



AIC Rail
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Machine Inspection Sample Screens

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Boring Mill - Daily Machine Inspection

Out of Service

Out of Service Reason

General Inspection Checklist

Are all Gages in working order?

Yes

No

Are all Gage Calibrations in date?

Yes

No

Are all Gage calibration labels legible?

Yes

No

Work Area Lighting Sufficient?

Yes

No

Is the Work Area Clean and organized?

Yes

No

Condition of Machine Acceptable?

Yes

No

Are Work Instructions accessible?

Yes

No

Boring Mill

Wheel Bore Taper

Wheel Bore Out of Round

Wheel Plane

Wheel Radial

Wheel Temperature between any 2 locations on the 2 components:

Wheel Temperature location 1:

Wheel Temperature location 2:

Wheel temperature between any 2 locations on the 2 components within 25 degrees?

Yes

No

Wheel Chamfer between 1/8" and 3/8"?

Yes

No

Demounts - Daily Machine Inspection

Out of Service

Out of Service Reason

General Inspection Checklist

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Yes

No

Are all Gage Calibrations in date?

Yes

No

Are all Gage calibration labels legible?

Yes

No

Work Area Lighting Sufficient?

Yes

No

Is the Work Area Clean and organized?

Yes

No

Condition of Machine Acceptable?

Yes

No

Are Work Instructions accessible?

Yes

No

Demounts

Equipment in Working Order

Yes

No

Magnetic Partical Inspection - Daily Machine Inspection

Out of Service

Out of Service Reason

General Inspection Checklist

Are all Gages in working order?	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Are all Gage Calibrations in date?	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Are all Gage calibration labels legible?	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Work Area Lighting Sufficient?	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Is the Work Area Clean and organized?	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Condition of Machine Acceptable?	<input type="button" value="Yes"/>	<input type="button" value="No"/>
Are Work Instructions accessible?	<input type="button" value="Yes"/>	<input type="button" value="No"/>

Daily System Performance Verification

Test Bar verified to be clean under ambient light/black light and demagnetized.

Number of lines visible on test bar (minimum of 2)

*Operator is alerted if out of range

Water Break Test

Amp Turns Reading

Light Source

*UV Light or White Light. Load last value

Light Reading

(uw/cm2)

Concentration Reading (must be between 0.1 and 0.4 ml)

(ml)

*Operator is alerted if out of range

Mi-Glow Powder Added

(oz)

*Required if Concentration Reading is out of range

Water Added

(g)

*Required if Concentration Reading is out of range

Powder in bath solution

(oz)

*Read Only Field. Load last value from MPI Weekly Inspection

Magnetic Partical Inspection - Weekly Machine Inspection

Out of Service

Out of Service Reason

General Inspection Checklist

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Is the Work Area Clean and organized?	Yes	No
Condition of Machine Acceptable?	Yes	No
Are Work Instructions accessible?	Yes	No

Mandatory Inspection of Magnetic Particle Testing Equipment Rule 1.7.2

1. Date of preparation of bath solution, bath container cleaned, agitation, and circulation system flushed and filtering screens cleaned:

Select a date

15

2. Amount of Suspensoid (oz)

3. Concentration and contamination of bath solution.

Powder in bath solution (oz)

Amount of magnetic powder (ml)

Amount of contamination-dirt, chips or other foreign matter and magnetic powder (ml)

4. Test for ultraviolet light, minimum acceptable intensity is 1000 uW/cm² at the surface being examined.

Ultraviolet light reading (uW/cm²)

5. Test Ambient Visible Light in the darkened area. The maximum ambient visible light level is 2 foot candles(fc).

Ambient Visible Light Reading (fc)

Inspector:

UT Axle - Daily Machine Inspection

Out of Service

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Are Work Instructions accessible?	Yes	No

Ultrasonic Inspection - Axles

Transducer Frequency 2.25MHz	Yes	No
Transducer diameter 0.5" to 1"	Yes	No
Velocity set to 0.233 in/micro sec	Yes	No
Range set to 10"	Yes	No
Initial Pulse set to Zero	Yes	No
Gates set at 5" to 10"	Yes	No
Gage Threshold set to 80%	Yes	No
Gate threshold set to 16%	Yes	No
Set to amplitude on readout	Yes	No

Wheel Lathe - Daily Machine Inspection

Out of Service

Out of Service Reason

General Inspection Checklist

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Yes

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Are all Gage Calibrations in date?

Yes

No

Are all Gage calibration labels legible?

Yes

No

Work Area Lighting Sufficient?

Yes

No

Is the Work Area Clean and organized?

Yes

No

Condition of Machine Acceptable?

Yes

No

Are Work Instructions accessible?

Yes

No

Wheel Lathe

Use Dial Gage - Check Work 1.5.1

Machine Number:

Eccentricity

Wheel 1 Radial

Wheel 1 Plane

Wheel 2 Radial

Wheel 2 Plane

Wheel 1 S/N:

Wheel 1 S/N:

Machine Centers Acceptable?

Yes

No

Wheel Press - Daily Machine Inspection

Out of Service

Out of Service Reason

General Inspection Checklist

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Yes

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Are all Gage calibration labels legible?

Yes

No

Work Area Lighting Sufficient?

Yes

No

Is the Work Area Clean and organized?

Yes

No

Condition of Machine Acceptable?

Yes

No

Are Work Instructions accessible?

Yes

No

Wheel Press

Actual temperature readings taken of wheel seats and wheel bores:

Left Wheel Seat

Left Wheel Bore

Right Wheel Seat

Right Wheel Bore

Temperature reading between center of wheel bore and axle wheel seat within 15 degrees?

Yes

No

Actual readings of pressure gage and mounting press recorder:

Press Recorder (Tons)

Pressure Gauge (Tons)

Left Graph

Right Graph

Left Gage

Right Gage

Pressure Gage and Recorder within 2%

Yes

No

First Wheel Location Gage Checked and In Tolerance?

Yes

No

Back to Back Mounting Gage Checked and In Tolerance?

Yes

No

Axle Inspection - Daily Machine Inspection

Out of Service

Out of Service Reason

General Inspection Checklist

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Yes

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Yes

No

Are all Gage calibration labels legible?

Yes

No

Work Area Lighting Sufficient?

Yes

No

Is the Work Area Clean and organized?

Yes

No

Condition of Machine Acceptable?

Yes

No

Are Work Instructions accessible?

Yes

No

Axle Inspection

Machine Centers Acceptable

Yes

No

Micrometer Checked

Yes

No

Surface Roughness Tester Checked

Yes

No

Axle Lathe - Daily Machine Inspection

Out of Service

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Are all Gage calibration labels legible?

Yes

No

Work Area Lighting Sufficient?

Yes

No

Is the Work Area Clean and organized?

Yes

No

Condition of Machine Acceptable?

Yes

No

Are Work Instructions accessible?

Yes

No

Axle Lathe

Left Wheel Seat Taper

Right Wheel Seat Taper

Left Wheel Seat Out of Round

Right Wheel Seat Out of Round

Machine Centers Acceptable

Yes

No

Bearing Mount - Daily Machine Inspection

Out of Service

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Torque Wrench Setting Verification (ft/lbs)

Torque Wrench 1:

<input type="button" value="In Use"/>	Serial Number: <input type="text"/>	Set at (ft/lbs): <input type="text"/>	Tested at (ft/lbs): <input type="text"/>
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Torque Wrench 2:

<input type="button" value="In Use"/>	Serial Number: <input type="text"/>	Set at (ft/lbs): <input type="text"/>	Tested at (ft/lbs): <input type="text"/>
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Torque Wrench 3:

<input type="button" value="In Use"/>	Serial Number: <input type="text"/>	Set at (ft/lbs): <input type="text"/>	Tested at (ft/lbs): <input type="text"/>
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3 Spindle Verification (if equipped)

Spindle 1:

Applied Torque (ft/lbs):

Breakaway Torque (ft/lbs):

Spindle 2:

Applied Torque (ft/lbs):

Breakaway Torque (ft/lbs):

Spindle 3:

Applied Torque (ft/lbs):

Breakaway Torque (ft/lbs):