" Blades: Paint Scheme
Table 2-10, page 4 of 9

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F7693DFB+2	1	6	16	11	
F7693DFK	1	6	1	5	
F7693DFK*1	1	6	1	5	
F7693F	1	1	1	1	
F7693F*1	1	3	1	1	
F7693F*2	1	6	1	1	
F7693F-1	1	1	1	1	
F7693F-1*1	1	3	1	1	
F7693F-1*2	1	6	1	1	
F7693F-2	1	6	1	1	
F7693F+2	1	6	15	11	
F7693F+2*1	1	6	16	11	
F7693FB	1	1	1	1	
F7693FB*1	1	6	1	1	
F7693FB+2	1	6	15	11	
F7693FB+2*1	1	6	15	11	
F7693FB+2*2	1	6	16	11	
F7693FK+2	1	6	16	11	
F7694	1	1	1	1	
F7694*1	1	12	17	12	
F7694*2	1	3	1	1	
F7694*3	1	11	17	12	
F7694-1	1	1	1	1	
F7694-2	1	1	1	1	
F7694-4T	1	1	1	1	
F7694B	1	1	1	1	
F7694B*1	1	12	17	12	
F7694D-6T	1	6	1	5	
F7854	1	1	1	1	
F7854-2	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"F" Blades: Paint Scheme
Table 2-10, page 5 of 9

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F7894	1	6	1	11	
F7894-1.5	1	6	1	11	
F7894-1.5*1	1	6	16	11	
F8052	1	1	1	1	
F8052K	1	1	1	1	
F8068	1	1	1	5	
F8068*1	1	6	1	5	
F8068*2	1	3	9	11	
F8068*3	1	3	1	1	
F8068*4	1	6	16	5	
F8068*5	1	3	1	11	
F8068*6	1	3	10	5	
F8068+2	1	1	1	5	
F8068+2*1	1	3	1	5	
F8068+2*7	1	6	1	11	
F8068-2	1	1	1	5	
F8068-2*1	1	6	1	5	
F8068-2*2	1	6	16	5	
F8068B	1	6	16	11	
F8068B*1	1	6	16	11	
F8068B*2	1	6	16	5	
F8068B*3	1	6	16	5	
F8068B-2	1	6	16	11	
F8068B-2*1	1	6	16	5	
F8068D	1	6	1	5	
F8068D*2	1	3	5	5	
F8068D*4	1	3	1	5	
F8068K*1	1	6	1	5	
F8068K*2	1	6	16	5	
F8068K-2*3	1	3	24	11	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

I

"F" Blades: Paint Scheme
Table 2-10, page 6 of 9

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F8074	1	1	1	1	
F8074K	1	1	1	1	
F8429	1	6	16	11	
F8429*1	1	11	15	11	
F8429*2	1	3	1	11	
F8429*3	1	3	10	11	
F8429*4	1	6	10	11	
F8429-4	1	6	16	11	
F8429-6	1	6	16	11	
F8459-4	1	1	1	1	
F8459-9R	1	1	1	1	
F8459-18	1	1	1	1	
F8459A-4	1	1	1	1	
F8459A-4Q	1	1	1	1	
F8459A-8R	1	1	1	1	
F8459A-8R*1	1	1	12	4	
F8459A-11Q	1	1	1	1	
F8465-7R	1	1	1	1	
F8465-8R	1	1	1	1	
F8465B-7R	1	1	1	1	
F8465B-7R*1	1	1	1	1	
F8467-7R	1	1	1	1	
F8467-8	1	1	1	1	
F8467-8R	1	1	1	1	
F8468-2	1	1	1	1	
F8468-2R	1	1	1	1	
F8468-4	1	1	1	1	
F8468-4R	1	1	1	1	
F8468-6Q	1	1	1	1	
F8468-6R	1	1	1	1	
F8468-8R	1	1	1	1	
F8468-10R	1	1	1	1	
F8468A	1	1	1	1	
F8468A-2R	1	1	1	1	
F8468A-2R*1	1	6	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"F" Blades: Paint Scheme
Table 2-10, page 7 of 9

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F8468A-2R*2	1	3	1	1	
F8468A-3R	1	1	1	1	
F8468A-4	1	1	1	1	
F8468A-4R	1	1	1	1	
F8468A-4R*1	1	6	1	1	
F8468A-6	1	1	1	1	
F8468A-6Q	1	1	1	1	
F8468A-6R	1	1	1	1	
F8468A-6R*1	1	3	1	1	
F8468A-6R*2	1	3	5	1	
F8468A-8Q	1	1	1	1	
F8468A-8R	1	1	1	1	
F8468A-8R*1	1	3	1	1	
F8468A-10Q	1	1	1	1	
F8468A-12Q	1	1	1	1	
F8468AB-6R	1	1	1	1	
F8468AD-2R	1	1	1	1	
F8468AK-6R	1	1	1	1	
F8468AK-8R	1	1	1	1	
F8468AR	1	1	1	1	
F8468AR*1	1	3	1	1	
F8468D-14	1	1	1	1	
F8468T-12	1	1	1	1	
F8475	1	1	1	1	
F8475+2	1	1	1	1	
F8475-4	1	1	1	1	
F8475-5Q	1	1	1	1	
F8475-6	1	1	1	1	
F8475-8	1	1	1	1	
F8475B-4	1	1	1	1	
F8475D-2	1	1	1	1	
F8475D-2*1	1	6	1	1	
F8475D-4	1	1	1	1	
F8475D-4*1	1	3	1	1	
F8475D-4*2	1	3	5	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"F" Blades: Paint Scheme
Table 2-10, page 8 of 9

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
F8475D-4*3	1	6	1	1	
F8475F-6	1	1	1	1	
F8475J-4	1	1	1	1	
F8475J-4*1	1	3	1	1	
F8475R	1	1	1	1	
F8475T+2	1	1	1	1	
F8477	1	1	1	1	
F8477-1	1	1	1	1	
F8477-2	1	1	1	1	
F8477-4	1	1	1	1	
F8477-4*1	1	3	1	1	
F8477-4*2	1	6	1	1	
F8477-4*3	1	6	1	1	
F8477-6	1	1	1	1	
F8477-7	1	1	1	1	
F8477-8R	1	1	1	1	
F8477-8R*1	1	1	6	4	
F8477D-5R	1	1	1	1	
F8477D-6	1	1	1	1	
F8483	1	1	1	1	
F8483-2Q	1	1	1	1	
F8483R	1	1	1	1	
F9587A	1	1	1	1	
F9587A-10	1	1	1	1	
F9587C-15R	1	1	1	1	
F9587C-15S	1	1	1	1	
F9587C-17S	1	1	1	1	
F9684-1	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"F" Blades: Paint Scheme
Table 2-10, page 9 of 9

(Blank Page)

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FC6660	1	1	1	1	
FC6660D	1	1	1	1	
FC6660K*1	1	1	3	1	
FC6890	1	1	1	1	
FC7063Q	1	1	1	1	
FC7068-2	1	1	1	5	
FC7382	1	1	1	1	
FC7391D	1	6	1	5	
FC7391D*1	1	3	1	5	
FC7391D*2	1	3	24	11	
FC7391DB*1	1	6	1	5	
FC7391DB*4	1	3	1	5	
FC7391DK	1	6	1	5	
FC7391DK*1	1	3	1	5	
FC7391DK*2	1	3	24	11	
FC7391DK*3	1	3	21	11	
FC7451	1	1	1	1	
FC7451*1	1	1	3	1	
FC7451B	1	1	1	1	
FC7453	1	1	1	1	
FC7453*1	1	3	1	1	
FC7453B	1	1	1	1	
FC7453K	1	1	1	1	
FC7479-2R	1	1	1	1	
FC7479B-2R	1	1	1	1	
FC7479B-2R*1	1	1	1	1	
FC7479B-2R*2	1	1	1	1	
FC7479K-2R	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FC" Blades: Paint Scheme
Table 2-11, page 1 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FC7490	1	1	1	1	
FC7496S	1	6	16	11	
FC7497*1	1	6	1	11	
FC7497D	1	6	16	11	
FC7497DB	1	6	16	11	
FC7663	1	1	1	1	
FC7663-2R	1	1	1	1	
FC7663-2R*1	1	1	1	1	
FC7663-2R*2	1	3	1	1	
FC7663-4	1	1	1	1	
FC7663-4*1	1	1	1	1	
FC7663-4*2	1	1	1	1	
FC7663-4*3	1	3	1	1	
FC7663-4Q	1	1	1	1	
FC7663-4R	1	1	1	1	
FC7663-4T	1	1	1	1	
FC7663(B)-5R	1	1	1	1	
FC7663-6	1	1	1	1	
FC7663-6R	1	1	1	1	
FC7663A-4	1	1	1	1	
FC7663B-2R	1	1	1	1	
FC7663B-2R*1	1	1	1	1	
FC7663B-2R*3	1	1	1	1	
FC7663B-2R*4	1	3	1	1	
FC7663D-2Q	1	1	1	1	
FC7663D-2Q*1	1	1	3	1	
FC7663D-2R	1	1	1	1	
FC7663D-2R*1	1	3	1	1	
FC7663D-3	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FC" Blades: Paint Scheme
Table 2-11, page 2 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FC7663D-4Q	1	1	1	1	
FC7663D-4R	1	1	1	1	
FC7663D-6Q	1	1	1	1	
FC7663DB-2Q	1	1	1	1	
FC7663DB-2R	1	1	1	1	
FC7663DB-2R*1	1	3	1	1	
FC7663DB-4T	1	1	1	1	
FC7663DB-6Q	1	1	1	1	
FC7663DB-6Q*1	1	1	1	1	
FC7663DR	1	1	1	1	
FC7663DRB	1	1	1	1	
FC7663DRB*1	1	1	1	1	
FC7663DRK	1	1	1	1	
FC7663K-2R	1	1	1	1	
FC7663R	1	1	1	1	
FC7666A	1	1	1	1	
FC7666A*1	1	1	1	1	
FC7666A*2	1	1	1	1	
FC7666A-2	1	1	1	1	
FC7666A-2*1	1	1	1	1	
FC7666A-2*2	1	1	1	1	
FC7666A-2*3	1	6	25	4	
FC7666A-2Q	1	1	1	1	
FC7666A-2R	1	1	1	1	
FC7666A-4	1	1	1	1	
FC7666A-4*1	1	1	1	1	
FC7666A-4*2	1	6	1	1	
FC7666A-4Q	1	1	1	1	
FC7666A-4Q*1	1	1	1	1	
FC7666AB	1	1	1	1	
FC7666AB-2R	1	1	1	1	
FC7666AB-4*1	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FC" Blades: Paint Scheme
Table 2-11, page 3 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FC7666C-4	1	1	1	1	
FC7666C-4*1	1	3	1	1	
FC7666CB-4	1	1	1	1	
FC7666CB-4*1	1	3	1	1	
FC7693DF	1	1	1	1	
FC7693DF*2	1	6	1	1	
FC7693DF-2	1	1	1	1	
FC7693DF+2	1	6	16	11	
FC7693DF*3	1	3	1	1	
FC7693DF*3X	1	3	1	1	
FC7693DFB	1	6	15	11	
FC7693DFB+2	1	6	16	11	
FC7693DFK	1	6	1	1	
FC7693F	1	1	3	1	
FC7693F+1	1	6	1	1	
FC7693F-2	1	6	16	19	
FC7693FB+1	1	6	1	1	
FC7693FB+1*1	1	6	1	1	
FC7818K	1	1	3	1	
FC7854	1	1	1	1	
FC7854K	1	1	1	1	
FC8459-8R	1	1	1	1	
FC8459-18	1	1	1	1	
FC8459A-4	1	1	1	1	
FC8459A-9	1	1	1	1	
FC8459AE	1	1	1	1	
FC8459B-8R	1	1	1	1	
FC8459B-8R*1	1	1	1	1	
FC8459B-8R*3	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FC" Blades: Paint Scheme
Table 2-11, page 4 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FC8465-6	1	1	1	1	
FC8465-6*1	1	3	1	1	
FC8465B-6	1	1	1	1	
FC8467-7R	1	1	1	1	
FC8468-2R	1	1	1	1	
FC8468-3	1	1	1	1	
FC8468-3*1	1	3	1	1	
FC8468-5R	1	1	1	1	
FC8468-6R	1	1	1	1	
FC8468-6R*1	1	1	1	1	
FC8468-6R*2	1	1	3	1	
FC8468-6R*3	1	3	1	1	
FC8468-8Q	1	1	3	1	
FC8468-8R	1	1	1	1	
FC8468-8R*1	1	1	1	1	
FC8468-8R*2	1	1	1	1	
FC8468-8R*3	1	1	3	1	
FC8468-8R*4	1	1	3	1	
FC8468-10Q	1	1	1	1	
FC8468-10R	1	1	1	1	
FC8468-10R*1	1	1	1	1	
FC8468A-6R	1	1	1	1	
FC8468A-8R	1	1	1	1	
FC8468AR	1	1	1	1	
FC8468B-3	1	1	1	1	
FC8468B-3*1	1	3	1	1	
FC8468B-6R	1	1	3	1	
FC8468B-6R*1	1	1	1	1	
FC8468B-6R*2	1	1	1	1	
FC8468B-8Q	1	1	1	1	
FC8468B-8R*2	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FC" Blades: Paint Scheme
Table 2-11, page 5 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FC8468D-6R	1	1	1	1	
FC8468D-6R*1	1	1	3	1	
FC8468D-8R	1	1	1	1	
FC8468D-14	1	1	1	1	
FC8468D-14*1	1	1	1	1	
FC8468D-14*2	1	1	1	1	
FC8468DB-14*1	1	1	1	1	
FC8475+2	1	1	3	1	
FC8475-4	1	1	1	1	
FC8475-4*1	1	1	3	1	
FC8475-6	1	1	1	1	
FC8475-6*1	1	1	1	1	
FC8475-6*2	1	1	1	1	
FC8475-6*3	1	1	1	1	
FC8475-8	1	1	1	1	
FC8475A-2	1	1	1	1	
FC8475A-4	1	1	1	1	
FC8475B-4	1	1	1	1	
FC8475B-6*1	1	1	1	1	
FC8475F-6	1	1	3	1	
FC8475FK-6	1	1	3	1	
FC8475K-6	1	1	1	1	
FC8475R*1	1	1	1	1	
FC8477	1	1	1	1	
FC8477-2	1	1	1	1	
FC8477-4	1	1	3	1	
FC8477-4R	1	1	1	1	
FC8477-4R*2	1	1	1	1	
FC8477-6	1	1	3	1	
FC8477-6Q	1	1	1	1	
FC8477-7	1	1	1	1	
FC8477-8R	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FC" Blades: Paint Scheme
Table 2-11, page 6 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FC8477A-4	1	1	3	1	
FC8477A-4*1	1	1	1	1	
FC8477A-4*2	1	1	1	1	
FC8477A-6	1	1	3	1	
FC8477A-7	1	1	1	1	
FC8477A-8R	1	1	1	1	
FC8477AB-4*1	1	1	3	1	
FC8477AB-6	1	1	3	1	
FC8477B-4	1	1	3	1	
FC8477B-4*1	1	1	3	1	
FC8477B-6	1	1	3	1	
FC9587A-10	1	1	1	1	
FC9587D-2	1	1	1	1	
FC9587DB-7	1	6	15	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FC" Blades: Paint Scheme
Table 2-11, page 7 of 7

(Blank Page)

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FJ7663-4	1	1	1	1	
FJ7663-4R	1	1	1	1	
FJ7663-6Q	1	1	1	1	
FJ7663-6Q*1	1	3	1	1	
FJ7663D-4	1	1	1	1	
FJ9587CX	1	1	1	1	
FJC6660	1	1	1	1	
FJC6660D	1	1	1	1	
FJC6660K	1	1	1	1	
FJC7451	1	1	1	1	
FJC7451B	1	1	1	1	
FJC7453	1	1	1	1	
FJC7453*1	1	3	1	1	
FJC7453K	1	1	1	1	
FJC7497	1	6	1	11	
FJC7497*1	1	6	1	11	
FJC7497D	1	6	16	11	
FJC7497DB	1	6	16	11	
FJC7663-2R	1	1	1	1	
FJC7663-2R*1	1	3	1	1	
FJC7663-4Q	1	1	1	1	
FJC7663-5R	1	1	1	1	
FJC7663B-2R	1	1	1	1	
FJC7663B-5R	1	1	1	1	
FJC7663D-6Q	1	1	1	1	
FJC7663DB-6Q	1	1	1	1	
FJC7666A	1	1	1	1	
FJC7666A-2R	1	1	1	1	
FJC7666AB	1	1	1	1	
FJC7666AB-2R	1	1	1	1	
FJC7693F	1	6	1	1	
FJC7693F+2	1	6	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FJ", "FJC", "FL", "FLC" Blades: Paint Scheme
Table 2-12, page 1 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FJC7854	1	1	1	1	
FJC7854K	1	1	1	1	
FJC8459-8R	1	1	1	1	
FJC8459B-8R	1	1	1	1	
FJC8459B-8R*1	1	1	1	1	
FJC8459B-8R*2	1	1	1	1	
FJC8459B-8R*3	1	1	1	1	
FJC8468-6R	1	1	1	1	
FJC8468-8R	1	1	1	1	
FJC8468-8R*1	1	1	1	1	
FJC8468-10Q	1	1	1	1	
FJC8468B-6R	1	1	1	1	
FJC8468D-14*1	1	1	1	1	
FJC8468DB-14*1	1	1	1	1	
FJC8468DB-14*2	1	1	1	1	
FJC9587A-10	1	1	1	1	
FJC9684-3	1	1	1	1	
FJC9684-3R	1	1	1	1	
FL7280+0.5	1	2	2	1	
FL7497	1	1	1	1	
FL7663-4R	1	2	2	1	
FL7663-6R	1	2	2	1	
FL7663-8R	1	2	2	1	
FL7663-10	1	2	2	1	
FL7663D-2Q	1	2	2	1	
FL7666A-2	1	2	2	1	
FL7666A-2Q	1	2	2	1	
FL7666A-4Q	1	2	2	1	
FL7666AS	1	2	2	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FJ", "FJC", "FL", "FLC" Blades: Paint Scheme
Table 2-12, page 2 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
FL7894-4	1	10	3	11	
FL8459A-8Q	1	2	2	1	
FL8459A-10	1	2	2	1	
FL8468-6R	1	2	2	1	
FL8468-10R	1	2	2	1	
FL8468A-2R	1	2	2	1	
FLC7468	1	2	2	1	
FLC7468*1	1	2	3	1	
FLC7663DF-2R	1	2	2	1	
FLC7663DG-2Q	1	2	2	1	
FLC7666A-4	1	10	3	1	
FLC7693DF	1	10	3	1	
FLC8468-4R	1	2	2	1	
FLC8468-6R	1	2	2	1	
FLC8468-7R	1	2	2	1	
FLC8468G-8Q	1	2	2	1	
FLC8475R	1	2	2	1	
FLC9684-12	1	2	2	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"FJ", "FJC", "FL", "FLC" Blades: Paint Scheme
Table 2-12, page 3 of 3

(Blank Page)

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
GC11114-2	20	3	1	19	
GC11114B-2	20	3	1	19	
GC11114K-2	20	3	1	19	
H79A06X	---	---	---	---	**CT**
HE8218	1	3	3	1	
HE8218*1	1	3	3	1	
HE8492	1	3	3	1	
JE10991*1	1	1	1	1	
JE10991B	1	1	1	1	
JNC10904B	20	3	1	1	
JNC10905B*1	20	3	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
CT	Contact the airframe manufacturer about the painting instructions.		

"GC", "H", "HE", "JE", "JNC" Blades: Paint Scheme
Table 2-13

(Blank Page)

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
L7214	---	N/A	N/A	N/A	
L75A01-2( )	14	1	1	1	
L76A01X	14	3	3	1	
L8032-4	---	N/A	N/A	N/A	
L8032-8	---	N/A	N/A	N/A	
L8046-6	---	N/A	N/A	N/A	
L8427	---	N/A	N/A	N/A	
L8447-12A	1	1	1	1	
L8447A-8	1	1	1	1	
L8447AN-8	1	1	1	1	
L8447N-12A	1	1	1	1	
L10151-8	1	1	1	1	
L10151N-8	1	1	1	1	
LD99M01H	1	5	3	1	
LE8218	1	3	3	1	
LE8218*1	1	3	3	1	
LE8492	1	3	3	1	
LM9990N	1	3	14	7	
LM10585ANK+4	6	8	1	1	
LM11276N-4	1	1	1	1	
LM11692N	1	1	1	1	
LM11692NK*1	1	1	1	1	
LMV8433N	1	2	2	1	
LMV8433N-2	1	2	2	1	
LMV8433N-6B	1	1	1	1	
LMV9333N	1	2	2	1	
LMV9333N-4	1	2	2	1	
LMV9333N-5	1	2	2	1	
LMV9333N-6	1	2	2	1	
LMV9333N-6Q	1	2	2	1	
LMV9333N-7Q	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
N/A	No Paint		

"L", "LD", "LE", "LM", "LMV", "LT", "LV", "LW" Blades: Paint Scheme
Table 2-14, page 1 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
LT10173N-21R	1	1	1	1	
LT10282+4	1	1	3	1	
LT10282-9.5R	1	1	1	1	
LT10282A+2.5	1	1	1	1	
LT10282A+4	1	1	3	1	
LT10282AB+2.5	1	1	1	1	
LT10282AB+4	1	1	3	1	
LT10282AN+2.5	1	1	1	1	
LT10282ANB+2.5	1	1	1	1	
LT10282B+4	1	1	3	1	
LT10282B+4*1	1	1	3	1	
LT10282N+4	1	1	3	1	
LT10282N-12	1	1	1	1	
LT10282N-9.5R	1	1	1	1	
LT10282NB+4	1	1	3	1	
LT10282NSB-5.3R	1	1	1	1	
LT10282SB-5.3R	1	1	1	1	
LT10574FNS	1	1	1	1	
LT10574FNSB*1	1	1	1	1	
LT10574FNSK	1	1	1	1	
LT10574FS	1	1	1	1	
LT10574FSB	1	1	1	1	
LT10574FSB*1	1	1	1	1	
LT10574FSK	1	1	1	1	
LT10673-2Q	1	1	3	1	
LT10673B	1	1	3	1	
LT10673B-2Q	1	1	3	1	
LT10673N-2Q	1	1	3	1	
LT10673NB	1	1	3	1	
LT10876ANS-2Q	1	1	1	1	
LT10876ANSB-2Q	1	1	1	1	
LT10876AS-2Q	1	1	1	1	
LT10876ASB-2Q	1	1	1	1	
LT10876NSB-2Q	1	1	1	1	
LT10876SB-2Q	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"L", "LD", "LE", "LM", "LMV", "LT", "LV", "LW" Blades: Paint Scheme
Table 2-14, page 2 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
LT10890N	1	1	3	1	
LT10890N*1	1	1	1	1	
LT10890NK	1	1	1	1	
LT10891N	1	1	1	1	
LT10891NK	1	1	1	1	
LV8433N	1	1	1	1	
LV8433N-2	1	2	2	1	
LV9333N	1	1	1	1	
LV9333N-4	1	1	1	1	
LV9333N-5	1	1	1	1	
LW8447-12A	1	1	1	1	
LW8447A-6R	1	1	1	1	
LW8447A-8Q	1	1	1	1	
LW8447AN-6R	1	1	1	1	
LW8447AN-8Q	1	1	1	1	
LW8447N-12A	1	1	1	1	
LW10151-3	1	1	1	1	
LW10151N-3	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"L", "LD", "LE", "LM", "LMV", "LT", "LV", "LW" Blades: Paint Scheme
Table 2-14, page 3 of 3

(Blank Page)

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
M9128NSAK*1	1	1	23	4	
M9128NSK	1	1	1	1	
M9990N	1	3	14	7	
M10083	4	3	1	1	
M10083K	4	3	1	1	
M10282A+6	1	1	1	1	
M10282AB+6	1	1	1	1	
M10282AB+6*1	1	1	1	1	
M10282AN+6	1	1	1	1	
M10282ANB+6	1	1	1	1	
M10282ANB+6*1	1	1	1	1	
M10282ANS+6	1	1	1	1	
M10282AS+6	1	1	1	1	
M10476	1	1	1	1	
M10476K	1	1	1	1	
M10476K*1	1	1	1	1	
M10476N	1	1	1	1	
M10476NK	1	1	1	1	
M10476NK*1	1	1	1	1	
M10476NS	1	1	1	1	
M10476NSK	1	1	1	1	
M10476NSK*1	1	1	1	1	
M10876A	1	1	1	1	
M10876AN	1	1	1	1	
M10876ANS	1	1	1	1	
M10876ANSB	1	1	1	1	
M10876ANSK	1	1	1	1	
M10876ANSK*1	1	1	1	1	
M10876ANSK*4	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"M" Blades: Paint Scheme
Table 2-15, page 1 of 2

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
M10876AS	1	1	1	1	
M10876ASK	1	1	1	1	
M10876ASK*2	1	3	1	1	
M10876NS	1	1	1	1	
M10876NSB	1	1	1	1	
M10876NSK	1	1	1	1	
M10876S	1	1	1	1	
M10876SB	1	1	1	1	
M10877K	7	7	1	13	
M11276	1	1	1	1	
M11276K	1	1	1	1	
M11276N	1	1	1	1	
M11276NA	1	1	1	1	
M11276NAS	1	1	1	1	
M11276NK	1	1	1	1	
M11276NK-3	1	1	1	1	
M11276NS	1	1	1	1	
M11276NSA	1	1	1	1	
M11276NSK	1	1	1	1	
M11276S	1	1	1	1	
M11296S	1	1	1	1	
M11296NS	1	1	1	1	
M11691NK	1	1	1	1	
M11691NS	1	1	1	1	
M11691NSK	1	1	1	1	
M11692NS	1	1	1	1	
M11692NSK	1	1	1	1	
M11693NS	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"M" Blades: Paint Scheme
Table 2-15, page 2 of 2

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
MV7636N	1	1	1	1	
MV7636N*1	1	1	3	1	
MV7636N-2	1	1	1	1	
MV7636N-2R	1	1	1	1	
MV7636N-4	1	1	1	1	
MV7636NB*1	1	1	1	1	
MV7636NB-2R	1	1	1	1	
MV7636NB-2R*1	1	1	1	1	
MV8433N	1	1	1	1	
MV8433N*1	1	1	3	1	
MV8433N-1	1	1	1	1	
MV8433N-10	1	1	1	1	
MV8433N-12	1	1	1	1	
MV8433N-2	1	1	1	1	
MV8433N-2R	1	1	1	1	
MV8433N-4	1	1	1	1	
MV8433N-4*1	1	3	1	1	
MV8433N-4*2	1	1	3	1	
MV8433N-4Q	1	1	1	1	
MV8433N-4Q*1	1	1	3	1	
MV8433N-4R	1	1	1	1	
MV8433N-4R*1	1	1	3	1	
MV8433N-4RD	1	1	1	1	
MV8433N-6	1	1	1	1	
MV8433N-6Q	1	1	3	1	
MV8433N-7	1	1	1	1	
MV8433N-8	1	1	1	1	
MV8433NR-4	1	1	1	1	
MV8433NS	1	1	1	1	
MV8433NS-6	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"MV" Blades: Paint Scheme
Table 2-16, page 1 of 2

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
MV8833N	1	1	1	1	
MV8833N*1	1	1	3	1	
MV8833N-2	1	1	3	1	
MV8833N-2Q	1	1	1	1	
MV8833N-4	1	1	1	1	
MV8833NB	1	1	1	1	
MV8833NB-2	1	1	3	1	
MV8833NS	1	1	1	1	
MV9333N	1	1	1	1	
MV9333N*1	1	1	3	1	
MV9333N-3	1	1	1	1	
MV9333N-3*1	1	1	3	1	
MV9333N-3R	1	1	1	1	
MV9333NB	1	1	3	1	
MV10133AN-11	1	1	1	1	
MV10133N	1	1	1	1	
MV10133N-3	1	1	1	1	
MV10133N-11	1	1	1	1	
MV10133N-17Q	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"MV" Blades: Paint Scheme
Table 2-16, page 2 of 2

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
N7605	13	3	1	1	A
N7605*1	13	3	21	1	A
N7605*2	13	3	20	1	A
N7605*3	13	3	27	16	A
N7605+2	13	3	1	1	A
N7605-2	13	3	1	1	A
N7605-4	13	3	1	1	A
N7605B	13	3	1	1	A
N7605B*1	13	3	19	1	A
N7605B*2	13	3	20	1	A
N7605B*3	13	3	21	1	A
N7605B-2	13	3	1	1	A
N7605C	13	3	1	1	
N7605C*1	13	13	18	5	
N7605C*2	13	3	20	1	
N7605C*3	13	3	24	1	
N7605C+2	13	3	1	1	
N7605C-2	13	3	1	1	
N7605C-4	13	3	1	1	
N7605CB	13	3	1	1	
N7605CB*1	13	13	18	5	
N7605CB*2	13	3	24	1	
N7605CB-2	13	3	1	1	
N7605CK	20	3	1	1	
N7605CK+2	13	3	1	1	
N7605CK+2*1	20	3	1	1	
N7605K+2	13	3	1	1	A
N76M05C	13	3	1	1	
N76M05C-2	13	3	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
A	Alternate, Paint Prep Scheme 11		

"N", "NC", "NG", "NM" Blades: Paint Scheme
Table 2-17, page 1 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
NC8301-7	20	3	1	11	
NC8834K	20	3	1	15	
NC8834K*1	20	3	24	11	
NC9208K	20	3	24	11	
NC9208K(SO)	13	3	24	11	
NC9405(B)	20	3	24	11	
NC9405B*1	20	3	24	11	
NC10245B	20	6	1	19	
NC10245B*1	20	3	33	19	
NC10245B*2	20	3	1	19	
NC10245B*3	20	6	1	19	
NC10245B*4	20	6	1	19	
NC10245B*5	20	3	33	19	
NC10245B*6	20	6	1	19	
NC10245B*7	20	3	1	19	
NC10320K*1	20	3	24	11	
NC10320K*2	20	6	1	11	
NC10445K-2	20	6	1	19	
NG8301	20	3	1	11	
NG8301*1	20	3	29	11	
NG8301-1	20	3	1	11	
NG8301-3	20	3	1	11	
NG8301-3*1	20	3	29	11	
NG8301-5	20	3	1	11	
NG8301-7	20	3	1	11	
NG8301-7*1	20	3	34	22	
NG8301W	20	3	1	11	
NG8301W*1	20	11	29	11	
NG8301W-3	20	3	1	11	
NG8301W-5	20	3	1	11	
NG8301W-7	20	3	1	11	
NG8302-7	20	3	24	11	
NG8304	20	3	1	11	
NG8304-5	20	3	1	11	
NG8304-7	20	3	1	11	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"N", "NC", "NG", "NM" Blades: Paint Scheme
Table 2-17, page 2 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
NM8410	20	3	1	11	
NM8410-4	20	3	1	11	
NM8410B-4	20	3	1	11	
NM8410K-4	20	3	1	11	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"N", "NC", "NG", "NM" Blades: Paint Scheme
Table 2-17, page 3 of 3

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
R10152-5.5	1	1	1	1	
R10152-5.5R	1	1	1	1	
R10152B-5.5	1	1	1	1	
R10152N-5.5	1	1	1	1	
R10152N-5.5R	1	1	1	1	
R10152NB-5.5	1	1	1	1	
R10160-1	1	1	1	1	
R10160-6	1	1	1	1	
R10160N-1	1	1	1	1	
R10160N-6	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"R" Blades: Paint Scheme
Table 2-18

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
T8290NKX	1	6	1	5	
T8290NX	1	1	1	1	
T9090NX	1	3	6	4	
T9212B	1	1	1	1	
T9212DNK-7	1	1	1	1	
T9212K-2*1	1	1	1	1	
T9212N*1	1	3	1	1	
T9212N-2	1	1	1	1	
T9212NB	1	1	1	1	
T9212NK-2	1	1	1	1	
T9212NK-2*1	1	1	1	1	
T10173+1	1	3	3	1	
T10173-3	1	1	1	1	
T10173-5	1	1	1	1	
T10173-6	1	1	1	1	
T10173-8	1	1	1	1	
T10173-11	1	1	1	1	
T10173-11R	1	1	1	1	
T10173-13Q	1	1	1	1	
T10173-15	1	1	1	1	
T10173-19R	1	1	1	1	
T10173-25R	1	1	1	1	
T10173AB-6Q	1	1	1	1	
T10173AN-12.5	1	1	1	1	
T10173ANB-6Q	1	1	1	1	
T10173ANB-12.5	1	1	1	1	
T10173ANK-12.5	1	1	1	1	
T10173B-3	1	1	1	1	
T10173B-8	1	1	1	1	
T10173B-11R	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"T" Blades: Paint Scheme
Table 2-19, page 1 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
T10173C	1	1	1	1	
T10173C+1	1	1	1	1	
T10173C-8	1	1	1	1	
T10173CK	1	1	1	1	
T10173CK-8	1	1	1	1	
T10173CN	1	1	1	1	
T10173CN+1	1	1	1	1	
T10173CN-8	1	1	1	1	
T10173CNK-8	1	1	1	1	
T10173DNB-6Q	1	1	1	1	
T10173E+1	1	1	1	1	
T10173E-8	1	1	1	1	
T10173E-11	1	1	1	1	
T10173F-11R	1	1	1	1	
T10173F-12.5	1	1	1	1	
T10173F-21R	1	1	1	1	
T10173FK-10.5	1	1	1	1	
T10173FN-11R	1	1	1	1	
T10173FN-12.5	1	1	1	1	
T10173FN-21R	1	1	1	1	
T10173FNB-10.5	1	1	1	1	
T10173FNB-12.5	1	1	1	1	
T10173FNB-12.5*1	1	1	1	1	J
T10173FNK-10.5	1	1	1	1	
T10173FNK-11R	1	1	1	1	
T10173FNK-12.5	1	1	1	1	
T10173FNK-12.5*1	1	1	1	1	K

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
J	Order Item Number T10173FNB-125*1		
K	Order Item Number 10173FNK-125*1		

"T" Blades: Paint Scheme
Table 2-19, page 2 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
T10173K-8	1	1	1	1	
T10173K-11R	1	1	1	1	
T10173N+1	1	3	3	1	
T10173N-3	1	1	1	1	
T10173N-5	1	1	1	1	
T10173N-6	1	1	1	1	
T10173N-8	1	1	1	1	
T10173N-11	1	1	1	1	
T10173N-11R	1	1	1	1	
T10173N-13Q	1	1	1	1	
T10173N-13R	1	1	1	1	
T10173N-15	1	1	1	1	
T10173N-17R	1	1	1	1	
T10173N-18*1	1	1	0	**NO**	
T10173N-19R	1	1	1	1	
T10173N-25R	1	1	1	1	
T10173NB-3	1	1	1	1	
T10173NB-8	1	1	1	1	
T10173NB-13Q	1	1	1	1	
T10173NE+1	1	1	1	1	
T10173NE+1*1	1	1	1	1	
T10173NE-8	1	1	1	1	
T10173NE-11	1	1	1	1	
T10173NK-8	1	1	1	1	
T10173NK-8*2	1	3	9	9	
T10173NK-17	1	1	1	1	
T10176-8	1	1	1	1	
T10176N-8	1	1	1	1	
T10176NS-5	1	1	1	1	
T10176NSB-5	1	1	1	1	
T10176S-5	1	1	1	1	
T10176SB-5	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
NO	No Tip Stripe(s)		

"T" Blades: Paint Scheme
Table 2-19, page 3 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
T10178-3R	1	1	1	1	
T10178-5Q	1	1	1	1	
T10178-6	1	1	1	1	
T10178-7Q	1	1	1	1	
T10178-8R	1	1	1	1	
T10178-10Q	1	1	1	1	
T10178-11	1	1	1	2	
T10178-11R	1	1	1	1	
T10178-13Q	1	1	1	1	
T10178-13R	1	1	1	1	
T10178-15	1	1	1	1	
T10178-15Q	1	1	1	1	
T10178B-3R	1	1	1	1	
T10178B-5Q	1	1	1	1	
T10178B-5Q*1	1	1	1	1	
T10178B-8R	1	1	1	1	
T10178B-8R*1	1	1	1	1	
T10178B-10Q	1	1	1	1	
T10178B-11	1	1	1	2	
T10178B-11R	1	1	1	1	
T10178B-13Q	1	1	1	1	
T10178B-13R*1	1	1	1	1	
T10178C	1	1	1	1	
T10178C+1	1	1	1	1	
T10178CK	1	1	1	1	
T10178CN	1	1	1	1	
T10178CN+1	1	1	1	1	
T10178CNK	1	1	1	1	
T10178CNR	1	1	1	1	
T10178CNRK	1	1	1	1	
T10178CR	1	1	1	1	
T10178CRK	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

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"T" Blades: Paint Scheme
Table 2-19, page 4 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
T10178N	1	1	1	1	
T10178N-3R	1	1	1	1	
T10178N-3R*2	1	3	6	4	
T10178N-4R	1	1	1	1	
T10178N-5Q	1	1	1	1	
T10178N-6	1	1	1	1	
T10178N-7Q	1	1	1	1	
T10178N-8R	1	1	1	1	
T10178N-8R*1	1	3	1	1	
T10178N-8R*2	1	6	1	1	
T10178N-10Q	1	1	1	1	
T10178N-11	1	1	1	2	
T10178N-11R	1	1	1	1	
T10178N-11*1X	1	3	6	4	
T10178N-13Q	1	1	1	1	
T10178N-13R	1	1	1	1	
T10178N-15	1	1	1	1	
T10178N-15Q	1	1	1	1	
T10178NB-3R	1	1	1	1	
T10178NB-3R*1	1	3	6	21	
T10178NB-5	1	1	1	1	
T10178NB-5Q*1	1	1	1	1	
T10178NB-8R	1	1	1	1	
T10178NB-8R*1	1	1	1	1	
T10178NB-11	1	1	1	2	
T10178NB-11R	1	1	1	1	
T10178NB-13Q	1	1	1	1	
T10178NB-13R*1	1	1	1	1	
T10178NK-3R	1	1	1	1	
T10178NK-8R	1	1	1	1	
T10178NSB-11R	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"T" Blades: Paint Scheme
Table 2-19, page 5 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
T10282	1	1	1	1	
T10282*1	1	3	3	1	
T10282-2	1	1	1	1	
T10282+4	1	1	1	1	
T10282+4*1	1	3	1	1	
T10282-4P	1	1	1	1	
T10282+6	1	1	1	1	
T10282-6	1	1	1	1	
T10282B	1	1	1	1	
T10282B*1	1	3	3	1	
T10282B*2	1	1	1	1	
T10282B-6	1	1	1	1	
T10282B-9.5	1	1	1	1	
T10282DNB-4R	1	1	1	1	
T10282N	1	1	1	1	
T10282N*1	1	3	3	1	
T10282N*2	1	17	35	23	
T10282N*3	1	17	36	23	
T10282N-2	1	1	1	1	
T10282N+4	1	1	1	1	
T10282N+4*1	1	3	1	1	
T10282N+4*2	1	3	0	**NO**	
T10282N-4P	1	1	1	1	
T10282N-4R	1	1	1	1	
T10282N+6	1	1	1	1	
T10282N-6	1	1	1	1	
T10282N-25.5Q	1	1	1	1	
T10282NB	1	1	1	1	
T10282NB*1	1	3	3	1	
T10282NB*2	1	1	1	1	
T10282NB-6	1	1	1	1	
T10282NK+4	1	1	1	1	
T10282NR	1	1	1	1	
T10282NRB	1	1	1	1	
T10282NS	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE
NO	No Tip Stripe(s)		

"T" Blades: Paint Scheme
Table 2-19, page 6 of 7

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
T10282NS+4	1	1	1	1	
T10282NSK+4	1	1	1	1	
T10282R	1	1	1	1	
T10282RB	1	1	1	1	
T10282S+4	1	1	1	1	
T10290N	1	1	1	1	
T10290N+2	1	1	1	1	
T10290N+2*1	1	3	1	1	
T10290NK+2	1	3	1	1	
T10290NK+2*1	1	3	1	1	
T10290NS+2	1	3	1	1	
T10702N	1	1	1	1	
T10876AN-15.5	1	1	1	1	
T10876AN-15.5*1	1	1	3	1	
T10876AN-8.5	1	1	1	1	
T10890CN-2	1	1	1	1	
T10890CN-2*1	1	1	23	1	
T10890CNB-2	1	1	1	1	
T10890CNB-2*1	1	1	23	1	
T10890CNK-2	1	1	1	1	
T10890CNK-2*1	1	1	1	1	
T10890CNK-2*2	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"T" Blades: Paint Scheme
Table 2-19, page 7 of 7

(Blank Page)

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
V7636	1	1	1	1	
V7636D-4	1	1	1	1	
V7636N	1	1	1	1	
V7636N-4	1	1	1	1	
V7636NB	1	1	1	1	
V8433	1	1	1	1	
V8433-2	1	1	1	1	
V8433-2R	1	1	1	1	
V8433-4	1	1	1	1	
V8433-4R	1	1	1	1	
V8433-6	1	1	1	1	
V8433-7	1	1	1	1	
V8433-10	1	1	1	1	
V8433N	1	1	1	1	
V8433N-2	1	1	1	1	
V8433N-2R	1	1	1	1	
V8433N-4	1	1	1	1	
V8433N-4Q	1	1	1	1	
V8433N-4R	1	1	1	1	
V8433N-6	1	1	1	1	
V8433N-7	1	1	1	1	
V8433N-10	1	1	1	1	
V8433N-12	1	1	1	1	
V8433NB-10	1	1	1	1	
V8433NS	1	1	1	1	
V8433S	1	1	1	1	
V8833	1	1	1	1	
V8833-4	1	1	1	1	
V8833N	1	1	1	1	
V8833N-2	1	1	1	1	
V8833N-2Q	1	1	1	1	
V8833N-4	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"V" Blades: Paint Scheme
Table 2-20, page 1 of 2

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
V9333C	1	1	1	1	
V9333C-3	1	1	1	1	
V9333N	1	1	1	1	
V9333N-3	1	1	1	1	
V10133N	1	1	1	1	
V10133N-3	1	1	1	1	
V10133N-11	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

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"V" Blades: Paint Scheme
Table 2-20, page 2 of 2

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
W8447	1	1	1	1	
W8447-6R	1	1	1	1	
W8447-12A	1	1	1	1	
W8447-12R	1	1	1	1	
W8447A-12A	1	1	1	1	
W8447A-12R	1	1	1	1	
W8447AB-12A	1	1	1	1	
W8447AB-12R	1	1	1	1	
W8447AN-12A	1	1	1	1	
W8447AN-12R	1	1	1	1	
W8447ANB-12A	1	1	1	1	
W8447ANB-12R	1	1	1	1	
W8447B-12A	1	1	1	1	
W8447N	1	1	1	1	
W8447N-6R	1	1	1	1	
W8447N-12A	1	1	1	1	
W8447N-12R	1	1	1	1	
W8447NB-12A	1	1	1	1	
W8847	1	1	1	1	
W8847N	1	1	1	1	
W9349N-3R	1	1	1	1	
W9349N-6.5	1	1	3	1	
W9350-4.6	1	1	1	1	
W9350N-4.6	1	1	1	1	
W10151-8R	1	1	1	1	
W10151B-8R	1	1	1	1	
W10151B-10R*2	1	1	1	1	
W10151C-4	1	1	1	1	
W10151CN-4	1	1	1	1	
W10151CN-5	1	1	1	1	
W10151N-8R	1	1	1	1	
W10151NB-8R	1	1	1	1	
W10151NB-10R	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"W" Blades: Paint Scheme
Table 2-21

BLADE CONFIGURATION	PAINT PREP SCHEME	BLADE PAINT SCHEME	TIP PAINT SCHEME	TIP PAINT PATTERN	COMMENT
W10152-5.5	1	1	1	1	
W10152N-5.5	1	1	1	1	
W10152NB-5.5	1	1	1	1	

EFFECTIVITY	NOMENCLATURE	EFFECTIVITY	NOMENCLATURE

"W" Blades: Paint Scheme
Table 2-21

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