SUPPORTING T53 OPERATORS WORLDWIDE

HAI 2025 Technical Briefing

OZARK MODEL T53 OEM
and MRO Center

OZARK AEROWORKS

AN EAGLE PARTNER

POWERED BY OZARK

OZARK AEROWORKS

AN EAGLE PARTNER

Who We Are:

- An Eagle Copters' Affiliate Partner
- Centrally Located in Springfield, Missouri
- Established November 2013
- T53 Engine OEM and MRO Organization
- Triumph Authorized Service Center for T53 Fuel Controls and Governors
- FAA Approved Rolls-Royce Model 250 MRO
- FAA Part 145 Repair Station
  - Engines
  - Accessories
  - NDT
- T53 OEM Baseline Correlation Test Cell
- Team has reached 75+ employees

EAGLE
WORLDWIDE FLEET MANAGEMENT

OZARK AEROWORKS
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Ozark T53 Facility

OZARK AEROWORKS

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Ozark Customer Services

- T53 and RR250 MRO
- Fuel Components/Accessories
  - T53 Fuel Controls, Governors, Fuel Manifolds & Accessories
- 2 Full NDT Shops
- Machine & Welding Shop
- Complete in-House Paint Shop
- Engineering Team
  - T53 OEM Product Support
  - T53 Engineering Services
  - OEM Part Inspections and Certifications
- Technical / Customer Support Teams
  - T53 Technical Support and Troubleshooting
  - T53 Technical Publications Access and Support
  - RR250 Technical Support
  - Customer Support Team Dedicated to Constant Customer Communication

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Ozark MODEL T53 Authorized Network

T53 Authorized MRO Centers

- North America
  - Airborne Engines
  - Mint Turbines
  - Ozark Aeroworks – OEM/MRO
- International Service Centers
  - Kawasaki Heavy Industries(Japan Only)
  - Piaggio Aero Industries(Italy Only)
  - Hellenic Aerospace Industry(Greece Only)
- T53 Authorized Component Repair Facilities (Components Only)
  - Aerojet Turbine Reworks
  - Airborne Engines
  - Euravia North America
  - H-S Tool and Parts

OZARK MODEL T53 MRO Service Center

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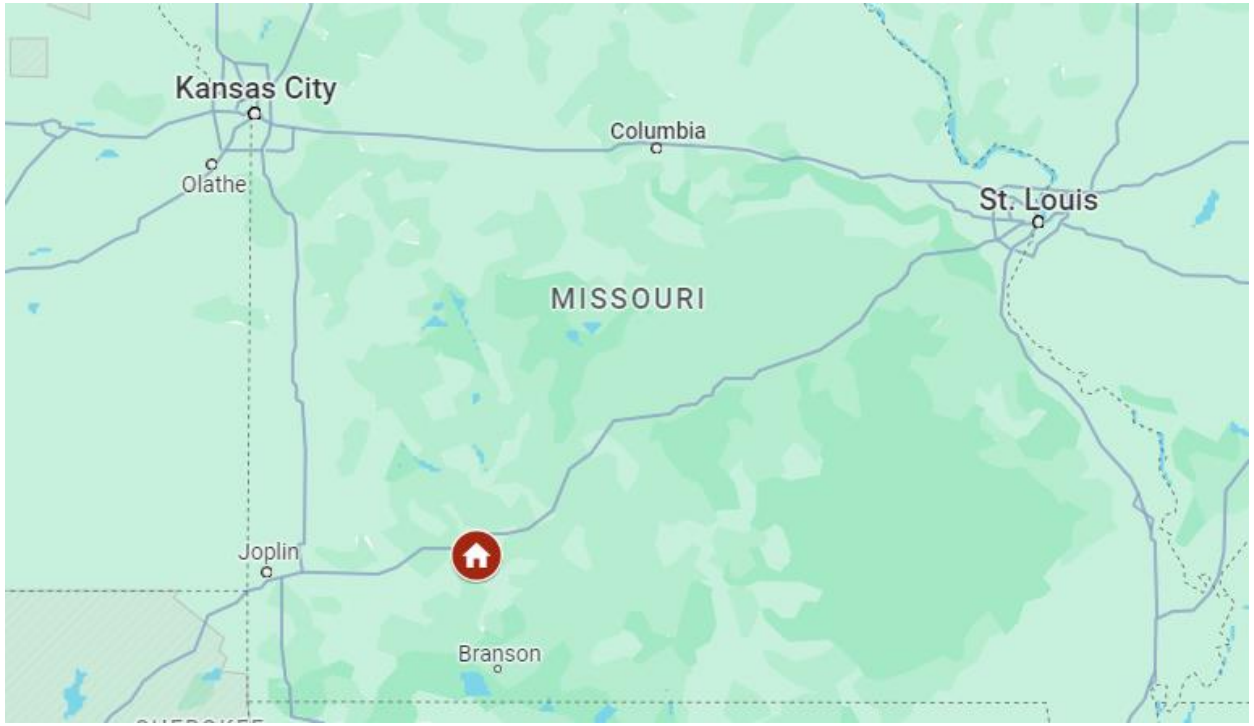
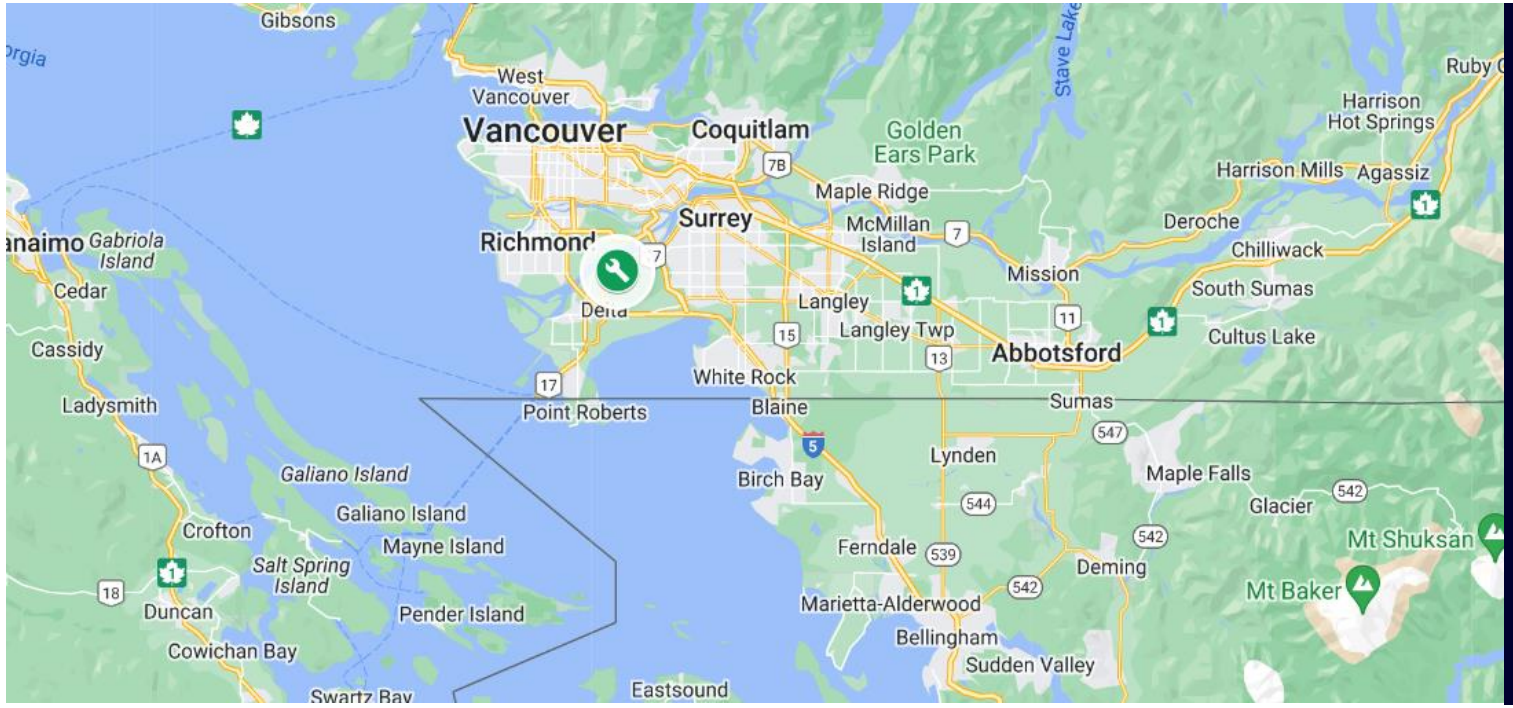


Ozark Aeroworks
3300 S Golden Ave
Springfield, MO 65807
ozarkaero.com

OZARK MODEL T53 Authorized Service Center and Component Repair Facility

Airborne Engines Ltd



HEAD OFFICE

AIRBORNE ENGINES LTD.

7762 Progress Way

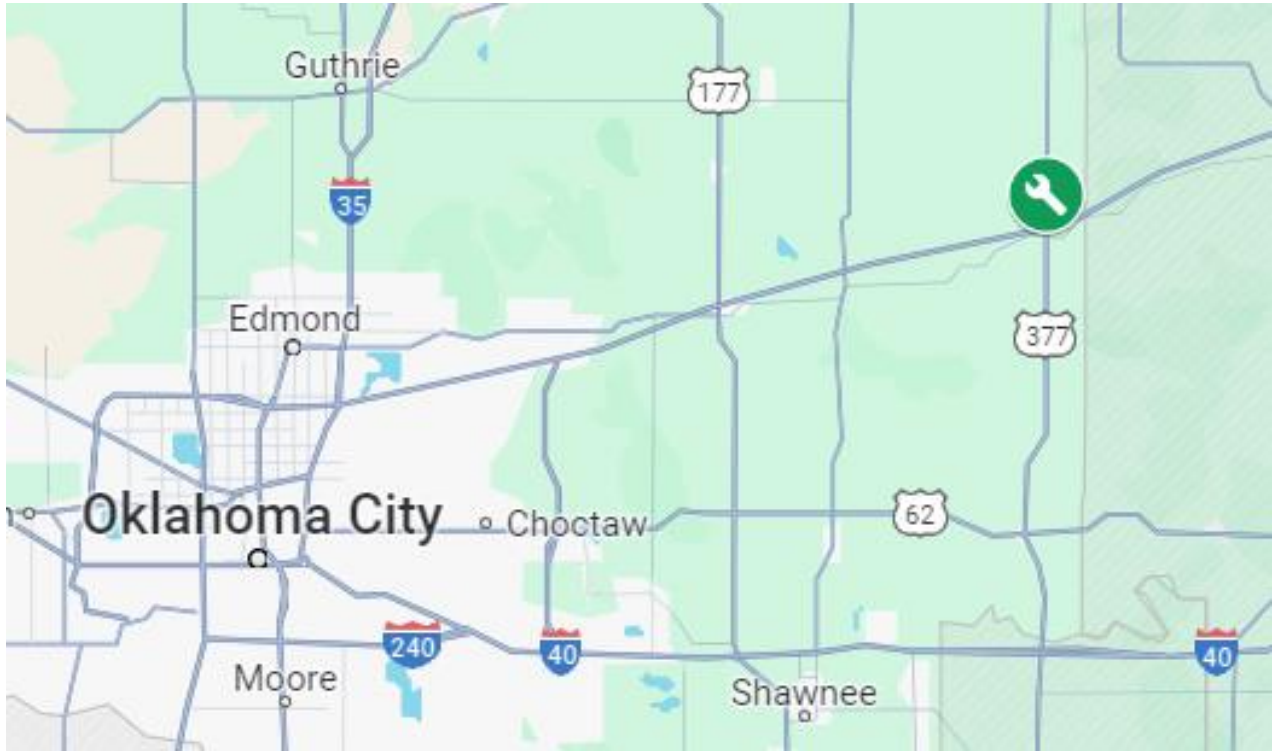
Delta, BC V4G 1A4

info@airborneengines.com

sales@airborneengines.com

+(1) 604-244-1787

OZARK MODEL T53 Authorized Service Center



Mint Turbines LLC
2915 North State Highway 99
Stroud, Oklahoma (USA) 74079
www.MintTurbines.com

Phone: +1 (918) 968-9561
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- OZARK MODEL T53 Authorized Service Center

Kawasaki
Powering your potential

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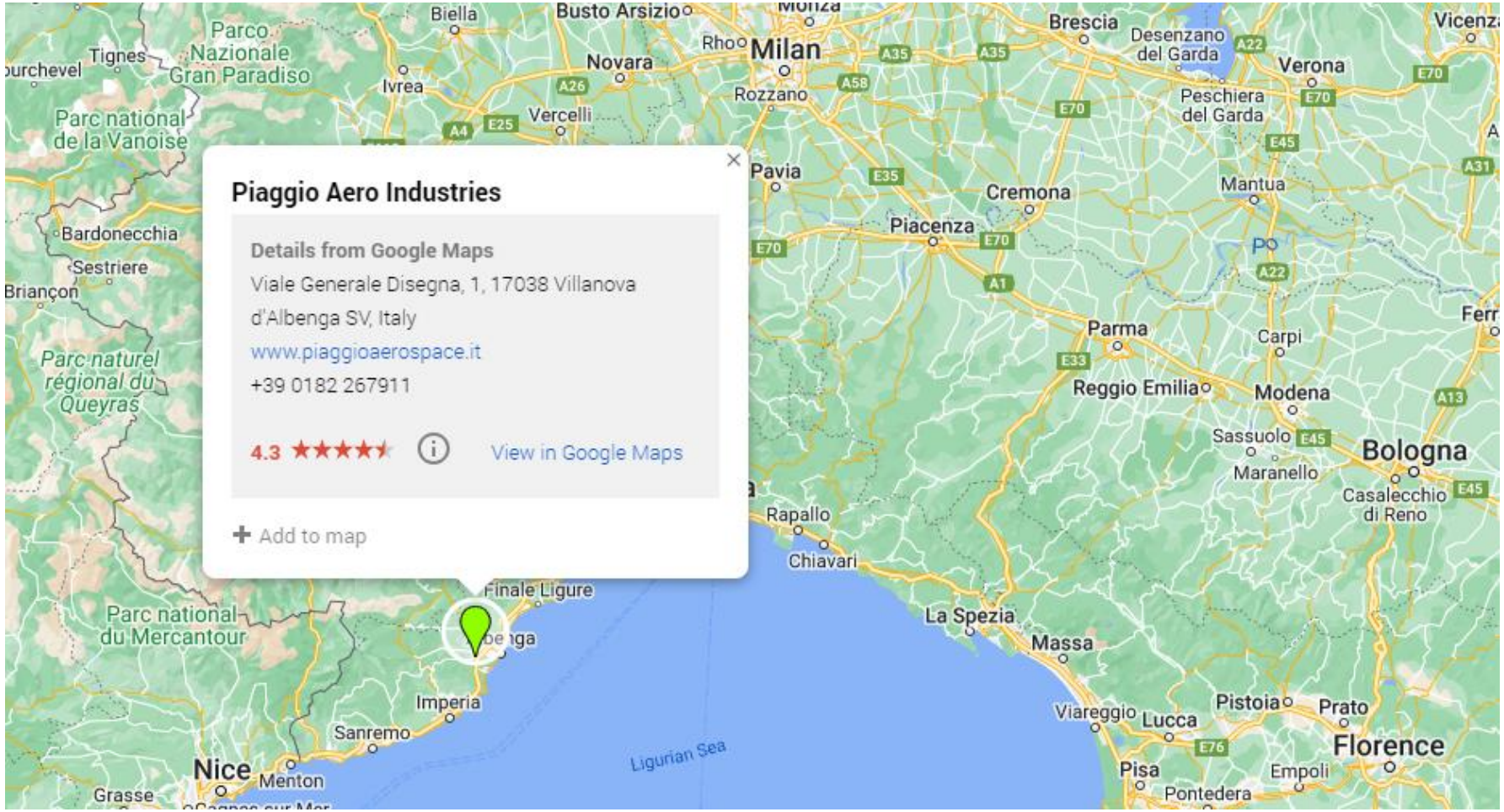
PIAGGIO AEROSPACE



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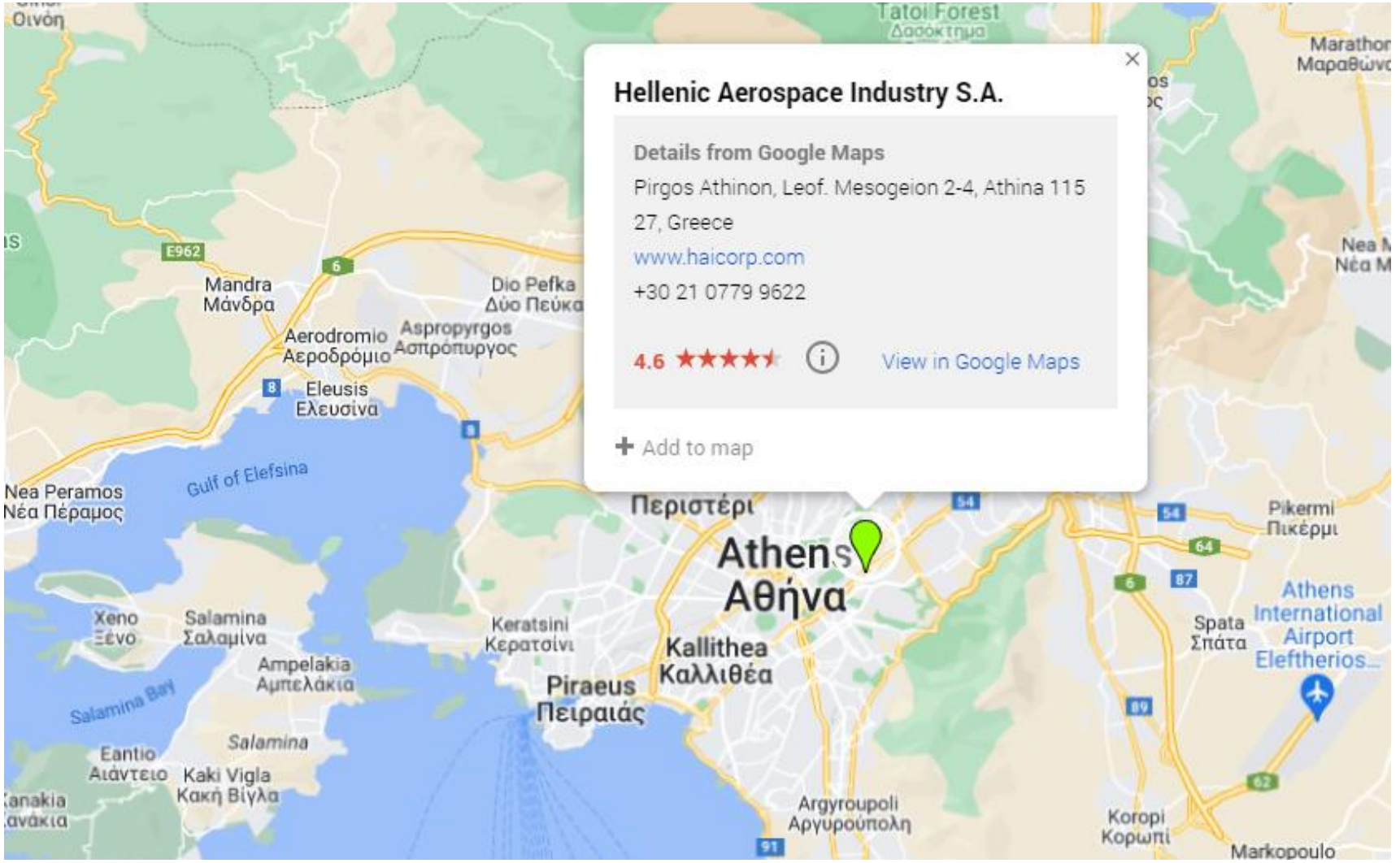
- OZARK MODEL T53 Authorized Service Center

HELLENIC AEROSPACE INDUSTRY S.A.
EN 9100:2018 / AS 9100D
EN 9110:2018 / AS 9110C
ISO 9001:2015



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T53 Authorized Component Repair Facilities (Components Only)

Aerojet Turbine Reworks Inc

Address: 3071 No 5 Rd, Richmond, BC V6X 2T4, Canada

Phone: +1 604-270-1852

Province: British Columbia

OZARK AEROWORKS
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T53 Authorized Component Repair Facilities (Components Only)

H-S TOOL & PARTS INC

H-S Tool & Parts Inc.
140-2560 Simpson Rd, Richmond, BC, Canada
V6X 2P9
604-273-4743
604-273-0924

EURAVIA
A MAGELLAN AEROSPACE COMPANY

EURAVIA NORTH AMERICA

5170 West Bethany Home Road
Glendale. Arizona
85301

Telephone +1 623 931 0010
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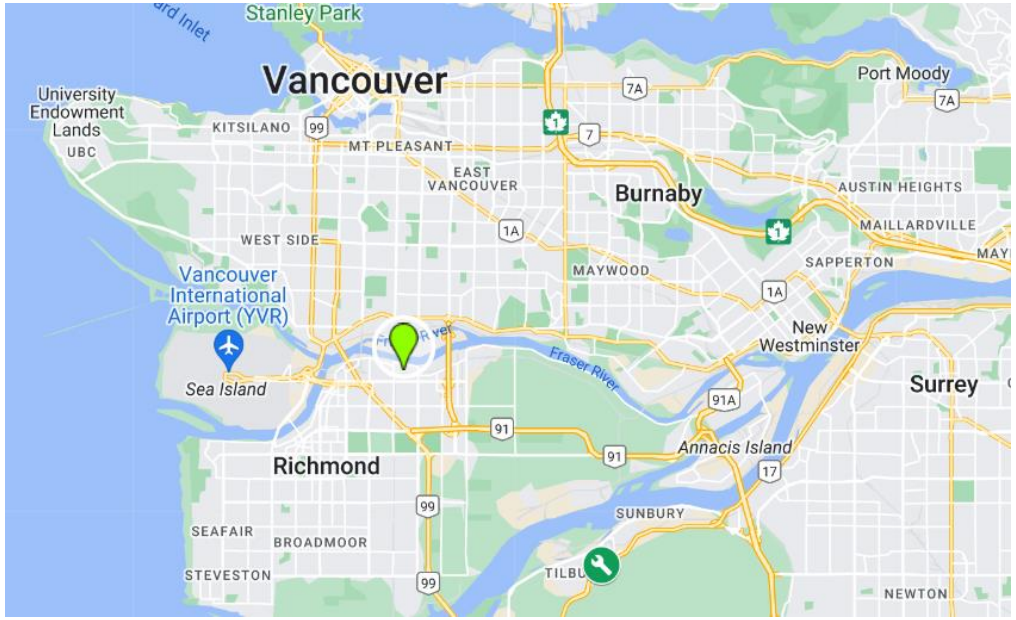
lindsay.stillwell@magellan.aero



Supply Chain Partners

OZARK AEROWORKS
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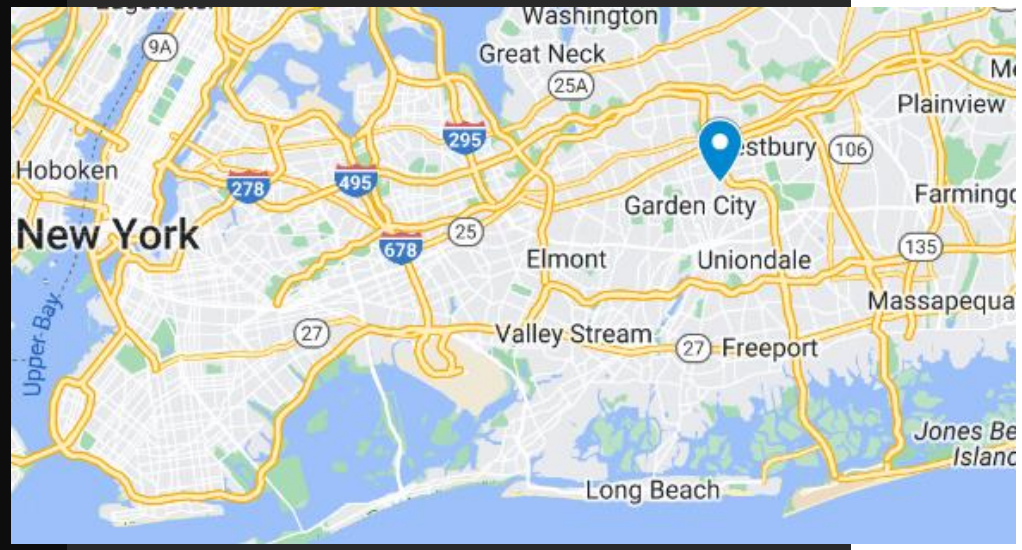
- NorcaTec is Ozark Model T53 Master Distributor for T53 Spare Parts
  - Now Authorized to Sell / Exchange Overhauled Parts
  - Maintains Rotable Pool of Exchange Components
  - Significant Commitment to Stock Spare Parts and support network

Headquarters

NorcaTec LLC
100 Garden City Plaza
Suite 530
Garden City, NY 11530
U.S.A.

Tel: 516-222-7070
Fax: 516-222-8811
E-Mail: sales@norcatec.com



Warehouse

9200 75th Ave
Suite 140
Brooklyn Park, MN 55428

Supply Chain Partners

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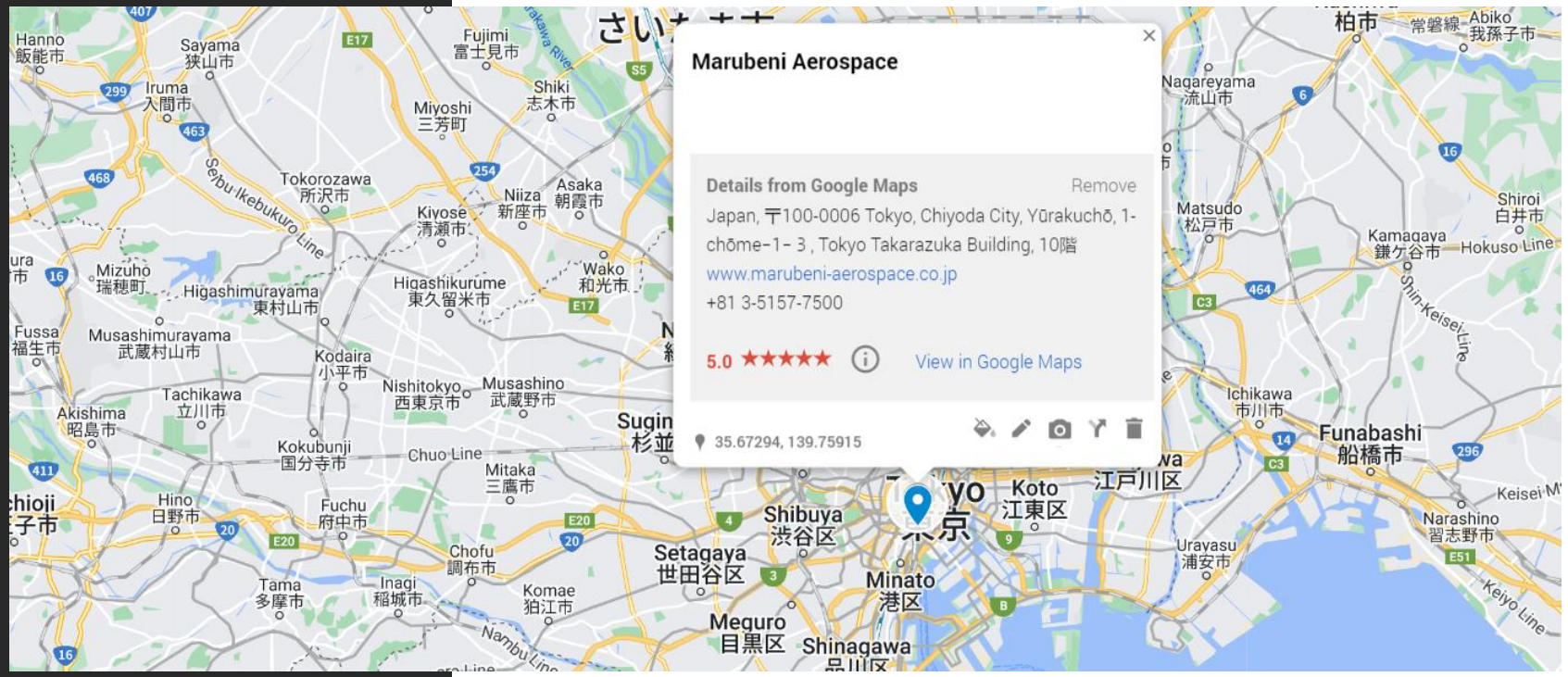
Marubeni Aerospace

- Marubeni Aerospace Corporation is Ozark Model T53 exclusive distributor for the country of Japan
  - Support Japanese Ministry of Defense and Kawasaki Heavy Industries



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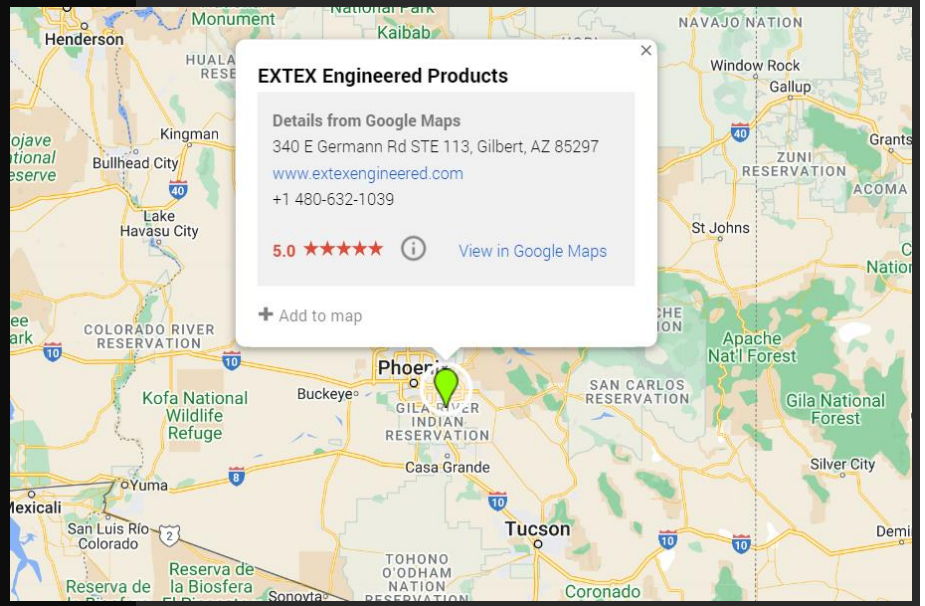
EXTEX, By KAMAN

OEM T53 Licensed Manufacturing Partner



- Teamed with EXTEX, by KAMAN
- EXTEX is manufacturing OEM parts under license
  - Parts will be FAA PMA
  - Block 12 8130-3 information will identify as an Ozark OEM part

1. Approving Civil Aviation Authority / Country: FAA / United States	2. AUTHORIZED RELEASE CERTIFICATE FAA FORM 8130-3, AIRWORTHINESS APPROVAL TAG	3. Form Tracking Number: TOZI1032 – 1
4. Organization Name and Address: *EXTEX Engineered Products Inc.* 340 E. Germann, Suite 113 Gilbert, AZ 85297	PQ2203NM	5. Work Order/Contract/Invoice Number: TOZI1032

6. Item	7. Description	8. Part Number	9. Quantity	10. Serial Number	11. Status/Work
1	SEAL	1-300-366-02	2000	N/A	New

12. Remarks
AIRWORTHINESS APPROVAL
THIS PMA PART [ ] IS [X] IS NOT A CRITICAL COMPONENT.
Lot #: D73856
Identicality per 14 CFR §21.303, License Agreement between EXTEX Engineered Products Inc. and Ozark Aeroworks, LLC Cage: 78U39.

13a. Certifies the items identified above were manufactured in conformity to:
[X] Approved design data and are in a condition for safe operation
[ ] Non- approved design data specified in block 12

14a. [ ] 14 CFR 43.9 Return to Service [ ] Other regulation specified in block 12
Certifies that unless otherwise specified in block 13,the work identified in block 12 and described in block 13 was accomplished in accordance with Title 14, code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

13b. Authorized Signature	13c. Approval/Authorization No.	14b. Authorized Signature	14c. Approval/Certificate Number
	PQ2203NM	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
13d. Name (Typed or Printed): PIERRE ALEXANDER	13e. Date (dd/mmm/yyyy): 15-Mar-2023	14d. Name (Typed or Printed): XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	14e. Date (dd/mmm/yyyy): XXXXXXXXXXXXXXXXX

USER/INSTALLER RESPONSIBILITIES

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer performs work in accordance with the national regulations of an Airworthiness Authority different than the Airworthiness Authority of the country specified in block 1 it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority of the country specified in block 1.

Statement in block 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

FAA Form 8130-3 (02-14)

NSN: 0052-00-012-9005

OEM T53 Supply Chain Updates

OEM – New Production Supply Chain

Since June 2022

- DELIVERED
  - 516 Unique part numbers
  - 268,137 individual parts
  - EST MARKET VAL: $91M
- ON ORDER
  - 288 Unique part numbers
  - ~70,000 individual parts
  - EST MARKET VAL: $85M

Blades

- PT1 – New production units are in-stock and ready for shipment.
- PT2 – Production in progress. Available early Q2 2025.
- GP1/GP2 – Production in progress. Available early Q3 2025.
  - New source approved with investments in engineering services, development and new tooling.
- Compressor – Production in progress. Available early Q2 2025.

Raw material availability and lead time for castings has delayed production.

Ozark engineering is working on potential re-design efforts to allow for improved and modern production methods.

Bevel Gears

New source approved and investments made in engineering services, development and new tooling. Available Q3 2025.

OEM T53 Supply Chain Updates

New Production Projects:

Ozark OEM Supply Chain has invested in developing new production for dormant parts that have historically been unavailable.

- Unison Ring (1-060-093-03) – Q2 2025
- Inserts, Compressor (1-100-454-xx Series) – Q2 2025 (First Article March 2025)
- Hose Assemblies – Various – Q2/Q3 2025
- Start Fuel Manifolds, Left & Right Side (1-170-420-01; 1-170-430-01) – Q2 2025

Component Repair Details:

Ozark OEM Supply Chain has invested in developing production of various component repair details to support component overhauls.

Items such as

- 1-120-050-06 Nozzle, 2nd GP -- Honeycomb Seal (1-120-072-01) currently available
- 1-110-710-06 Nozzle, 1st GP – Improved Overbridge Flange (1-110-255-08); Liner (1-110-162-06); Swage Nuts (1-300-623-01) Q4 2025
- 1-150-240-06 Exhaust Diffuser -- Nuts (525-624-9403) Q2 2025
- 1-140-590-xx Bearing Housing -- Baffle (1-140-165-03) Q2 2025
- 1-130-780-xx Combustion Liner – Liners, Seals, Guides – available to order

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OEM Engineering Product Improvements

- Power Turbine Blade Production
  - R&D for identifying alternate materials and manufacturing methods
  - Improved product availability
- Accessory Items
  - Developing service parts for hard to source assemblies
  - Engaging in discussions with previous and potential new sources
- Electrical System Updates
  - Developing sources and designs to utilize more common materials and methods
- Bevel Gear Updates
  - Modernizing the gear manufacturing processes
  - Utilizing the latest technologies for grinding and inspection of gears
  - Improved backlash and reduced teeth wear

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OEM Engineering Product Improvements

- 1st GP Nozzle Updating materials for manufacturability
  - PN change to reflect improved nozzle will be incorporated
  - Thickening “knife edge” on the Overbridge Flange to improve product life
    - Flange thickness increased by 4x
- New Production Nozzles (All Stages) to be produced with more favorable Effective Flow Areas.

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T53 Technical Publications

- Ozark provides and supports the T53 Technical Publications
  - Standard Practices Manual
  - Maintenance Manuals
  - Operating Instructions
  - Overhaul Manuals
  - Repair Manuals
  - Service Bulletins
  - Service Letters
  - Spare Parts Bulletins
- Network partners and customers requiring access
  - Easy setup and access via using LockLizard and SharePoint
  - Access to any updates, revisions, and service communications
  - Access to T53 Technical and Customer Support Teams
- Please reach out to TechSupport@OzarkAero.com with any inquiries about the Technical Publications or Access.

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T53 Technical Publications

- **2024 ICA Releases**

- **SBs (inactivation notices)**

- T53-73-0401 R2 – Inactivation Notice due to the discontinuation of Main Fuel Regulator PN 1-170-780-03.

- T53-73-0402 R2 – Inactivation Notice due to the discontinuation of Main Fuel Regulator PN 1-170-780-03.

- **IPC TRs**

- 290.4, Rev. 3, TR 53

- 330.4, Rev. 7, TR 44

- 350.4, Rev. 3, TR 68

- 360.4, Rev. 1, TR 5

- **Ozark's MODEL T53 Standard Practices Manual, 70-00-02, Rev. 0**

- **2025 ICA Release Goals**

- Controlled SB Indices for commercial models, military models, and T53-11. This includes 3 SILs that will announce the Indices.

- TRs for new tooling.

- SPB for hardware.

- Ozark's Model T53 330.2 Maintenance Manual full revision
  - Hundreds of changes identified and being reviewed

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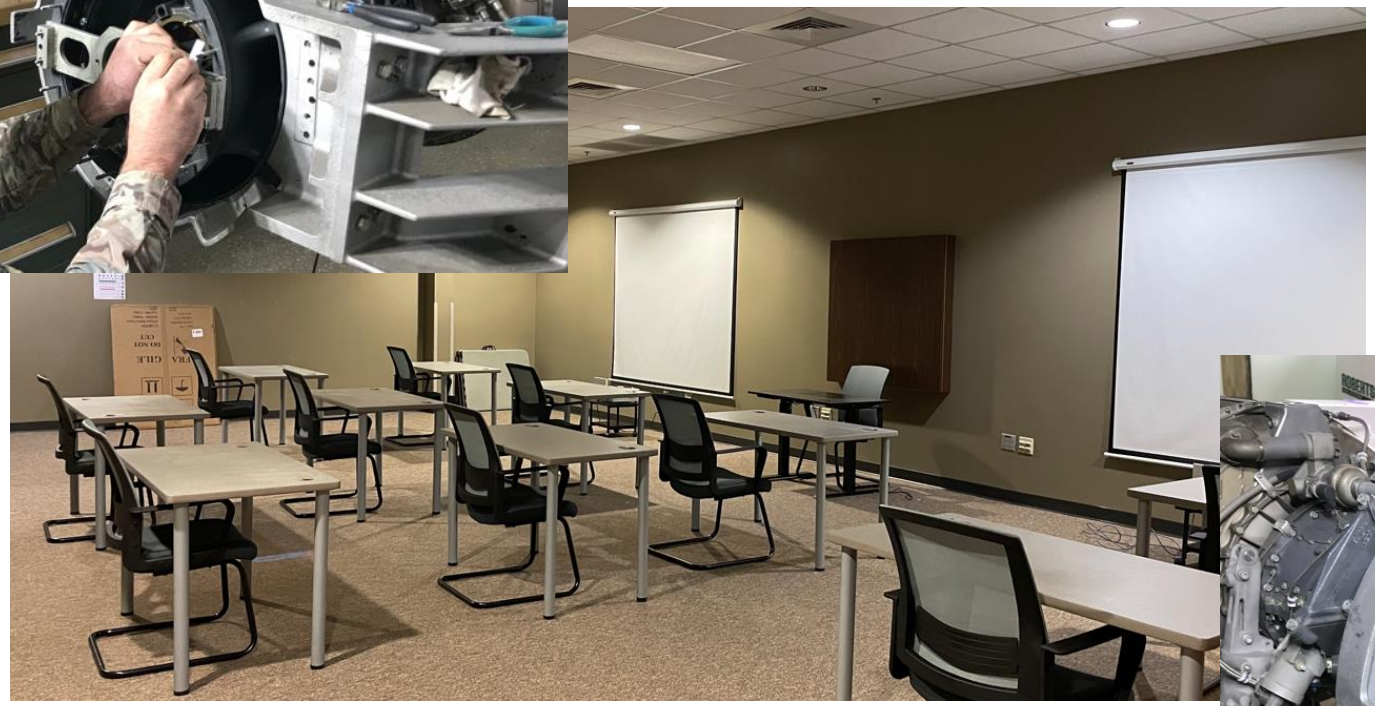
Ozark T53 Training
Classroom and Hands On



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T53 Engine Maintenance Training

- Ozark can offer:
  - 1-Week Intermediate Field Maintenance Course
  - 2-Week Heavy Maintenance Course
- Training courses emphasizes Preventative Maintenance Best Practices
- Upon completion graduates will be provided training documents and certificate of completion
- Contact sales@ozarkaero.com to inquire and schedule training

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T53 Engine Removal and Shipping

Connectors are often not shipped with the engine.

Only parts that are found in the Ozark MODEL T53 290.4/330.4/350.4/360.4 Illustrated Parts Books should be shipped with the engine.

1. Removal of Engine from Aircraft

   Using engine lifting sling LTCT773 and a suitable hoist, remove engine from aircraft. (Refer to Airframe Flight Manual.)

   NOTE: Upon removal of engine from the aircraft, it must be properly installed in shipping container if engine is to be returned.

   The thermocouple connector (77-20-01, 3, Figure 201) on T5313B, T5317A, T5317A-1 engines should always remain with the engine. It should not remain connected to the firewall cannon plug when the engine is removed.

2. Shipping Container

   Overall dimensions of the metal shipping container are: length, 74-5/8 inches, height, 43-1/8 inches, width, 39-3/4 inches. Total weight of engine and container is 1207 pounds. Container is pressurized with 4 to 6 psi of dehydrated air. (See Figure 401.)

3. Preservation and Installation of Engine in Metal Shipping Container

   Preserve and install engine in metal shipping container as follows:

   A. Preserve engine for extended storage. (See ENGINE - SERVICING, paragraph 5.E.)

   B. Using wrench LTCT3938, remove starter unit.

   C. Remove engine mounted airframe accessories. (Refer to Airframe Flight Manual.)

   D. Remove exhaust cone if installed.

      NOTE: Prior to installation of starter drive spline cover in following step E, lubricate starter drive spline socket with a liberal amount of spline lubricant (45, Table 203). Do not pack socket.

   E. Spray exposed power turbine wheel and surrounding area with corrosion preventive oil (21, Table 203). Inspect engine to make sure that all drain plugs are installed and lockwired, all lines in place and connected, and all attaching parts tightened to required torque values. Close all openings with proper shipping covers, caps, and plugs. Spray all drives with corrosion preventive oil (21, Table 203) before covering. (See Figure 402.)

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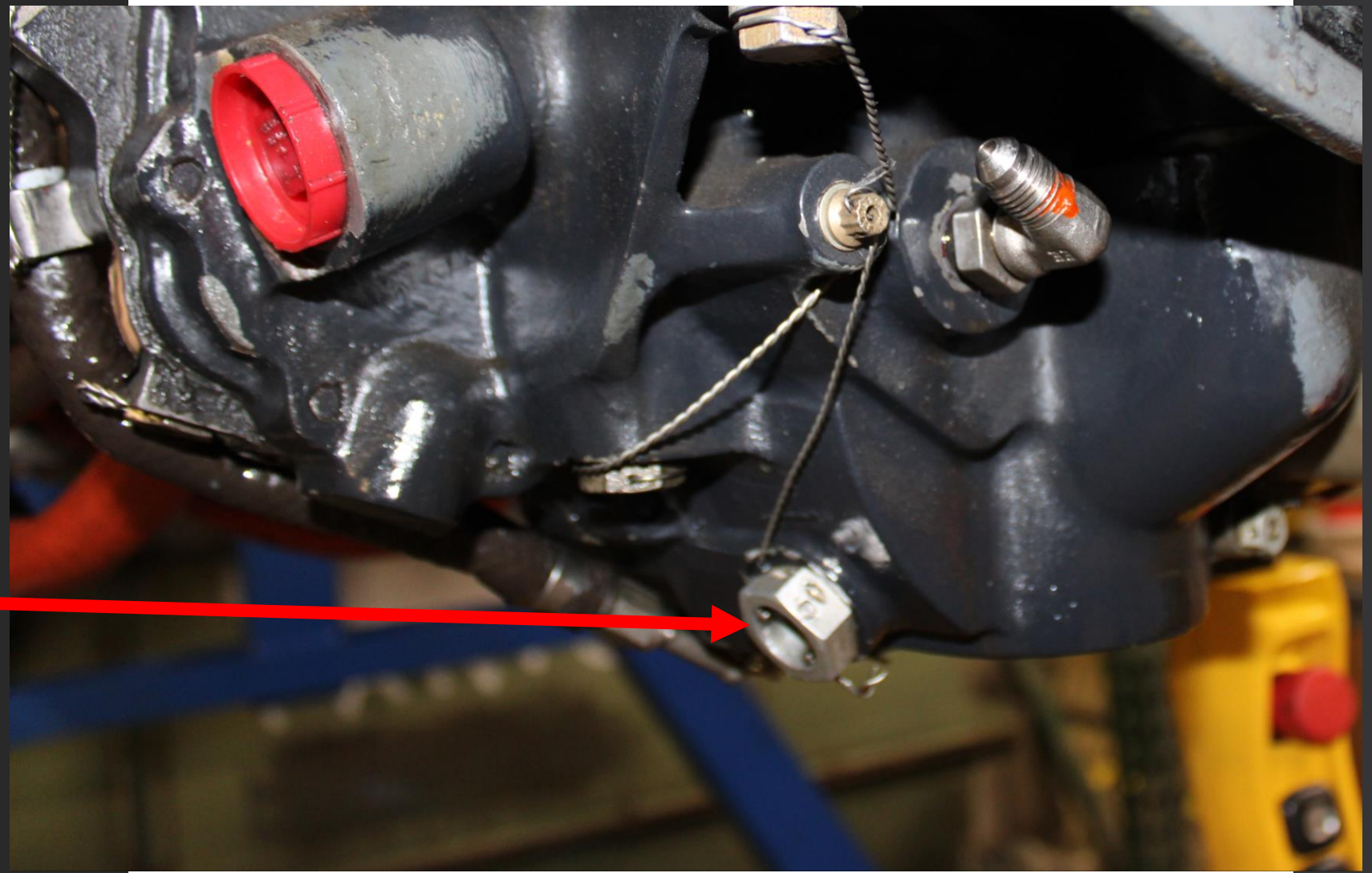
T53 Engine Removal and Shipping

Engines often come with chip detector bayonet missing.



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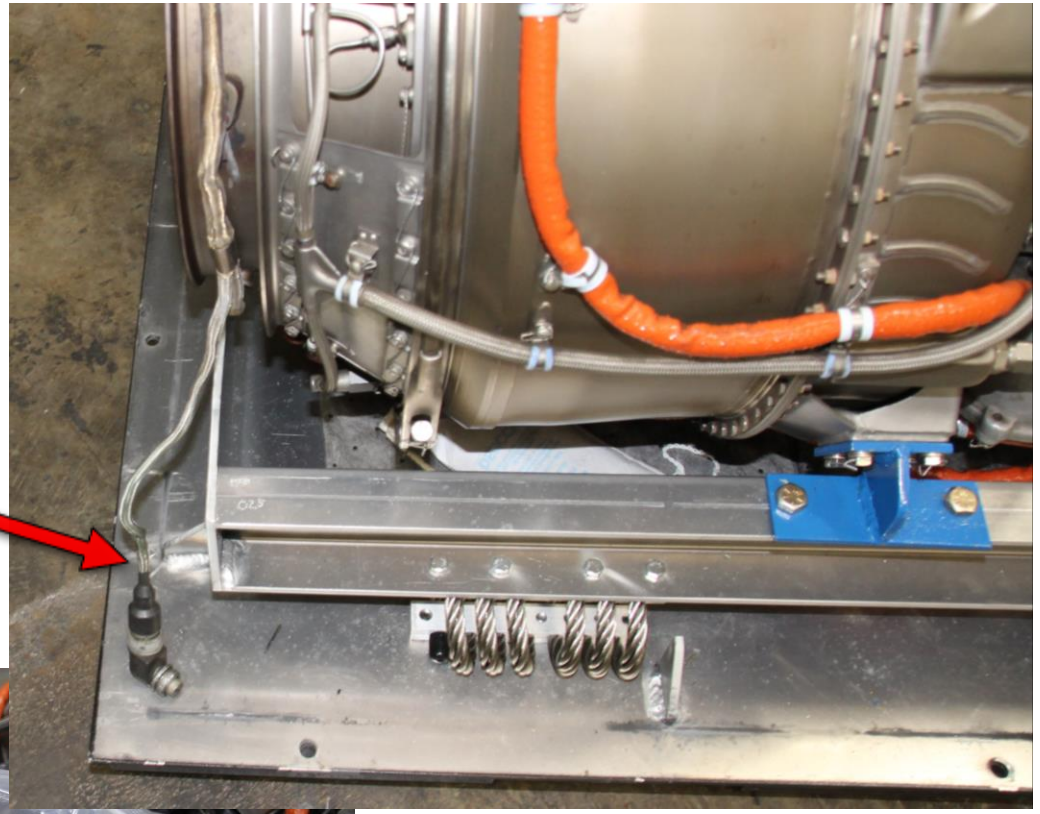
T53 Engine Removal and Shipping

EGT Harness and Connector. Should be secured to prevent damage.



RGB attaching hardware not reinstalled.

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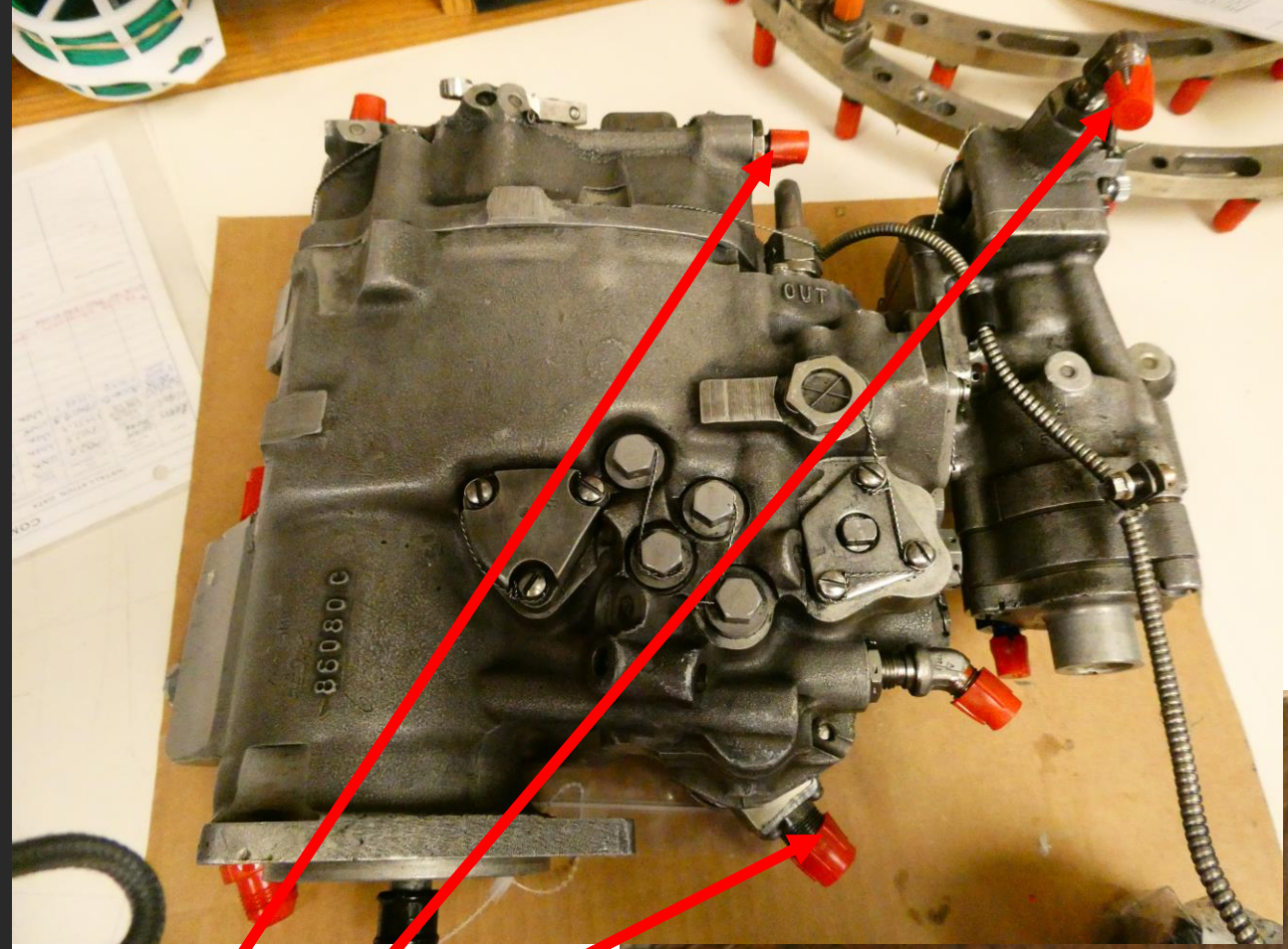
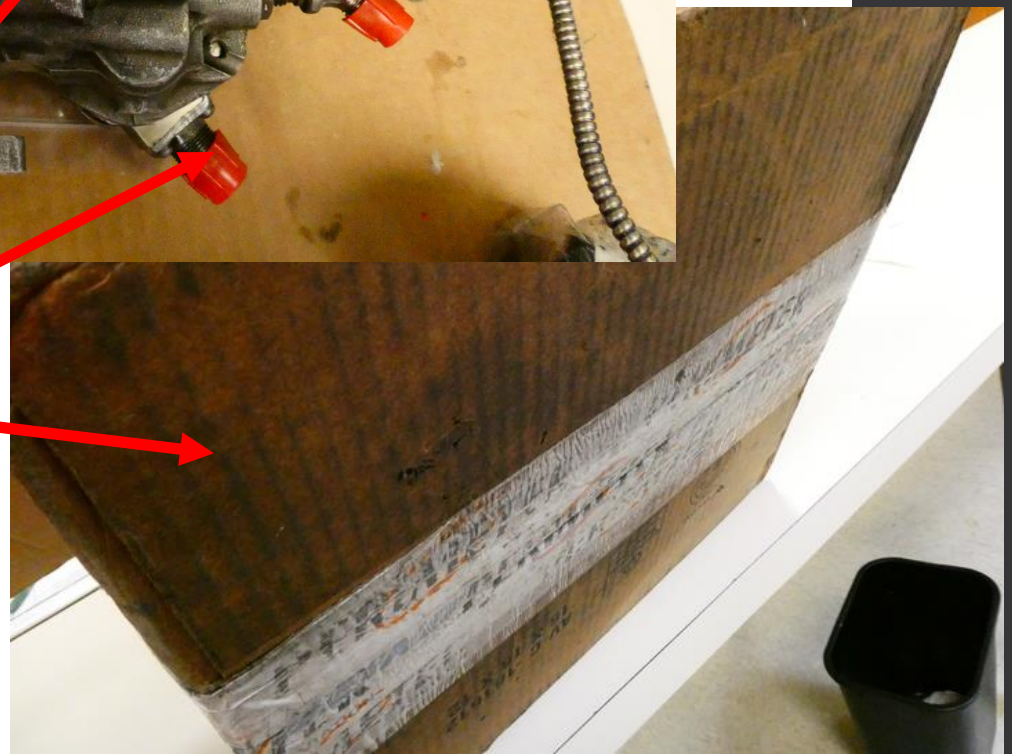
T53 FCU Shipping and Packaging

Must have proper shipping containers, proper caps and proper purging.



Not purged/capped properly. FedEx stopped this package.



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T53 FCU Shipping Procedure

Triumph 73-20-01

1. Preservation and Packaging for Shipment

   A. Short term Shipment and/or Storage. When the fuel regulator is to be shipped and/or stored for not more than 28 days prior to its use on an engine or its overhaul, proceed as follows:

      (1) Open all ports of the fuel regulator and thoroughly drain all residual fuel from the assembly. After draining, pour a quantity of jet engine lubricating oil (item 1, table 901) into the fuel regulator and agitate the unit sufficiently to slosh the oil over the interior surfaces. Then, allow the residual lubricating oil to drain from the regulator.

      (2) Cap and plug all fuel regulator openings, using the closure parts shown in Figure 901.

      (3) When securing shipping gasket (11) and shipping cover (7) to the governor mounting surface of the fuel regulator bridge, use temperature control guard clamp (5) in place of washer (10) for screw (6) as shown in figure 901, to secure the capillary tube to the fuel regulator T_1 main bellows assembly.

      (4) Secure the fuel regulator to shipping base (16) with four each washers (20 and 19), bolts (17), and nuts (18). Make sure that fuel regulator drive shaft is properly positioned in shipping base cutout.

      (5) Insert fuel regulator into shipping container (21), and install shipping container liner (4) and shipping container sleeve (3).

      (6) Assembly container top pad (2); then close shipping container and secure lid wiht pressure sensitive tape (item 3, table 901).

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T53 FCU Shipping Procedure

Ozark MODEL T53 330.2 MM

I. Preserving Fuel Control Assembly Removed From Engine

(1) When a fuel control has been removed from an engine and is not to be reinstalled within 48 hours, flush with oil before removing and cap ports (see paragraph 5.E.), or preserve as follows:

(a) Remove servo supply filter and pump discharge strainer (see 73-20-03). Allow fuel to drain from fuel control.

(b) Reinstall servo supply filter and pump discharge strainer. (See 73-20-03.)

(c) Install high pressure caps on the main and starting fuel outlet and inlet fittings and on pump discharge pressure ports.

(d) Preserve fuel control using procedure in following step (e).

NOTE: Procedure in step (e) is the preferred method for preserving fuel control.

(e) Preferred method of fuel control preservation.

1 Connect a 1 to 5 foot pressure head source of clean, unused lubricating oil (72-00-00, 43 or 44, Table 203) to fuel inlet.

2 Position the fuel control in operating attitude.

3 Using a rotary air gun and a spline adapter which will not damage the fuel control N_1 drive, motor the fuel control at 100 to 150 rpm.

4 Continue procedure until fuel is flushed out by the oil.

NOTE: Drive fuel control in proper direction of rotation. Drive adapter can be made of heavy rubber hose or a spline welded to a square drive socket or adapter.

(f) Alternate method of fuel control preservation.

1 Pour lubricating oil (72-00-00, 43 or 44, Table 203) into fuel control through pump discharge strainer port.

2 Rotate fuel control pump drive by hand.

3 Turn fuel control over several times to allow lubricating oil to penetrate all sections.

J. Packing Fuel Control or Governor for Shipment

(1) Cap and plug openings, place fuel control and/or governor in shipping container and properly identify for shipment.

OZARK AEROWORKS
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Service Bulletin T53-0210

ENGINE – POWER TURBINE ROTORS - Blade Shroud Gap Check

- **Reason**
  - When power turbine blade shroud gaps are excessive, single-blade failures can occur.
  - Operating an engine with either 1st Stage PT or 2nd Stage PT rotors with either excessive individual or cumulative shroud gaps can lead to uncontained blade failures.

Table 2: Applicable Engine(s)

PN	Engine Model Number	Serial Number	Application
1-000-060-21	T5317A	All	Bell 205A-1 Series
1-000-060-29	T5317A-1	All	Kaman K-1200
1-000-060-30	T5317B	All	Fuji Bell 205B/Bell 205A-1
1-000-060-32	T5317BCV	All	Bell 210 Series, Eagle Single

Table 3: Frequency of Compliance

Engine	TBO (Hours)	Compliance Frequency
Engines Pre T5313B/17-0122		
T5317A	3000	Every Overhaul, and at every 2nd Internal Hot End Inspection, not to exceed a TSO of 2,100 Hours
T5317A-1	3000	Every Overhaul, and Every Internal Hot End Inspection
T5317B	3000	Every Overhaul, and at every 2nd Internal Hot End Inspection, not to exceed a TSO of 2,100 Hours
Engines Post T5313B/17-0122		
T5317A	5000	Every Overhaul and Mid-Point Inspection
T5317A-1	5000	Every Overhaul, every Internal Hot End Inspection, and every Mid-Point Inspection
T5317B	5000	Every Overhaul and every Mid-Point Inspection
T5317BCV	5000	Every Overhaul and every Mid-Point Inspection

Note: Internal Hot End Inspections and Mid-Point Inspections can be extended up to 125 hours for 5,000-hour TBO configurations and up to 100 hours for 3,000-hour TBO configurations, but Overhaul Inspections shall not be delayed. Reference Service Bulletin T5317-0001, Latest Revision.

OZARK AEROWORKS
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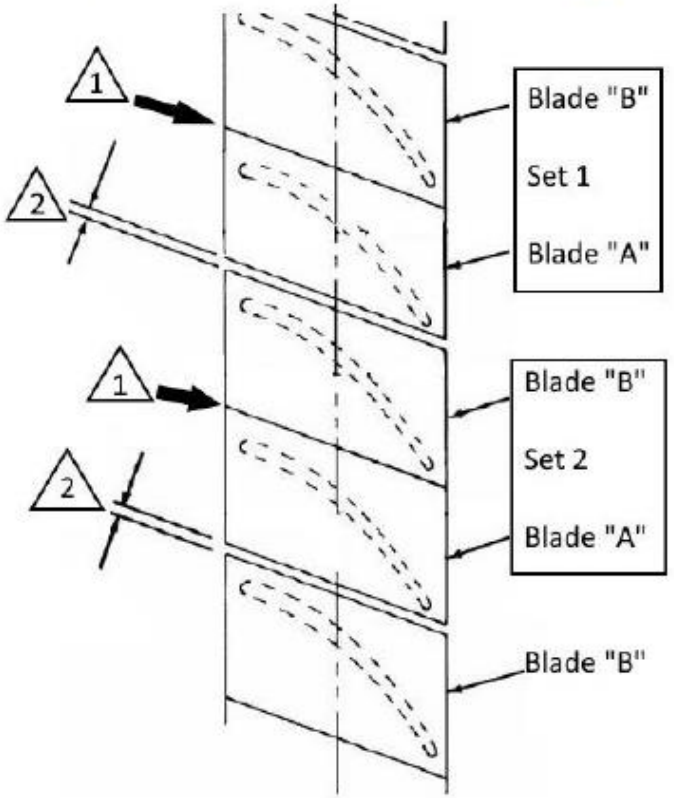
Service Bulletin T53-0210

ENGINE – POWER TURBINE ROTORS
- Blade Shroud Gap Check

The shroud gap (Figure 1) is to be measured with a force gauge, pulling in a vertical direction on a feeler gauge with no visible displacement, at a minimum of 1 lbf. In some instances, inserting a feeler gauge between blade sets may not be possible.

Figure 1: 1st Stage Power Turbine Rotor Blade Shroud Gap

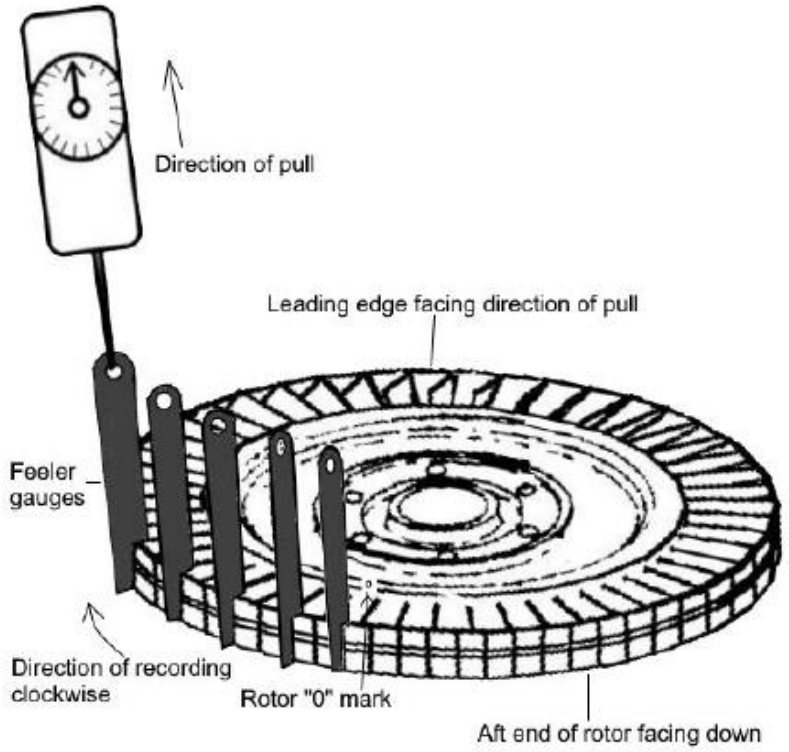


1 Shroud clearance within A and B Blade Set

2 Individual Blade Set Shroud Gap

Figure 2: 1st Stage Power Turbine Rotor Feeler Gauge Guide

NOTE: This is an example used to illustrate direction of pull only.



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T53 Fuel Control/SB-0188

- Service Bulletin T53-0188
  - Ensure proper inspection and cleanliness of gear and shaft splines

OBJECTIVE: Prevent premature FCU drive shaft / accessory drive gear spline wear caused by greasing at FCU installation.

- Oil wetted lubrication by design
- Use of grease prevents entry of oil through lubrication holes
- Preventing proper lubrication causes increased spline wear

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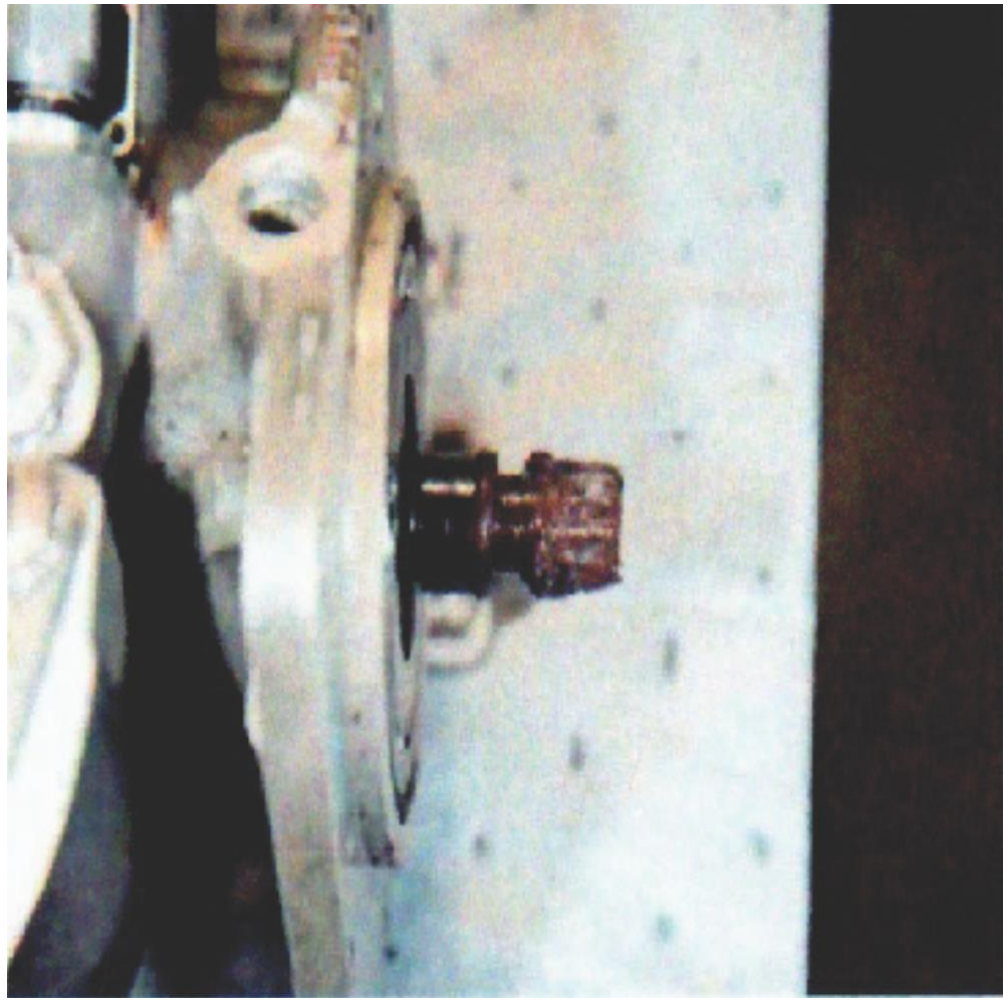
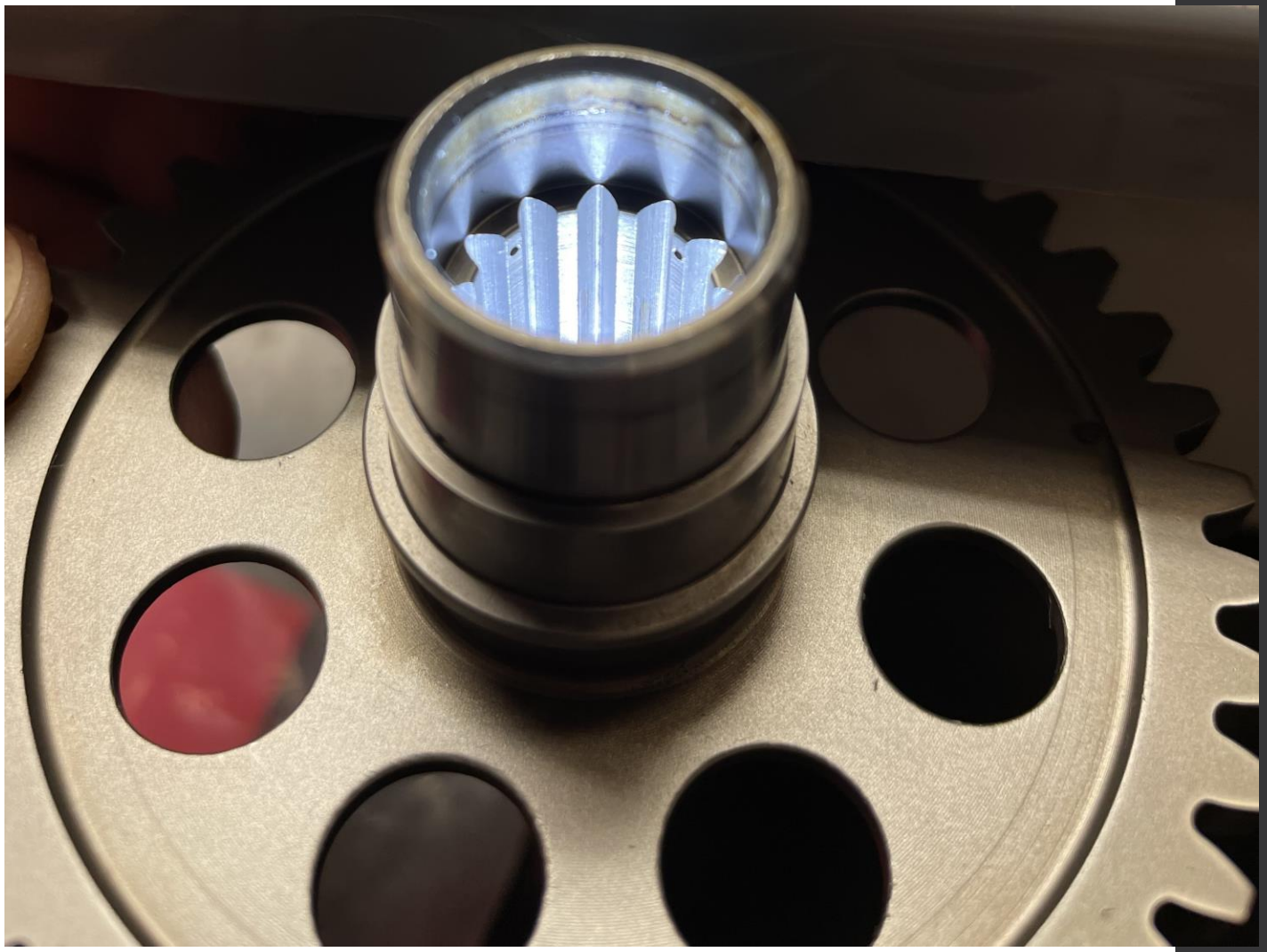
Greased FCU Drive Shaft





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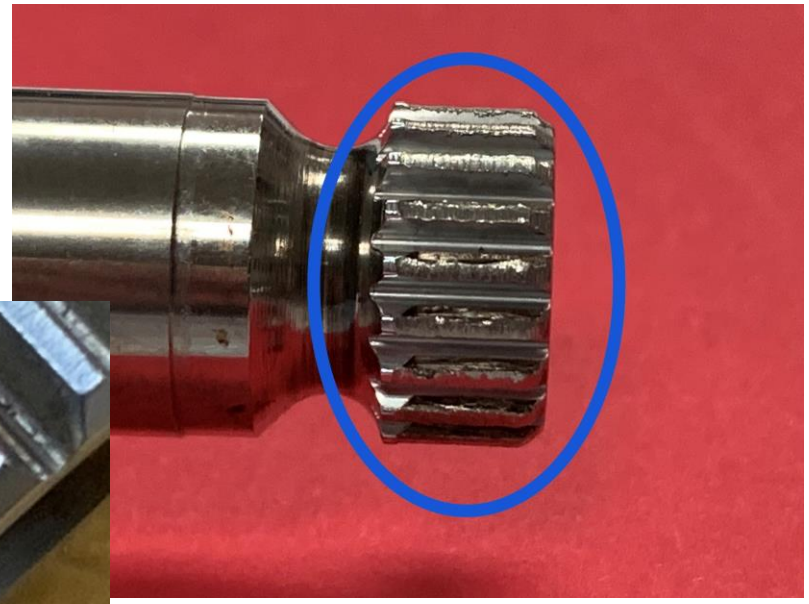
FCU Drive Shaft Wear



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Best Practice:

Exhaust Diffuser Inspection

OBJECTIVE: Detect cracking of exhaust diffuser prior to loss of structural integrity

- Engine failures have occurred due to excessive cracking within the structure of the exhaust diffuser
  - Thorough inspection will identify cracks in early stages
- Increase in vibration levels may be associated with exhaust diffuser cracking
- Ensure proper Pre and Post flight inspections
  - Can be completed without removing tailpipe, unless closer inspection is warranted
- Recommend at 300-hour intervals to remove tailpipe and perform a detailed inspection
  - Pay close attention to the forward section of the inner cone detail and outer struts

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Best Practice:

Exhaust Diffuser Post Flight Inspection

OBJECTIVE: Detect cracking of exhaust diffuser prior to loss of structural integrity

(6) Inspect power turbine blades (visible through exhaust diffuser) for cracks, burns, and nicked or missing blades.

(7) Inspect exhaust area for presence of foreign matter. Inspect turbine blade trailing edges for evidence of burning, FOD, and tip rub. Inspect exhaust pipe for evidence of burning or buckling.

(8) Check tailpipe for presence of fuel, oil, or foreign objects.

(9) Install engine inlet and exhaust covers.

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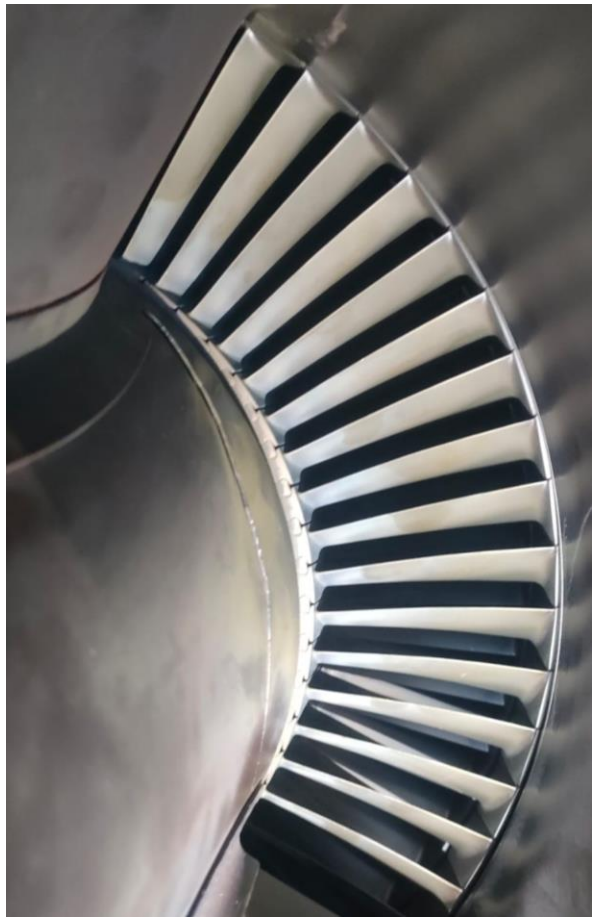
Best Practice:

Exhaust Diffuser Service Inspection

These are 2 recent events found during daily inspections in the field.

OBJECTIVE: Detect cracking of exhaust diffuser prior to loss of structural integrity

(6) Inspect combustion chamber housing, support cone, fireshield, and exhaust diffuser for cracks, hot spots, burned areas, and buckling. (See 72-40-00.)



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Best Practice:

Exhaust Diffuser Maintenance Manual Inspection

2. Inspection/Check

A. Inspect all areas for nicks, dents, and distortion. (See Figure 201.) Minor nicks, dents, and distortion are acceptable without repair provided no interference of mating parts occur. (See Figure 202.)

B. Inspect for major distortion. Damage associated with distortion is cause for rejection of exhaust diffuser.

C. Using an approved silver pencil (72-00-00, 59A, Table 203) mark all cracks that exceed maximum allowable limits. Repair exhaust diffuser.

D. Inspect outer cone for cracks (Figure 202). No cracks allowed.

E. Inspect mid and inner cones for cracks. Any number of tight lipped nonconvergent cracks up to 1/2 inch in length, which do not affect weldments, are acceptable. Circumferential cracks adjacent to mounting flange are not permitted.

F. Inspect mid and inner cones for burning. No burn through permitted. Replace exhaust diffuser.

G. Inspect bearing housing support for cracks. Two tight lipped, nonconvergent cracks up to 1/2 inch in length, which do not affect weldments, are acceptable without repair.

NOTE: Dents that form on outer strut and produce a gap greater than 1/8 inch between outer strut and outer strut fairing shall be inspected further for cracks.

H. Inspect outer struts and outer strut fairings for nicks, dents, cracks and burning.

(1) Repair nicks and dents which could prevent expansion movement of struts and fairings.

(2) One crack per strut fairing is allowed up to 1 1/2 inches in length without repair. If limits are exceeded, replace exhaust diffuser.

New advanced inspection procedures and criteria being considered for 330.2 Maintenance Manual revision.

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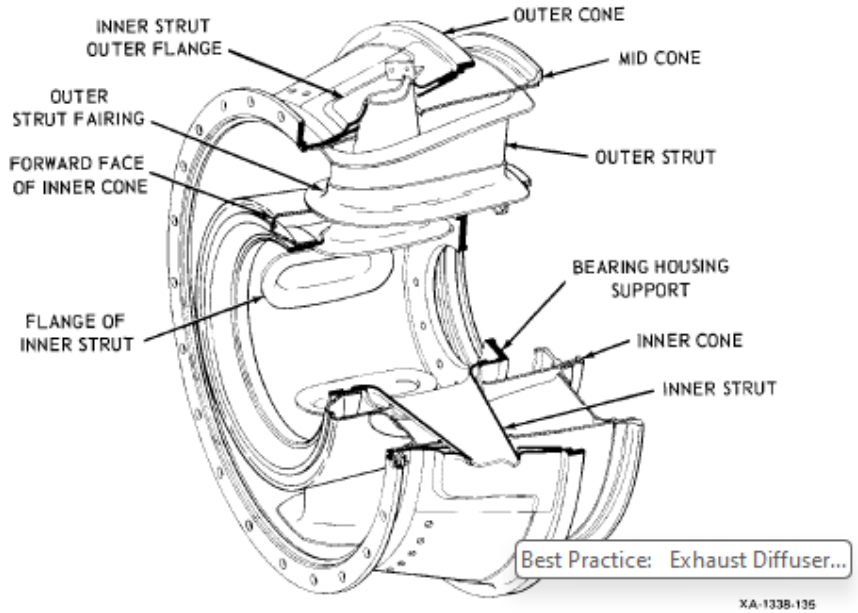
Best Practice:

Exhaust Diffuser Maintenance Manual Inspection



Exhaust Diffuser
Figure 201

(3) No burn through permitted. Replace diffuser.

I. Inspect inner strut flanges for cracks. Two nonconvergent cracks, 1/2 inch in length, are acceptable without repair on each inner strut outer flange.

J. Inspect inner struts for cracks. No cracks allowed.

K. Inspect mounting flange for damaged or missing nuts. Return to authorized service center for repair.

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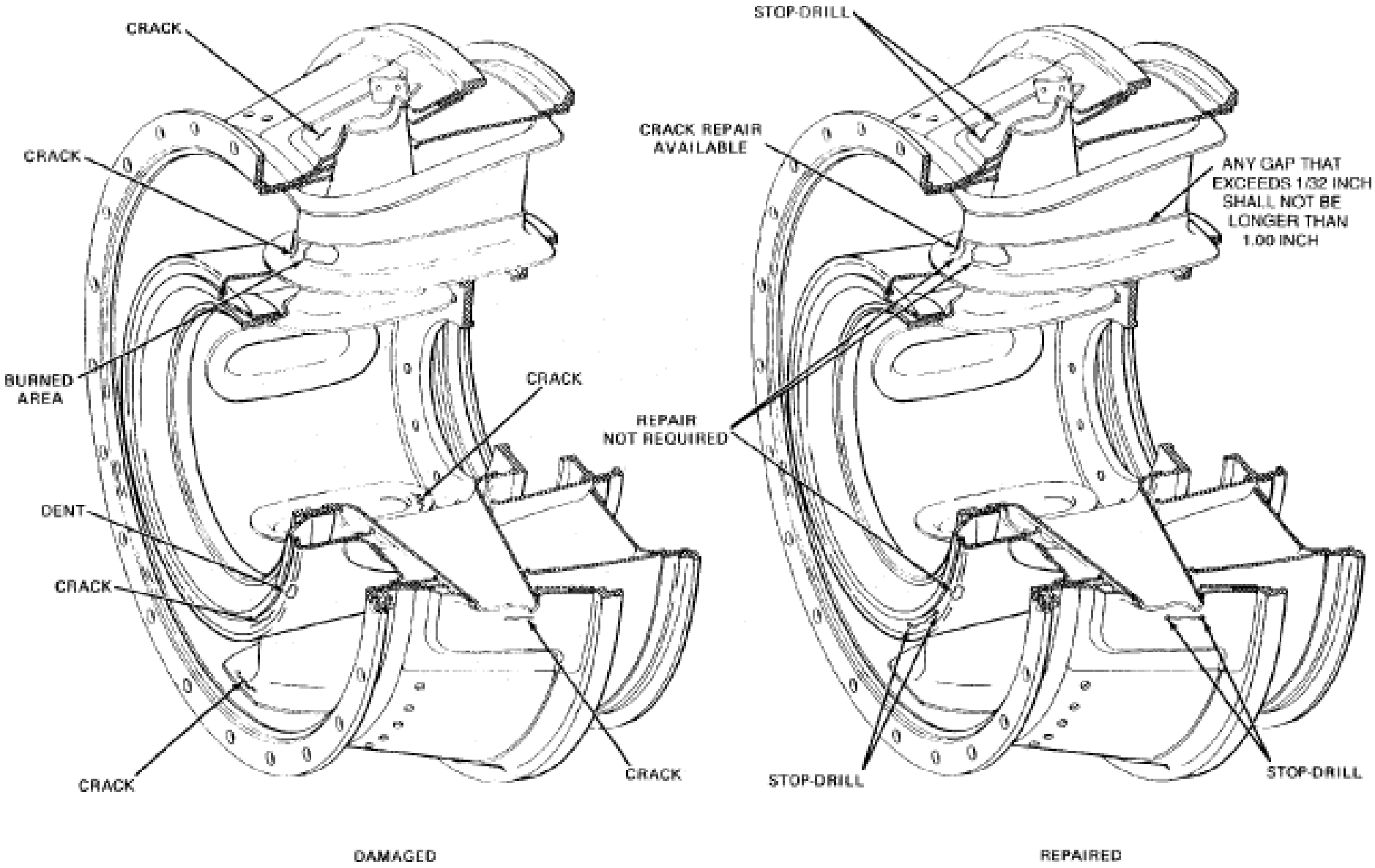
Exhaust Diffuser Breakdown



Exhaust Diffuser - Damaged and Repaired
Figure 202

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Exhaust Diffuser Cracking

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Engine Compressor Washing

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Best Practices:

Engine Compressor Washing

OBJECTIVE: Maintain compressor efficiency through enhanced washing procedure

- Refer to applicable maintenance manual
- Ensure use of recommended cleaning products
- Ensure disconnection of P3 line at air diffuser and apply 30-40 psi to bleed actuator to close bleed band
- Introduce longer soak times
  - Minimum of 1 Hour
- Recommend double freshwater rinse
  - Helps prevent corrosion to internal components
- Perform post wash drying run
  - Actuate hot air valve to dry inlet housing internal cavities

NOTE: Once you fall behind and base coat collects, hand cleaning is only option

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Best Practice:

Fuel Nozzle Cleaning

OBJECTIVE: Reduce turbine section erosion and thermal distress

- Recommend Fuel Manifold inspection every 300 hours vs published 600-hour interval
  - Refer to SIL D201903000027
- Start fuel nozzles should be cleaned and inspected coincidentally with main manifolds
- Regular fuel nozzle cleaning is vital to overall health of combustion and turbine components
  - This requires flow checking on a calibrated test bench to check spray pattern and verify correct flows
- Streaking fuel nozzles can burn combustion liner and turbine nozzles
- Recommend overhaul of manifolds at every mid-life and engine overhaul
- 300 Hour inspections have shown to greatly reduce fuel nozzle failure at inspection by approximately 50%.

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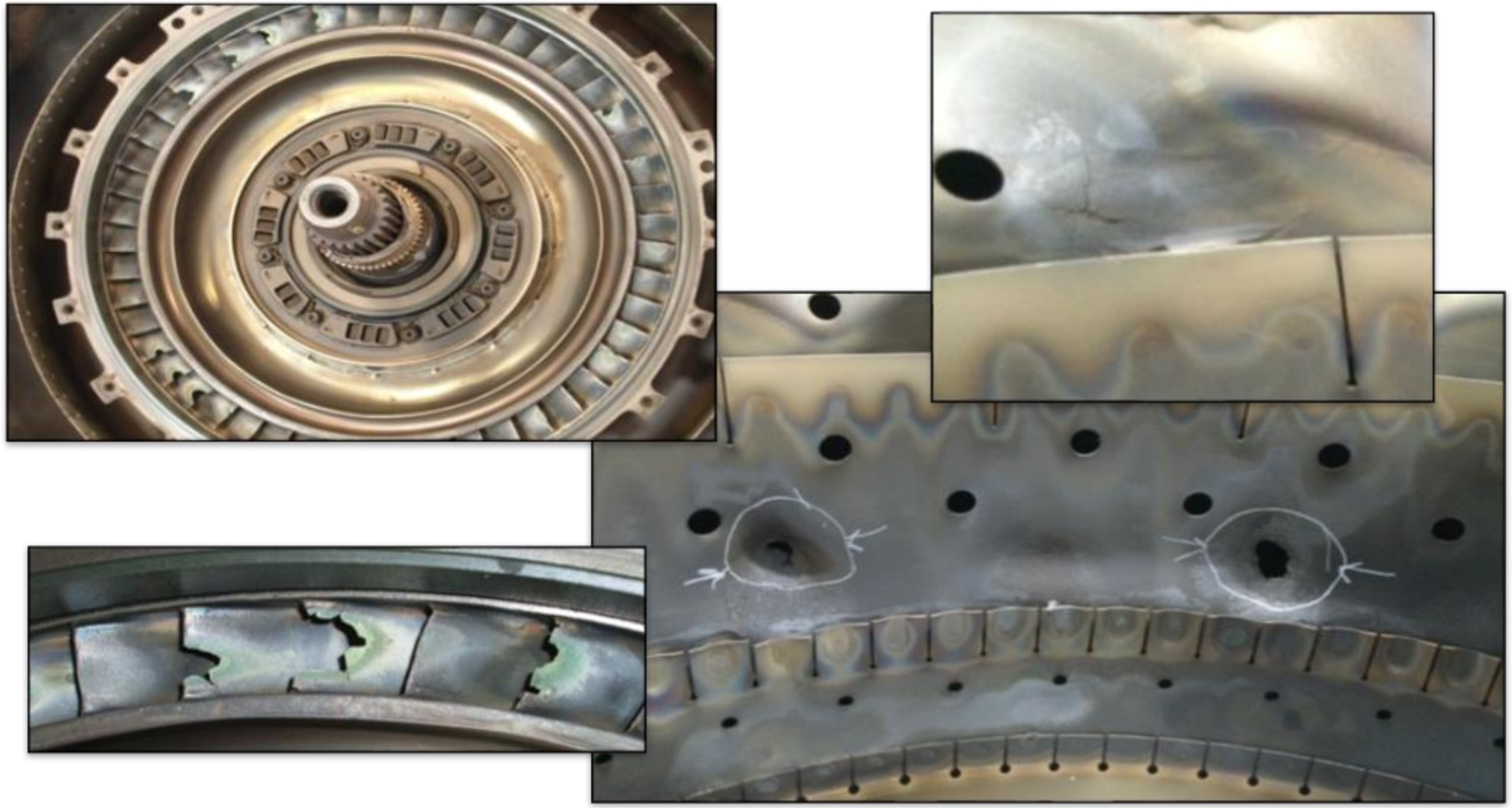
Issues caused by improperly maintained Fuel Nozzles



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Q and A

We could use your help! Communication is key!!

- Questions??
- Email techsupport@ozarkaero.com
- Thank you for attending!
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