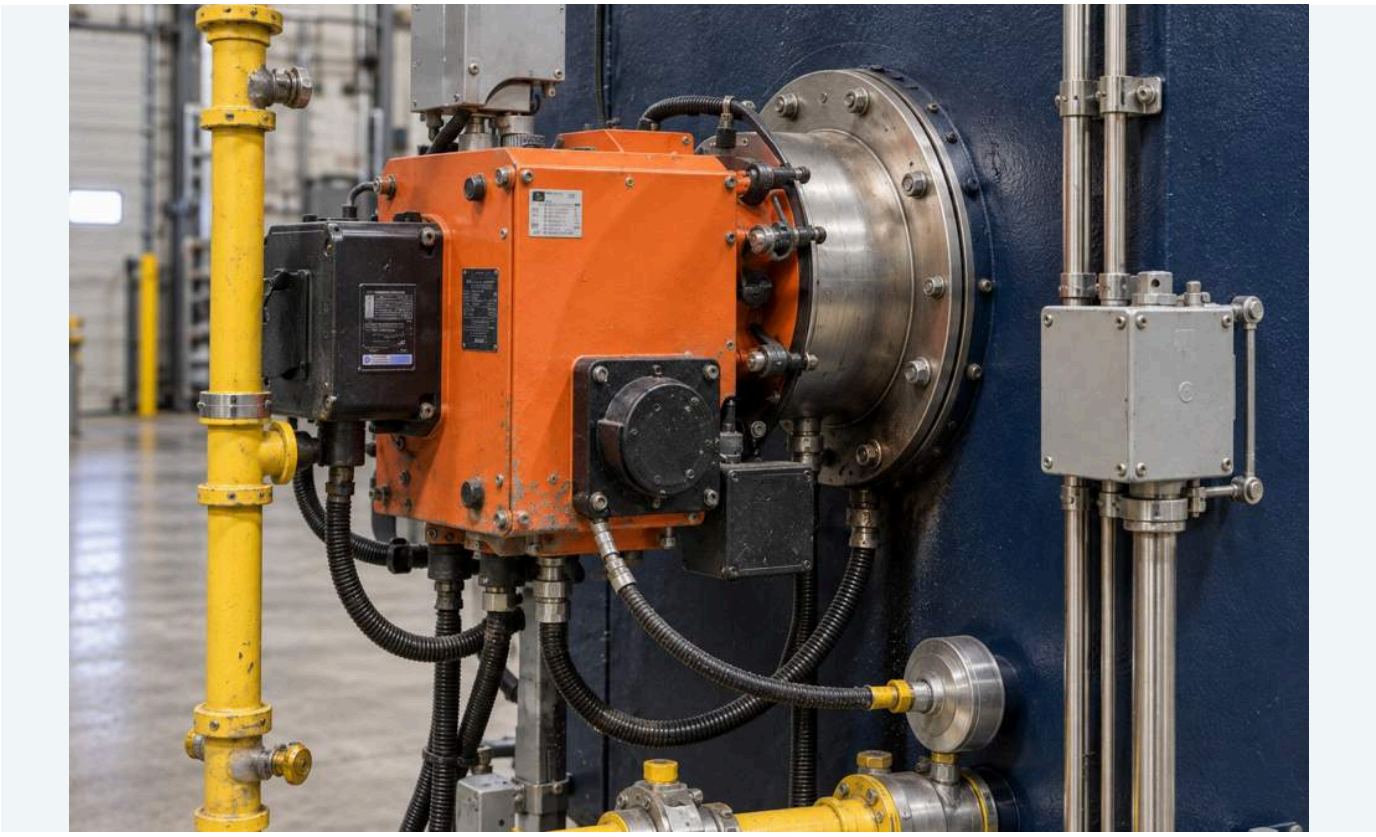
Inspection overview

ATLAS T-240

Wear and deterioration inspection



ASSET	INSPECTED	TECHNICIAN
DEMO-001	10 Feb 2026	Jordan Ellis

Review pending

49 checklist steps / 49 recorded / 49 analyzed

AI findings support review. Maintenance decisions and approval remain with your team.

What needs attention

Evidence-led priorities for the next maintenance decision.

13 high / 26 medium / 10 low

AI findings across checklist steps. These are not human review decisions.

HIGH

FAN-02

FAN-02 / Exhaust fan and drive: condition

EVIDENCE / P. 19

Front pedestal hold-down shows a broad rust-colored fretting debris ring and a dark streak descending the fan housing, coincident with a doubling of vibration (3.1→6.2 mm/s RMS) at the same point. Guard is intact, but the fretting signature plus vibration trend indicates progressive loosening or bearing/imbalance degradation requiring intervention.

PROPOSED NEXT ACTION

Retorque hold-down bolts to spec, inspect washers for lift/fretting, sample the streak for grease vs. process fluid, and schedule bearing vibration spectrum analysis before continued operation.

HIGH

FAN-03

FAN-03 / Exhaust fan and drive: evidence and follow-up

EVIDENCE / P. 22

Front pedestal shows a broad rust-colored debris ring around the hold-down bolt and a dark vertical streak down the housing web; measured vibration at this point has doubled to 6.2 mm/s RMS in mode M1. Internal bearing condition is not verified from this external view.

PROPOSED NEXT ACTION

Schedule bearing inspection and root-cause review of debris/streak; trend vibration and plan intrusive check before next run cycle.

HIGH

CTL-02

CTL-02 / Control cabinet: condition

EVIDENCE / P. 54

Control cabinet intake grille is heavily loaded with dust and lint, correlating with the technician's 48 C enclosure reading and cabinet-temperature alarm. External surfaces are otherwise intact but airflow is clearly restricted.

What needs attention

PROPOSED NEXT ACTION
Clean or replace intake filter/grille, then verify enclosure temperature returns to normal and clear alarm.

HIGH

CTL-03

CTL-03 / Control cabinet: evidence and follow-up

EVIDENCE / P. 57

Control cabinet intake grille is heavily fouled with dust and lint, correlating with a recorded 48 °C enclosure temperature and a cabinet-temperature alarm; internal electrical compartment remains unverified.

PROPOSED NEXT ACTION
Replace/clean intake filter and louver, then re-run mode M1 and monitor enclosure temperature; schedule internal cabinet inspection.

HIGH

DUC-01

DUC-01 / Ductwork and flexible connector: overview

EVIDENCE / P. 60

Flexible fabric connector between two flanged duct sections shows a torn outer fold with protruding fibers and a dark streak along the lower flange, consistent with the technician's observation of a split and possible leakage indication.

PROPOSED NEXT ACTION
Schedule replacement of the flexible connector and perform a leak test; inspect concealed inner fabric before return to service.

HIGH

DUC-02

DUC-02 / Ductwork and flexible connector: condition

EVIDENCE / P. 63

Flexible connector fabric between the two flanged duct sections shows a visible split in the outer fold with protruding loose fibers and a dark streak below the clamp, consistent with the technician's observation of active degradation.

PROPOSED NEXT ACTION
Schedule flexible connector replacement; perform leak check and inspect concealed circumference before continued service.

Inspection contents

Select a checklist step to open its evidence.

STEP	COMPONENT / CHECK	AI SEVERITY	PAGE
BRN-01	Burner assembly: overview	LOW	7
BRN-02	Burner assembly: condition	MEDIUM	10
BRN-03	Burner assembly: evidence and follow-up	MEDIUM	13
FAN-01	Exhaust fan and drive: overview	MEDIUM	16
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CHM-01	Thermal chamber and hatch: overview	MEDIUM	25
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DMP-01	Airflow damper: overview	MEDIUM	34
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CTL-01	Control cabinet: overview	LOW	51
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Inspection contents

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DUC-01	Ductwork and flexible connector: overview	HIGH	60
DUC-02	Ductwork and flexible connector: condition	HIGH	63
DUC-03	Ductwork and flexible connector: evidence and follow-up	HIGH	66
FRM-01	Skid and identification: overview	LOW	69
FRM-02	Skid and identification: condition	LOW	72
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FAN-GRD-01	Coupling guard: reference view	LOW	78
FAN-GRD-02	Coupling guard: condition and evidence	HIGH	81
FAN-MTR-01	Drive motor and cooling fins: reference view	MEDIUM	84
FAN-MTR-02	Drive motor and cooling fins: condition and evidence	HIGH	87
FAN-MNT-01	Pedestal and hold-downs: reference view	MEDIUM	90
FAN-MNT-02	Pedestal and hold-downs: condition and evidence	HIGH	93
BRN-FLG-01	Burner mounting flange: reference view	MEDIUM	96
BRN-FLG-02	Burner mounting flange: condition and evidence	MEDIUM	99
BRN-TUB-01	External burner tubing: reference view	MEDIUM	102
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CHM-SEA-01	Hatch perimeter seal: reference view	MEDIUM	108
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Inspection contents

STEP	COMPONENT / CHECK	AI SEVERITY	PAGE
DMP-LNK-01	Actuator linkage: reference view	MEDIUM	114
DMP-LNK-02	Actuator linkage: condition and evidence	MEDIUM	117
DMP-POS-01	Position pointer: reference view	LOW	120
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SNS-FIT-02	Tubing fittings and supports: condition and evidence	MEDIUM	129
CTL-FLT-01	Ventilation filter: reference view	MEDIUM	132
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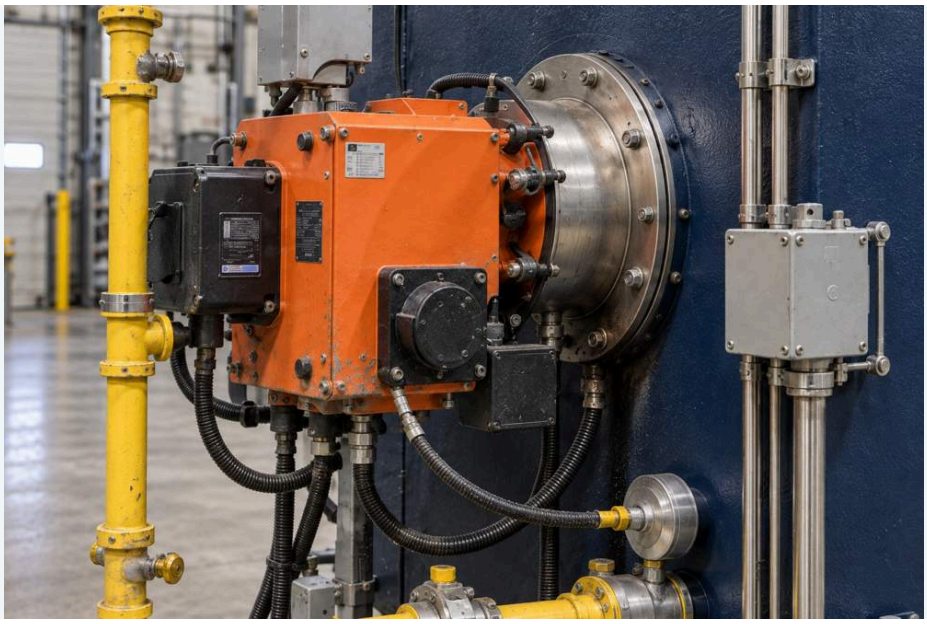
DUC-JNT-01	Flexible connector and clamps: reference view	HIGH	138
DUC-JNT-02	Flexible connector and clamps: condition and evidence	HIGH	141
FRM-ANC-01	Skid base anchors: reference view	LOW	144
FRM-ANC-02	Skid base anchors: condition and evidence	LOW	147
item-overall-commissioning-baseline	Overall equipment baseline	LOW	150

Burner assembly: overview

CHECK 01 OF 49 / BRN-01 / Recorded

10 Feb 2026 / 09:00



EVIDENCE 01 / Synthetic inspection photo · BRN-01

Technician observation

I photographed burner assembly. The lower orange casing is chipped and dusty. I can see a dark streak beneath the mounting flange. I did not open the burner or establish combustion quality from the exterior photograph.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Burner assembly is visible and mounted to the vessel flange; exterior shows chipped/dusty orange casing paint and a dark streak beneath the mounting flange, warranting follow-up but no confirmed active failure from the photo.

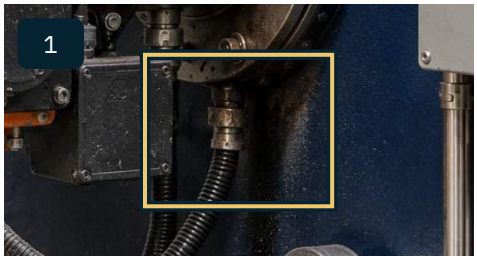
Recommended action

Wipe down casing, investigate origin of dark streak beneath flange, and schedule internal burner inspection.

Evidence, in detail

BRN-01 / Burner assembly: overview

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

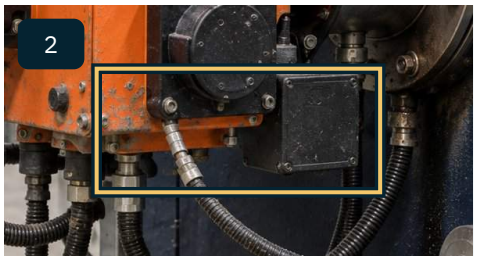


DETAIL / RECORDED REGION

1 / Dark Streak Below Flange

WARNING

Dark run-down staining beneath mounting flange



DETAIL / RECORDED REGION

2 / Chipped Casing Paint

WARNING

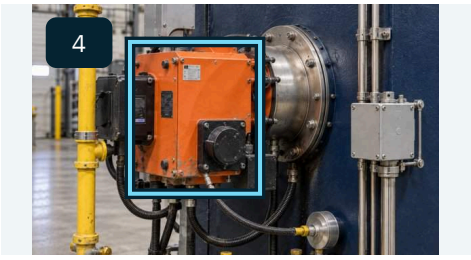
Paint chipping and dust on lower casing

DETAIL / RECORDED REGION

3 / Mounting Flange Bolts

INFO

Bolted flange interface appears intact



DETAIL / RECORDED REGION

4 / Burner Housing Overview

INFO

Orange burner body mounted to vessel

BRN-01 / Burner assembly: overview

Inspection notes & supporting detail

Checklist instruction

Capture an overview of burner assembly showing its location and identification.

Detailed AI observations

Burner assembly and surrounding flange, conduit, and gas piping context are clearly captured, satisfying the overview checklist item. [NONE]

Lower portion of the orange burner casing shows paint chipping, scuffing, and dust accumulation consistent with technician's observation. [LOW]

Dark streak/staining visible on the vessel wall beneath the mounting flange may indicate prior seepage or run-down of contamination. [MEDIUM]

Combustion quality and internal condition cannot be assessed from exterior photograph. [NONE]

Burner assembly: condition

CHECK 02 OF 49 / BRN-02 / Recorded

10 Feb 2026 / 09:03

EVIDENCE 01 / Synthetic inspection photo · BRN-02

Technician observation

I checked the accessible surfaces closely. The lower orange casing is chipped and dusty. I can see a dark streak beneath the mounting flange. I recorded the flame-signal display at 2.9 microamps in mode M1, below the 3.8 microamps recorded on the prior visit. I did not open the burner or establish combustion quality from the exterior photograph.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Burner assembly exterior shows chipped/dusty orange casing and a dark streak beneath the mounting flange; technician-reported flame signal has dropped from 3.8 µA to 2.9 µA, indicating degradation warranting investigation.

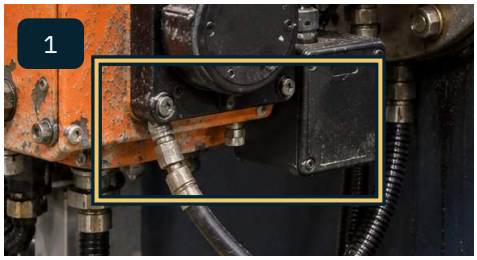
Recommended action

Investigate flame-signal drop: clean/inspect flame scanner and lens, trace source of dark streak beneath flange, and schedule burner-side inspection.

Evidence, in detail

BRN-02 / Burner assembly: condition

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

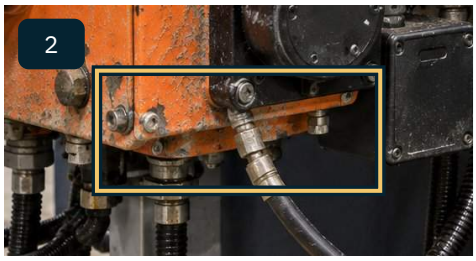


DETAIL / RECORDED REGION

1 / Dark Streak Below Flange

WARNING

Dark tracking beneath mounting flange, possible moisture path



DETAIL / RECORDED REGION

2 / Chipped Casing Paint

WARNING

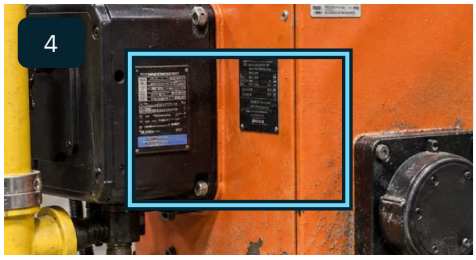
Paint chipping and dust on lower orange casing

DETAIL / RECORDED REGION

3 / Flame Scanner Housing

WARNING

Scanner head associated with degraded flame signal reading



DETAIL / RECORDED REGION

4 / Nameplate / Junction Box

INFO

Nameplate and wiring box, exterior appears intact

BRN-02 / Burner assembly: condition

Inspection notes & supporting detail

Checklist instruction

Inspect the burner exterior and observe the recorded flame-signal trend.

Detailed AI observations

Lower orange burner casing shows chipped paint and surface dust accumulation as reported by technician. [LOW]

Dark streak visible beneath the mounting flange consistent with technician observation, possibly moisture or fluid tracking. [MEDIUM]

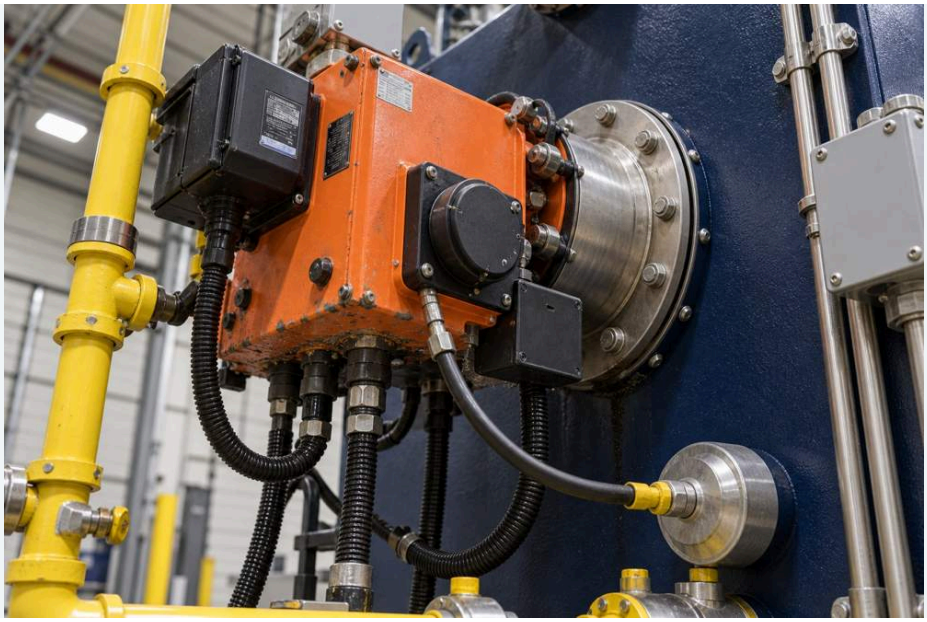
Flame signal recorded at 2.9 µA in mode M1, down from 3.8 µA on prior visit - external condition alone cannot confirm cause. [MEDIUM]

Purge tubing and linkage visible on exterior appear intact from this view; no obvious mechanical damage. [NONE]

Burner assembly: evidence and follow-up

CHECK 03 OF 49 / BRN-03 / Recorded

10 Feb 2026 / 09:06



EVIDENCE 01 / Synthetic inspection photo · BRN-03

Technician observation

I took this additional view to document the condition for follow-up. The lower orange casing is chipped and dusty. I can see a dark streak beneath the mounting flange. I recorded the flame-signal display at 2.9 microamps in mode M1, below the 3.8 microamps recorded on the prior visit. I did not open the burner or establish combustion quality from the exterior photograph.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Exterior view of the burner assembly shows a chipped and soiled orange casing with a dark streak below the mounting flange; technician reports flame-signal current has dropped from 3.8 µA to 2.9 µA in mode M1, but combustion quality was not verified from this photo.

Recommended action

Trace source of dark streak below flange, clean and reinspect casing, and schedule internal burner inspection to explain declining flame-signal current.

Evidence, in detail

BRN-03 / Burner assembly: evidence and follow-up

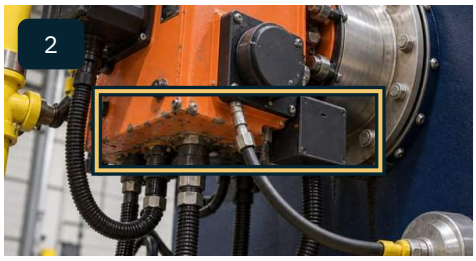
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Dark Streak Below Flange

WARNING

Vertical dark track beneath mounting flange, unknown source

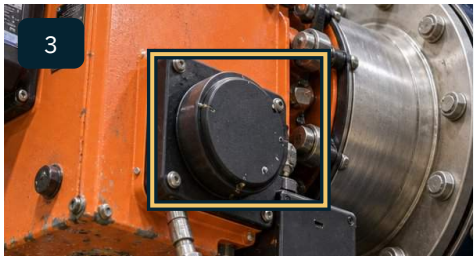


DETAIL / RECORDED REGION

2 / Chipped Casing Paint

WARNING

Lower orange casing chipped and dust-soiled



DETAIL / RECORDED REGION

3 / Flame Sensor Housing

WARNING

Flame-signal reading 2.9 µA, down from 3.8 µA

DETAIL / RECORDED REGION

4 / Burner Mounting Flange

INFO

Bolted flange interface, exterior only inspected

BRN-03 / Burner assembly: evidence and follow-up

Inspection notes & supporting detail

Checklist instruction

Record observations and available measurements for burner assembly. Compare with the most recent applicable service record.

Detailed AI observations

Lower orange burner casing shows chipped paint and dust/soiling accumulation. [LOW]

Dark streak visible on the vessel wall beneath the mounting flange, consistent with a drip, seepage, or soot track requiring source identification. [MEDIUM]

Technician-reported flame signal at 2.9 µA in mode M1, down from 3.8 µA on prior visit - a measurable downward trend not diagnosable from the exterior image. [MEDIUM]

Burner interior and combustion quality remain unverified; this photograph does not establish pass/fail for internal condition. [LOW]

Exhaust fan and drive: overview

CHECK 04 OF 49 / FAN-01 / Recorded

10 Feb 2026 / 09:09

EVIDENCE 01 / Synthetic inspection photo · FAN-01

Technician observation

I photographed exhaust fan and drive. There is a broad rust-colored debris ring around the front pedestal hold-down and a dark streak down the housing. The yellow guard remains installed. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Exhaust fan and drive shown in full with yellow belt guard installed; rust-colored debris ring around the front pedestal hold-down and a dark streak down the fan housing indicate an active condition warranting follow-up. Internal bearing condition was not verified.

Recommended action

Clean and inspect front pedestal hold-down and bearing housing; sample debris and schedule bearing internal inspection.

Evidence, in detail

FAN-01 / Exhaust fan and drive: overview

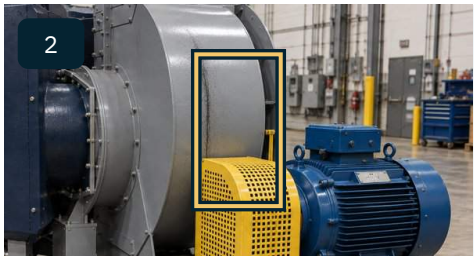
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Pedestal Debris Ring

WARNING

Rust-colored debris around front hold-down base

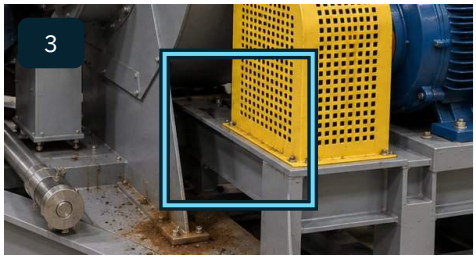


DETAIL / RECORDED REGION

2 / Housing Streak

WARNING

Dark vertical streak down fan housing

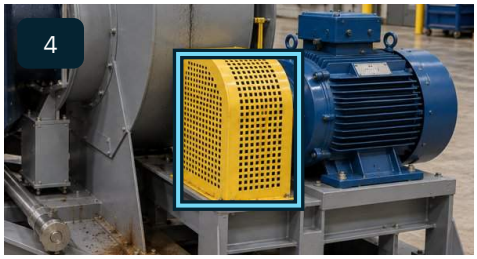


DETAIL / RECORDED REGION

3 / Bearing Pedestal

INFO

Bearing housing closed; internal condition unverified



DETAIL / RECORDED REGION

4 / Coupling Guard

GOOD

Yellow guard installed and intact

FAN-01 / Exhaust fan and drive: overview

Inspection notes & supporting detail

Checklist instruction

Capture an overview of exhaust fan and drive showing its location and identification.

Detailed AI observations

Rust-colored debris accumulation ringing the front pedestal hold-down base [MEDIUM]

Dark vertical streak running down the gray fan housing consistent with fluid or oxide migration [MEDIUM]

Yellow belt/coupling guard is installed and appears intact [NONE]

Bearing housing not opened; internal bearing condition unverified [LOW]

Exhaust fan and drive: condition

CHECK 05 OF 49 / FAN-02 / Recorded

10 Feb 2026 / 09:12

EVIDENCE 01 / Synthetic inspection photo · FAN-02

Technician observation

I checked the accessible surfaces closely. There is a broad rust-colored debris ring around the front pedestal hold-down and a dark streak down the housing. The yellow guard remains installed. I recorded 6.2 mm/s RMS at the same pedestal point in mode M1, compared with 3.1 mm/s RMS on the prior visit. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Front pedestal hold-down shows a broad rust-colored fretting debris ring and a dark streak descending the fan housing, coincident with a doubling of vibration (3.1→6.2 mm/s RMS) at the same point. Guard is intact, but the fretting signature plus vibration trend indicates progressive loosening or bearing/imbalance degradation requiring intervention.

Recommended action

Retorque hold-down bolts to spec, inspect washers for lift/fretting, sample the streak for grease vs. process fluid, and schedule bearing vibration spectrum analysis before continued operation.

Evidence, in detail

FAN-02 / Exhaust fan and drive: condition

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Fretting Debris Ring

CRITICAL

Rust-colored fretting halo around pedestal hold-down

DETAIL / RECORDED REGION

2 / Housing Streak

WARNING

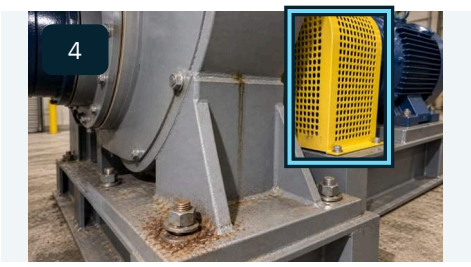
Dark vertical streak down fan housing centerline

DETAIL / RECORDED REGION

3 / Secondary Hold-Down

WARNING

Check washer seating and fretting at rear anchor



DETAIL / RECORDED REGION

4 / Drive Guard Intact

GOOD

Perforated coupling guard installed and fastened

FAN-02 / Exhaust fan and drive: condition

Inspection notes & supporting detail

Checklist instruction

Inspect the fan pedestal, anchors, guard and bearing housing.

Detailed AI observations

Reddish-brown fretting debris ring surrounds the front pedestal hold-down bolt and washer, consistent with micro-motion at the joint. [HIGH]

Dark vertical streak down the fan housing centerline suggests fluid/grease migration from the housing above. [MEDIUM]

Vibration at the pedestal has doubled to 6.2 mm/s RMS in mode M1, exceeding typical ISO 10816 acceptable zone for this class. [HIGH]

Yellow coupling/drive guard remains installed with fasteners visible; no missing guard hardware observed. [NONE]

Internal bearing condition not verified from external inspection. [LOW]

Exhaust fan and drive: evidence and follow-up

CHECK 06 OF 49 / FAN-03 / Recorded

10 Feb 2026 / 09:15

EVIDENCE 01 / Synthetic inspection photo · FAN-03

Technician observation

I took this additional view to document the condition for follow-up. There is a broad rust-colored debris ring around the front pedestal hold-down and a dark streak down the housing. The yellow guard remains installed. I recorded 6.2 mm/s RMS at the same pedestal point in mode M1, compared with 3.1 mm/s RMS on the prior visit. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Front pedestal shows a broad rust-colored debris ring around the hold-down bolt and a dark vertical streak down the housing web; measured vibration at this point has doubled to 6.2 mm/s RMS in mode M1. Internal bearing condition is not verified from this external view.

Recommended action

Schedule bearing inspection and root-cause review of debris/streak; trend vibration and plan intrusive check before next run cycle.

Evidence, in detail

FAN-03 / Exhaust fan and drive: evidence and follow-up

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Debris Ring At Bolt

WARNING

Rust-colored debris around front pedestal hold-down

DETAIL / RECORDED REGION

2 / Dark Housing Streak

WARNING

Vertical dark streak down pedestal web

DETAIL / RECORDED REGION

4 / Drive Guard Intact

GOOD

Yellow coupling guard installed and secured

Inspection notes & supporting detail

Checklist instruction

Record observations and available measurements for exhaust fan and drive. Compare with the most recent applicable service record.

Detailed AI observations

Rust-colored debris ring accumulated around the front pedestal hold-down bolt and base plate. [MEDIUM]

FAN-03 / Exhaust fan and drive: evidence and follow-up

Dark vertical streak running down the pedestal housing web, consistent with fluid or oxide migration from above. [MEDIUM]

Yellow coupling/drive guard remains installed and intact between fan pedestal and motor. [NONE]

Pedestal vibration reported at 6.2 mm/s RMS (mode M1), doubled from 3.1 mm/s on prior visit; bearing housing not opened, internal condition unverified. [HIGH]

Thermal chamber and hatch: overview

CHECK 07 OF 49 / CHM-01 / Recorded

10 Feb 2026 / 09:18

EVIDENCE 01 / Synthetic inspection photo · CHM-01

Technician observation

I photographed thermal chamber and hatch. The closed hatch has a pronounced black track spreading from its lower right edge. The surrounding navy paint is dirty but intact. I did not open the hatch, so internal refractory condition remains unverified.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Thermal chamber and closed hatch are visible in full context. A pronounced dark streak emanates from the lower right edge of the hatch onto the navy chamber wall, suggesting leakage or thermal escape past the hatch seal.

Recommended action

Schedule hatch seal/gasket inspection and open hatch to verify internal refractory condition.

Evidence, in detail

CHM-01 / Thermal chamber and hatch: overview

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Hatch Edge Leakage Track

WARNING

Dark streak emerging from lower right hatch edge

DETAIL / RECORDED REGION

2 / Staining On Chamber Wall

WARNING

Deposit spreading downward across navy panel

DETAIL / RECORDED REGION

3 / Closed Hatch Cover

INFO

Bolted hatch, not opened during inspection

DETAIL / RECORDED REGION

4 / Chamber Nameplate

INFO

ATLAS T-240 thermal chamber identification confirmed

CHM-01 / Thermal chamber and hatch: overview

Inspection notes & supporting detail

Checklist instruction

Capture an overview of thermal chamber and hatch showing its location and identification.

Detailed AI observations

Hatch is closed and bolted; full component and surrounding context captured as required. [NONE]

Dark staining/track spreads downward and outward from the lower right edge of the hatch across the navy chamber panel. [MEDIUM]

Surrounding navy paint shows surface soiling but remains intact with no visible corrosion or deformation. [LOW]

Internal refractory condition not verified - hatch was not opened during inspection. [NONE]

Thermal chamber and hatch: condition

CHECK 08 OF 49 / CHM-02 / Recorded

10 Feb 2026 / 09:21

EVIDENCE 01 / Synthetic inspection photo · CHM-02

Technician observation

I checked the accessible surfaces closely. The closed hatch has a pronounced black track spreading from its lower right edge. The surrounding navy paint is dirty but intact. I did not open the hatch, so internal refractory condition remains unverified.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Closed thermal chamber hatch shows a pronounced soot track emanating from the lower right edge, indicating probable hot-gas leakage past the seal at that location. Surrounding cladding and paint are dirty but physically intact.

Recommended action

Schedule hatch seal/gasket inspection at the lower right corner and clean soot to monitor for recurrence.

Evidence, in detail

CHM-02 / Thermal chamber and hatch: condition

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Soot Track

WARNING

Black leakage track from lower right hatch edge

DETAIL / RECORDED REGION

2 / Seal Line Staining

WARNING

Soot deposit along hatch seal interface

DETAIL / RECORDED REGION

3 / Hinge Condition

GOOD

Hinge intact and properly seated

DETAIL / RECORDED REGION

4 / Cladding Paint

INFO

Navy cladding soiled but structurally intact

CHM-02 / Thermal chamber and hatch: condition

Inspection notes & supporting detail

Checklist instruction

Inspect the chamber exterior and closed hatch perimeter.

Detailed AI observations

Dark soot track spreads from the lower right edge of the closed hatch across the stainless face and down onto the navy frame, consistent with escaping combustion products at the seal line. [MEDIUM]

Hatch hinge, handles, and perimeter fasteners appear seated and undamaged; no visible deformation of the door or frame. [NONE]

Navy painted cladding around the hatch is soiled but intact, with no cracking, blistering, or spalling visible. [LOW]

Internal refractory condition cannot be assessed from this exterior photograph; hatch was not opened. [NONE]

Thermal chamber and hatch: evidence and follow-up

CHECK 09 OF 49 / CHM-03 / Recorded

10 Feb 2026 / 09:24

EVIDENCE 01 / Synthetic inspection photo · CHM-03

Technician observation

I took this additional view to document the condition for follow-up. The closed hatch has a pronounced black track spreading from its lower right edge. The surrounding navy paint is dirty but intact. I did not open the hatch, so internal refractory condition remains unverified.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Closed thermal chamber hatch shows a pronounced black deposit track emerging from the lower right edge near the latch bolt, suggesting leakage or thermal escape from the sealing interface. Internal refractory condition was not verified as the hatch remained closed.

Recommended action

Schedule hatch opening to inspect gasket/seal and internal refractory; clean and monitor leak track.

Evidence, in detail

CHM-03 / Thermal chamber and hatch: evidence and follow-up

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Black Leak Track

WARNING

Dark deposit spreading from lower right hatch edge

DETAIL / RECORDED REGION

2 / Latch Bolt Area

WARNING

Sooting concentrated around lower latch bolt

DETAIL / RECORDED REGION

3 / Hinge Assembly

INFO

Hinges intact, no visible misalignment

DETAIL / RECORDED REGION

4 / Painted Enclosure

INFO

Navy paint soiled but structurally intact

CHM-03 / Thermal chamber and hatch: evidence and follow-up

Inspection notes & supporting detail

Checklist instruction

Record observations and available measurements for thermal chamber and hatch. Compare with the most recent applicable service record.

Detailed AI observations

Black sooting/discharge track spreads from the lower right hatch edge onto the surrounding navy paint. [MEDIUM]

Hatch face and stainless plate remain physically intact; hinges and bolts appear seated with no visible deformation. [LOW]

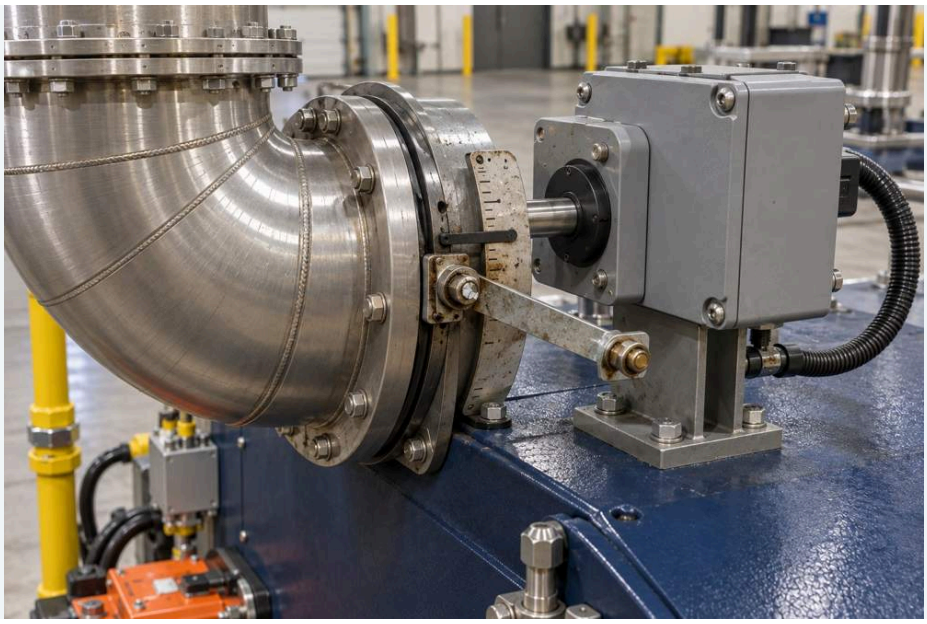
Surrounding navy paint is soiled but intact, with no cracking or blistering indicating sustained high heat on the exterior. [LOW]

Internal refractory / seal condition unverified - hatch was not opened during this inspection. [NONE]

Airflow damper: overview

CHECK 10 OF 49 / DMP-01 / Recorded

10 Feb 2026 / 09:27



EVIDENCE 01 / Synthetic inspection photo · DMP-01

Technician observation

I photographed airflow damper. There is brown residue at the linkage pivot and the witness paint is broken across the joint. The position scale is dirty. The still photo does not establish full travel or calibration.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Airflow damper assembly shows brown residue at the linkage pivot and broken witness paint across the joint, with a soiled position scale. Static image cannot confirm travel or calibration.

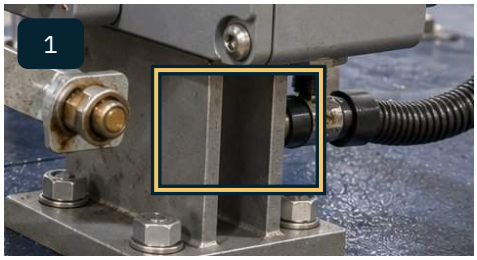
Recommended action

Clean pivot and scale, inspect pivot for looseness/leakage, re-mark witness paint, and perform functional stroke/calibration check.

Evidence, in detail

DMP-01 / Airflow damper: overview

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

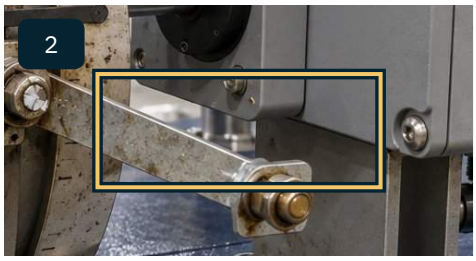


DETAIL / RECORDED REGION

1 / Pivot Residue

WARNING

Brown residue at linkage pivot bolt

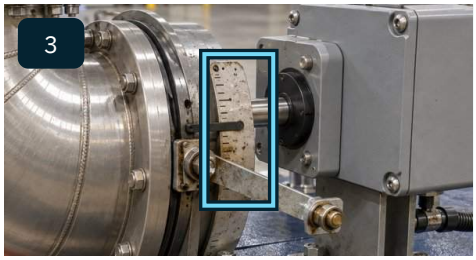


DETAIL / RECORDED REGION

2 / Broken Witness Paint

WARNING

Witness mark discontinuous across pivot joint

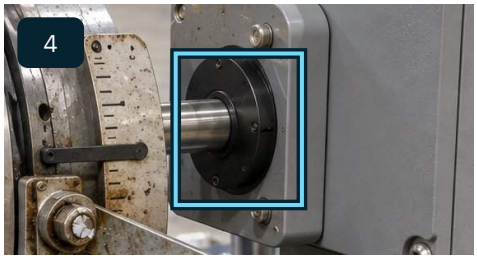


DETAIL / RECORDED REGION

3 / Soiled Position Scale

INFO

Scale plate dirty, graduations partially obscured



DETAIL / RECORDED REGION

4 / Actuator Output Shaft

INFO

Drives linkage; travel not verified in still

DMP-01 / Airflow damper: overview

Inspection notes & supporting detail

Checklist instruction

Capture an overview of airflow damper showing its location and identification.

Detailed AI observations

Brown residue visible at linkage pivot bolt, consistent with weep or corrosion product migration from the joint. [MEDIUM]

Witness paint mark on the linkage appears broken/discontinuous across the pivot joint, indicating relative movement since marking. [MEDIUM]

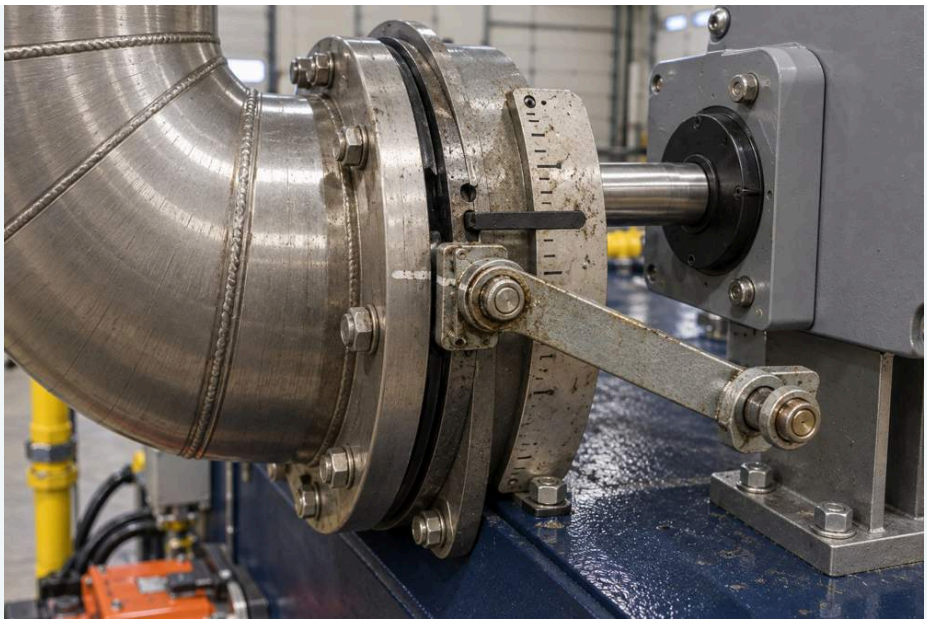
Position indicator scale plate is soiled/streaked, reducing readability of damper position. [LOW]

Photograph is a single static view; full travel range and calibration to the scale cannot be verified from the image alone. [NONE]

Airflow damper: condition

CHECK 11 OF 49 / DMP-02 / Recorded

10 Feb 2026 / 09:30



EVIDENCE 01 / Synthetic inspection photo · DMP-02

Technician observation

I checked the accessible surfaces closely. There is brown residue at the linkage pivot and the witness paint is broken across the joint. The position scale is dirty. In mode M1 I recorded a 50% command and approximately 43% indicated position; I have requested a travel and linkage check. The still photo does not establish full travel or calibration.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Damper linkage shows brown residue at the pivot and broken witness paint across the joint, with a soiled position scale; technician also reports a command-vs-indicated position mismatch (50% cmd / ~43% ind) requiring a travel and linkage check.

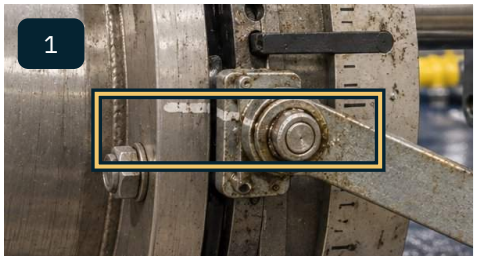
Recommended action

Perform travel and linkage check: retorque pivot fasteners, clean and re-mark witness paint, clean position scale, and verify command-vs-indicated position across full stroke.

Evidence, in detail

DMP-02 / Airflow damper: condition

One recorded region per image. The outline identifies the area described; it does not confirm a defect.



DETAIL / RECORDED REGION

1 / Broken Witness Paint

WARNING

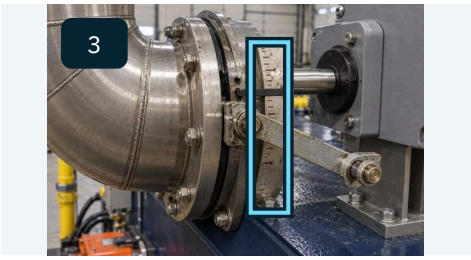
White witness stripe offset across pivot joint

DETAIL / RECORDED REGION

2 / Pivot Residue

WARNING

Brown residue around linkage pivot fastener

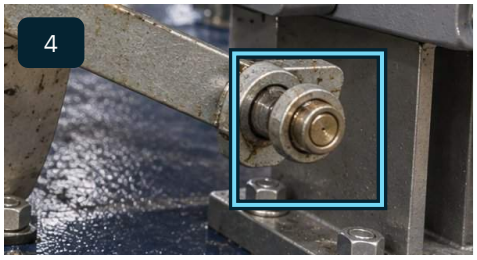


DETAIL / RECORDED REGION

3 / Soiled Position Scale

INFO

Graduated scale contaminated, readout obscured



DETAIL / RECORDED REGION

4 / Actuator Rod End

INFO

Rod-end joint to verify during travel check

DMP-02 / Airflow damper: condition

Inspection notes & supporting detail

Checklist instruction

Compare indicated position with the recorded command under the same operating mode.

Detailed AI observations

Brown residue (likely oxidation or fretting product) visible at the linkage pivot fastener. [MEDIUM]

Witness paint stripe across the pivot joint is broken, indicating relative movement of the fastened joint since marking. [MEDIUM]

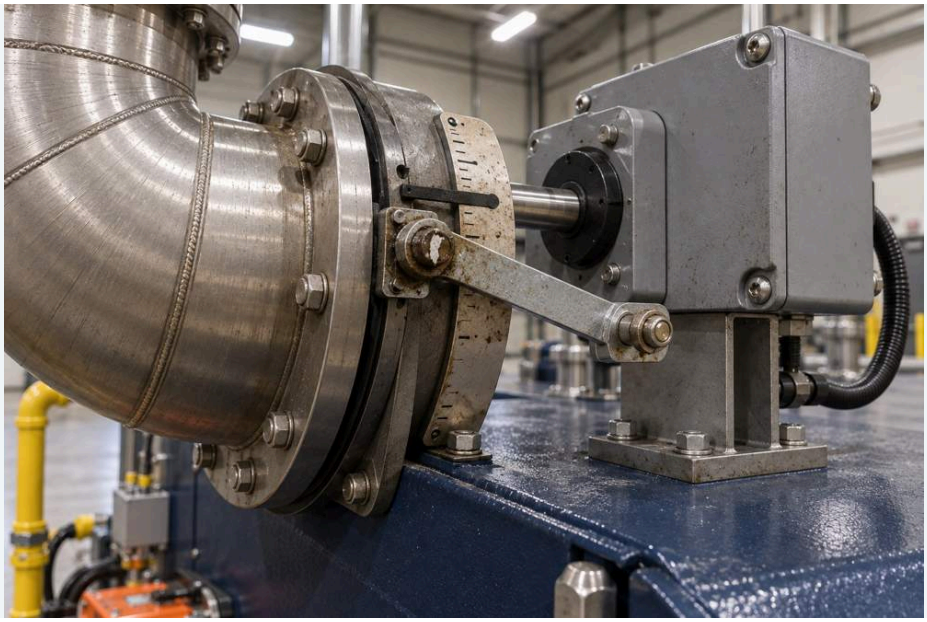
Position indicator scale is soiled, impairing reliable visual readout of damper angle. [LOW]

Still image cannot confirm full travel or actuator calibration; technician-reported 50% command vs ~43% indicated deviation is not verifiable from the photo alone. [LOW]

Airflow damper: evidence and follow-up

CHECK 12 OF 49 / DMP-03 / Recorded

10 Feb 2026 / 09:33



EVIDENCE 01 / Synthetic inspection photo · DMP-03

Technician observation

I took this additional view to document the condition for follow-up. There is brown residue at the linkage pivot and the witness paint is broken across the joint. The position scale is dirty. In mode M1 I recorded a 50% command and approximately 43% indicated position; I have requested a travel and linkage check. The still photo does not establish full travel or calibration.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Airflow damper linkage shows brown residue at the pivot, broken witness paint across the joint, and a soiled position scale; technician reports a 7% deviation between commanded and indicated position in M1, and full travel/calibration is not established by this still image.

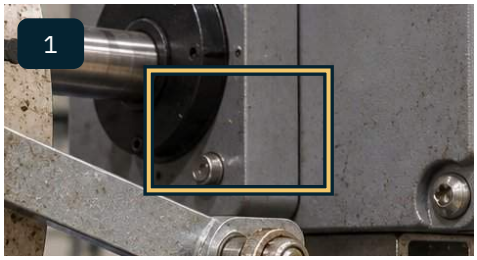
Recommended action

Perform full-travel stroke test and linkage/calibration check; clean scale and re-mark witness paint after verification.

Evidence, in detail

DMP-03 / Airflow damper: evidence and follow-up

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

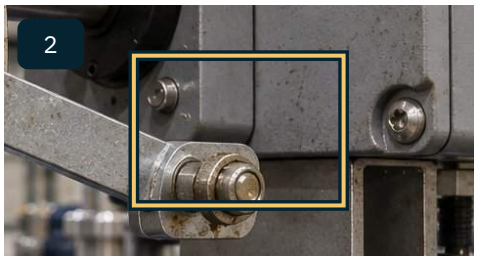


DETAIL / RECORDED REGION

1 / Broken Witness Paint

WARNING

Witness mark sheared across linkage pivot joint

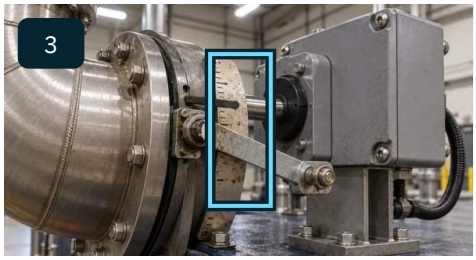


DETAIL / RECORDED REGION

2 / Pivot Residue

WARNING

Brown residue accumulated around pivot bolt

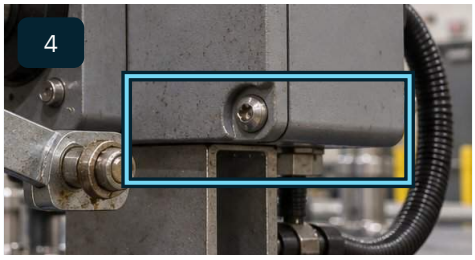


DETAIL / RECORDED REGION

3 / Soiled Position Scale

INFO

Scale markings obscured by dirt film



DETAIL / RECORDED REGION

4 / Actuator Linkage Arm

INFO

Arm couples actuator shaft to damper hub

DMP-03 / Airflow damper: evidence and follow-up

Inspection notes & supporting detail

Checklist instruction

Record observations and available measurements for airflow damper. Compare with the most recent applicable service record.

Detailed AI observations

Brown residue visible at the linkage pivot bolt, consistent with weep or corrosion product at the joint. [MEDIUM]

Witness paint appears broken across the linkage joint, indicating relative movement since last marking. [MEDIUM]

Position indicator scale is soiled, reducing legibility of the travel reading. [LOW]

Reported 50% command vs ~43% indicated in M1 suggests possible linkage slip or calibration drift; not verifiable from a still image. [MEDIUM]

Photo does not establish full travel range or calibration status; follow-up travel/linkage check required. [LOW]

Sensors and impulse tubing: overview

CHECK 13 OF 49 / SNS-01 / Recorded

10 Feb 2026 / 09:36

EVIDENCE 01 / Synthetic inspection photo · SNS-01

Technician observation

I photographed sensors and impulse tubing. The tubing has a bright abrasion patch where it touches the bracket. The lower clamp liner is split and displaced. I did not perform calibration or pressure testing.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Sensor and impulse tubing assembly shows abrasion wear where yellow tubing contacts a support bracket, with a split and displaced clamp liner at the lower bracket per technician observation.

Recommended action

Replace split clamp liner, inspect abraded tubing wall thickness, and re-secure with proper cushioning to prevent further wear.

Evidence, in detail

SNS-01 / Sensors and impulse tubing: overview

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Split Clamp Liner

WARNING

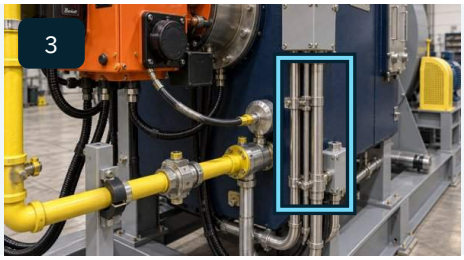
Lower clamp liner split and displaced from bracket

DETAIL / RECORDED REGION

2 / Tubing Abrasion Patch

WARNING

Bright wear scar where tubing contacts bracket

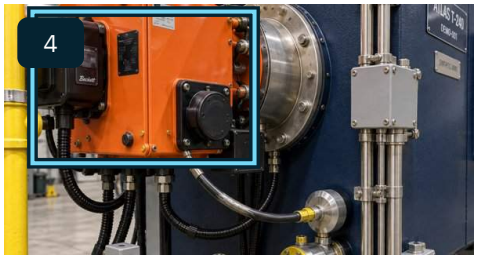


DETAIL / RECORDED REGION

3 / Impulse Tubing Runs

INFO

Stainless impulse lines routed and supported



DETAIL / RECORDED REGION

4 / Sensor Housing

INFO

Beckett sensor head and junction enclosures intact

SNS-01 / Sensors and impulse tubing: overview

Inspection notes & supporting detail

Checklist instruction

Capture an overview of sensors and impulse tubing showing its location and identification.

Detailed AI observations

Bright abrasion patch visible on yellow tubing at bracket contact point, indicating ongoing mechanical wear. [MEDIUM]

Lower clamp liner is split and displaced, no longer providing proper cushioning between tubing and bracket. [MEDIUM]

Stainless impulse tubing runs and sensor manifolds appear intact and correctly routed against the vessel wall. [NONE]

No calibration or pressure testing performed; functional condition of sensors not verified. [LOW]

Sensors and impulse tubing: condition

CHECK 14 OF 49 / SNS-02 / Recorded

10 Feb 2026 / 09:39

EVIDENCE 01 / Synthetic inspection photo · SNS-02

Technician observation

I checked the accessible surfaces closely. The tubing has a bright abrasion patch where it touches the bracket. The lower clamp liner is split and displaced. I did not perform calibration or pressure testing.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Sensor impulse tubing shows a bright abrasion patch where it contacts the support bracket, and the lower clamp liner is split and displaced. Visual condition only; no calibration assessment performed.

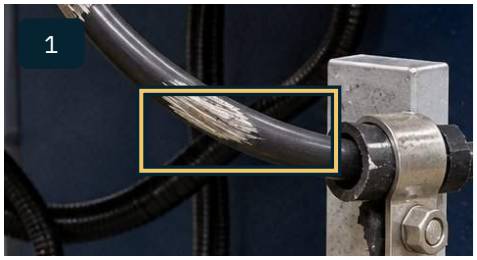
Recommended action

Replace split clamp liner and inspect abraded tubing section; re-support to eliminate contact wear.

Evidence, in detail

SNS-02 / Sensors and impulse tubing: condition

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

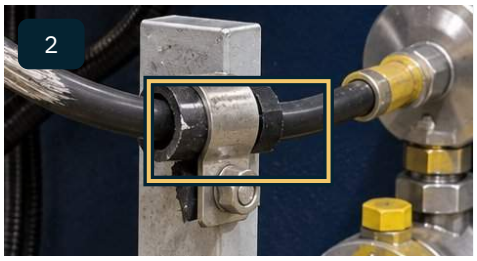


DETAIL / RECORDED REGION

1 / Tubing Abrasion Patch

WARNING

Bright wear scar where tubing rubs bracket

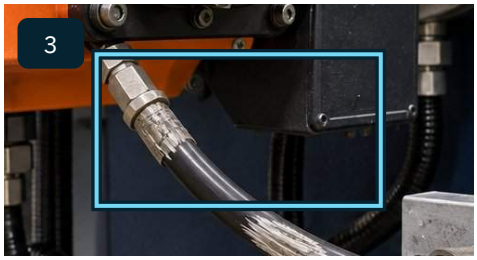


DETAIL / RECORDED REGION

2 / Split Clamp Liner

WARNING

Lower liner split and displaced from seat



DETAIL / RECORDED REGION

3 / Tubing Termination

INFO

Fitting to sensor head appears intact

Inspection notes & supporting detail

Checklist instruction

Inspect accessible sensor supports, tubing and identification.

Detailed AI observations

Bright abrasion/wear patch on tubing outer jacket at bracket contact point, consistent with rubbing against the clamp edge. [MEDIUM]

SNS-02 / Sensors and impulse tubing: condition

Lower clamp liner appears split and displaced from its seat, reducing support and allowing direct metal-to-tubing contact. [MEDIUM]

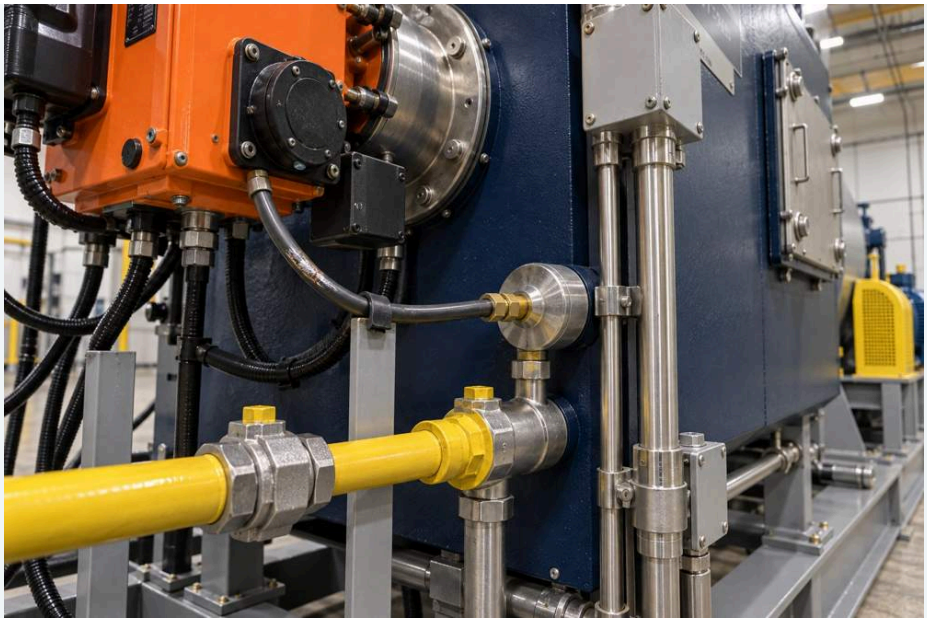
Tubing run is otherwise routed and terminated as expected against the commissioning baseline; no leaks or kinks visible. [LOW]

No calibration or pressure integrity data available; assessment limited to external visual condition. [NONE]

Sensors and impulse tubing: evidence and follow-up

CHECK 15 OF 49 / SNS-03 / Recorded

10 Feb 2026 / 09:42



EVIDENCE 01 / Synthetic inspection photo · SNS-03

Technician observation

I took this additional view to document the condition for follow-up. The tubing has a bright abrasion patch where it touches the bracket. The lower clamp liner is split and displaced. I did not perform calibration or pressure testing.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Sensor impulse tubing shows a bright abrasion patch where it contacts a bracket, and a lower clamp liner is reported split and displaced. No calibration or pressure testing was performed, so functional integrity is unverified.

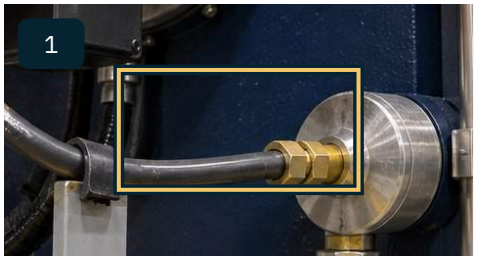
Recommended action

Replace split clamp liner, re-support tubing to eliminate bracket contact, inspect abraded section for wall thinning, and schedule pressure/calibration check.

Evidence, in detail

SNS-03 / Sensors and impulse tubing: evidence and follow-up

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

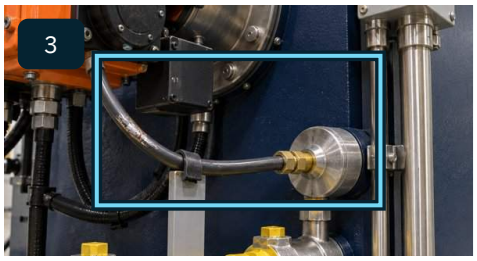


DETAIL / RECORDED REGION

1 / Tubing Abrasion Patch

WARNING

Bright wear mark where tubing contacts bracket



DETAIL / RECORDED REGION

3 / Sensor Tubing Run

INFO

Impulse line to sensor, unverified by test

Inspection notes & supporting detail

Checklist instruction

Record observations and available measurements for sensors and impulse tubing. Compare with the most recent applicable service record.

Detailed AI observations

Impulse tubing exhibits a bright abrasion/wear patch at the point of bracket contact, indicating mechanical rubbing. [MEDIUM]

Lower clamp liner reported split and displaced, reducing tubing support and allowing metal-on-metal contact. [MEDIUM]

No calibration or pressure test performed; leak-tightness and sensor response remain unverified. [LOW]

Overall layout is consistent with ATLAS T-240 commissioning reference; no other physical anomalies apparent in view. [NONE]

Control cabinet: overview

CHECK 16 OF 49 / CTL-01 / Recorded

10 Feb 2026 / 09:45

EVIDENCE 01 / Synthetic inspection photo · CTL-01

Technician observation

I photographed control cabinet. Dust and lint have built up across the intake grille. The cabinet door is closed and the handle area is scuffed. I did not open or inspect the electrical compartment.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Control cabinet is fully visible with door closed, HMI active, and E-stop accessible. Technician reports dust/lint accumulation on the intake grille and scuffing near the handle; electrical interior was not inspected.

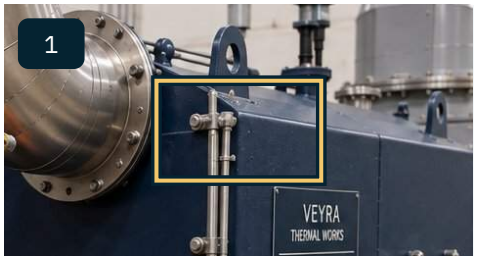
Recommended action

Clean intake grille and schedule interior electrical inspection at next opportunity.

Evidence, in detail

CTL-01 / Control cabinet: overview

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

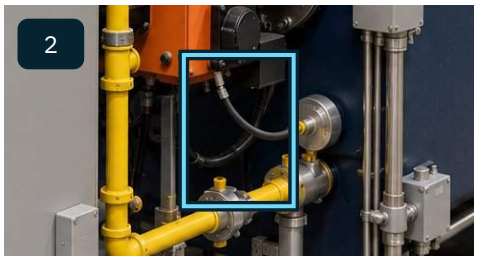


DETAIL / RECORDED REGION

1 / Dusty Intake Grille

WARNING

Dust and lint buildup restricting cooling airflow



DETAIL / RECORDED REGION

2 / Scuffed Door Handle

INFO

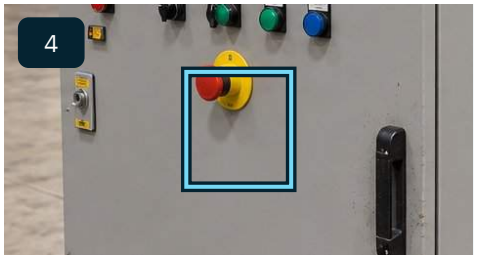
Cosmetic wear around cabinet door handle area

DETAIL / RECORDED REGION

3 / HMI Display Active

GOOD

Operator screen powered and rendering process graphic



DETAIL / RECORDED REGION

4 / E-Stop Accessible

GOOD

Emergency stop clearly reachable on cabinet face

CTL-01 / Control cabinet: overview

Inspection notes & supporting detail

Checklist instruction

Capture an overview of control cabinet showing its location and identification.

Detailed AI observations

Full control cabinet and surrounding context captured, satisfying the overview checklist item. [NONE]

Intake ventilation grille shows dust and lint buildup per technician observation, which can restrict cooling airflow. [LOW]

Cabinet door handle area shows scuffing consistent with routine use; no structural compromise visible. [LOW]

Interior electrical compartment not opened or inspected; internal condition unknown. [NONE]

Control cabinet: condition

CHECK 17 OF 49 / CTL-02 / Recorded

10 Feb 2026 / 09:48

EVIDENCE 01 / Synthetic inspection photo · CTL-02

Technician observation

I checked the accessible surfaces closely. Dust and lint have built up across the intake grille. The cabinet door is closed and the handle area is scuffed. I recorded enclosure temperature at 48 C in mode M1 and a cabinet-temperature warning in the alarm history. I did not open or inspect the electrical compartment.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Control cabinet intake grille is heavily loaded with dust and lint, correlating with the technician's 48 C enclosure reading and cabinet-temperature alarm. External surfaces are otherwise intact but airflow is clearly restricted.

Recommended action

Clean or replace intake filter/grille, then verify enclosure temperature returns to normal and clear alarm.

Evidence, in detail

CTL-02 / Control cabinet: condition

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Lint-Blocked Louvers

CRITICAL

Fibrous debris bridging slats, blocking intake airflow

DETAIL / RECORDED REGION

2 / Dust-Loaded Grille

WARNING

Heavy dust accumulation across upper intake face

DETAIL / RECORDED REGION

3 / Scuffed Handle Area

INFO

Smudging and wear around door latch

DETAIL / RECORDED REGION

4 / HMI Operational

GOOD

Panel display active, no visible fault screen

CTL-02 / Control cabinet: condition

Inspection notes & supporting detail

Checklist instruction

Inspect the closed cabinet, ventilation filter and alarm log.

Detailed AI observations

Intake louvers show dense mat of dust and fibrous lint bridging multiple slats, significantly reducing free air area. [HIGH]

Technician-reported 48 C enclosure temperature in M1 and a cabinet-temperature alarm are consistent with restricted intake airflow. [HIGH]

Cabinet door latch/handle area shows scuffing and smudging but the door is closed and seals are not visibly compromised from this view. [LOW]

No condensation tracks, corrosion, or damaged gasket visible on accessible external surfaces. [NONE]

Control cabinet: evidence and follow-up

CHECK 18 OF 49 / CTL-03 / Recorded

10 Feb 2026 / 09:51

EVIDENCE 01 / Synthetic inspection photo · CTL-03

Technician observation

I took this additional view to document the condition for follow-up. Dust and lint have built up across the intake grille. The cabinet door is closed and the handle area is scuffed. I recorded enclosure temperature at 48 C in mode M1 and a cabinet-temperature warning in the alarm history. I did not open or inspect the electrical compartment.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Control cabinet intake grille is heavily fouled with dust and lint, correlating with a recorded 48 °C enclosure temperature and a cabinet-temperature alarm; internal electrical compartment remains unverified.

Recommended action

Replace/clean intake filter and louver, then re-run mode M1 and monitor enclosure temperature; schedule internal cabinet inspection.

Evidence, in detail

CTL-03 / Control cabinet: evidence and follow-up

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Fouled Intake Filter

CRITICAL

Heavy lint mat blocking cooling airflow

DETAIL / RECORDED REGION

2 / Louver Cover Loaded

WARNING

Removed grille cover coated with lint

DETAIL / RECORDED REGION

3 / Scuffed Lock Area

INFO

Handle/keyway shows wear, door still closed

DETAIL / RECORDED REGION

4 / HMI Active

INFO

Operator panel powered, cabinet in service

CTL-03 / Control cabinet: evidence and follow-up

Inspection notes & supporting detail

Checklist instruction

Record observations and available measurements for control cabinet. Compare with the most recent applicable service record.

Detailed AI observations

Intake grille/filter media is heavily loaded with lint and dust, restricting cooling airflow to the cabinet. [HIGH]

Removed louvered cover also shows lint accumulation, consistent with sustained ingress from ambient environment. [MEDIUM]

Cabinet door handle/lock area is scuffed but door is closed and latched; no visible breach of enclosure. [LOW]

Interior electrical compartment not opened; component condition, terminal temperatures, and filter frame integrity remain unverified. [MEDIUM]

Reported 48 °C enclosure temperature in mode M1 with cabinet-temperature warning in alarm history indicates thermal margin is being exceeded. [HIGH]

Ductwork and flexible connector: overview

CHECK 19 OF 49 / DUC-01 / Recorded

10 Feb 2026 / 09:54

EVIDENCE 01 / Synthetic inspection photo · DUC-01

Technician observation

I photographed ductwork and flexible connector. The flexible connector has a split outer fold with loose fibers and a dark streak below the clamp edge. I did not perform a leak test or inspect the concealed inner fabric.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Flexible fabric connector between two flanged duct sections shows a torn outer fold with protruding fibers and a dark streak along the lower flange, consistent with the technician's observation of a split and possible leakage indication.

Recommended action

Schedule replacement of the flexible connector and perform a leak test; inspect concealed inner fabric before return to service.

Evidence, in detail

DUC-01 / Ductwork and flexible connector: overview

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Split Outer Fold

CRITICAL

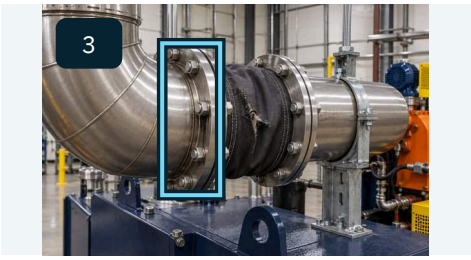
Torn fabric fold with protruding loose fibers.

DETAIL / RECORDED REGION

2 / Dark Streak

WARNING

Discoloration below clamp edge suggests leakage tracking.

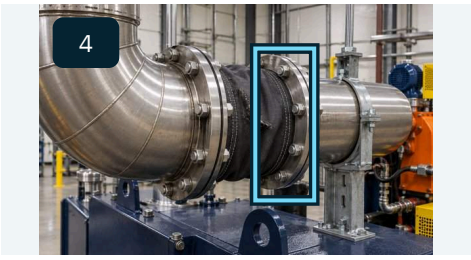


DETAIL / RECORDED REGION

3 / Upstream Flange

GOOD

Bolted flange intact, alignment appears normal.



DETAIL / RECORDED REGION

4 / Downstream Clamp

INFO

Support clamp and duct condition unremarkable.

DUC-01 / Ductwork and flexible connector: overview

Inspection notes & supporting detail

Checklist instruction

Capture an overview of ductwork and flexible connector showing its location and identification.

Detailed AI observations

Outer fabric fold of flexible connector is split with loose fibers protruding near mid-span. [HIGH]

Dark streak visible on the fabric below the clamp/flange edge, consistent with soot or fluid escape tracking from the tear. [MEDIUM]

Flanges, bolting, and adjacent duct sections appear intact and properly aligned with no visible distortion. [NONE]

Inner fabric layer and leak-tightness not verified in this inspection. [LOW]

Ductwork and flexible connector: condition

CHECK 20 OF 49 / DUC-02 / Recorded

10 Feb 2026 / 09:57

EVIDENCE 01 / Synthetic inspection photo · DUC-02

Technician observation

I checked the accessible surfaces closely. The flexible connector has a split outer fold with loose fibers and a dark streak below the clamp edge. I did not perform a leak test or inspect the concealed inner fabric.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Flexible connector fabric between the two flanged duct sections shows a visible split in the outer fold with protruding loose fibers and a dark streak below the clamp, consistent with the technician's observation of active degradation.

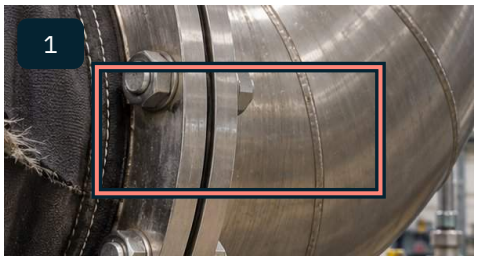
Recommended action

Schedule flexible connector replacement; perform leak check and inspect concealed circumference before continued service.

Evidence, in detail

DUC-02 / Ductwork and flexible connector: condition

One recorded region per image. The outline identifies the area described; it does not confirm a defect.



DETAIL / RECORDED REGION

1 / Fabric Split

CRITICAL

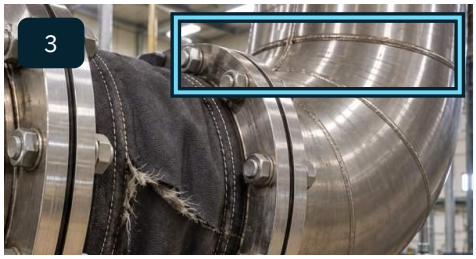
Torn outer fold with protruding loose fibers

DETAIL / RECORDED REGION

2 / Dark Streak

WARNING

Discoloration below clamp suggesting leakage path



DETAIL / RECORDED REGION

3 / Upper Clamp Ring

GOOD

Bolted flange clamp seated, hardware intact

Inspection notes & supporting detail

Checklist instruction

Inspect external duct joints and flexible connector.

Detailed AI observations

Horizontal split through the outer fabric fold of the flexible connector with frayed fibers extending outward. [HIGH]

DUC-02 / Ductwork and flexible connector: condition

Dark streak/discoloration on the fabric below the clamp edge, suggestive of leakage or soot tracking along the tear. [MEDIUM]

Flanges and bolted clamp rings appear intact and seated; no displaced hardware visible on the accessible side. [NONE]

Inner fabric layer and concealed circumference not visible in this view; full extent of damage cannot be confirmed. [LOW]

Ductwork and flexible connector: evidence and follow-up

CHECK 21 OF 49 / DUC-03 / Recorded

10 Feb 2026 / 10:00

EVIDENCE 01 / Synthetic inspection photo · DUC-03

Technician observation

I took this additional view to document the condition for follow-up. The flexible connector has a split outer fold with loose fibers and a dark streak below the clamp edge. I did not perform a leak test or inspect the concealed inner fabric.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Fabric flexible connector between two flanged spools shows a visible split in the outer fold with protruding loose fibers and a dark streak below the clamp edge; internal fabric condition and leak-tightness remain unverified.

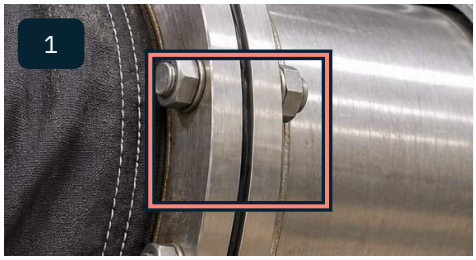
Recommended action

Take connector out of service for internal inspection and leak test; plan replacement of flexible element.

Evidence, in detail

DUC-03 / Ductwork and flexible connector: evidence and follow-up

One recorded region per image. The outline identifies the area described; it does not confirm a defect.



DETAIL / RECORDED REGION

1 / Split Outer Fold

CRITICAL

Torn fabric fold with protruding loose fibers

DETAIL / RECORDED REGION

2 / Dark Streak

WARNING

Dark streak below clamp edge, possible seepage

DETAIL / RECORDED REGION

3 / Upstream Flange

INFO

Bolted flange intact, no visible gap

DETAIL / RECORDED REGION

4 / Downstream Flange

INFO

Bolted flange intact, connector clamp seated

DUC-03 / Ductwork and flexible connector: evidence and follow-up

Inspection notes & supporting detail

Checklist instruction

Record observations and available measurements for ductwork and flexible connector. Compare with the most recent applicable service record.

Detailed AI observations

Outer fold of the flexible connector fabric is split, exposing loose fibers consistent with mechanical tearing or fatigue. [HIGH]

Dark streak on the fabric below the clamp/flange edge is present, potentially indicating seepage, staining, or accumulated debris; source not confirmed. [MEDIUM]

Flanged connections at both ends of the connector appear intact with bolts installed, no visible flange gaps. [NONE]

Concealed inner fabric layer and leak-tightness not verified in this inspection. [LOW]

Skid and identification: overview

CHECK 22 OF 49 / FRM-01 / Recorded

10 Feb 2026 / 10:03

EVIDENCE 01 / Synthetic inspection photo · FRM-01

Technician observation

I photographed skid and identification. There is flaking paint and rust staining around the front support plate and anchor washers. The asset label remains readable. I did not proof-test the anchors or establish their load capacity.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

ATLAS T-240 (DEMO-001) skid overview shows readable asset label, but the front support plate and anchor washers exhibit flaking paint and rust staining. Anchor load capacity was not verified.

Recommended action

Clean and touch up corroded areas on front support plate; schedule anchor proof-test to confirm hold-down capacity.

Evidence, in detail

FRM-01 / Skid and identification: overview

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Support Plate Corrosion

WARNING

Flaking paint and rust on front gusset

DETAIL / RECORDED REGION

2 / Anchor Washer Staining

WARNING

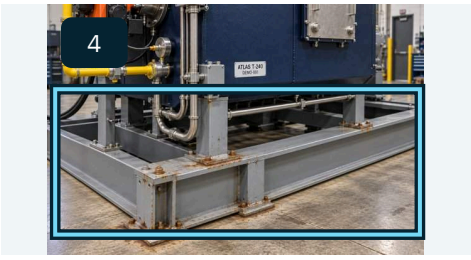
Rust staining around anchor bolts and washers

DETAIL / RECORDED REGION

3 / Asset Label

GOOD

ATLAS T-240 DEMO-001 nameplate legible



DETAIL / RECORDED REGION

4 / Skid Frame Overview

INFO

Full skid perimeter visible and intact

FRM-01 / Skid and identification: overview

Inspection notes & supporting detail

Checklist instruction

Capture an overview of skid and identification showing its location and identification.

Detailed AI observations

Asset identification label 'ATLAS T-240 / DEMO-001' is intact and legible on the enclosure. [NONE]

Flaking paint and rust staining visible on the front support plate/gusset near the base. [LOW]

Rust staining around anchor washers and bolt heads at the front support feet. [LOW]

Anchor bolts were not proof-tested; load capacity remains unverified per technician. [LOW]

Skid and identification: condition

CHECK 23 OF 49 / FRM-02 / Recorded

10 Feb 2026 / 10:06

EVIDENCE 01 / Synthetic inspection photo · FRM-02

Technician observation

I checked the accessible surfaces closely. There is flaking paint and rust staining around the front support plate and anchor washers. The asset label remains readable. I did not proof-test the anchors or establish their load capacity.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Front support plate and anchor washers on the ATLAS T-240 skid show flaking paint and rust staining, though the asset label remains legible. Structural integrity of anchors is not confirmed.

Recommended action

Clean and recoat affected support base; monitor anchor washers for progression and schedule anchor inspection.

Evidence, in detail

FRM-02 / Skid and identification: condition

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Anchor Washer Corrosion

WARNING

Rust staining around anchor bolts and washers

DETAIL / RECORDED REGION

2 / Support Plate Flaking

WARNING

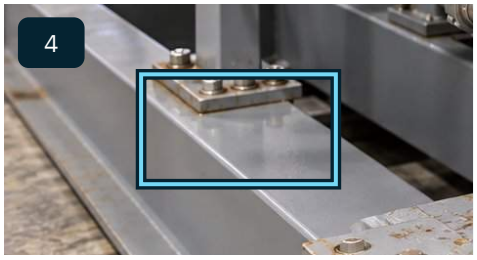
Paint flaking and rust bloom on support column

DETAIL / RECORDED REGION

3 / Asset Label Legible

GOOD

ATLAS T-240 DEMO-001 identification clearly readable



DETAIL / RECORDED REGION

4 / Secondary Anchor Point

INFO

Adjacent anchor showing minor early staining

FRM-02 / Skid and identification: condition

Inspection notes & supporting detail

Checklist instruction

Confirm asset identity and inspect accessible supports.

Detailed AI observations

Flaking paint and rust staining visible around the front support plate base and anchor washers. [LOW]

Rust streaking extends down the vertical support column from the anchor area. [LOW]

Asset identification label (ATLAS T-240 / DEMO-001) is intact and readable. [NONE]

Anchor bolt load capacity not verified; corrosion extent beneath washers unknown. [LOW]

Skid and identification: evidence and follow-up

CHECK 24 OF 49 / FRM-03 / Recorded

10 Feb 2026 / 10:09

EVIDENCE 01 / Synthetic inspection photo · FRM-03

Technician observation

I took this additional view to document the condition for follow-up. There is flaking paint and rust staining around the front support plate and anchor washers. The asset label remains readable. I did not proof-test the anchors or establish their load capacity.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Front skid support plates and anchor washers show flaking paint and rust staining; asset label (ATLAS T-240, DEMO-001) is legible. Anchor load capacity remains unverified.

Recommended action

Schedule anchor proof-test and load verification; clean and touch up corroded areas on support plates.

Evidence, in detail

FRM-03 / Skid and identification: evidence and follow-up

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Corroded Anchor Washer

WARNING

Rust staining and paint loss at anchor washer

DETAIL / RECORDED REGION

2 / Front Plate Rust

WARNING

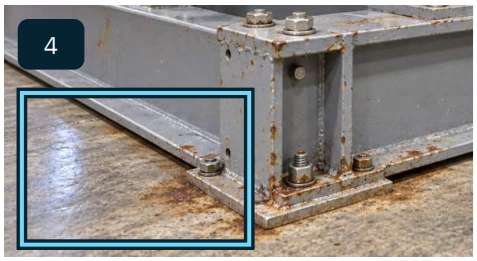
Flaking paint and rust bleed on support plate

DETAIL / RECORDED REGION

3 / Asset Label Legible

GOOD

ATLAS T-240 DEMO-001 nameplate readable



DETAIL / RECORDED REGION

4 / Skid Base Unverified

INFO

Anchor load capacity not proof-tested

FRM-03 / Skid and identification: evidence and follow-up

Inspection notes & supporting detail

Checklist instruction

Record observations and available measurements for skid and identification. Compare with the most recent applicable service record.

Detailed AI observations

Rust staining and paint flaking visible around front support plates and anchor washers. [LOW]

Asset identification label reads 'ATLAS T-240 / DEMO-001' and is clearly legible. [NONE]

Anchor bolts appear seated with washers/nuts present, but proof-test and load capacity were not performed. [LOW]

Skid frame geometry and alignment appear consistent with commissioning baseline; no visible deformation. [NONE]

Coupling guard: reference view

CHECK 25 OF 49 / FAN-GRD-01 / Recorded

10 Feb 2026 / 10:12

EVIDENCE 01 / Synthetic inspection photo · FAN-GRD-01

Technician observation

I photographed coupling guard. The front lower guard fixing is missing and the edge is slightly bent. The guard is still installed; I have not removed it. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Yellow coupling guard between motor and fan is in place but the front lower baseplate shows a missing fixing and a slightly deformed edge, consistent with the technician's observation.

Recommended action

Reinstall missing fixing bolt and straighten or replace bent baseplate edge; re-torque remaining fixings.

Evidence, in detail

FAN-GRD-01 / Coupling guard: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Missing Fixing

WARNING

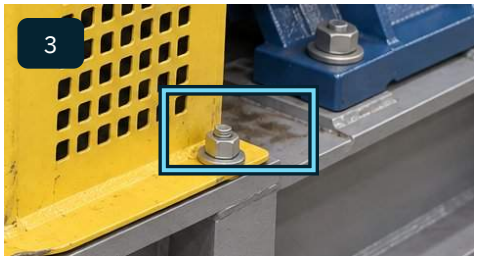
Front lower guard fixing absent at corner

DETAIL / RECORDED REGION

2 / Bent Edge

WARNING

Guard baseplate edge slightly deformed



DETAIL / RECORDED REGION

3 / Secured Fixing

GOOD

Opposite baseplate bolt properly torqued

DETAIL / RECORDED REGION

4 / Mesh Intact

GOOD

Perforated guard panels undamaged, no gaps

FAN-GRD-01 / Coupling guard: reference view

Inspection notes & supporting detail

Checklist instruction

Capture the full guard, its edges and fastening points.

Detailed AI observations

Coupling guard remains installed and covers the coupling between motor and fan housing. [NONE]

Front lower guard baseplate is missing a fixing bolt at the near corner. [LOW]

Lower front edge of the guard baseplate appears slightly bent/deformed. [LOW]

Mesh panels intact; no exposed gaps to rotating coupling observed. [NONE]

Coupling guard: condition and evidence

CHECK 26 OF 49 / FAN-GRD-02 / Recorded

10 Feb 2026 / 10:15

EVIDENCE 01 / Synthetic inspection photo · FAN-GRD-02

Technician observation

I checked the accessible surfaces closely. The front lower guard fixing is missing and the edge is slightly bent. The guard is still installed; I have not removed it. I recorded 6.2 mm/s RMS at the same pedestal point in mode M1, compared with 3.1 mm/s RMS on the prior visit. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Yellow perforated coupling guard is in place between the fan pedestal and motor, but the front lower base shows a missing fixing and a slightly deformed edge as reported by the technician. Elevated pedestal vibration (6.2 mm/s RMS, up from 3.1) raises concern beyond the guard itself.

Recommended action

Replace missing front-lower guard fixing and straighten bent edge; schedule vibration diagnostic on coupling/bearing before continued run.

Evidence, in detail

FAN-GRD-02 / Coupling guard: condition and evidence

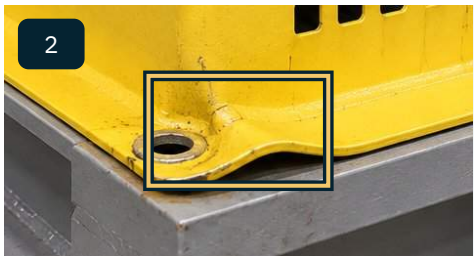
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Missing Front Fixing

WARNING

Empty bolt hole at front lower guard base

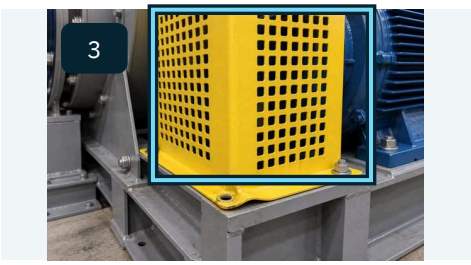


DETAIL / RECORDED REGION

2 / Deformed Base Edge

WARNING

Slight bend along guard base flange

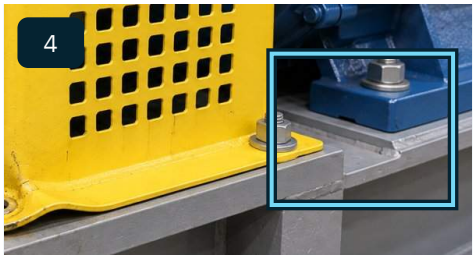


DETAIL / RECORDED REGION

3 / Guard In Place

GOOD

Perforated mesh intact, coupling enclosed



DETAIL / RECORDED REGION

4 / Motor Pedestal Reference

INFO

Vibration measurement point cited by technician

Inspection notes & supporting detail

Checklist instruction

Look for missing fixings, damaged mesh and exposed gaps. Keep the guard in place. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Front lower guard base plate shows an empty fixing hole where a bolt/nut should be present. [MEDIUM]

Guard base edge near the missing fixing appears slightly bent/deformed, consistent with technician note. [LOW]

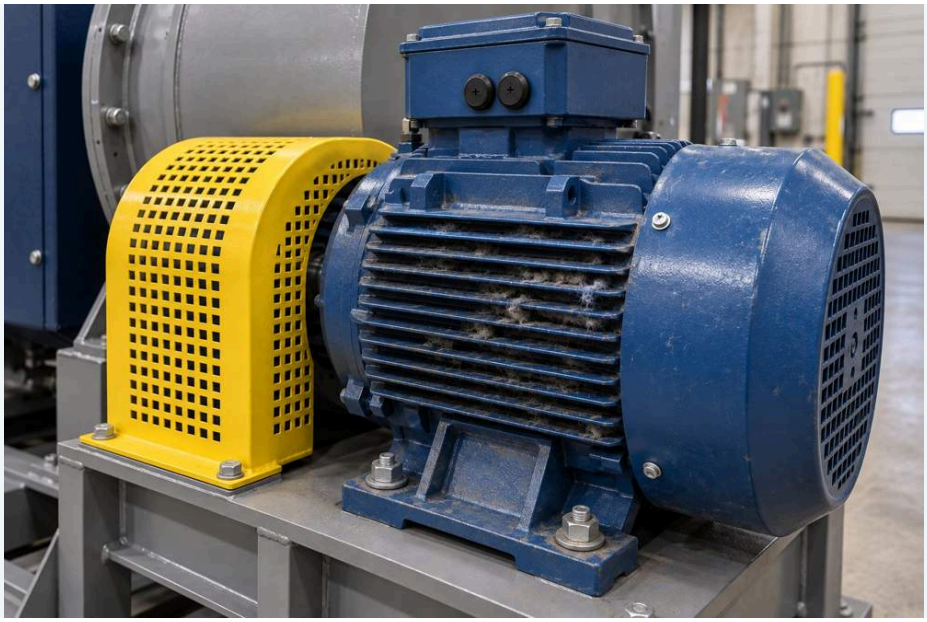
Guard remains installed and mesh perforations are intact with no visible exposed rotating parts. [NONE]

Doubling of pedestal vibration (3.1 → 6.2 mm/s RMS in mode M1) reported by technician; not visible in image but relevant to drive/coupling condition. [HIGH]

Drive motor and cooling fins: reference view

CHECK 27 OF 49 / FAN-MTR-01 / Recorded

10 Feb 2026 / 10:18



EVIDENCE 01 / Synthetic inspection photo · FAN-MTR-01

Technician observation

I photographed drive motor and cooling fins. Several motor cooling-fin channels are packed with lint and dust. The terminal-box cover remains closed. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Drive motor cooling fins are visibly packed with lint and dust across multiple channels, consistent with the technician's observation. Terminal box appears closed and mounting hardware looks intact; bearing condition is not assessable from the photo.

Recommended action

Clean cooling fins (compressed air / soft brush) and schedule periodic housekeeping to prevent thermal derating.

Evidence, in detail

FAN-MTR-01 / Drive motor and cooling fins: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Lint-Packed Fin Channels

WARNING

Dense fibrous debris bridging multiple cooling fin gaps

DETAIL / RECORDED REGION

2 / Additional Fin Fouling

WARNING

Lint accumulation extends along lower fin rows

DETAIL / RECORDED REGION

3 / Terminal Box Closed

GOOD

Cover seated with fasteners in place

DETAIL / RECORDED REGION

4 / Foot Mount Intact

GOOD

Hold-down bolt tight, base free of damage

FAN-MTR-01 / Drive motor and cooling fins: reference view

Inspection notes & supporting detail

Checklist instruction

Capture the motor body, cooling fins and base feet.

Detailed AI observations

Multiple motor cooling-fin channels along the stator housing are packed with fibrous lint and dust deposits. [MEDIUM]

Terminal box cover on top of the motor is closed and fasteners appear seated. [NONE]

Motor foot mounting bolts and baseplate show no visible looseness, cracking, or corrosion. [NONE]

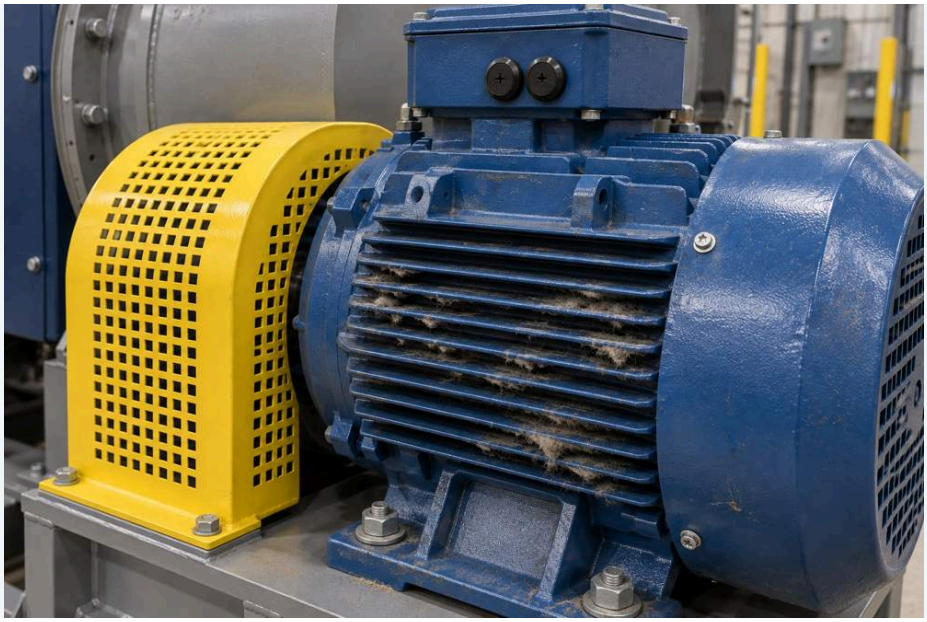
Fan cowl and coupling guard are in place with no visible exterior damage. [NONE]

Internal bearing and winding condition cannot be established from this external photograph. [NONE]

Drive motor and cooling fins: condition and evidence

CHECK 28 OF 49 / FAN-MTR-02 / Recorded

10 Feb 2026 / 10:21



EVIDENCE 01 / Synthetic inspection photo · FAN-MTR-02

Technician observation

I checked the accessible surfaces closely. Several motor cooling-fin channels are packed with lint and dust. The terminal-box cover remains closed. I recorded 6.2 mm/s RMS at the same pedestal point in mode M1, compared with 3.1 mm/s RMS on the prior visit. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Drive motor cooling fins are heavily fouled with lint and dust across multiple channels, coinciding with a doubling of pedestal vibration (6.2 mm/s RMS vs 3.1 mm/s prior) in mode M1. Terminal box and external mounting appear intact, but thermal derating and vibration trend indicate the motor needs service.

Recommended action

Clean fin channels, then investigate vibration rise: check alignment, coupling, and bearing condition before returning to service.

Evidence, in detail

FAN-MTR-02 / Drive motor and cooling fins: condition and evidence

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Lint-Packed Fin Channels

WARNING

Heavy fibrous debris blocking motor cooling fins

DETAIL / RECORDED REGION

2 / Pedestal Vibration Point

CRITICAL

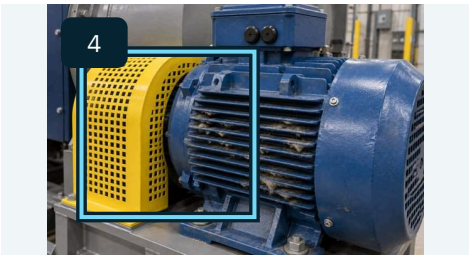
Reading rose 3.1 to 6.2 mm/s RMS

DETAIL / RECORDED REGION

3 / Terminal Box Closed

GOOD

Cover seated, gland plugs in place



DETAIL / RECORDED REGION

4 / Coupling Guard Intact

INFO

Guard in place; internal coupling not visible

FAN-MTR-02 / Drive motor and cooling fins: condition and evidence

Inspection notes & supporting detail

Checklist instruction

Look for blocked cooling fins, exterior damage and visible mounting concerns. A photo does not establish winding condition. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Multiple cooling-fin channels on the motor frame are packed with fibrous lint and dust, reducing convective heat rejection. [MEDIUM]

Technician-reported vibration at the pedestal has doubled (3.1 → 6.2 mm/s RMS in mode M1), indicating a developing mechanical issue not attributable to fin fouling alone. [HIGH]

Terminal box cover is seated and fasteners visible; no external electrical enclosure breach observed. [NONE]

Motor foot mounting bolts and hold-down pads appear intact and properly seated on the baseplate. [NONE]

Coupling guard is in place over the drive end; internal bearing condition is not verifiable from the photograph. [LOW]

Pedestal and hold-downs: reference view

CHECK 29 OF 49 / FAN-MNT-01 / Recorded

10 Feb 2026 / 10:24

EVIDENCE 01 / Synthetic inspection photo · FAN-MNT-01

Technician observation

I photographed pedestal and hold-downs. The front washer appears lifted at one edge, with rust-colored fretting debris spread across the pedestal foot. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Front hold-down washer appears lifted at one edge with rust-colored fretting debris distributed across the pedestal foot, consistent with the technician's observation of loosened preload and micro-motion at the joint.

Recommended action

Re-torque front hold-down to spec, inspect washer/faying surfaces, clean debris, and record baseline vibration readings (units separately) before returning to service.

Evidence, in detail

FAN-MNT-01 / Pedestal and hold-downs: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Lifted Washer Edge

WARNING

Washer not fully seated; suggests reduced bolt preload

DETAIL / RECORDED REGION

2 / Fretting Debris Halo

WARNING

Rust-colored oxide spread radially around fastener

DETAIL / RECORDED REGION

3 / Debris Trail On Plate

INFO

Fretting product distributed across pedestal top surface

DETAIL / RECORDED REGION

4 / Rear Hold-Down Reference

GOOD

Companion fastener seated, no debris halo

Inspection notes & supporting detail

Checklist instruction

Capture the pedestal feet, washers and base contact areas.

Detailed AI observations

Front pedestal hold-down washer is not fully seated; visible gap under one edge indicates lost or reduced bolt preload. [MEDIUM]

Rust-colored fretting debris is spread radially around the front hold-down and across the pedestal top plate, consistent with relative micro-motion at the joint. [MEDIUM]

Rear hold-down on the same pedestal appears seated with no comparable debris halo, suggesting the issue is localized to the front fastener. [LOW]

Bearing housing was not opened; internal bearing condition cannot be assessed from this image. [NONE]

Pedestal and hold-downs: condition and evidence

CHECK 30 OF 49 / FAN-MNT-02 / Recorded

10 Feb 2026 / 10:27

EVIDENCE 01 / Synthetic inspection photo · FAN-MNT-02

Technician observation

I checked the accessible surfaces closely. The front washer appears lifted at one edge, with rust-colored fretting debris spread across the pedestal foot. I recorded 6.2 mm/s RMS at the same pedestal point in mode M1, compared with 3.1 mm/s RMS on the prior visit. I did not open the bearing housing; internal bearing condition remains unverified.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Front hold-down washer shows edge lift with rust-colored fretting debris across the pedestal foot, corroborated by a doubling of vibration (3.1→6.2 mm/s RMS) at this pedestal in mode M1, indicating an active loosening/fretting condition at the anchor.

Recommended action

Re-torque front hold-down to spec, inspect washer/bolt for fretting wear, clean and monitor debris regeneration, and re-measure vibration; schedule bearing check if levels remain elevated.

Evidence, in detail

FAN-MNT-02 / Pedestal and hold-downs: condition and evidence

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Front Hold-Down Fretting

CRITICAL

Rust debris halo around lifted washer edge

DETAIL / RECORDED REGION

2 / Lifted Washer Edge

WARNING

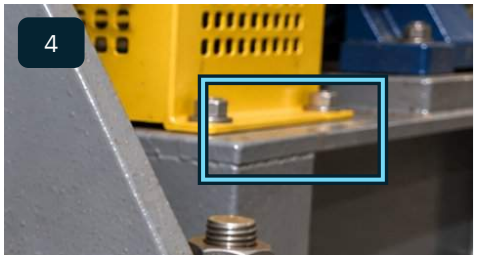
Washer not fully seated on pedestal

DETAIL / RECORDED REGION

3 / Debris Migration Path

WARNING

Oxide debris spread across pedestal foot



DETAIL / RECORDED REGION

4 / Rear Hold-Down Reference

GOOD

Comparatively clean seating, no debris halo

Inspection notes & supporting detail

Checklist instruction

Compare washer seating and fretting debris; record vibration with units separately. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Rust-colored fretting debris fanned across the pedestal top plate around the front hold-down bolt, consistent with micro-motion at the joint. [HIGH]

Front washer appears lifted at one edge (per technician), indicating loss of preload or incomplete seating on the pedestal. [HIGH]

Vibration at this pedestal point in mode M1 has doubled since prior visit (3.1 → 6.2 mm/s RMS), exceeding typical acceptance for rigidly mounted machines. [HIGH]

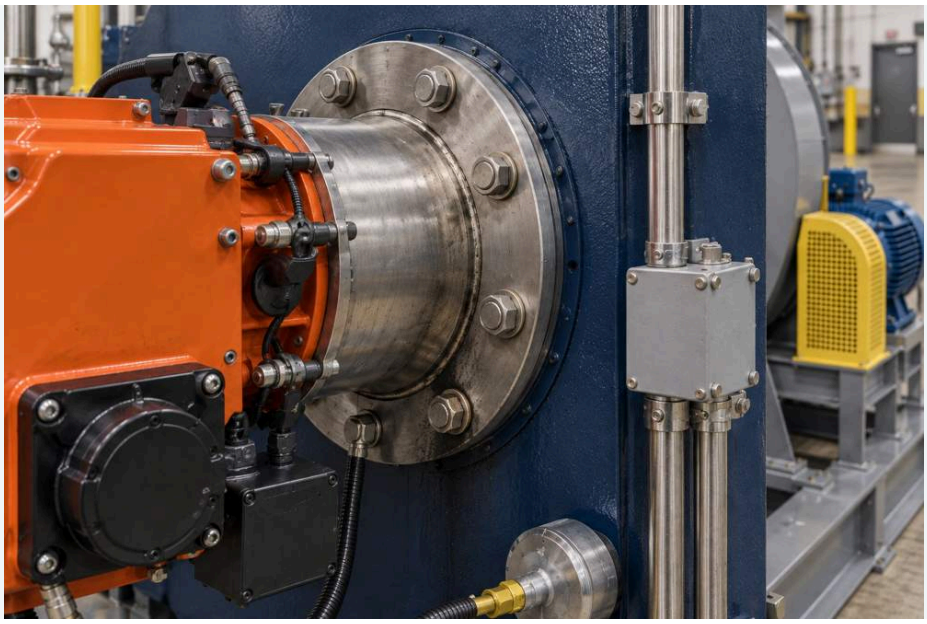
Rear hold-down and adjacent pedestal show comparatively clean washer seating with no visible debris halo. [NONE]

Internal bearing condition not verified; elevated vibration could also reflect drive-end issues not visible in this image. [MEDIUM]

Burner mounting flange: reference view

CHECK 31 OF 49 / BRN-FLG-01 / Recorded

10 Feb 2026 / 10:30



EVIDENCE 01 / Synthetic inspection photo · BRN-FLG-01

Technician observation

I photographed burner mounting flange. A soot-darkened track extends from the lower flange joint. One lower washer looks unevenly seated. I did not open the burner or establish combustion quality from the exterior photograph.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Burner mounting flange shows a soot-darkened track descending from the lower joint area and one lower fastener with an unevenly seated washer, consistent with the technician's observation. Exterior condition only; combustion quality not assessed.

Recommended action

Schedule closer inspection of lower flange joint: verify fastener torque, reseat washer, and investigate source of soot track.

Evidence, in detail

BRN-FLG-01 / Burner mounting flange: reference view

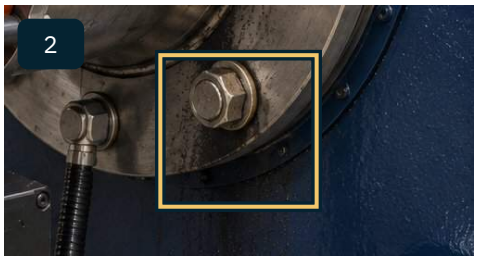
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Soot Track

WARNING

Dark deposit trailing down from lower flange joint

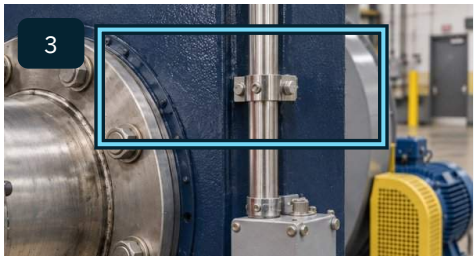


DETAIL / RECORDED REGION

2 / Uneven Washer

WARNING

Lower fastener washer appears unevenly seated



DETAIL / RECORDED REGION

3 / Upper Fasteners

INFO

Upper bolt circle appears uniformly seated

DETAIL / RECORDED REGION

4 / Flange Face

INFO

Machined face intact, no cracks or deformation

Inspection notes & supporting detail

Checklist instruction

Capture the full flange circumference and accessible fasteners.

Detailed AI observations

Dark soot-like track visible on flange face extending downward from lower joint region. [MEDIUM]

Lower fastener shows a washer that appears unevenly seated relative to adjacent hardware. [LOW]

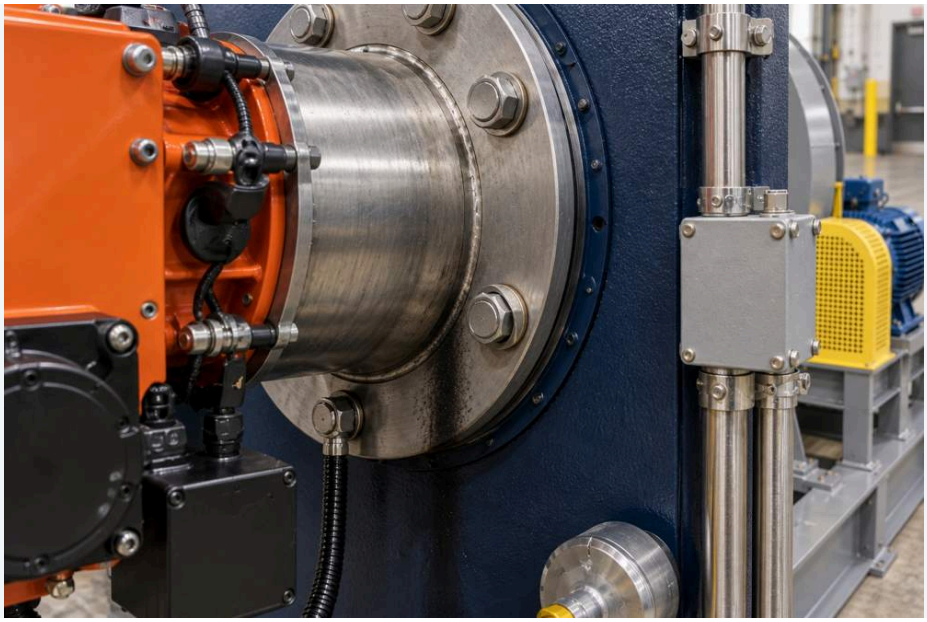
Overall flange geometry and bolt pattern match the ATLAS T-240 commissioning reference layout. [NONE]

No visible cracking, deformation, or displacement of the flange itself. [NONE]

Burner mounting flange: condition and evidence

CHECK 32 OF 49 / BRN-FLG-02 / Recorded

10 Feb 2026 / 10:33



EVIDENCE 01 / Synthetic inspection photo · BRN-FLG-02

Technician observation

I checked the accessible surfaces closely. A soot-darkened track extends from the lower flange joint. One lower washer looks unevenly seated. I recorded the flame-signal display at 2.9 microamps in mode M1, below the 3.8 microamps recorded on the prior visit. I did not open the burner or establish combustion quality from the exterior photograph.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Burner mounting flange shows a soot-darkened track descending from the lower flange joint and one lower washer appears unevenly seated, consistent with the technician's on-site observations. Combustion quality is not assessed from the exterior image.

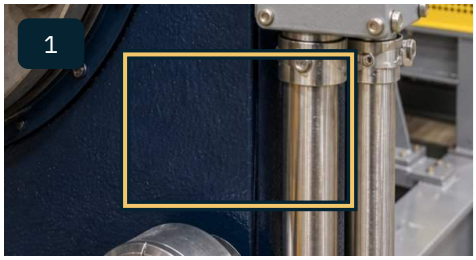
Recommended action

Schedule flange joint inspection: retorque lower hardware, inspect gasket, clean and monitor soot track; recheck flame signal trend.

Evidence, in detail

BRN-FLG-02 / Burner mounting flange: condition and evidence

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

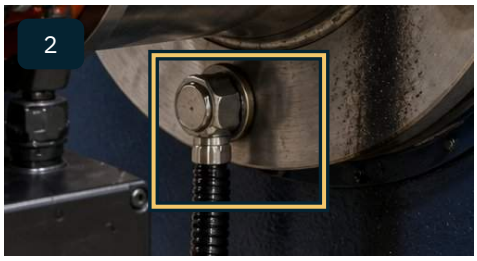


DETAIL / RECORDED REGION

1 / Soot Track

WARNING

Dark streak descending from lower flange joint

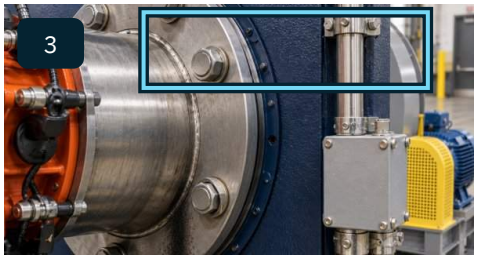


DETAIL / RECORDED REGION

2 / Uneven Washer

WARNING

Lower fastener washer appears unevenly seated



DETAIL / RECORDED REGION

3 / Upper Fasteners

GOOD

Upper flange bolts appear uniformly seated

DETAIL / RECORDED REGION

4 / Flange Face

INFO

Machined flange face intact, no cracking visible

Inspection notes & supporting detail

Checklist instruction

Look for dark tracks, loose-looking hardware and damaged exterior joints; do not infer combustion quality. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Dark soot-like track visible on flange face extending downward from the lower joint area. [MEDIUM]

Lower flange hardware shows one washer/bolt seating that appears uneven relative to adjacent fasteners. [MEDIUM]

Flange perimeter and remaining fasteners otherwise appear intact with no visible cracking or missing hardware. [LOW]

Reported flame-signal drop (2.9 µA vs prior 3.8 µA) is not visually verifiable but aligns with exterior soot tracking near the joint. [LOW]

External burner tubing: reference view

CHECK 33 OF 49 / BRN-TUB-01 / Recorded

10 Feb 2026 / 10:36

EVIDENCE 01 / Synthetic inspection photo · BRN-TUB-01

Technician observation

I photographed external burner tubing. The external tube is rubbing against its support edge, with a visible bright abrasion patch. I see no liquid droplet at the accessible fittings. I did not open the burner or establish combustion quality from the exterior photograph.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

External yellow burner tubing shows a distinct bright abrasion patch where the pipe contacts its support edge; no liquid moisture is visible at accessible fittings.

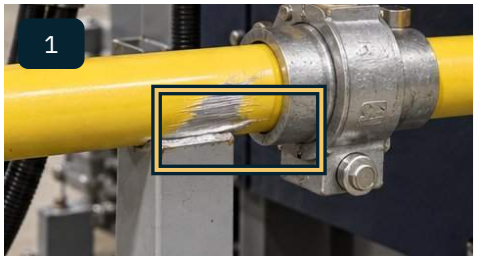
Recommended action

Add a protective isolator or reroute tube off the support edge; measure remaining wall thickness at the abrasion patch and monitor.

Evidence, in detail

BRN-TUB-01 / External burner tubing: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.



DETAIL / RECORDED REGION

1 / Abrasion Patch

WARNING

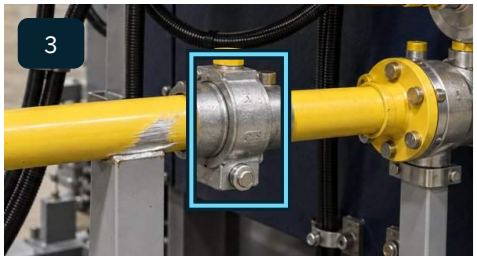
Bright wear scar through paint on tube underside

DETAIL / RECORDED REGION

2 / Support Edge Contact

WARNING

Tube rests directly on unpadded support crossmember

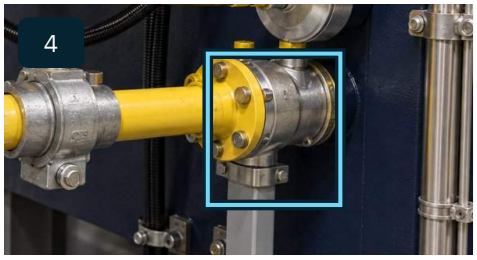


DETAIL / RECORDED REGION

3 / Fitting Dry

GOOD

Flanged joint shows no moisture or staining



DETAIL / RECORDED REGION

4 / Downstream Flange

INFO

Second flanged connection appears dry externally

BRN-TUB-01 / External burner tubing: reference view

Inspection notes & supporting detail

Checklist instruction

Capture tubing connections and their supports without opening the burner.

Detailed AI observations

Yellow horizontal burner tube exhibits a bright silver abrasion patch on its underside where it rests against the support crossmember, indicating ongoing rubbing wear through the paint layer. [MEDIUM]

Tubing routing places the pipe in direct hard contact with a metal support edge with no protective saddle or isolator visible at the wear point. [MEDIUM]

No liquid droplets, staining, or wet residue observed at the visible flanged/ball-valve fittings along the yellow tubing run. [NONE]

Photograph cannot confirm leak tightness, wall thickness remaining at the abrasion, or internal condition of the burner assembly. [LOW]

External burner tubing: condition and evidence

CHECK 34 OF 49 / BRN-TUB-02 / Recorded

10 Feb 2026 / 10:39

EVIDENCE 01 / Synthetic inspection photo · BRN-TUB-02

Technician observation

I checked the accessible surfaces closely. The external tube is rubbing against its support edge, with a visible bright abrasion patch. I see no liquid droplet at the accessible fittings. I recorded the flame-signal display at 2.9 microamps in mode M1, below the 3.8 microamps recorded on the prior visit. I did not open the burner or establish combustion quality from the exterior photograph.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

External burner tubing shows a visible abrasion patch where a flexible hose contacts a support bracket edge. No moisture is visible at accessible fittings; technician-reported flame signal decline is noted but not assessable from the photo.

Recommended action

Re-route or add protective sleeve/standoff to eliminate hose-to-bracket contact; inspect abraded section for wall thinning and monitor flame signal trend.

Evidence, in detail

BRN-TUB-02 / External burner tubing: condition and evidence

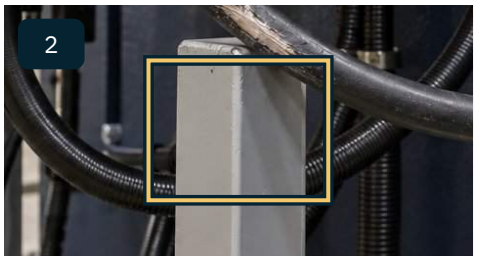
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Hose Abrasion Patch

WARNING

Bright wear mark where hose contacts bracket edge

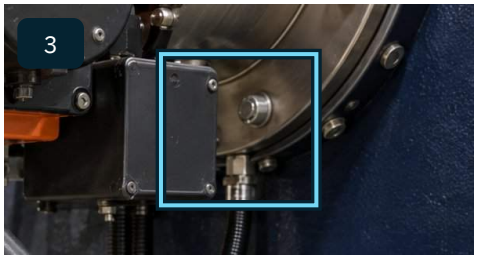


DETAIL / RECORDED REGION

2 / Support Edge Contact

WARNING

Unsupported hose bearing on rigid bracket corner

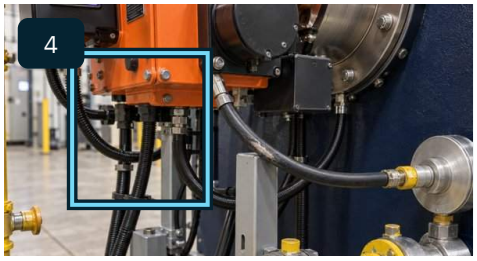


DETAIL / RECORDED REGION

3 / Upper Fitting

INFO

Accessible fitting, no visible moisture or staining



DETAIL / RECORDED REGION

4 / Adjacent Hose Runs

GOOD

Parallel hoses routed clear of support edges

Inspection notes & supporting detail

Checklist instruction

Look for abrasion, unsupported routing and visible moisture. A photograph cannot establish leak tightness. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Flexible black hose exhibits a bright abrasion/wear patch where it rides against the edge of a gray support bracket. [MEDIUM]

Tubing routing places the hose in direct contact with a rigid support edge, indicating unsupported/misrouted run rather than a protected pass-through. [MEDIUM]

No liquid droplets, staining, or wet residue visible at accessible fittings in the frame; leak tightness cannot be established from a photograph. [NONE]

Technician-reported flame signal drop from 3.8 µA to 2.9 µA in mode M1 is a downward trend but outside what the exterior image can confirm. [LOW]

Hatch perimeter seal: reference view

CHECK 35 OF 49 / CHM-SEA-01 / Recorded

10 Feb 2026 / 10:42

EVIDENCE 01 / Synthetic inspection photo · CHM-SEA-01

Technician observation

I photographed hatch perimeter seal. The lower corner has a displaced piece of gasket and a black track on the surrounding metal. The hatch remains closed. I did not open the hatch, so internal refractory condition remains unverified.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Hatch perimeter seal shows a displaced gasket segment and adjacent soot track at the lower edge, consistent with a localized seal breach. Hatch remains closed and internal refractory condition is unverified.

Recommended action

Schedule hatch opening to inspect gasket and internal refractory; replace perimeter seal.

Evidence, in detail

CHM-SEA-01 / Hatch perimeter seal: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Displaced Gasket Segment

WARNING

Extruded gasket material at lower hatch corner

DETAIL / RECORDED REGION

2 / Soot Track

WARNING

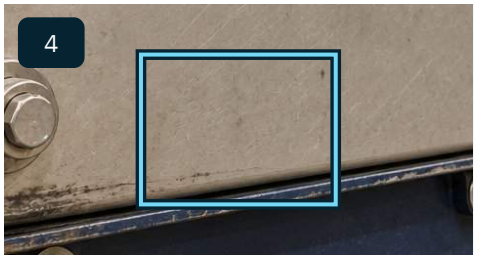
Dark deposit on metal below seal line

DETAIL / RECORDED REGION

3 / Hinge Intact

GOOD

Hinge assembly appears sound and aligned



DETAIL / RECORDED REGION

4 / Lower Fastener

INFO

Corner bolt seated; hatch remains closed

CHM-SEA-01 / Hatch perimeter seal: reference view

Inspection notes & supporting detail

Checklist instruction

Capture the lower corners and the complete visible hatch edge.

Detailed AI observations

Displaced/extruded gasket material visible along lower hatch edge. [MEDIUM]

Dark soot track on metal surrounding the lower seal, indicating hot-gas or particulate escape past the gasket. [MEDIUM]

Hatch fasteners and hinges appear intact; hatch remains closed. [NONE]

Internal refractory condition not assessable from this external view. [NONE]

Hatch perimeter seal: condition and evidence

CHECK 36 OF 49 / CHM-SEA-02 / Recorded

10 Feb 2026 / 10:45

EVIDENCE 01 / Synthetic inspection photo · CHM-SEA-02

Technician observation

I checked the accessible surfaces closely. The lower corner has a displaced piece of gasket and a black track on the surrounding metal. The hatch remains closed. I did not open the hatch, so internal refractory condition remains unverified.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Displaced gasket material is visible protruding at the lower hinge-side corner of the closed hatch, with dark sooting on adjacent metal indicating a compromised perimeter seal. Internal refractory condition is not verifiable from this external view.

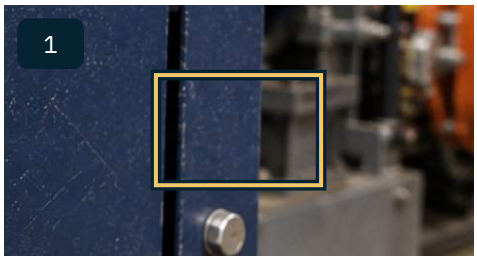
Recommended action

Schedule hatch opening to inspect and replace perimeter gasket; verify internal refractory at that time.

Evidence, in detail

CHM-SEA-02 / Hatch perimeter seal: condition and evidence

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

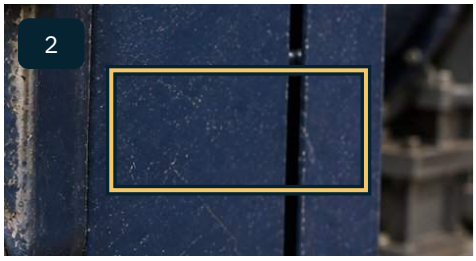


DETAIL / RECORDED REGION

1 / Displaced Gasket Material

WARNING

Frayed seal protruding from hatch corner



DETAIL / RECORDED REGION

2 / Soot Track

WARNING

Dark leakage staining on hatch face

DETAIL / RECORDED REGION

3 / Hinge Intact

GOOD

Hinge and pin appear mechanically sound

DETAIL / RECORDED REGION

4 / Lower Seal Line

INFO

Perimeter joint below displaced gasket area

CHM-SEA-02 / Hatch perimeter seal: condition and evidence

Inspection notes & supporting detail

Checklist instruction

Look for soot tracks or displaced gasket material; internal refractory remains unverified. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Frayed/displaced gasket segment extruding from hatch perimeter near lower hinge corner. [MEDIUM]

Black soot track on stainless hatch face and blue frame adjacent to displaced gasket, consistent with hot gas escape past the seal. [MEDIUM]

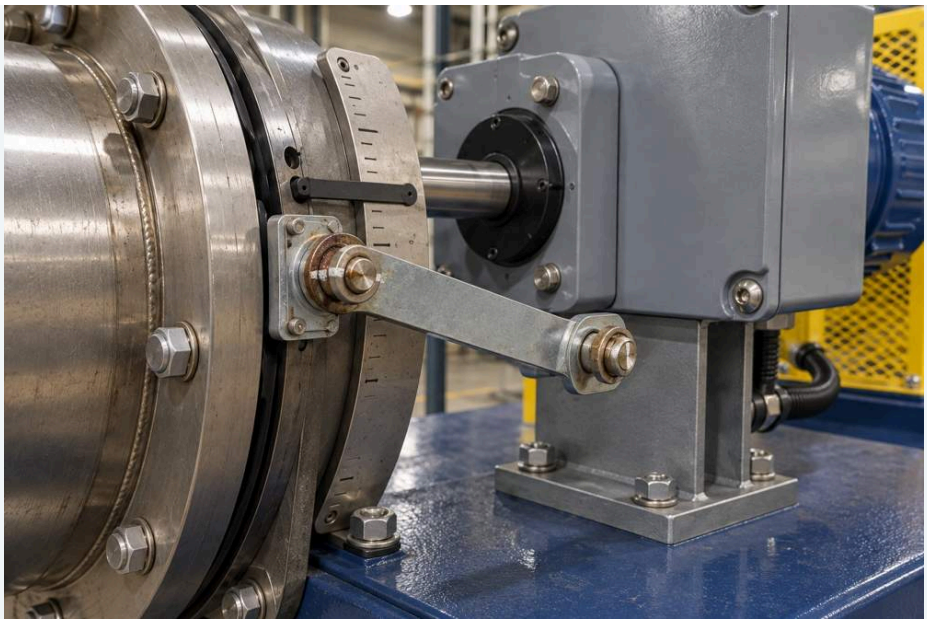
Hatch remains closed and hinge/fasteners appear mechanically intact; no deformation of the door or frame observed. [NONE]

Internal refractory condition unverified - hatch not opened during inspection. [NONE]

Actuator linkage: reference view

CHECK 37 OF 49 / DMP-LNK-01 / Recorded

10 Feb 2026 / 10:48



EVIDENCE 01 / Synthetic inspection photo · DMP-LNK-01

Technician observation

I photographed actuator linkage. The linkage pivot has brown residue and offset witness paint. Both ends remain attached. The still photo does not establish full travel or calibration.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Actuator linkage arm is intact at both ends, but the driven-side pivot shows brown residue and misaligned witness paint, suggesting slippage or corrosion at the joint. Full travel and calibration cannot be confirmed from a still image.

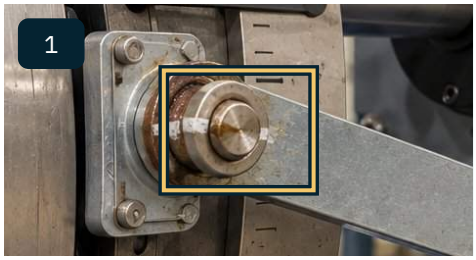
Recommended action

Clean pivot, verify torque on pivot fastener, re-mark witness paint, and stroke actuator through full travel to confirm calibration.

Evidence, in detail

DMP-LNK-01 / Actuator linkage: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.



DETAIL / RECORDED REGION

1 / Offset Witness Paint

WARNING

Witness mark misaligned across pivot fastener

DETAIL / RECORDED REGION

2 / Pivot Residue

WARNING

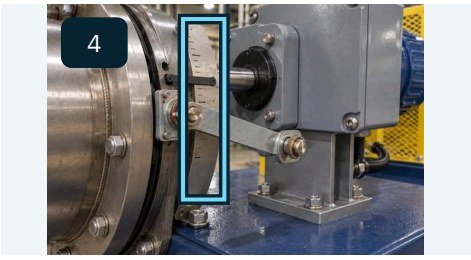
Brown oxidation/residue around driven pivot joint

DETAIL / RECORDED REGION

3 / Actuator End Attached

GOOD

Actuator-side linkage joint intact and fastened



DETAIL / RECORDED REGION

4 / Graduated Scale

INFO

Position scale visible; travel not verifiable from still

DMP-LNK-01 / Actuator linkage: reference view

Inspection notes & supporting detail

Checklist instruction

Capture both linkage ends and fastening points in one view.

Detailed AI observations

Brown residue (likely oxidation or weeping lubricant) visible around the driven-side pivot bolt. [LOW]

Witness paint mark on the pivot is offset from its mating reference, indicating possible fastener slip or linkage movement. [MEDIUM]

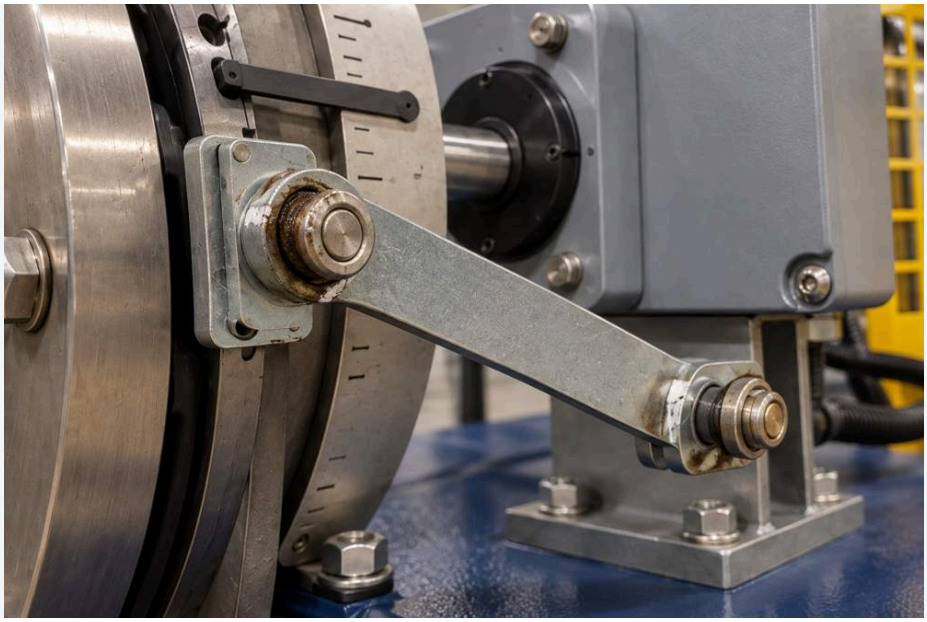
Both ends of the linkage arm remain mechanically attached; no fractured or disconnected hardware visible. [NONE]

Still image does not establish full actuator travel or calibration against the graduated scale. [NONE]

Actuator linkage: condition and evidence

CHECK 38 OF 49 / DMP-LNK-02 / Recorded

10 Feb 2026 / 10:51



EVIDENCE 01 / Synthetic inspection photo · DMP-LNK-02

Technician observation

I checked the accessible surfaces closely. The linkage pivot has brown residue and offset witness paint. Both ends remain attached. In mode M1 I recorded a 50% command and approximately 43% indicated position; I have requested a travel and linkage check. The still photo does not establish full travel or calibration.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Actuator linkage remains mechanically attached at both pivots, but the driven-end pivot shows brown residue and offset witness paint, consistent with the technician's reported command-vs-indicated position discrepancy (50% cmd / ~43% ind).

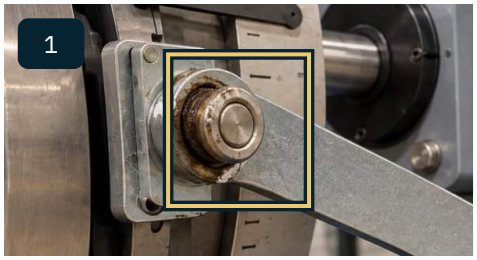
Recommended action

Perform full-stroke travel and linkage calibration check; re-mark witness paint and inspect pivot bushing for wear.

Evidence, in detail

DMP-LNK-02 / Actuator linkage: condition and evidence

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

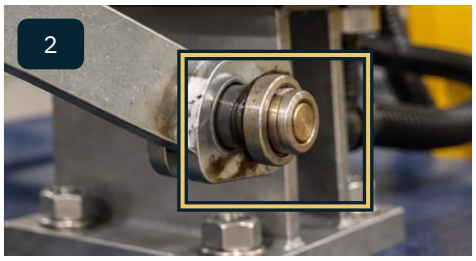


DETAIL / RECORDED REGION

1 / Driven Pivot Residue

WARNING

Brown residue and offset witness paint at pivot

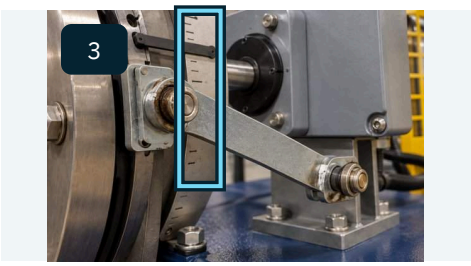


DETAIL / RECORDED REGION

2 / Actuator Pivot Staining

WARNING

Rust staining at actuator-end pivot joint

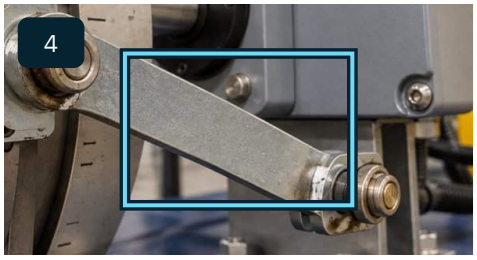


DETAIL / RECORDED REGION

3 / Position Scale

INFO

Graduated scale reference for travel verification



DETAIL / RECORDED REGION

4 / Link Arm Intact

GOOD

Link arm continuous, no visible deformation

DMP-LNK-02 / Actuator linkage: condition and evidence

Inspection notes & supporting detail

Checklist instruction

Look for loose-looking joints or displaced witness marks; do not infer full travel from a still image. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Driven-end pivot joint exhibits brown oxide-like residue bleeding from under the retaining nut and washer. [MEDIUM]

White witness paint on the driven-end pivot appears offset/smeared relative to the mating surface, suggesting relative motion since marking. [MEDIUM]

Both linkage ends remain physically attached; no fractured, disconnected, or grossly bent members visible. [NONE]

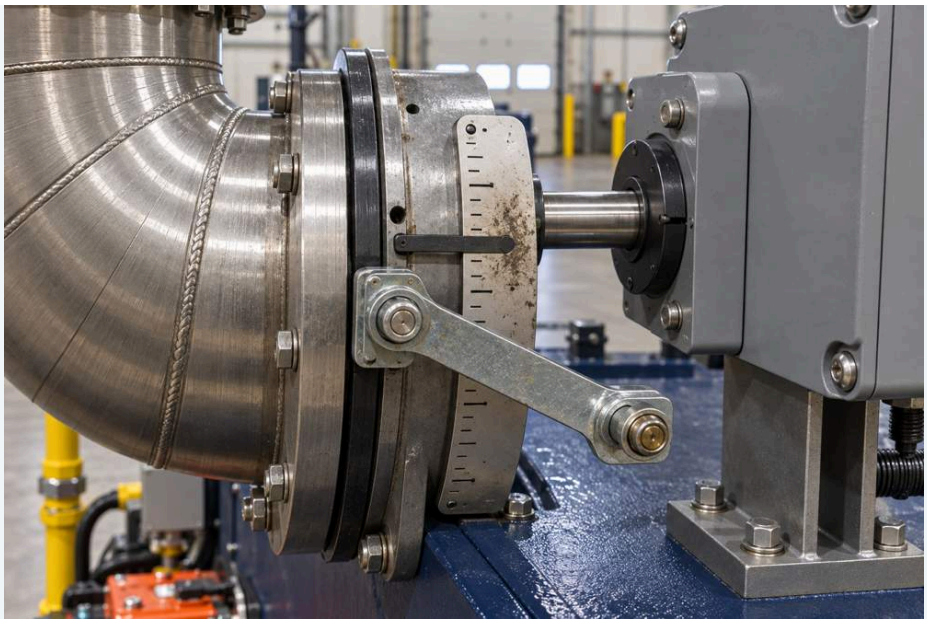
Actuator-end pivot also shows minor rust staining at the joint, though less pronounced than the driven end. [LOW]

Still image cannot confirm full travel or calibration; position error (50% cmd vs ~43% ind) must be verified by stroke test. [MEDIUM]

Position pointer: reference view

CHECK 39 OF 49 / DMP-POS-01 / Recorded

10 Feb 2026 / 10:54



EVIDENCE 01 / Synthetic inspection photo · DMP-POS-01

Technician observation

I photographed position pointer. The scale has a worn dirty patch around its middle range. The pointer remains attached. The still photo does not establish full travel or calibration.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Position pointer and graduated scale are intact and attached, but the mid-range of the scale shows a worn, dirty patch that reduces legibility. The photograph alone cannot establish full travel or calibration.

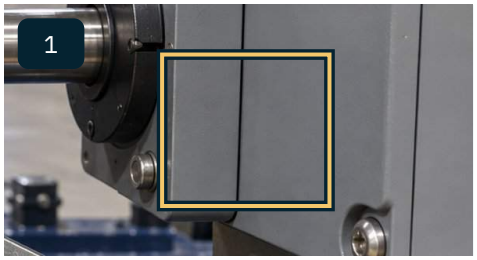
Recommended action

Clean scale face and record commanded vs. indicated positions across full travel under a single mode.

Evidence, in detail

DMP-POS-01 / Position pointer: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.



DETAIL / RECORDED REGION

1 / Worn Dirty Patch

WARNING

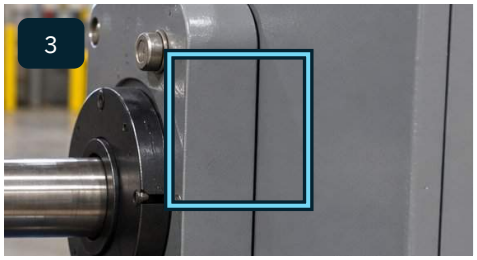
Mid-range scale soiling obscures graduations

DETAIL / RECORDED REGION

2 / Pointer Attachment

INFO

Pointer arm intact and seated on pivot

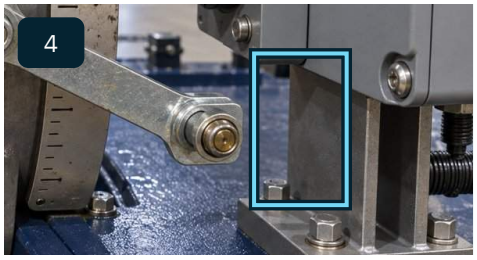


DETAIL / RECORDED REGION

3 / Upper Scale Range

GOOD

Upper graduations legible, reference intact



DETAIL / RECORDED REGION

4 / Lower Scale Range

GOOD

Lower graduations legible along scale plate

DMP-POS-01 / Position pointer: reference view

Inspection notes & supporting detail

Checklist instruction

Capture the pointer and scale straight-on with readable position.

Detailed AI observations

Pointer arm remains mechanically attached to the linkage and aligned with the scale plate. [NONE]

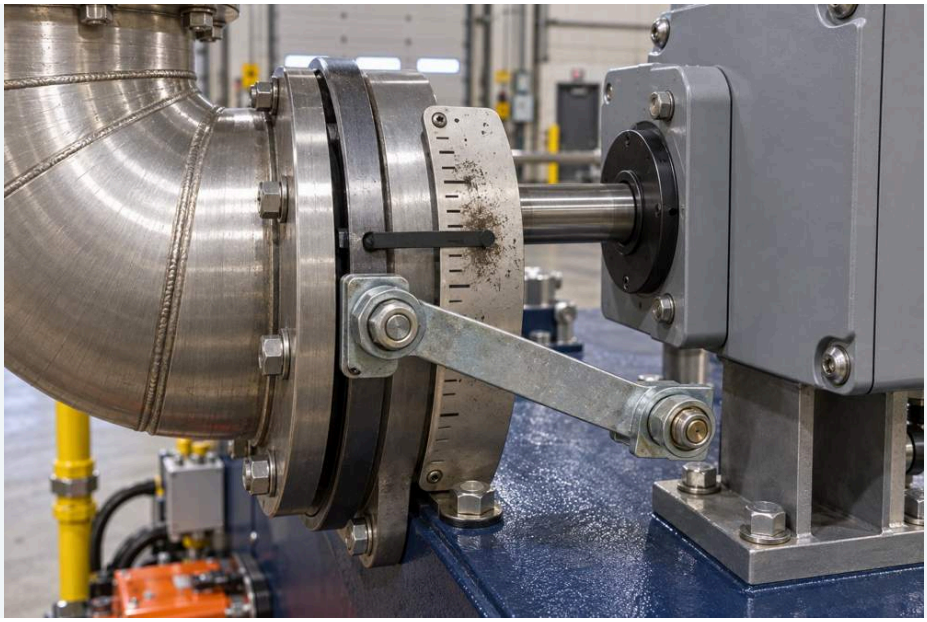
Graduated scale plate shows a dirty/worn patch across the mid-range, obscuring tick marks and numerals in that band. [LOW]

Commanded vs. indicated position cannot be evaluated from a single static photograph. [NONE]

Position pointer: condition and evidence

CHECK 40 OF 49 / DMP-POS-02 / Recorded

10 Feb 2026 / 10:57



EVIDENCE 01 / Synthetic inspection photo · DMP-POS-02

Technician observation

I checked the accessible surfaces closely. The scale has a worn dirty patch around its middle range. The pointer remains attached. In mode M1 I recorded a 50% command and approximately 43% indicated position; I have requested a travel and linkage check. The still photo does not establish full travel or calibration.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Position pointer is attached and readable, but the scale shows a soiled/worn patch across its mid-range. Technician reports a command-vs-indicated discrepancy in M1 (50% commanded, ~43% indicated); photo alone does not establish calibration.

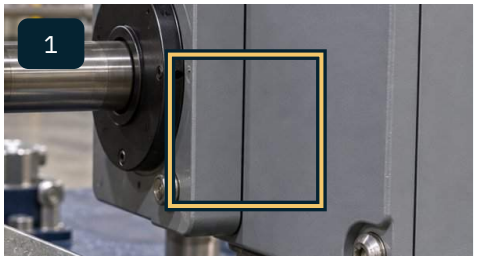
Recommended action

Perform full-travel stroke test and linkage/pointer calibration check as technician requested; clean scale face.

Evidence, in detail

DMP-POS-02 / Position pointer: condition and evidence

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

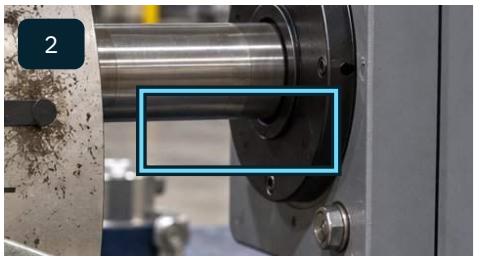


DETAIL / RECORDED REGION

1 / Soiled Mid-Range Scale

WARNING

Worn, dirty patch obscures mid-travel graduations

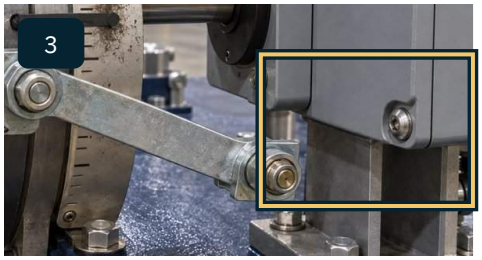


DETAIL / RECORDED REGION

2 / Pointer Attachment

INFO

Pointer intact and engaged with scale

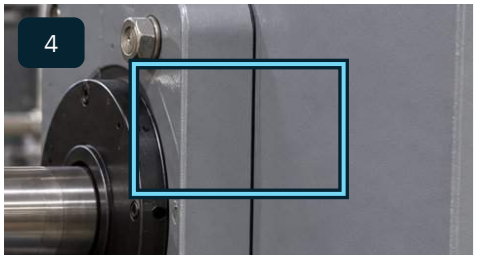


DETAIL / RECORDED REGION

3 / Actuator Linkage Arm

WARNING

Linkage to actuator; check for slack



DETAIL / RECORDED REGION

4 / Scale Upper Range

GOOD

Upper graduations legible, undamaged

DMP-POS-02 / Position pointer: condition and evidence

Inspection notes & supporting detail

Checklist instruction

Record commanded and indicated positions separately under the same mode; do not declare calibration from a photograph. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Position pointer remains mechanically attached to the linkage and overlays the graduated scale. [NONE]

Scale face exhibits a dark, worn/dirty patch concentrated around the mid-travel graduations, which could hinder reading in that range. [LOW]

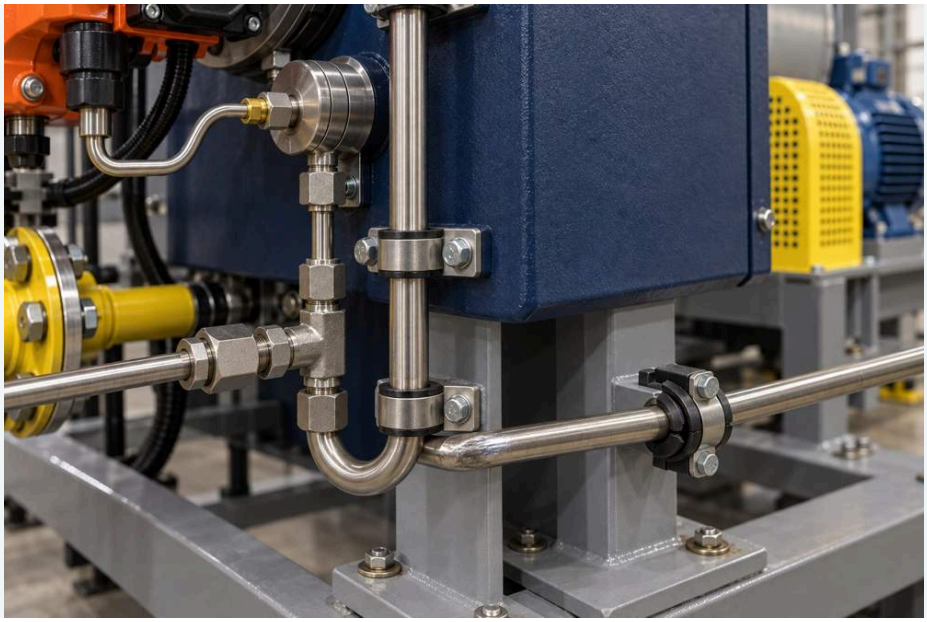
Technician-reported deviation between commanded (50%) and indicated (~43%) position in mode M1 suggests possible linkage slack, pointer offset, or damper travel issue; not verifiable from a still image. [MEDIUM]

Photograph does not demonstrate full travel or calibration; single-position image only. [NONE]

Tubing fittings and supports: reference view

CHECK 41 OF 49 / SNS-FIT-01 / Recorded

10 Feb 2026 / 11:00



EVIDENCE 01 / Synthetic inspection photo · SNS-FIT-01

Technician observation

I photographed tubing fittings and supports. The support liner is split and the tube has a polished contact mark beside the fitting. I cannot verify pressure tightness from this view. I did not perform calibration or pressure testing.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Tubing support liner adjacent to the fitting shows a split, and the stainless tube displays a polished contact/rub mark beside the clamp, indicating early mechanical wear at the support interface.

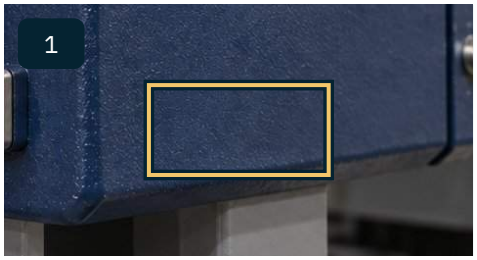
Recommended action

Replace split support liner, inspect tube wall thickness at rub mark, and re-secure clamp to eliminate motion.

Evidence, in detail

SNS-FIT-01 / Tubing fittings and supports: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.



DETAIL / RECORDED REGION

1 / Split Support Liner

WARNING

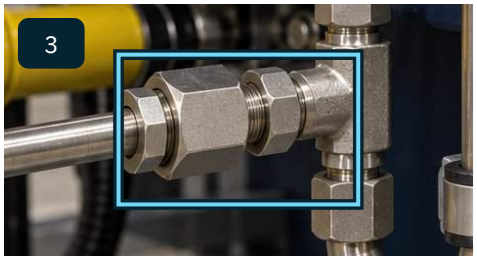
Clamp liner split at tube contact point

DETAIL / RECORDED REGION

2 / Tube Polish Mark

WARNING

Polished rub mark beside fitting from motion

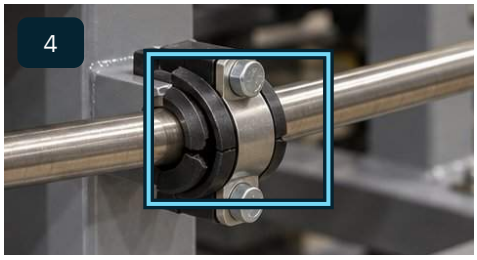


DETAIL / RECORDED REGION

3 / Fitting Assembly

INFO

Compression fittings adjacent to worn support



DETAIL / RECORDED REGION

4 / Reference Support

GOOD

Comparable clamp downstream appears intact

Inspection notes & supporting detail

Checklist instruction

Capture the fitting, tube entry and adjacent support together.

Detailed AI observations

Support clamp elastomer/liner appears split at the tube interface, reducing its ability to isolate the tube from the metal clamp. [MEDIUM]

Polished contact mark visible on the tube adjacent to the fitting, consistent with relative motion against the support. [MEDIUM]

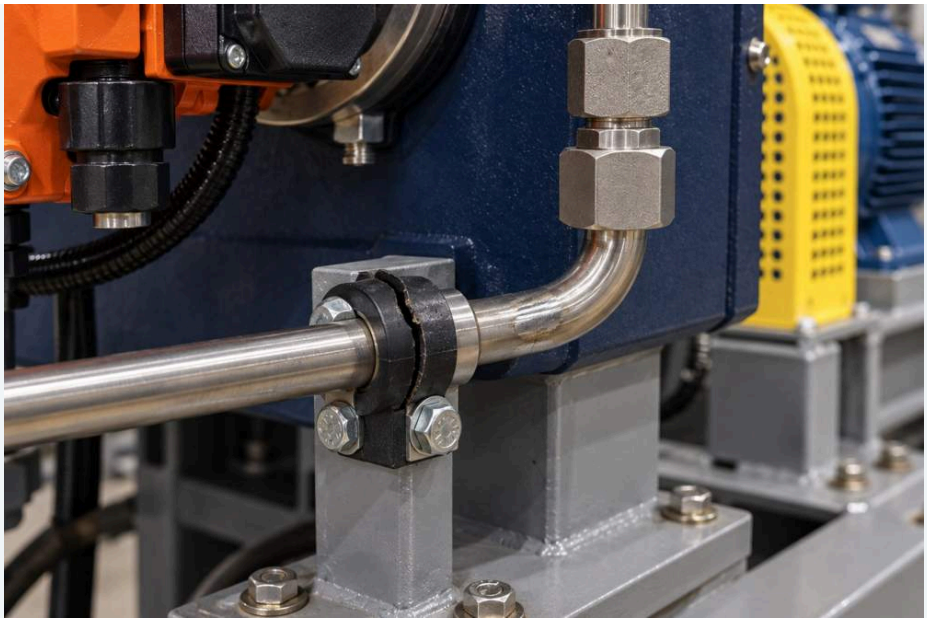
Tubing routing, fittings, and support spacing otherwise match the commissioning baseline with no kinks or unsupported long spans evident. [LOW]

Pressure tightness and calibration status cannot be assessed from this image; technician confirms no such testing performed. [NONE]

Tubing fittings and supports: condition and evidence

CHECK 42 OF 49 / SNS-FIT-02 / Recorded

10 Feb 2026 / 11:03



EVIDENCE 01 / Synthetic inspection photo · SNS-FIT-02

Technician observation

I checked the accessible surfaces closely. The support liner is split and the tube has a polished contact mark beside the fitting. I cannot verify pressure tightness from this view. I did not perform calibration or pressure testing.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Tubing support liner is split at the clamp and a polished contact/rub mark is visible on the tube adjacent to the elbow fitting. Pressure tightness and calibration are not assessable from this view.

Recommended action

Replace split support liner and inspect tube wall thickness at the polished contact mark; monitor for leak after re-clamping.

Evidence, in detail

SNS-FIT-02 / Tubing fittings and supports: condition and evidence

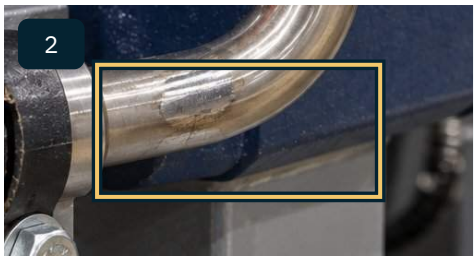
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Split Support Liner

WARNING

Elastomeric clamp liner split at parting line

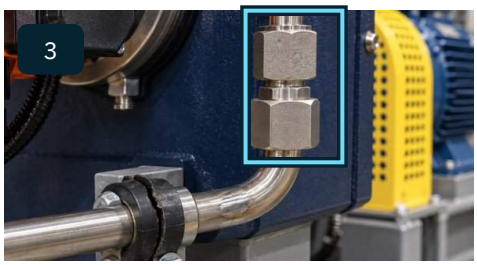


DETAIL / RECORDED REGION

2 / Polished Rub Mark

WARNING

Contact wear on tube beside elbow fitting

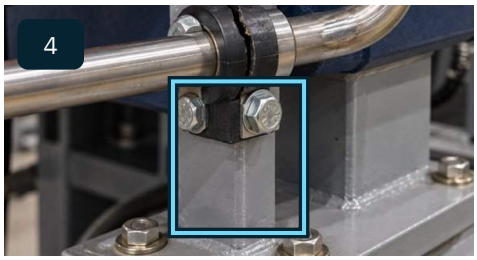


DETAIL / RECORDED REGION

3 / Compression Fittings

INFO

Elbow and union fittings appear intact



DETAIL / RECORDED REGION

4 / Pedestal Support

GOOD

Clamp block bolted to pedestal, secure

Inspection notes & supporting detail

Checklist instruction

Look for kinks, rubbing and unsupported spans; calibration and pressure tightness require separate evidence. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Black elastomeric support liner within the clamp block shows a visible split/separation at the parting line. [MEDIUM]

Polished contact mark on the stainless tube adjacent to the elbow fitting, consistent with rubbing/fretting. [MEDIUM]

Compression fittings and pedestal support hardware appear installed and torqued; no loose bolts or misalignment visible. [NONE]

Pressure tightness and calibration cannot be verified from image; requires separate test evidence. [NONE]

Ventilation filter: reference view

CHECK 43 OF 49 / CTL-FLT-01 / Recorded

10 Feb 2026 / 11:06

EVIDENCE 01 / Synthetic inspection photo · CTL-FLT-01

Technician observation

I photographed ventilation filter. The filter pleats are heavily matted with gray lint, especially at the lower edge. The removed intake grille is also dirty. I did not open or inspect the electrical compartment.

Luthier analysis

AI severity: MEDIUM / Human review: Unreviewed

Ventilation filter pleats are heavily loaded with gray lint, most densely at the lower edge, and the removed intake grille shows significant dust accumulation. Airflow is likely restricted; filter and grille service is warranted.

Recommended action

Replace ventilation filter element and clean intake grille; recheck enclosure temperature after service.

Evidence, in detail

CTL-FLT-01 / Ventilation filter: reference view

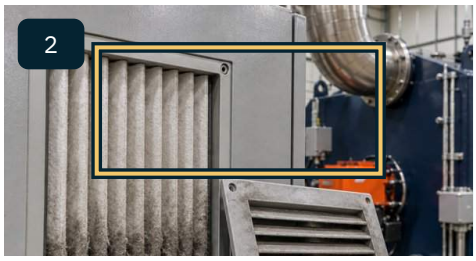
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Heavy Lint Loading

WARNING

Dense gray lint matted across lower filter pleats

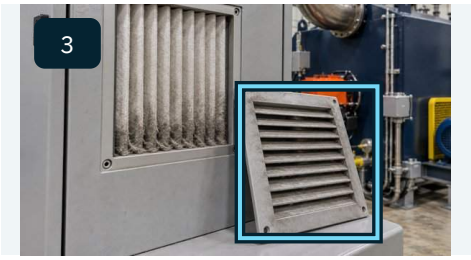


DETAIL / RECORDED REGION

2 / Pleat Face Fouling

WARNING

Upper pleats also coated, reducing effective area



DETAIL / RECORDED REGION

3 / Dirty Intake Grille

INFO

Removed louver grille shows dust film accumulation

Inspection notes & supporting detail

Checklist instruction

Capture the filter face and grille without opening the electrical compartment.

Detailed AI observations

Pleated filter media matted with gray lint across full face, obscuring pleat channels. [MEDIUM]

Lint loading is concentrated along the lower edge of the filter, consistent with gravity settling and advanced loading. [MEDIUM]

CTL-FLT-01 / Ventilation filter: reference view

Removed intake grille louvers show dust film and debris, indicating overdue cleaning of the intake path. [LOW]

Filter frame and cabinet housing appear physically intact with no damage or foreign material intrusion beyond dust. [NONE]

Ventilation filter: condition and evidence

CHECK 44 OF 49 / CTL-FLT-02 / Recorded

10 Feb 2026 / 11:09

EVIDENCE 01 / Synthetic inspection photo · CTL-FLT-02

Technician observation

I checked the accessible surfaces closely. The filter pleats are heavily matted with gray lint, especially at the lower edge. The removed intake grille is also dirty. I recorded enclosure temperature at 48 C in mode M1 and a cabinet-temperature warning in the alarm history. I did not open or inspect the electrical compartment.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Cabinet ventilation filter pleats are heavily loaded with gray lint and the removed intake grille is visibly soiled; combined with the reported 48 °C enclosure temperature and cabinet-temperature alarm, airflow is clearly restricted.

Recommended action

Replace filter element and clean intake grille; re-check cabinet temperature after restoration.

Evidence, in detail

CTL-FLT-02 / Ventilation filter: condition and evidence

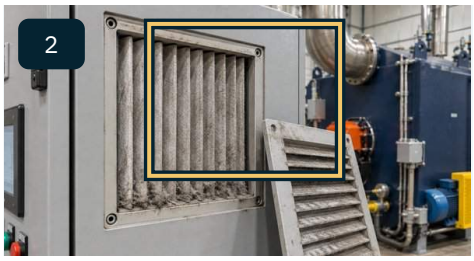
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Heavy Lint Loading

CRITICAL

Matted gray lint bridging pleats at lower edge



DETAIL / RECORDED REGION

2 / Loaded Pleat Faces

WARNING

Dust film across full filter face reduces airflow

DETAIL / RECORDED REGION

3 / Soiled Intake Grille

WARNING

Dust and fibers trapped between louver slats

Inspection notes & supporting detail

Checklist instruction

Compare visible loading with the clean reference; record enclosure temperature separately. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Filter pleats matted with gray lint across full face, heaviest at lower edge. [HIGH]

Removed intake louver grille shows dust/lint accumulation between slats. [MEDIUM]

CTL-FLT-02 / Ventilation filter: condition and evidence

Technician-reported 48 °C cabinet temperature in M1 with prior cabinet-temp alarm is consistent with restricted intake airflow. [HIGH]

Filter frame and surrounding enclosure surfaces appear physically intact; no damage to pleat media visible. [NONE]

Flexible connector and clamps: reference view

CHECK 45 OF 49 / DUC-JNT-01 / Recorded

10 Feb 2026 / 11:12

EVIDENCE 01 / Synthetic inspection photo · DUC-JNT-01

Technician observation

I photographed flexible connector and clamps. The outer fabric fold is split with exposed fibers and dark residue beside the clamp. The rear underside is outside this camera view. I did not perform a leak test or inspect the concealed inner fabric.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

The flexible fabric connector shows a torn fold with exposed fibers and dark residue adjacent to the downstream flange clamp, consistent with the technician's report; the rear underside is not visible in this view.

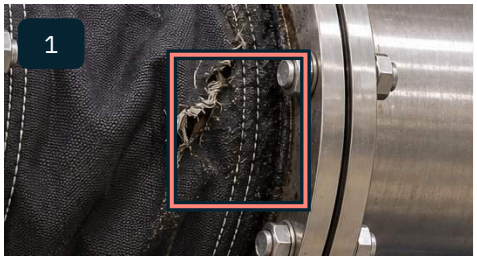
Recommended action

Schedule flexible connector replacement; inspect concealed underside and perform leak test before continued service.

Evidence, in detail

DUC-JNT-01 / Flexible connector and clamps: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

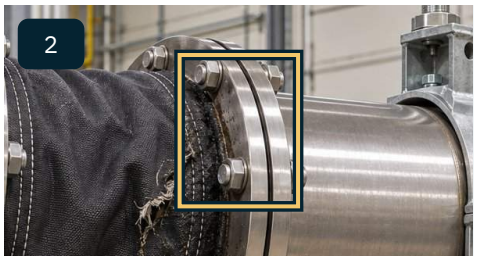


DETAIL / RECORDED REGION

1 / Torn Fabric Fold

CRITICAL

Split fold with exposed frayed fibers



DETAIL / RECORDED REGION

2 / Dark Residue Track

WARNING

Dark staining beside downstream clamp face

DETAIL / RECORDED REGION

4 / Upstream Flange Clamp

INFO

Bolted flange appears seated on visible side

Inspection notes & supporting detail

Checklist instruction

Capture the entire flexible section, both ends and adjacent support.

Detailed AI observations

Outer fabric fold is split with exposed frayed fibers near the downstream flange. [HIGH]

Dark residue/tracking visible on the fabric adjacent to the clamp, suggesting past leakage or contamination. [HIGH]

DUC-JNT-01 / Flexible connector and clamps: reference view

Rear underside of the connector is outside the camera view; concealed inner fabric not assessed. [LOW]

Flange bolting and clamp hardware appear seated and intact on the visible side. [NONE]

Flexible connector and clamps: condition and evidence

CHECK 46 OF 49 / DUC-JNT-02 / Recorded

10 Feb 2026 / 11:15

EVIDENCE 01 / Synthetic inspection photo · DUC-JNT-02

Technician observation

I checked the accessible surfaces closely. The outer fabric fold is split with exposed fibers and dark residue beside the clamp. The rear underside is outside this camera view. I did not perform a leak test or inspect the concealed inner fabric.

Luthier analysis

AI severity: HIGH / Human review: Unreviewed

Flexible fabric connector between the two flanged spool pieces shows a split fold with exposed fibers and dark residue near the flange, consistent with the technician's observation. Rear underside not visible in this view.

Recommended action

Isolate and schedule replacement of the flexible connector; inspect concealed underside and perform leak test before return to service.

Evidence, in detail

DUC-JNT-02 / Flexible connector and clamps: condition and evidence

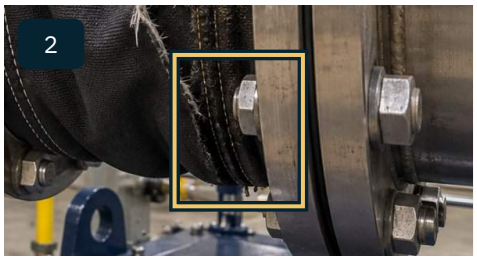
One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Torn Fabric Fold

CRITICAL

Split outer ply with exposed frayed fibers

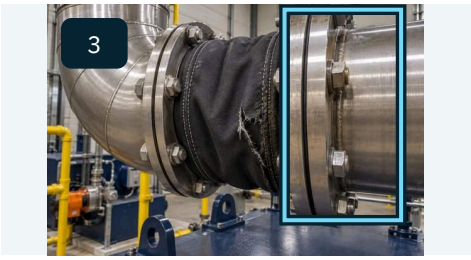


DETAIL / RECORDED REGION

2 / Dark Residue Track

WARNING

Streak toward flange indicates leakage path



DETAIL / RECORDED REGION

3 / Right Flange Joint

INFO

Bolting seated; sealing face adjacent to tear

Inspection notes & supporting detail

Checklist instruction

Look for torn folds, displaced clamps or dark tracks; identify any obscured side. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Outer fabric fold is torn with frayed fibers protruding along the mid-span of the connector. [HIGH]

DUC-JNT-02 / Flexible connector and clamps: condition and evidence

Dark streak/residue tracks down the fabric toward the right-hand flange, suggesting leakage or contamination past the seal. [HIGH]

Flange bolting appears fully installed and seated on the visible face; no displaced clamp hardware evident in view. [LOW]

Rear underside of the connector is not captured; concealed inner fabric condition unverified. [LOW]

Skid base anchors: reference view

CHECK 47 OF 49 / FRM-ANC-01 / Recorded

10 Feb 2026 / 11:18

EVIDENCE 01 / Synthetic inspection photo · FRM-ANC-01

Technician observation

I photographed skid base anchors. The anchor washer is rust stained and the adjacent paint is flaking. There is a small chipped area at the floor contact edge. I did not proof-test the anchors or establish their load capacity.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Skid base anchor plate shows rust staining radiating from the anchor washer with associated paint discoloration and a chipped edge at the floor contact point. Cosmetic/surface degradation is visible; anchor capacity was not assessed.

Recommended action

Clean and touch up affected area; monitor anchor washer for progressive corrosion.

Evidence, in detail

FRM-ANC-01 / Skid base anchors: reference view

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Rust-Stained Anchor Washer

WARNING

Corrosion staining radiating from anchor washer

DETAIL / RECORDED REGION

2 / Paint Flaking

WARNING

Coating degradation adjacent to anchor bolt

DETAIL / RECORDED REGION

3 / Chipped Plate Edge

INFO

Small chip at floor contact edge

DETAIL / RECORDED REGION

4 / Secondary Anchor

INFO

Rear anchor washer shows lighter staining

FRM-ANC-01 / Skid base anchors: reference view

Inspection notes & supporting detail

Checklist instruction

Capture the support plate, anchor head and floor contact together.

Detailed AI observations

Rust staining emanates from the front anchor washer across the base plate paint. [LOW]

Paint flaking and discoloration surrounds the anchor washer area. [LOW]

Small chipped area visible at the base plate edge near floor contact. [LOW]

Anchor hardware appears seated; no proof-test performed, load capacity not established. [NONE]

Skid base anchors: condition and evidence

CHECK 48 OF 49 / FRM-ANC-02 / Recorded

10 Feb 2026 / 11:21

EVIDENCE 01 / Synthetic inspection photo · FRM-ANC-02

Technician observation

I checked the accessible surfaces closely. The anchor washer is rust stained and the adjacent paint is flaking. There is a small chipped area at the floor contact edge. I did not proof-test the anchors or establish their load capacity.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Skid base anchor at the near corner shows rust staining around the washer and localized paint flaking with a small chip at the floor contact edge. Hardware appears seated; no proof-test performed.

Recommended action

Clean and re-coat affected anchor area to arrest corrosion; monitor at next inspection.

Evidence, in detail

FRM-ANC-02 / Skid base anchors: condition and evidence

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Rust-Stained Washer

WARNING

Corrosion bleed from washer onto base plate

DETAIL / RECORDED REGION

2 / Paint Flaking

WARNING

Coating lifting adjacent to anchor washer

DETAIL / RECORDED REGION

3 / Edge Chip

INFO

Small chip at base plate floor edge

DETAIL / RECORDED REGION

4 / Adjacent Anchor

GOOD

Second anchor seated, coating intact

FRM-ANC-02 / Skid base anchors: condition and evidence

Inspection notes & supporting detail

Checklist instruction

Look for loose-looking hardware, corrosion or damaged support; do not infer anchor capacity from appearance. Capture the relevant detail and record what remains unverified.

Detailed AI observations

Anchor washer at foreground corner exhibits rust staining bleeding onto the base plate. [LOW]

Paint on the base plate near the anchor is flaking, exposing substrate. [LOW]

Small chip visible at the base plate edge where it meets the floor. [LOW]

Anchor nuts appear fully engaged and seated; no visible looseness, but capacity not verified. [NONE]

Overall equipment baseline

CHECK 49 OF 49 / item-overall-commissioning-baseline / Recorded

10 Feb 2026 / 11:24

EVIDENCE 01 / Synthetic inspection photo · item-overall-commissioning-baseline

Technician observation

I checked the accessible surfaces closely. I identified DEMO-001 from the machine label. Dust, chipped paint and local rust staining are visible on the lower frame; all major assemblies remain installed. This overview does not replace the individual component checks recorded below.

Luthier analysis

AI severity: LOW / Human review: Unreviewed

Unit is identifiable as ATLAS T-240 (DEMO-001) with overall silhouette and major assemblies matching the commissioning reference. Lower frame shows dust accumulation, chipped paint, and localized rust staining consistent with the technician's observation.

Recommended action

Log cosmetic frame corrosion for future touch-up; proceed with individual component checks.

Evidence, in detail

item-overall-commissioning-baseline / Overall equipment baseline

One recorded region per image. The outline identifies the area described; it does not confirm a defect.

DETAIL / RECORDED REGION

1 / Frame Rust Staining

WARNING

Localized rust and chipped paint on skid base

DETAIL / RECORDED REGION

2 / Nameplate Confirmation

INFO

ATLAS T-240 DEMO-001 identity confirmed

DETAIL / RECORDED REGION

3 / Lower Beam Corrosion

WARNING

Rust bloom along right-side frame member

DETAIL / RECORDED REGION

4 / Assemblies Intact

GOOD

Blower, vessel, and drive present as expected

item-overall-commissioning-baseline / Overall equipment baseline

Inspection notes & supporting detail

Checklist instruction

Record whole-machine baseline and identification.

Detailed AI observations

Overall unit layout - blower housing, main vessel, burner assembly, control panel, and piping - matches commissioning reference with all major assemblies present. [NONE]

Lower structural frame shows chipped paint and localized rust staining, particularly along base beams and skid edges. [LOW]

Surface dust and light debris visible on skid decking and lower components; no impact on component integrity. [LOW]

Nameplate confirms unit identity as ATLAS T-240, DEMO-001, matching technician's identification. [NONE]

Human review

Decisions and maintenance actions recorded by your team.

Review pending / Workflow revision 0

No checklist review decisions recorded.

Review audit history

No human review events recorded.

Source & provenance

The saved source, capture revision and analysis history.

Fictional demonstration inspection. Technician observations, measurements and visit dates are simulated. Every step has an independently generated condition photograph; checklist guidance is separate. AI findings are actual Luthier responses to those photographs and notes, with execution timestamps preserved. AI findings have not been signed off by a technician. This inspection is the saved source for its HTML and PDF.

Source snapshot SHA-256

d6bdf913fa698fe7a86f22589501a9288942fd7c210cc10e4fefc0f665abc9e5

Report layout inspection-v10-evidence-atlas

Capture status: submitted / revision 50 / submission 1

Technician submission: Imported capture; no attributed human sign-off

BRN-01 / Burner assembly: overview

AI identification: burner / industrial gas burner / burner control assembly

An orange burner control/ignition assembly with flanged mounting to a boiler wall, gas piping (yellow) and conduit connections is visible.

Analysis #53 / claude-opus-4-7 / 2026-09-14T16:39:52.181638+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

BRN-02 / Burner assembly: condition

AI identification: rotating machinery / gearbox drive assembly / housing with nameplate and flanged shaft coupling

An orange cast housing with bolted inspection covers and nameplates is mounted next to a large bolted flange on a shaft, typical of an industrial gearbox or drive unit.

Analysis #54 / claude-opus-4-7 / 2026-09-14T16:39:58.138854+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

BRN-03 / Burner assembly: evidence and follow-up

AI identification: valve actuator / electric/hydraulic actuator / actuator housing with flanged shaft coupling

An orange housing with terminal boxes mounted to a bolted flange on a large blue vessel, with flexible conduits and hydraulic tubing, suggests a powered actuator assembly on process equipment.

Analysis #56 / claude-opus-4-7 / 2026-09-14T16:40:14.482307+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FAN-01 / Exhaust fan and drive: overview

AI identification: industrial fan / centrifugal blower / motor and belt drive assembly

A large centrifugal blower housing connected via a belt guard to an electric motor, mounted on a skid next to a blue enclosure labeled Atlas T-240.

Analysis #55 / claude-opus-4-7 / 2026-09-14T16:40:10.346685+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FAN-02 / Exhaust fan and drive: condition

AI identification: pump / centrifugal pump / baseplate and mounting

A large gray volute casing on a skid baseplate is coupled via a guarded coupling to a blue electric motor, typical of a horizontal centrifugal pump assembly.

Analysis #57 / claude-opus-4-7 / 2026-09-14T16:40:16.602471+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FAN-03 / Exhaust fan and drive: evidence and follow-up

AI identification: rotating machinery / industrial pump or refiner / bearing housing pedestal / baseplate

A large flanged rotating machine mounted on a fabricated steel baseplate with a blue electric motor and yellow coupling guard, viewed from the side at the pedestal mounting bolts.

Analysis #59 / claude-opus-4-7 / 2026-09-14T16:40:50.531807+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CHM-01 / Thermal chamber and hatch: overview

AI identification: thermal equipment / industrial burner/thermal oxidizer / main combustion chamber with burner and blower

A large blue skid-mounted thermal unit labeled 'Veyra Thermal Works Atlas T-240' with a gas train, burner assembly on the left, inspection hatch, and a large centrifugal blower on the right suggests a packaged burner or thermal oxidizer system.

Analysis #58 / claude-opus-4-7 / 2026-09-14T16:40:35.152402+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CHM-02 / Thermal chamber and hatch: condition

AI identification: air pollution control / dust collector / access door

A bolted stainless access hatch with dual handles on a large blue industrial housing, with a flanged ducted blower assembly visible behind, typical of a baghouse or similar dust-collection enclosure.

Analysis #61 / claude-opus-4-7 / 2026-09-14T16:40:58.015694+00:00

Provenance / CHM-02 / Thermal chamber and hatch: condition

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CHM-03 / Thermal chamber and hatch: evidence and follow-up

AI identification: industrial equipment / enclosure/housing / access/inspection door

A bolted stainless steel access door with hinges and handles mounted on a blue industrial housing, likely an inspection hatch on process equipment.

Analysis #60 / claude-opus-4-7 / 2026-09-14T16:40:59.745046+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DMP-01 / Airflow damper: overview

AI identification: valve / control valve / actuator linkage with position indicator

Large flanged stainless steel valve body with an electric/gearbox actuator connected via a lever arm and scaled position indicator plate mounted on a skid.

Analysis #62 / claude-opus-4-7 / 2026-09-14T16:41:22.891951+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DMP-02 / Airflow damper: condition

AI identification: mixing equipment / industrial mixer/blender / drive coupling and tilt mechanism

A stainless steel conical/bowl vessel with bolted flange is connected via a graduated tilt/index plate and linkage to a gray drive housing with output shaft, typical of a tilting mixer or blender drive.

Analysis #63 / claude-opus-4-7 / 2026-09-14T16:41:22.978499+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DMP-03 / Airflow damper: evidence and follow-up

AI identification: valve / damper valve with actuator / actuator linkage and position indicator

A large flanged stainless steel elbow duct connects to a rotary valve/damper whose shaft is driven by an actuator via a crank arm, with a graduated position indicator scale visible.

Analysis #66 / claude-opus-4-7 / 2026-09-14T16:42:26.100150+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

SNS-01 / Sensors and impulse tubing: overview

AI identification: boiler / industrial burner boiler / burner assembly and gas train

Shows a Beckett-style burner mounted on a large blue vessel with gas piping, ball valves, and control boxes typical of an industrial boiler burner front.

Provenance / SNS-01 / Sensors and impulse tubing: overview

Analysis #64 / claude-opus-4-7 / 2026-09-14T16:42:16.116597+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

SNS-02 / Sensors and impulse tubing: condition

AI identification: industrial machinery / skid-mounted process unit / piping and valve manifold

Close-up of a skid-mounted industrial unit showing hydraulic hoses, stainless steel piping with ball valves, and a motor/drive housing in orange.

Analysis #65 / claude-opus-4-7 / 2026-09-14T16:42:24.436941+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

SNS-03 / Sensors and impulse tubing: evidence and follow-up

AI identification: industrial machinery / skid-mounted process equipment / piping and actuator assembly

Skid-mounted industrial equipment with hydraulic/pneumatic piping, ball valves, and an orange actuator housing, but the overall machine type is not clearly identifiable.

Analysis #67 / claude-opus-4-7 / 2026-09-14T16:42:43.088902+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CTL-01 / Control cabinet: overview

AI identification: thermal equipment / industrial burner/thermal oxidizer skid / control panel and burner assembly

Skid-mounted blue vessel labeled 'Thermal Works' with a large motor/blower, gas train piping, orange burner management unit, and adjacent HMI control cabinet suggests a packaged combustion or thermal oxidizer unit.

Analysis #68 / claude-opus-4-7 / 2026-09-14T16:42:44.707929+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CTL-02 / Control cabinet: condition

AI identification: control equipment / control cabinet / ventilation louver

Foreground shows an industrial control panel enclosure with HMI touchscreen, push buttons and a dust-clogged louvered vent, with a boiler and burner visible in the background.

Analysis #69 / claude-opus-4-7 / 2026-09-14T16:43:03.693304+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CTL-03 / Control cabinet: evidence and follow-up

AI identification: control cabinet / electrical enclosure / ventilation air filter

Provenance / CTL-03 / Control cabinet: evidence and follow-up

Front of an industrial control panel with HMI screen, key lock and pushbuttons, showing a lint-clogged intake filter behind a hinged louvered grille, with boiler/piping equipment in the background.

Analysis #72 / claude-opus-4-7 / 2026-09-14T16:43:27.554805+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DUC-01 / Ductwork and flexible connector: overview

AI identification: piping / expansion joint / fabric bellows with flanges

Large stainless flanged pipe elbow connected via a bolted flanged fabric/textile expansion joint to another pipe section, mounted on a skid in an industrial facility.

Analysis #71 / claude-opus-4-7 / 2026-09-14T16:43:27.790357+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DUC-02 / Ductwork and flexible connector: condition

AI identification: piping / expansion joint / fabric bellows with flanges

Two large bolted flanges connect a flexible black fabric/rubber bellows section between stainless steel pipe segments, typical of a fabric expansion joint in industrial piping.

Analysis #70 / claude-opus-4-7 / 2026-09-14T16:43:28.493990+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DUC-03 / Ductwork and flexible connector: evidence and follow-up

AI identification: piping / expansion joint / flexible connector with flanges

A fabric/rubber flexible expansion joint bolted between two large stainless steel flanged pipe sections in an industrial facility.

Analysis #73 / claude-opus-4-7 / 2026-09-14T16:43:47.141345+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FRM-01 / Skid and identification: overview

AI identification: boiler / packaged industrial boiler / skid base and gas train piping

A large blue skid-mounted vessel with a yellow gas supply pipe, burner assembly, inspection door and nameplate sits on a structural steel base, consistent with a packaged industrial boiler.

Analysis #76 / claude-opus-4-7 / 2026-09-14T16:45:23.530721+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

Provenance / FRM-02 / Skid and identification: condition

FRM-02 / Skid and identification: condition

AI identification: boiler / industrial boiler / skid base and piping

Large blue enclosed vessel on a steel skid with gas piping, valves, and control actuators labeled 'ATLAS T-240', consistent with a packaged industrial boiler or fired process unit.

Analysis #75 / claude-opus-4-7 / 2026-09-14T16:45:21.311195+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FRM-03 / Skid and identification: evidence and follow-up

AI identification: industrial machinery / hydraulic press / base frame and hydraulic piping

Large blue machine housing labeled 'ATLAS T-240' mounted on a bolted steel base frame with stainless hydraulic piping and yellow supply lines, consistent with a hydraulic press or similar heavy industrial machine.

Analysis #74 / claude-opus-4-7 / 2026-09-14T16:45:00.043334+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FAN-GRD-01 / Coupling guard: reference view

AI identification: rotating equipment / motor-driven fan or blower / coupling guard

A blue electric motor is coupled to a large gray housing (likely a centrifugal fan or blower) with a yellow perforated coupling guard between them, mounted on a common baseframe.

Analysis #78 / claude-opus-4-7 / 2026-09-14T16:45:44.776920+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FAN-GRD-02 / Coupling guard: condition and evidence

AI identification: rotating equipment / motor-driven pump or blower / coupling guard

A yellow perforated coupling guard is mounted on a skid between a blue electric motor and a gray driven machine casing, typical of a motor-pump or motor-blower arrangement.

Analysis #77 / claude-opus-4-7 / 2026-09-14T16:45:38.845982+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FAN-MTR-01 / Drive motor and cooling fins: reference view

AI identification: electric motor / three-phase induction motor / motor housing with terminal box and cooling fan cover

A blue finned TEFC induction motor with terminal box on top, coupling guard (yellow) on the drive end, and fan cowl on the non-drive end, mounted on a skid next to what appears to be a blower/fan casing.

Analysis #79 / claude-opus-4-7 / 2026-09-14T16:45:48.288304+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

Provenance / FAN-MTR-01 / Drive motor and cooling fins: reference view

FAN-MTR-02 / Drive motor and cooling fins: condition and evidence

AI identification: electric motor / three-phase induction motor / motor housing with terminal box and coupling guard

A blue finned cast-iron motor frame with terminal box on top and a yellow perforated coupling guard on the drive-end shaft, typical of an industrial AC induction motor.

Analysis #80 / claude-opus-4-7 / 2026-09-14T16:46:29.552750+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FAN-MNT-01 / Pedestal and hold-downs: reference view

AI identification: rotating equipment / centrifugal fan / baseplate and mounting

Shows a skid-mounted assembly with a bolted baseplate supporting a gray volute-shaped housing and a blue electric motor with a yellow perforated coupling guard, typical of a centrifugal fan or blower package.

Analysis #84 / claude-opus-4-7 / 2026-09-14T16:48:00.844454+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FAN-MNT-02 / Pedestal and hold-downs: condition and evidence

AI identification: size reduction equipment / industrial mill / baseplate and mounting

Heavy welded steel baseplate with anchor bolts supporting a large housing coupled to a yellow-guarded motor, consistent with a hammer mill or similar grinding machine.

Analysis #81 / claude-opus-4-7 / 2026-09-14T16:46:29.708889+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

BRN-FLG-01 / Burner mounting flange: reference view

AI identification: industrial mixer / batch mixer / discharge door / ram assembly

Large bolted circular flange on a blue housing with hydraulic actuators and an orange discharge/ram mechanism, alongside a motor drive, typical of an internal batch mixer or similar heavy processing machine.

Analysis #82 / claude-opus-4-7 / 2026-09-14T16:46:50.272863+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

BRN-FLG-02 / Burner mounting flange: condition and evidence

AI identification: size reduction equipment / horizontal media mill / shaft seal / flanged end cover

A large bolted stainless flange on a blue horizontal cylindrical vessel with an orange drive-end housing and a yellow motor on a skid suggests a horizontal bead/media mill assembly, viewed from the side at the shaft seal area.

Provenance / BRN-FLG-02 / Burner mounting flange: condition and evidence

Analysis #85 / claude-opus-4-7 / 2026-09-14T16:47:59.948026+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

BRN-TUB-01 / External burner tubing: reference view

AI identification: process piping / gas/fluid piping skid / flanged pipe with ball valves and hydraulic connections

Yellow-painted flanged piping with ball valves, stainless fittings, flexible conduit and an orange actuator/manifold suggest a fluid or gas distribution assembly on an industrial skid.

Analysis #83 / claude-opus-4-7 / 2026-09-14T16:47:23.342699+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

BRN-TUB-02 / External burner tubing: condition and evidence

AI identification: burner / industrial gas burner / burner assembly with gas train

Orange actuator/control unit mounted on a flanged combustion head with yellow gas piping and ball valves, typical of an industrial gas burner on a boiler or furnace.

Analysis #86 / claude-opus-4-7 / 2026-09-14T16:48:13.380841+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CHM-SEA-01 / Hatch perimeter seal: reference view

AI identification: dust collector / baghouse or filter housing / access door

Bolted stainless inspection/access hatch with handles and hinges on a blue industrial housing, with piping and actuator visible behind suggesting a filtration or process vessel.

Analysis #87 / claude-opus-4-7 / 2026-09-14T16:48:19.980038+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CHM-SEA-02 / Hatch perimeter seal: condition and evidence

AI identification: industrial furnace/oven / thermal processing equipment / access door hinge and latch

Close-up of a heavy insulated access door with stainless hinge, handle, and bolt latch on a blue industrial enclosure, with process machinery visible in the background.

Analysis #89 / claude-opus-4-7 / 2026-09-14T16:48:59.028303+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DMP-LNK-01 / Actuator linkage: reference view

AI identification: processing machinery / rotary drum machine / drive linkage and bearing housing

Provenance / DMP-LNK-01 / Actuator linkage: reference view

Close-up shows a large bolted flanged drum with a graduated scale, connected via a crank arm to a gearbox output shaft driven by an electric motor, suggesting an oscillating or indexing drive mechanism.

Analysis #88 / claude-opus-4-7 / 2026-09-14T16:48:35.761452+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DMP-LNK-02 / Actuator linkage: condition and evidence

AI identification: mechanical drive / crank and connecting rod mechanism / connecting rod linkage

A large flywheel-like disc with a scale is linked via a connecting rod between two pinned crank bearings to a motor/gearbox output shaft, typical of a crank-driven press or reciprocating drive.

Analysis #90 / claude-opus-4-7 / 2026-09-14T16:49:13.456711+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DMP-POS-01 / Position pointer: reference view

AI identification: valve / control valve / actuator linkage with position indicator

A welded stainless steel elbow-mounted valve body with a bolted flange connects via a lever arm and scaled position indicator to a gray actuator, typical of an industrial rotary control valve assembly.

Analysis #91 / claude-opus-4-7 / 2026-09-14T16:49:33.792244+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DMP-POS-02 / Position pointer: condition and evidence

AI identification: valve / actuated control valve / actuator linkage and valve body

A stainless steel elbow/valve body with bolted flange is connected via a lever arm and scale indicator to a gray actuator housing, typical of an actuated control or butterfly valve assembly.

Analysis #92 / claude-opus-4-7 / 2026-09-14T16:49:48.727631+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

SNS-FIT-01 / Tubing fittings and supports: reference view

AI identification: pump skid / motor-driven pump unit / piping and tubing manifold

Skid-mounted industrial equipment with a blue housing, stainless steel tubing with compression fittings and clamps, an orange actuator/valve, and a yellow-and-blue electric motor visible to the right.

Analysis #93 / claude-opus-4-7 / 2026-09-14T16:49:54.106222+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

Provenance / SNS-FIT-02 / Tubing fittings and supports: condition and evidence

SNS-FIT-02 / Tubing fittings and supports: condition and evidence

AI identification: pump / dosing pump / piping and tube fittings

Close-up of a skid-mounted unit with stainless tubing, compression fittings, pipe clamp support, and a yellow electric motor beside an orange pump head typical of a metering/dosing pump.

Analysis #95 / claude-opus-4-7 / 2026-09-14T16:50:48.677768+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CTL-FLT-01 / Ventilation filter: reference view

AI identification: air handling / air filter / pleated filter element and louver grille

A dirty pleated air filter is exposed in a cabinet opening with its louvered cover removed, set in an industrial equipment room with piping and a boiler/burner in the background.

Analysis #94 / claude-opus-4-7 / 2026-09-14T16:50:14.511955+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

CTL-FLT-02 / Ventilation filter: condition and evidence

AI identification: air handling equipment / air filter / pleated filter element with louvered cover

A dirty pleated air intake filter is exposed behind a removed louvered grille on an equipment cabinet, with piping and a motor-driven skid in the background.

Analysis #96 / claude-opus-4-7 / 2026-09-14T16:50:49.815914+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DUC-JNT-01 / Flexible connector and clamps: reference view

AI identification: piping / expansion joint / fabric bellows between flanges

A flexible fabric expansion joint bolted between two flanged stainless steel pipe sections with an elbow and pipe support visible in an industrial facility.

Analysis #97 / claude-opus-4-7 / 2026-09-14T16:50:49.957727+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

DUC-JNT-02 / Flexible connector and clamps: condition and evidence

AI identification: piping / expansion joint / flanged connection with bellows cover

Two large bolted flanges on stainless piping joined by a fabric-covered flexible section, typical of an expansion joint or flexible coupling in industrial pipework.

Provenance / DUC-JNT-02 / Flexible connector and clamps: condition and evidence

Analysis #100 / claude-opus-4-7 / 2026-09-14T16:52:08.650828+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FRM-ANC-01 / Skid base anchors: reference view

AI identification: pump / skid-mounted pump unit / baseplate/skid frame

The image shows the welded steel skid baseplate and anchor foot of an industrial pump/motor package, with piping, valves, a motor and a ventilated guard visible above.

Analysis #99 / claude-opus-4-7 / 2026-09-14T16:52:06.215354+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

FRM-ANC-02 / Skid base anchors: condition and evidence

AI identification: rotating equipment package / skid-mounted compressor/pump package / baseplate/skid anchor foot

Low-angle shot focuses on a welded steel skid baseplate with anchor bolts, supporting equipment that appears to include a motor and piping typical of a compressor or pump package.

Analysis #98 / claude-opus-4-7 / 2026-09-14T16:51:29.054055+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]

item-overall-commissioning-baseline / Overall equipment baseline

AI identification: thermal oxidizer / regenerative thermal oxidizer / skid package with blower, burner and control panel

Skid-mounted blue combustion chamber labeled 'Thermal Works' with large centrifugal blower, gas train, burner assembly and control cabinet suggests a packaged thermal oxidizer for industrial exhaust treatment.

Analysis #102 / claude-opus-4-7 / 2026-09-14T16:52:28.191261+00:00

Prompt: inspect-v2 / Source examples: [2, 3, 8, 11, 12]