



NUCOR STEEL FLOWOOD, MS

### 2024 ROLL STAND GEARBOX INSPECTION REPORT

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> FolderID: 153656 FormID: 21578186

### **Field Service Ticket**

**Nucor Jackson (003555)** 3630 Fourth St

Flowood, MS 39232

Roll Mill

Priorities	Found:				
Job In	Job Information				
1.	Hi-Speed Job Number	153656			
2.	Asset Type				
3.	Make				
4.	Model				
5.	Serial Number				
6.	Customer Asset ID/Asset Name				
Service	e Call Details				
7.	Service Objectives				
	2024 Roll Stand Gearbox Inspection Survey				
8.	Services Performed				
	Performed 2024 Roll Stand Gearbox Inspection Survey at Roll Mill				
9.	Service Technician Recommendations				
Appro	val Signatures				
10.	Service Technician Signature	Kevin Maxwell			
/	KMKA				
11.	Customer Signature	Cliff Johnson			
(	MASTON				

Performed By: Kevin Maxwell

Date Completed: 09/17/2024



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627285



## Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: STAND 16 Job Number: 153656 Description:Roll Stand 16

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	Danieli
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	Stand 16
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants





Wear Physical Contaminants

acceptable











4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants

	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
e:	arbo	ox Inspection & Evaluation Cl	necklist	
)	8.	Primary drive rotates input shaft in	correct direction	(Yes) Yes
)	9.	Condition of Machinery Guards if	Present	(NA)
)	10.	Condition of Coupling Guards if P	resent	(NA)
	11.	Type of Coupler:		
	12.	Coupling Alignment		
	13.	Condition of Housing		(Pass) Acceptable
)	14.	Condition of Mounting Hardware		(Pass) Acceptable
)	15.	Breather Vent Installed:		(Pass) Present/Acceptable
)	16.	Condition of Piping & connections	(if forced lube system installed)	(Pass) Acceptable
1	17.	Condition of switches, alarms, hea	aters, coolers or other devices	(NA)
	18.	Condition of inspection covers		(Pass) Present/Acceptable
1	19.	Condition of seals & bearings		(Pass) Acceptable
	20.	Gearbox Oil Level		(NA)
)	21.	Gearbox Oil Level [COPY]		(NA)
	22.	Type and Grade of Specified Lubr	icant	
	23.	Correct type and grade of specifie	d lubricant	(NA)
	24.	Appearance of lubricant		(NA)
	25.	Free rotation of shafts		(Yes) Yes
)	26.	Condition of Input shaft		(Pass) Acceptable
	27.	Gear tooth condition		(Pass) Acceptable
	28.	Degree of Gear Wear		(None) None/New
	29.	Gear tooth Contact		(Pass) Acceptable
)e	arbo	ox Summary		
	30.	Summary of Issues and Overall C	ondition of the Gearbox	
		No issues found		
	21	Technician Signature		Kevin Maxwell

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### **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



### **Gearbox Inspection**

### Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: CROP SHEAR
Job Number: 153656
Description:Crop Shear

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Crop Shear
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

### acceptable



Wear Physical Contaminants

acceptable







Seals:

	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	Contaminants
earb	ox Inspection & Evaluation Che	ecklist	
8.	Primary drive rotates input shaft in	correct direction	(Yes) Yes
9.	Condition of Machinery Guards if Pr	resent	(Pass) Acceptable
10.	Condition of Coupling Guards if Pre	sent	(NA)
11.	Type of Coupler:		
12.	Coupling Alignment		
13.	Condition of Housing		(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(NA)
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(Mild) Mild
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		Some mild gear wear was found.	
	31.	Technician Signature	Kevin Maxwell
	(	KMDU	

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3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627259



### Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: 10 VERTICAL
Job Number: 153656

Description:10 Vertical Stand

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	10 Vertical
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

### acceptable



3. Gears:

Wear Physical Contaminants

acceptable

















	4.	Seals:			
		Wear	Physical	Contaminants	
		acceptable			
	5.	Environmental Conditions			
		Ambient Temparature (F)	Humidity	Contaminants	
	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants	
	7	Other and divisor			
	7.	Other conditions	M B	<b>.</b>	
		Gearbox Temperature (F)	Moisture Presence	Contaminants	
G	arh	ox Inspection & Evaluation Chec	klist		
	8.	Primary drive rotates input shaft in co		(Yes) Yes	
	9.	Condition of Machinery Guards if Pres		(Pass) Acceptable	
	10.			(Pass) Acceptable	
	11.	Type of Coupler:	,,,,	(i doo) / locopidatio	
	12.	Coupling Alignment			
	13.			(Pass) Acceptable	
	14.		(Pass) Acceptable		
	15.	• • • • • • • • • • • • • • • • • • • •			
	16.				
	17.	Condition of switches, alarms, heaters	s, coolers or other devices	(NA)	
	18.	• • • • • • • • • • • • • • • • • • • •			
	19.	Condition of seals & bearings	(Pass) Acceptable		
	20.	Gearbox Oil Level		(NA)	
	21.	Gearbox Oil Level [COPY]		(NA)	
	22.	Type and Grade of Specified Lubrican	nt		
	23.	Correct type and grade of specified lu	(NA)		
	24.	Appearance of lubricant		(NA)	
	25.	Free rotation of shafts		(Yes) Yes	
	26.	Condition of Input shaft		(Pass) Acceptable	
	27.	Gear tooth condition		(Pass) Acceptable	
	28.	Degree of Gear Wear		(None) None/New	
	29.	Gear tooth Contact	(Pass) Acceptable		

### **Gearbox Summary**

30. Summary of Issues and Overall Condition of the Gearbox *No issues were found during this inspection.* 

31. Technician Signature

**Kevin Maxwell** 

KIMER





3630 Fourth St Flowood, MS 39232





# Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: STAND 8 Job Number: 153656 Description:Roll Stand 8

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Stand 8
Coupling Type: :	Gear

### Priorities Found:

Gearbox Visual Inspection					
1.	Date Inspection Performed			09/16/2024	
2.	2. Oil Condition				
	Wear	Physical	Contaminants		
	acceptable				

Wear Physical Contaminants

### acceptable







4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	Contaminants

# Gearbox Inspection & Evaluation Checklist 8. Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 10. Condition of Coupling Guards if Present (Pass) Acceptable 11. Type of Coupler: 12. Coupling Alignment

13. Condition of Housing (Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(NA)
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox  No issues found during this inspection.	
	31.	Technician Signature	Kevin Maxwel
		KMAA	

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### **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



### **Gearbox Inspection**

### Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: 4 INTERMEDIATE
Job Number: 153656

Description: Roll Stand 4 Intermediate

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	4 Intermediate
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

### acceptable

Some contaminants



Wear Physical Contaminants

### acceptable



26. Condition of Input shaft



4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	Contaminants

G	earb	ox Inspection & Evaluation Checklist	
	8.	Primary drive rotates input shaft in correct direction	(Yes) Yes
	9.	Condition of Machinery Guards if Present	(NA)
	10.	Condition of Coupling Guards if Present	(NA)
	11.	Type of Coupler:	
	12.	Coupling Alignment	
	13.	Condition of Housing	(Pass) Acceptable
	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(Pass) Acceptable
	25.	Free rotation of shafts	(Yes) Yes

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(Pass) Acceptable

	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(Mild) Mild
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		Gears have mild amount of wear and gear casing has contaminants in bottom of casing.	
	31.	Technician Signature	Kevin Maxwell
	/	Knmgr	



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> FolderID: 153656 FormID: 21627267

### **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



## Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: 2A VERTICAL Job Number: 153656

**Description:**2A Vertical Stand

Customer Name::	Nucor Steel
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	2A Vertical
Coupling Type: :	Gear

Priorities Found: • 1 - High

### **Gearbox Visual Inspection**

1. Date Inspection Performed **09/17/2024** 

### 2. Oil Condition

Wear Physical Contaminants

### contaminants







3. Gears:

Wear Physical Contaminants

some wear



























4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7	Other conditions		

		Gearbox Temperature (F)	Moisture Presence	Contaminants
<u> </u>	00"	ov Inchastion <sup>9</sup> Evaluation C	hooklist	
G		ox Inspection & Evaluation C		(Van) Van
	8.	Primary drive rotates input shaft in		(Yes) Yes
	9.	Condition of Machinery Guards if		(Pass) Acceptable
	10.	Condition of Coupling Guards if P	resent	(Pass) Acceptable
	11.	71 1		
	12.	3 3 -		(D) A(-h
	13.	<u> </u>		(Pass) Acceptable
	14.	Condition of Mounting Hardware		(Pass) Acceptable
	15.		(17.7	(Pass) Present/Acceptable
	16.	Condition of Piping & connections	• • •	(Pass) Acceptable
	17.	Condition of switches, alarms, he	aters, coolers or other devices	(NA)
	18.			(Pass) Present/Acceptable
	19.	9-		(Pass) Acceptable
		Gearbox Oil Level		(NA)
		Gearbox Oil Level [COPY]		(NA)
		Type and Grade of Specified Lub		(14)
	23.	Correct type and grade of specifie	ed lubricant	(NA)
		Appearance of lubricant		(Fail) Unacceptable
	7	Brass appears to be in bottom of g	ear case.	
		Free rotation of shafts		(Yes) Yes
	26.	Condition of Input shaft		(Pass) Acceptable
	27.			(Pass) Acceptable
	-	Top input gear shows some minor	wear	( N )
	28.	Degree of Gear Wear		(Mild) Mild
	29.			(Pass) Acceptable
G		ox Summary		
	30.	Summary of Issues and Overall C		
		There appears to be some brass in Top gear has mild wear.	the bottom of the gear casing. This is like	ly the input side bearing with the brass cage.
		Technician Signature		Kevin Maxwell





3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627255



## Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: 1 INTERMEDIATE Job Number: 153656 Description:Roll Stand 1 Intermediate

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	1 Intermediate
Coupling Type: :	Gear

### Priorities Found:

Gearb	Gearbox Visual Inspection					
1.	Date Inspection Performed			09/16/2024		
2.	Oil Condition					
	Wear	Physical	Contaminants			
	acceptable					

Wear Physical Contaminants

acceptable

Mild amount of gear wear







4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	Contaminants

G	Gearbox Inspection & Evaluation Checklist			
	8.	Primary drive rotates input shaft in correct direction	(Yes) Yes	
	9.	Condition of Machinery Guards if Present	(Pass) Acceptable	
	10.	Condition of Coupling Guards if Present	(Pass) Acceptable	
	11.	Type of Coupler:		
	12.	Coupling Alignment		

	40	One distance of Harveign	(Dana) Assautable
	13.	Condition of Housing	(Pass) Acceptable
	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(Mild) Mild
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		Mild gear wear was found during inspection.	
	31.	Technician Signature	Kevin Maxwell
AMfall			





3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627260



### **Gearbox Inspection**

### Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: 12 VERTICAL STAND
Job Number: 153656

Description:12 Vertical Stand

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	12 Vertical
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

### acceptable





Wear Physical Contaminants

acceptable









	4.	Seals:		
		Wear	Physical	Contaminants
		acceptable		
	5.	Environmental Conditions		
		Ambient Temparature (F)	Humidity	Contaminants
	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
Ge	earb	ox Inspection & Evaluation Chec	klist	
	8.	Primary drive rotates input shaft in cor	rect direction	(Yes) Yes
	9.	Condition of Machinery Guards if Pres	ent	(Pass) Acceptable
	10.	Condition of Coupling Guards if Prese	nt	(Pass) Acceptable
	11.	Type of Coupler:		
	12.	Coupling Alignment		
	13.	Condition of Housing		(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		No issues to note	
	31.	Technician Signature	Kevin Maxwel
	/	KM191	



FolderID: 153656 FormID: 21627287



### **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



### Gearbox Inspection

Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill

153656

Serial Number: STAND 5

Description: Roll Stand 5

Job Number:

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Stand 5
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

### acceptable



Wear Physical Contaminants

acceptable







Seals:

		Wear	Physical	Contaminants
		acceptable		
	5.	Environmental Conditions		
		Ambient Temparature (F)	Humidity	Contaminants
	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
Ge	arb	ox Inspection & Evaluation Chec	klist	
	8.	Primary drive rotates input shaft in co	rrect direction	(Yes) Yes
	9.	Condition of Machinery Guards if Pres	sent	(Pass) Acceptable
	10.	Condition of Coupling Guards if Prese	ent	(Pass) Acceptable
	11.	Type of Coupler:		
	12.	Coupling Alignment		
	13.	Condition of Housing		(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(NA)
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(Mild) Mild
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		Some mild gear wear is present	
	31.	Technician Signature	Kevin Maxwel
	/	16MAC	



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627264



### **Gearbox Inspection**

### Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: 2 MAIN STAND
Job Number: 153656
Description:Roll Stand 2 Main Gearbox

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	N/A
Ratio::	N/A
Serial#::	N/A
Type::	N/A
Model#::	N/A
Application ID::	2 Main
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

### acceptable



Wear Physical Contaminants

### acceptable



22. Type and Grade of Specified Lubricant23. Correct type and grade of specified lubricant

24. Appearance of lubricant

25. Free rotation of shafts

26. Condition of Input shaft



		Wear	Physical	Contaminants
		acceptable		
	5.	Environmental Conditions		
		Ambient Temparature (F)	Humidity	Contaminants
	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
		Other and a state of the state		
	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
0	uls .	av Increation 9 Evaluation Chap	Litas	
G		ox Inspection & Evaluation Chec		94 224
	8.	Primary drive rotates input shaft in co		(Yes) Yes
	9.	Condition of Machinery Guards if Pres		(NA)
	10.	Condition of Coupling Guards if Prese	ent	(NA)
	11.	Type of Coupler:		
	12.	Coupling Alignment		
	13.	Condition of Housing		(Pass) Acceptable
	14.	Condition of Mounting Hardware		(Pass) Acceptable
	15.	Breather Vent Installed:		(NA)
	16.	Condition of Piping & connections (if f	orced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters	s, coolers or other devices	(NA)
	18.	Condition of inspection covers		(Pass) Present/Acceptable
	19.	Condition of seals & bearings		(Pass) Acceptable
	20.	Gearbox Oil Level		(NA)
	21.	Gearbox Oil Level [COPY]		(NA)

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(NA)

(NA)

(Yes) Yes

(Pass) Acceptable

<b>27</b> .	. Gear tooth condition	(Pass) Acceptable
28.	. Degree of Gear Wear	(Mild) Mild
<b>2</b> 9.	. Gear tooth Contact	(Pass) Acceptable
Gearb	oox Summary	
30.	. Summary of Issues and Overall Condition of the Gearbox	
	Some mild gear wear was found during the inspection.	
31.	. Technician Signature	Kevin Maxwell
1	Konsta	

FolderID: 153656 FormID: 21627291



# **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



# **Gearbox Inspection**

# Completed by: Kevin Maxwell on 09/24/2024

Location:	Roll Mill	
Serial Number:	STAND 9	
Job Number:	153656	
Description:Roll Stand 9		

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	Stand 9
Coupling Type: :	Gear

# Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

# acceptable





Wear Physical Contaminants

# acceptable

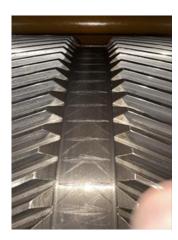




10. Condition of Coupling Guards if Present

11. Type of Coupler:12. Coupling Alignment13. Condition of Housing





(Pass) Acceptable

(Pass) Acceptable

	4.	Seals:			
		Wear	Physical	Contaminants	
		acceptable			
	5.	Environmental Conditions			
		Ambient Temparature (F)	Humidity	Contaminants	
	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants	
	7.	Other conditions			
		Gearbox Temperature (F)	Moisture Presence	Contaminants	
Gearbox Inspection & Evaluation Checklist					
	8.	3. Primary drive rotates input shaft in correct direction (Yes) Yes		(Yes) Yes	
	9.	Condition of Machinery Guards if Pres	sent	(Pass) Acceptable	

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(NA)
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(Pass) Acceptable
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
Ge	arbo	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		No issues were found	
	31.	Technician Signature	Kevin Maxwel
		KMXM	

FolderID: 153656 FormID: 21627288



# **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



# **Gearbox Inspection**

# Completed by: Kevin Maxwell on 09/24/2024

oompiotod by Horm maxiron on oo/2 //2021		
Location:	Roll Mill	
Serial Number:	STAND 6	
Job Number:	153656	
Description:Roll Stand 6		

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Stand 6
Coupling Type: :	Gear

# Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

# acceptable



Wear Physical Contaminants

# acceptable

Some pitting on gears











4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants

	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
Ge	arbo	ox Inspection & Evaluation C	necklist	
	8.	Primary drive rotates input shaft in		(Yes) Yes
	9.	Condition of Machinery Guards if		(Pass) Acceptable
	10.	Condition of Coupling Guards if P		(Pass) Acceptable
	11.	Type of Coupler:		
	12.	Coupling Alignment		
	13.	Condition of Housing		(Pass) Acceptable
	14.	Condition of Mounting Hardware		(Pass) Acceptable
	15.	Breather Vent Installed:		(NA)
	16.	Condition of Piping & connections	(if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, hea	aters, coolers or other devices	(NA)
	18.	Condition of inspection covers		(Pass) Present/Acceptable
	19.	Condition of seals & bearings		(Pass) Acceptable
	20.	Gearbox Oil Level		(NA)
	21.	Gearbox Oil Level [COPY]		(NA)
	22.	Type and Grade of Specified Lub	icant	
	23.	Correct type and grade of specifie	d lubricant	(NA)
	24.	Appearance of lubricant		(NA)
	25.	Free rotation of shafts		(Yes) Yes
	26.	Condition of Input shaft		(Pass) Acceptable
	27.	Gear tooth condition		(Pass) Acceptable
	28.	Degree of Gear Wear		(Mild) Mild
	-	Some pitting on gears		
	29.	Gear tooth Contact		(Pass) Acceptable
Ge	arbo	ox Summary		
	30.	Summary of Issues and Overall C	ondition of the Gearbox	
		Some pitting was found on gears d	uring inspection. Appears to be a minor issue.	
	24	Technician Signature		Kevin Maxwell

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3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627275



# Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: FLYING SHEAR INTERMEDIATE Job Number: 153656 Description:Flying Shear Intermediate

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Flying Shear Intermediate
Coupling Type: :	Gear

# Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

# acceptable



Wear Physical Contaminants

acceptable











4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants

	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
36	arbo	ox Inspection & Evaluation Cl	necklist	
	8.	Primary drive rotates input shaft in		(Yes) Yes
)	9.	Condition of Machinery Guards if	Present	(Pass) Acceptable
)	10.	Condition of Coupling Guards if P	resent	(Pass) Acceptable
	11.	Type of Coupler:		
	12.	Coupling Alignment		
	13.	Condition of Housing		(Pass) Acceptable
	14.	Condition of Mounting Hardware		(Pass) Acceptable
	15.	Breather Vent Installed:		(Pass) Present/Acceptable
	16.	Condition of Piping & connections	(if forced lube system installed)	(Pass) Acceptable
)	17.	Condition of switches, alarms, hea	aters, coolers or other devices	(NA)
)	18.	Condition of inspection covers		(Pass) Present/Acceptable
	19.	Condition of seals & bearings		(Pass) Acceptable
)	20.	Gearbox Oil Level		(NA)
	21.	Gearbox Oil Level [COPY]		(NA)
	22.	Type and Grade of Specified Lubi	icant	
)	23.	Correct type and grade of specifie	d lubricant	(NA)
)	24.	Appearance of lubricant		(Pass) Acceptable
	25.	Free rotation of shafts		(Yes) Yes
	26.	Condition of Input shaft		(Pass) Acceptable
	27.	Gear tooth condition		(Pass) Acceptable
)	28.	Degree of Gear Wear		(None) None/New
	29.	Gear tooth Contact		(Pass) Acceptable
36	arbo	ox Summary		
	30.	Summary of Issues and Overall C	ondition of the Gearbox	
		No issues found during this inspec	tion.	
	24	Technician Signature		Kevin Maxwell

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FolderID: 153656

FormID: 21627276



# **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



# **Gearbox Inspection**

**Description:**Flying Shear Main

# Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: FLYING SHEAR MAIN
Job Number: 153656

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Flying Shear Main
Coupling Type: :	GeR

# Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

# acceptable



Wear Physical Contaminants

# acceptable









4	4.	Seals:		
		Wear	Physical	Contaminants
		acceptable		
5	5.	Environmental Conditions		
		Ambient Temparature (F)	Humidity	Contaminants
6	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants

# Gearbox Inspection & Evaluation Checklist

8.	Primary drive rotates input shaft in correct direction	(Yes) Yes
9.	Condition of Machinery Guards if Present	(Pass) Acceptable
10.	Condition of Coupling Guards if Present	(Pass) Acceptable
11.	Type of Coupler:	
12.	Coupling Alignment	
13.	Condition of Housing	(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(NA)
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	
	18.	Condition of inspection covers	(NA)
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
2	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
2	24.	Appearance of lubricant	(Pass) Acceptable
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
Gea	arbo	ox Summary	
;	30.	Summary of Issues and Overall Condition of the Gearbox	
		Gearbox has no apparent issues during inspection.	
	31.	Technician Signature	Kevin Maxwell



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627268



# **Gearbox Inspection**Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: 3 INTERMEDIATE
Job Number: 153656
Description:Roll Stand 3 Intermediate

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	N/A
Ratio::	N/A
Serial#::	N/A
Type::	N/A
Model#::	N/A
Application ID::	3 Intermediate
Coupling Type: :	Gear

# Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

acceptable

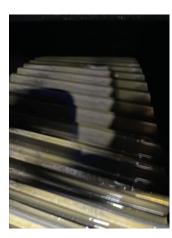


Wear Physical Contaminants

# acceptable







Seals:

		Wear	Physical	Contaminants
		acceptable		
	5.	Environmental Conditions		
		Ambient Temparature (F)	Humidity	Contaminants
	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
Ge	earbo	ox Inspection & Evaluation Chec	klist	
	8.	. Primary drive rotates input shaft in correct direction (Yes) Yes		(Yes) Yes
	9.	Condition of Machinery Guards if Pres	ent	(NA)
	10.	Condition of Coupling Guards if Prese	nt	(NA)
	11.	Type of Coupler:		
	12.	Coupling Alignment		
	13.	Condition of Housing		(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(Mild) Mild
	29.	Gear tooth Contact	(Pass) Acceptable
Ge	arbo	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		Mild amount gear wear present	
	31.	Technician Signature	Kevin Maxwel
	/	KNMKII	

FolderID: 153656 FormID: 21627279



# **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



# Gearbox Inspection

# Completed by: Kevin Maxwell on 09/24/2024

Location:	Roll Mill	
Serial Number:	STAND 11	
Job Number:	153656	
Description:Roll Stand 11		

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Stand 11
Coupling Type: :	Gear

# Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

# acceptable





Physical Wear Contaminants

# acceptable









4.	Seals:			
	Wear	Physical	Contaminants	
	acceptable			
5.	Environmental Conditions			
	Ambient Temparature (F)	Humidity	Contaminants	
6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants	
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence	Contaminants	
0 1	Occupant Inspection 9 Evaluation Chapters			

# **Gearbox Inspection & Evaluation Checklist**

8.	Primary drive rotates input shaft in correct direction	(Yes) Yes
9.	Condition of Machinery Guards if Present	(Pass) Acceptable
10.	Condition of Coupling Guards if Present	(Pass) Acceptable
11.	Type of Coupler:	
12.	Coupling Alignment	
13.	Condition of Housing	(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(Pass) Acceptable
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		No issues to note	
	31.	Technician Signature	Kevin Maxwell
	(	KMACH	



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627283



# **Gearbox Inspection**

# Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: STAND 14 90 DEGREE
Job Number: 153656
Description:Roll Stand 14 90 Degree

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	Stand 14 90 Degree
Coupling Type: :	Gear

# Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

# acceptable



Wear Physical Contaminants

acceptable







4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	Contaminants
Gearb	ox Inspection & Evaluation Chec	klist	

G	Gearbox Inspection & Evaluation Checklist		
	8.	Primary drive rotates input shaft in correct direction	(Yes) Yes
	9.	Condition of Machinery Guards if Present	(Pass) Acceptable
	10.	Condition of Coupling Guards if Present	(Pass) Acceptable
	11.	Type of Coupler:	
	12.	Coupling Alignment	
	13.	Condition of Housing	(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		No issues to note.	
	31.	Technician Signature	Kevin Maxwell
	/	KMIL	





3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627281



# Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: STAND 13 Job Number: 153656

Description: Roll Stand 13

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	Stand 13
Coupling Type: :	Gear

Priorities Found: • 1 - Medium

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

acceptable



Wear Physical Contaminants

# acceptable









4.	Seals:			
	Wear	Physical	Contaminants	
	acceptable			
5.	Environmental Conditions			
	Ambient Temparature (F)	Humidity	Contaminants	
6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants	
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence	Contaminants	
Gearb	Gearbox Inspection & Evaluation Checklist			

Ge	Gearbox Inspection & Evaluation Checklist		
	8.	Primary drive rotates input shaft in correct direction	(Yes) Yes
	9.	Condition of Machinery Guards if Present	(NA)
	10.	Condition of Coupling Guards if Present	(NA)
	11.	Type of Coupler:	
	12.	Coupling Alignment	
	13.	Condition of Housing	(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Missing) Missing/Damaged
	-	Bolt holes stripped	
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(Pass) Acceptable
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
Ge	earbo	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		The bolt holes for the inspection cover are stripped. We sealed the cover up go as needed.	ood with RTV but holes should be repaired
	31.	Technician Signature	Kevin Maxwell





3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627256



# Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: ROLL STAND 1 MAIN Job Number: 153656 Description:Roll Stand 1 Main

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	N/A
Ratio::	N/A
Serial#::	N/A
Туре::	N/A
Model#::	N/A
Application ID::	1 Main
Coupling Type: :	Gear

# Priorities Found:

Gearb	Gearbox Visual Inspection				
1.	Date Inspection Performed			09/16/2024	
2.	Oil Condition				
	Wear	Physical	Contaminants		
	acceptable				

Wear Physical Contaminants

# acceptable







4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	Contaminants

# Gearbox Inspection & Evaluation Checklist 8. Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 10. Condition of Coupling Guards if Present (NA) 11. Type of Coupler: 12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
0	15.	Breather Vent Installed:	(NA)
0	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(Pass) Present/Acceptable
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox  No issues found during this inspection.	
	31.	Technician Signature	Kevin Maxwel
		MM	



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627265



# Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: 2 STAND INTERMEDIATE
Job Number: 153656

**Description:**Roll Stand 2 Intermediate

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	N/A
Ratio::	N/A
Serial#::	N/A
Туре::	N/A
Model#::	N/A
Application ID::	2 Intermediate
Coupling Type: :	Gear

### Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

acceptable

3. Gears:

Wear Physical Contaminants

acceptable

Mild wear is present





4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants

	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
7	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
Зеа	rbo	ox Inspection & Evaluation Cl	necklist	
	8.	Primary drive rotates input shaft in		(Yes) Yes
9	9.	Condition of Machinery Guards if	Present	(NA)
1	0.	Condition of Coupling Guards if P	resent	(NA)
1	1.	Type of Coupler:		
1	2.	Coupling Alignment		
1	3.	Condition of Housing		(Pass) Acceptable
1	4.	Condition of Mounting Hardware		(Pass) Acceptable
1	5.	Breather Vent Installed:		(Pass) Present/Acceptable
1	6.	Condition of Piping & connections	(if forced lube system installed)	(Pass) Acceptable
1	7.	Condition of switches, alarms, hea	aters, coolers or other devices	(NA)
1	8.	Condition of inspection covers		(Pass) Present/Acceptable
) 1	9.	Condition of seals & bearings		(Pass) Acceptable
2	20.	Gearbox Oil Level		(NA)
2	1.	Gearbox Oil Level [COPY]		(NA)
2	2.	Type and Grade of Specified Lubr	icant	
2	23.	Correct type and grade of specifie	d lubricant	(NA)
2	4.	Appearance of lubricant		(NA)
) 2	25.	Free rotation of shafts		(Yes) Yes
) 2	6.	Condition of Input shaft		(Pass) Acceptable
2	7.	Gear tooth condition		(Pass) Acceptable
) 2	8.	Degree of Gear Wear		(Mild) Mild
) 2	9.	Gear tooth Contact		(Pass) Acceptable
Эеа	rbo	ox Summary		
3	80.	Summary of Issues and Overall C	ondition of the Gearbox	
		Mild gear wear was found during in	spection.	
		Technician Signature		Kevin Maxwel

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FolderID: 153656

FormID: 21627257



# **Gearbox Inspection** Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232



# **Gearbox Inspection**

Job Number:

# Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill 10 INTERMEDIATE 1 Serial Number:

153656 Description: Roll Stand 10 1st Intermediate

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	10 Intermediate 1
Coupling Type: :	Gear

# Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

# acceptable

Some contaminants



3.	Gears:		
	Wear	Physical	Contaminants

# acceptable Surface rust



1					
	4.	Seals:			
		Wear	Physical	Contaminants	
		acceptable			
	5.	Environmental Conditions			
		Ambient Temparature (F)	Humidity	Contaminants	
	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants	
	7.	Other conditions			
	٧.		Moisture Presence	Contaminants	
		Gearbox Temperature (F)	Moisture Presence	Contaminants	
Ge	arbo	ox Inspection & Evaluation Chec	klist		
	8.	Primary drive rotates input shaft in co		(Yes) Yes	
	9.	Condition of Machinery Guards if Pres		(Pass) Acceptable	
	10.	Condition of Coupling Guards if Prese	ent	(Pass) Acceptable	
	11.	Type of Coupler:			
	12.	Coupling Alignment			
	13.	Condition of Housing		(Pass) Acceptable	
	14.	Condition of Mounting Hardware		(Pass) Acceptable	
	15.	Breather Vent Installed:		(Pass) Present/Acceptable	
	16.	Condition of Piping & connections (if f	orced lube system installed)	(Pass) Acceptable	
	17.	Condition of switches, alarms, heaters	s, coolers or other devices	(NA)	
	18.	Condition of inspection covers		(Pass) Present/Acceptable	
	19.	Condition of seals & bearings		(Pass) Acceptable	
	20.	Gearbox Oil Level		(NA)	
	21.	Gearbox Oil Level [COPY]		(NA)	
	22.	Type and Grade of Specified Lubricar			
	23.	Correct type and grade of specified lu	bricant	(NA)	
	24.	Appearance of lubricant		(NA)	
	25.	Free rotation of shafts		(Yes) Yes	

<ul><li>26. Condition of Input shaft</li></ul>	(Pass) Acceptable				
27. Gear tooth condition	(Pass) Acceptable				
<ul><li>28. Degree of Gear Wear</li></ul>	(None) None/New				
<ul><li>29. Gear tooth Contact</li></ul>	(Pass) Acceptable				
Gearbox Summary	Gearbox Summary				
30. Summary of Issues and Overall Condition of the Gearbox					
Some surface rust on the gears was found during this inspection.					
31. Technician Signature	Kevin Maxwell				
KMLL					

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3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627261



# Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024

Location: Roll Mill
Serial Number: 14 VERTICAL
Job Number: 153656
Description:Roll Stand 14 Vertical

Customer Name::	Nucor Steel
Location :	Flowood, MS
Location .	Flowood, IVIS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	14 Vertical
Coupling Type: :	Gear

### Priorities Found:

# **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

acceptable





3. Gears:

Wear Physical Contaminants

acceptable

















	4.	Seals:		
		Wear	Physical	Contaminants
		acceptable		
	5.	Environmental Conditions		
		Ambient Temparature (F)	Humidity	Contaminants
	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
	7.	Other conditions		
	٠.	Gearbox Temperature (F)	Moisture Presence	Contaminants
		Gearbox remperature (F)	Worsture Presence	Contaminants
G	earb	ox Inspection & Evaluation Che	cklist	
	8.	Primary drive rotates input shaft in co		(Yes) Yes
	9.	Condition of Machinery Guards if Pre	esent	(Pass) Acceptable
	10.	Condition of Coupling Guards if Pres	ent	(Pass) Acceptable
	11.	Type of Coupler:		
	12.	Coupling Alignment		
	13.	Condition of Housing		(Pass) Acceptable
	14.	Condition of Mounting Hardware		(Pass) Acceptable
	15.	Breather Vent Installed:		(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if	forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heate	rs, coolers or other devices	(NA)
	18.	. Condition of inspection covers		(Pass) Present/Acceptable
	19.	. Condition of seals & bearings		(Pass) Acceptable
	20.	. Gearbox Oil Level		(NA)
	21.	Gearbox Oil Level [COPY]		(NA)
	22.	Type and Grade of Specified Lubrica	nt	
	23.	Correct type and grade of specified I	ubricant	(NA)
	24.	Appearance of lubricant		(NA)
	25.			(Yes) Yes
	26.	Condition of Input shaft		(Pass) Acceptable
	27.			(Pass) Acceptable
	28.	Degree of Gear Wear		(None) None/New
	29.	Gear tooth Contact		(Pass) Acceptable

# **Gearbox Summary**

30. Summary of Issues and Overall Condition of the Gearbox

No issues to note during this survey

31. Technician Signature

**Kevin Maxwell** 



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627269



### **Gearbox Inspection**

### Completed by: Kevin Maxwell on 09/24/2024

	• • • • • • • • • • • • • • • • • • • •	
Location:	Roll Mill	
Serial Number:	3 STAND MAIN	
<b>Job Number:</b> 153656		
Description:Roll Stand 3 Main		

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	N/A
Ratio::	N/A
Serial#::	N/A
Туре::	N/A
Model#::	N/A
Application ID::	3 Stand Main
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

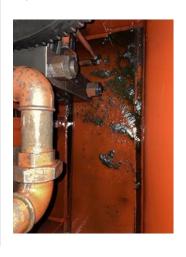
1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

### requires attention

Contaminants in bottom





Wear Physical Contaminants

### acceptable







Seals:		
Wear	Physical	Contaminants
acceptable		
Environmental Conditions		
Ambient Temparature (F)	Humidity	Contaminants
Physical Issues		
Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
Other conditions		
Gearbox Temperature (F)	Moisture Presence	Contaminants
	acceptable Environmental Conditions Ambient Temparature (F) Physical Issues Signs of Excessive Heat? Other conditions	Wear Physical  acceptable  Environmental Conditions  Ambient Temparature (F) Humidity  Physical Issues  Signs of Excessive Heat? Signs of Lubricant Leaks?  Other conditions

Ge	Gearbox Inspection & Evaluation Checklist		
	8.	Primary drive rotates input shaft in correct direction	(Yes) Yes
	9.	Condition of Machinery Guards if Present	(NA)
	10.	Condition of Coupling Guards if Present	(NA)
	11.	Type of Coupler:	
	12.	Coupling Alignment	
	13.	Condition of Housing	(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(NA)
•	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
0	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(Mild) Mild
	29.	Gear tooth Contact	(Pass) Acceptable
Ge	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		Some contaminants were found in gear casing.	
	31.	Technician Signature	Kevin Maxwell
	/	KMKELL	



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627280



### Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: STAND 12

Serial Number: STAND 12

Job Number: 153656

Description:Roll Stand 12

Customer Name::	Nucor Steel
Location :	Flowood , MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	Stand 12
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

acceptable

Some contaminants



3. Gears:

Wear Physical Contaminants

acceptable















Wear Physical Contaminants  acceptable  5. Environmental Conditions Ambient Temparature (F) Humidity Contaminants  6. Physical Issues Signs of Excessive Heat? Signs of Lubricant Leaks? Contaminants  7. Other conditions Gearbox Temperature (F) Moisture Presence Contaminants  8. Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 110. Condition of Coupling Guards if Present (Pass) Acceptable 111. Type of Couplier: 122. Coupling Alignment 133. Condition of Housing (Pass) Acceptable 144. Condition of Housing (Pass) Acceptable 155. Breather Vent Installed: (NA) 166. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 177. Condition of switches, alarms, heaters, coolers or other devices (Pass) Present/Acceptable 189. Condition of seals & bearings (Pass) Acceptable 190. Gearbox Oil Level (COPY) (NA) 121. Gearbox Oil Level (COPY) (NA) 122. Type and Grade of Specified Lubricant 123. Correct type and grade of Specified lubricant (Pass) Acceptable 124. Appearance of lubricant (Pass) Acceptable 125. Free rotation of shafts (Pass) Acceptable 126. Condition of Input shaft (Pass) Acceptable 127. Gear tooth condition 128. Degree of Gear Wear (Mild) Mild 129. Gear tooth Contact (Ma)					
acceptable  5. Environmental Conditions Ambient Temparature (F) Humidity Contaminants  6. Physical Issues Signs of Excessive Heat? Signs of Lubricant Leaks? Contaminants  7. Other conditions Gearbox Temperature (F) Moisture Presence Contaminants  6. Primary drive rotates input shaft in correct direction (Yes) Yes  8. Primary drive rotates input shaft in correct direction (Pass) Acceptable  10. Condition of Machinery Guards if Present (Pass) Acceptable  11. Type of Coupler:  12. Coupling Alignment  13. Condition of Housing (Pass) Acceptable  14. Condition of Mounting Hardware (Pass) Acceptable  15. Breather Vent Installed: (NA)  16. Condition of Sping & connections (if forced lube system installed) (Pass) Acceptable  17. Condition of Switches, alarms, heaters, coolers or other devices (Pass) Present/Acceptable  19. Condition of seals & bearings (Pass) Acceptable  19. Condition of seals & bearings (Pass) Acceptable  20. Gearbox Oil Level (COPY) (NA)  21. Gearbox Oil Level [COPY] (NA)  22. Type and Grade of Specified Lubricant  23. Correct type and grade of specified lubricant  24. Appearance of lubricant (Pass) Acceptable  25. Free rotation of shafts (Yes) Yes  26. Condition of Input shaft (Pass) Acceptable  27. Gear tooth condition  28. Portaminants  29. Present/Acceptable  20. Condition of Input shaft (Pass) Acceptable  29. Free rotation of shafts (Pass) Acceptable  29. Free rotation of shafts (Pass) Acceptable  29. Condition of Input shaft (Pass) Acceptable		4.	Seals:		
Environmental Conditions Ambient Temparature (F) Humidity Contaminants  6. Physical Issues Signs of Excessive Heat? Signs of Lubricant Leaks? Contaminants  7. Other conditions Gearbox Temperature (F) Moisture Presence Contaminants  Searbox Inspection & Evaluation Checklist  Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 10. Condition of Coupling Guards if Present (Pass) Acceptable 11. Type of Coupler: 12. Coupling Alignment 13. Condition of Hounting Hardware (Pass) Acceptable 14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Spiping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of Switches, alarms, heaters, coolers or other devices (NA) 18. Condition of Spiping & connections (if forced lube system installed) (Pass) Acceptable 19. Condition of seals & bearings (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Present/Acceptable 20. Gearbox Oil Level (COPY) (NA) 21. Gearbox Oil Level [COPY] (NA) 22. Type and Grade of Specified Lubricant (NA) 23. Correct type and grade of specified Lubricant (NA) 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Free rotation of shafts (Yes) Yes 29. Condition of Input shaft (Pass) Acceptable 29. Geartooth condition (Pass) Acceptable 29. Gear tooth condition (Pass) Acceptable			Wear	Physical	Contaminants
Ambient Temparature (F) Humidity Contaminants  6. Physical Issues Signs of Excessive Heat? Signs of Lubricant Leaks? Contaminants  7. Other conditions Gearbox Temperature (F) Moisture Presence Contaminants  8. Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 10. Condition of Coupling Guards if Present (Pass) Acceptable 11. Type of Coupler: 12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable 14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Acceptable 19. Condition of seals & bearings (Pass) Acceptable 20. Gearbox Oil Level (COPY) (NA) 21. Gearbox Oil Level (COPY) (NA) 22. Type and Grade of Specified Lubricant 23. Correct type and grade of specified lubricant (Pass) Acceptable 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition 28. Primary driver and finance of Gear Wear (Midl) Mild 28. Degree of Gear Wear (Midl) Mild			acceptable		
6. Physical Issues Signs of Excessive Heat? Signs of Lubricant Leaks? Contaminants  7. Other conditions Gearbox Temperature (F) Moisture Presence Contaminants  Searbox Inspection & Evaluation Checklist  8. Primary drive rotates input shaft in correct direction (Pass) Acceptable 10. Condition of Machinery Guards if Present (Pass) Acceptable 11. Type of Coupling Guards if Present (Pass) Acceptable 12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable 14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Acceptable 19. Condition of Seals & Dearings (Pass) Acceptable 20. Gearbox Oil Level (COPY) (NA) 21. Gearbox Oil Level (COPY) (NA) 22. Type and Grade of Specified Lubricant (Pass) Acceptable 23. Correct type and grade of specified lubricant (Pass) Acceptable 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Pass) Acceptable 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear		5.	Environmental Conditions		
Signs of Excessive Heat? Signs of Lubricant Leaks? Contaminants  7. Other conditions Gearbox Temperature (F) Moisture Presence Contaminants  Searbox Inspection & Evaluation Checklist  8. Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 10. Condition of Coupling Guards if Present (Pass) Acceptable 11. Type of Coupler:  12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable 14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of inspection covers (Pass) Acceptable 20. Gearbox Oil Level (NA) 21. Gearbox Oil Level (NA) 22. Type and Grade of Specified Lubricant (NA) 23. Correct type and grade of specified Lubricant (Pass) Acceptable 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild			Ambient Temparature (F)	Humidity	Contaminants
Signs of Excessive Heat? Signs of Lubricant Leaks? Contaminants  7. Other conditions Gearbox Temperature (F) Moisture Presence Contaminants  Searbox Inspection & Evaluation Checklist  8. Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 10. Condition of Coupling Guards if Present (Pass) Acceptable 11. Type of Coupler:  12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable 14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of inspection covers (Pass) Acceptable 20. Gearbox Oil Level (NA) 21. Gearbox Oil Level (NA) 22. Type and Grade of Specified Lubricant (NA) 23. Correct type and grade of specified Lubricant (Pass) Acceptable 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild					
7. Other conditions Gearbox Temperature (F) Moisture Presence Contaminants  Searbox Inspection & Evaluation Checklist  8. Primary drive rotates input shaft in correct direction (Yes) Yes  9. Condition of Machinery Guards if Present (Pass) Acceptable  10. Condition of Coupling Guards if Present (Pass) Acceptable  11. Type of Coupler:  12. Coupling Alignment  13. Condition of Housing (Pass) Acceptable  14. Condition of Mounting Hardware (Pass) Acceptable  15. Breather Vent Installed: (NA)  16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable  17. Condition of switches, alarms, heaters, coolers or other devices (NA)  18. Condition of seals & bearings (Pass) Present/Acceptable  19. Condition of seals & bearings (Pass) Acceptable  20. Gearbox Oil Level (NA)  21. Gearbox Oil Level (COPY) (NA)  22. Type and Grade of Specified Lubricant  23. Correct type and grade of specified lubricant (Pass) Acceptable  24. Appearance of lubricant (Pass) Acceptable  25. Free rotation of shafts (Yes) Yes  26. Condition of Input shaft (Pass) Acceptable  27. Gear tooth condition (Pass) Acceptable  28. Degree of Gear Wear (Mild) Mild		6.	•		
Gearbox Temperature (F) Moisture Presence Contaminants  Gearbox Inspection & Evaluation Checklist  8. Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 10. Condition of Coupling Guards if Present (Pass) Acceptable 11. Type of Coupler: 12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable 14. Condition of Housing (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 18. Condition of inspection covers (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Acceptable 20. Gearbox Oil Level (NA) 21. Gearbox Oil Level (COPY) (NA) 22. Type and Grade of Specified Lubricant 23. Correct type and grade of specified lubricant (Pass) Acceptable 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild			Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
Gearbox Temperature (F) Moisture Presence Contaminants  Gearbox Inspection & Evaluation Checklist  8. Primary drive rotates input shaft in correct direction (Yes) Yes 9. Condition of Machinery Guards if Present (Pass) Acceptable 10. Condition of Coupling Guards if Present (Pass) Acceptable 11. Type of Coupler: 12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable 14. Condition of Housing (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 18. Condition of inspection covers (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Acceptable 20. Gearbox Oil Level (NA) 21. Gearbox Oil Level (COPY) (NA) 22. Type and Grade of Specified Lubricant 23. Correct type and grade of specified lubricant (Pass) Acceptable 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		7	Other conditions		
Bearbox Inspection & Evaluation Checklist  8. Primary drive rotates input shaft in correct direction  9. Condition of Machinery Guards if Present  10. Condition of Coupling Guards if Present  11. Type of Coupler:  12. Coupling Alignment  13. Condition of Mounting Hardware  14. Condition of Mounting Hardware  15. Breather Vent Installed:  16. Condition of Piping & connections (if forced lube system installed)  17. Condition of switches, alarms, heaters, coolers or other devices  18. Condition of inspection covers  19. Condition of seals & bearings  10. Condition of seals		7.		Maiatura Praganas	Conteminanta
8. Primary drive rotates input shaft in correct direction       (Yes) Yes         9. Condition of Machinery Guards if Present       (Pass) Acceptable         10. Condition of Coupling Guards if Present       (Pass) Acceptable         11. Type of Coupler:       (Pass) Acceptable         12. Coupling Alignment       (Pass) Acceptable         13. Condition of Housing       (Pass) Acceptable         14. Condition of Mounting Hardware       (Pass) Acceptable         15. Breather Vent Installed:       (NA)         16. Condition of Piping & connections (if forced lube system installed)       (Pass) Acceptable         17. Condition of switches, alarms, heaters, coolers or other devices       (NA)         18. Condition of inspection covers       (Pass) Present/Acceptable         19. Condition of seals & bearings       (Pass) Acceptable         20. Gearbox Oil Level       (NA)         21. Gearbox Oil Level [COPY]       (NA)         22. Type and Grade of Specified Lubricant       (NA)         23. Correct type and grade of specified lubricant       (NA)         24. Appearance of lubricant       (Pass) Acceptable         25. Free rotation of shafts       (Yes) Yes         26. Condition of Input shaft       (Pass) Acceptable         27. Gear tooth condition       (Pass) Acceptable         28. Degree of Gear			Gearbox Temperature (F)	Moisture Presence	Contaminants
8. Primary drive rotates input shaft in correct direction       (Yes) Yes         9. Condition of Machinery Guards if Present       (Pass) Acceptable         10. Condition of Coupling Guards if Present       (Pass) Acceptable         11. Type of Coupler:       (Pass) Acceptable         12. Coupling Alignment       (Pass) Acceptable         13. Condition of Housing       (Pass) Acceptable         14. Condition of Mounting Hardware       (Pass) Acceptable         15. Breather Vent Installed:       (NA)         16. Condition of Piping & connections (if forced lube system installed)       (Pass) Acceptable         17. Condition of switches, alarms, heaters, coolers or other devices       (NA)         18. Condition of inspection covers       (Pass) Present/Acceptable         19. Condition of seals & bearings       (Pass) Acceptable         20. Gearbox Oil Level       (NA)         21. Gearbox Oil Level [COPY]       (NA)         22. Type and Grade of Specified Lubricant       (NA)         23. Correct type and grade of specified lubricant       (NA)         24. Appearance of lubricant       (Pass) Acceptable         25. Free rotation of shafts       (Yes) Yes         26. Condition of Input shaft       (Pass) Acceptable         27. Gear tooth condition       (Pass) Acceptable         28. Degree of Gear	Ge	arb	ox Inspection & Evaluation Chec	klist	
10. Condition of Coupling Guards if Present 11. Type of Coupler: 12. Coupling Alignment 13. Condition of Housing 14. Condition of Mounting Hardware 15. Breather Vent Installed: 16. Condition of Piping & connections (if forced lube system installed) 17. Condition of Piping & connections (if forced lube system installed) 18. Condition of inspection covers 19. Condition of inspection covers 19. Condition of seals & bearings 10. Condition of seals			•		(Yes) Yes
11. Type of Coupler: 12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable 14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Acceptable 20. Gearbox Oil Level (NA) 21. Gearbox Oil Level (COPY) (NA) 22. Type and Grade of Specified Lubricant 23. Correct type and grade of specified lubricant (NA) 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		9.	Condition of Machinery Guards if Pre-	sent	(Pass) Acceptable
12. Coupling Alignment 13. Condition of Housing (Pass) Acceptable 14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Acceptable 20. Gearbox Oil Level (COPY) (NA) 21. Gearbox Oil Level [COPY] (NA) 22. Type and Grade of Specified Lubricant (NA) 23. Correct type and grade of specified lubricant (NA) 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear		10.	Condition of Coupling Guards if Prese	ent	(Pass) Acceptable
13. Condition of Housing (Pass) Acceptable 14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Acceptable 20. Gearbox Oil Level (NA) 21. Gearbox Oil Level (COPY) (NA) 22. Type and Grade of Specified Lubricant 23. Correct type and grade of specified lubricant (NA) 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		11.	1. Type of Coupler:		
14. Condition of Mounting Hardware (Pass) Acceptable 15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Acceptable 20. Gearbox Oil Level (NA) 21. Gearbox Oil Level [COPY] (NA) 22. Type and Grade of Specified Lubricant 23. Correct type and grade of specified lubricant (NA) 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		12.	Coupling Alignment		
15. Breather Vent Installed: (NA) 16. Condition of Piping & connections (if forced lube system installed) (Pass) Acceptable 17. Condition of switches, alarms, heaters, coolers or other devices (NA) 18. Condition of inspection covers (Pass) Present/Acceptable 19. Condition of seals & bearings (Pass) Acceptable 20. Gearbox Oil Level (COPY) (NA) 21. Gearbox Oil Level [COPY] (NA) 22. Type and Grade of Specified Lubricant 23. Correct type and grade of specified lubricant (NA) 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		13.	, , ,		
16. Condition of Piping & connections (if forced lube system installed) 17. Condition of switches, alarms, heaters, coolers or other devices 18. Condition of inspection covers 19. Condition of seals & bearings 10. Condition of Seals & bearings 10. Condition of Level 19. Condition of Seals & bearings 10. Condition of Seals & Seals Acceptable 19. Condition of Input shaft 19. Condition		14.			(Pass) Acceptable
17. Condition of switches, alarms, heaters, coolers or other devices  18. Condition of inspection covers  19. Condition of seals & bearings  10. Condition of Seals & bearings  10. Condition of Input Shafts  10. Condition of Input Shaft  10. Condi		15.			
18. Condition of inspection covers  19. Condition of seals & bearings  20. Gearbox Oil Level  21. Gearbox Oil Level [COPY]  22. Type and Grade of Specified Lubricant  23. Correct type and grade of specified lubricant  24. Appearance of lubricant  25. Free rotation of shafts  26. Condition of Input shaft  27. Gear tooth condition  28. Degree of Gear Wear  (Pass) Present/Acceptable  (NA)  (NA)  (NA)  (Pass) Acceptable  (Pass) Acceptable  (Pass) Acceptable  (Pass) Acceptable  (Pass) Acceptable		16.			
19. Condition of seals & bearings  20. Gearbox Oil Level  21. Gearbox Oil Level [COPY]  22. Type and Grade of Specified Lubricant  23. Correct type and grade of specified lubricant  24. Appearance of lubricant  25. Free rotation of shafts  26. Condition of Input shaft  27. Gear tooth condition  28. Degree of Gear Wear  (Pass) Acceptable  (Mild) Mild		17.	. Condition of switches, alarms, heaters, coolers or other devices (NA)		(NA)
20. Gearbox Oil Level [COPY] (NA) 21. Gearbox Oil Level [COPY] (NA) 22. Type and Grade of Specified Lubricant 23. Correct type and grade of specified lubricant (NA) 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		18.	. Condition of inspection covers (Pass) Present/Acceptable		(Pass) Present/Acceptable
21. Gearbox Oil Level [COPY]  22. Type and Grade of Specified Lubricant  23. Correct type and grade of specified lubricant  24. Appearance of lubricant  25. Free rotation of shafts  26. Condition of Input shaft  27. Gear tooth condition  28. Degree of Gear Wear  (NA)  (NA)  (Pass) Acceptable  (Pass) Acceptable  (Pass) Acceptable		19.	. Condition of seals & bearings (Pass) Acceptable		(Pass) Acceptable
22. Type and Grade of Specified Lubricant  23. Correct type and grade of specified lubricant  24. Appearance of lubricant  25. Free rotation of shafts  26. Condition of Input shaft  27. Gear tooth condition  28. Degree of Gear Wear  (NA)  (Pass) Acceptable  (Pass) Acceptable  (Pass) Acceptable		20.	0. Gearbox Oil Level		(NA)
23. Correct type and grade of specified lubricant (NA) 24. Appearance of lubricant (Pass) Acceptable 25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		21.	1. Gearbox Oil Level [COPY] (NA)		(NA)
24. Appearance of lubricant(Pass) Acceptable25. Free rotation of shafts(Yes) Yes26. Condition of Input shaft(Pass) Acceptable27. Gear tooth condition(Pass) Acceptable28. Degree of Gear Wear(Mild) Mild		22.	•		
25. Free rotation of shafts (Yes) Yes 26. Condition of Input shaft (Pass) Acceptable 27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		23.			· ,
26. Condition of Input shaft(Pass) Acceptable27. Gear tooth condition(Pass) Acceptable28. Degree of Gear Wear(Mild) Mild			. Appearance of lubricant (Pass) Acceptable		
27. Gear tooth condition (Pass) Acceptable 28. Degree of Gear Wear (Mild) Mild		25.			· · ·
28. Degree of Gear Wear (Mild) Mild		26.	·		
•		27.			
29. Gear tooth Contact (Pass) Acceptable			•		· · · ·
		29.	Gear tooth Contact (Pass) Acceptable		

### **Gearbox Summary**

Summary of Issues and Overall Condition of the Gearbox
 Minor gear wear and some small amount of contamination was found in casing.

31. Technician Signature

NAME

**Kevin Maxwell** 



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627284



# Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: STAND 15 Job Number: 153656 Description:Roll Stand 15

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Stand 15
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

### acceptable



Wear Physical Contaminants

acceptable









	4.	Seals:			
		Wear	Physical	Contaminants	
		acceptable			
	5.	Environmental Conditions			
		Ambient Temparature (F)	Humidity	Contaminants	
	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants	
	7.	Other conditions			
		Gearbox Temperature (F)	Moisture Presence	Contaminants	
Ge	earb	ox Inspection & Evaluation Chec	klist		
	8.	Primary drive rotates input shaft in co	rect direction		(Yes) Yes
	9.	Condition of Machinery Guards if Pres	sent		(NA)
	10.	Condition of Coupling Guards if Prese	nt		(NA)
	11.	Type of Coupler:			
	12.	Coupling Alignment			
	13.	Condition of Housing		(Pass) Ad	cceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(Mild) Mild
		Some pitting	
	29.	Gear tooth Contact	(Pass) Acceptable
Gea	arbo	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		Some mild gear wear/pitting was found during inspection	
;	31.	Technician Signature	Kevin Maxwell

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3630 Fourth St Flowood, MS 39232





## Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: STAND 7 Job Number: 153656 Description:Roll Stand 7

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Type::	NA
Model#::	NA
Application ID::	Stand 7
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants

### acceptable

Some sludge in back corner



Wear Physical Contaminants

### acceptable

Minor gear wear











4.	Seals:		
	Wear	Physical	Contaminants
	acceptable		
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	Contaminants

	6.	Physical Issues		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants
		Ü	3	
	7.	Other conditions		
		Gearbox Temperature (F)	Moisture Presence	Contaminants
•		la (' 0 Faralas-(' Ol		
Ge		ox Inspection & Evaluation CI		(V) V
	8.	Primary drive rotates input shaft in		(Yes) Yes
	9.	Condition of Machinery Guards if		(Pass) Acceptable
	10.	Condition of Coupling Guards if P	resent	(Pass) Acceptable
	11.	Type of Coupler:		
	12. 13.	Coupling Alignment Condition of Housing		(Pass) Acceptable
	14.	Condition of Mounting Hardware		(Pass) Acceptable
	15.	Breather Vent Installed:		(Pass) Acceptable (NA)
	16.	Condition of Piping & connections	(if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, hea	•	(NA)
	18.	Condition of inspection covers	aters, coolers or other devices	(Pass) Present/Acceptable
	19.	Condition of seals & bearings		(Pass) Acceptable
	20.	Gearbox Oil Level		(NA)
	21.			(NA)
	22.	Type and Grade of Specified Lubr	icant	(Wy
	23.	Correct type and grade of specifie		(NA)
	24.	Appearance of lubricant		(NA)
	25.			(Yes) Yes
	26.	Condition of Input shaft		(Pass) Acceptable
	27.	Gear tooth condition		(Pass) Acceptable
	28.	Degree of Gear Wear		(Mild) Mild
	29.	Gear tooth Contact		(Pass) Acceptable
Ge	arbo	ox Summary		
	30.	Summary of Issues and Overall C	ondition of the Gearbox	
		Some sludge in back corner of geal	r case and some minor gear wear was found	d during inspection.
		Technician Signature		Kevin Maxwell

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3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627282



### Gearbox Inspection Completed by: Kevin Maxwell on 09/24/2024 Location: Roll Mill Serial Number: STAND 14 Job Number: 153656

Description: Roll Stand 14

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	NA
Ratio::	NA
Serial#::	NA
Туре::	NA
Model#::	NA
Application ID::	Stand 14
Coupling Type: :	Gear

### Priorities Found:

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/17/2024

2. Oil Condition

Wear Physical Contaminants

acceptable





Wear Physical Contaminants

acceptable







13. Condition of Housing



(Pass) Acceptable

	4.	Seals:			
		Wear	Physical	Contaminants	
		acceptable			
	5.	Environmental Conditions			
		Ambient Temparature (F)	Humidity	Contaminants	
	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants	
	7.	Other conditions			
		Gearbox Temperature (F)	Moisture Presence	Contaminants	
G	earb	ox Inspection & Evaluation Chec	klist		
	8.	Primary drive rotates input shaft in co	rrect direction		(Yes) Yes
	9.	Condition of Machinery Guards if Pres	sent		(NA)
	10.	Condition of Coupling Guards if Prese	ent		(NA)
	11.	Type of Coupler:			
	12.	Coupling Alignment			

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(NA)
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(NA)
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(None) None/New
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox	
		No issues to note	
	31.	Technician Signature	Kevin Maxwell
	/	Knydh	



3630 Fourth St Flowood, MS 39232 FolderID: 153656 FormID: 21627263



### **Gearbox Inspection**

### Completed by: Kevin Maxwell on 09/24/2024

Location:	Roll Mill	
Serial Number:	1A STAND	
Job Number:	153656	
Description:Roll	Stand 1A	

Customer Name::	Nucor Steel
Location :	Flowood, MS
Contact::	Cliff Johnson
Manufacturer::	N/A
Ratio::	N/A
Serial#::	N/A
Type::	Gearbox
Model#::	N/A
Application ID::	1A
Coupling Type: :	Gear

Priorities Found: • 1 - High

### **Gearbox Visual Inspection**

1. Date Inspection Performed 09/16/2024

2. Oil Condition

Wear Physical Contaminants
requires attention

Contaminated oil





Wear Physical Contaminants

### acceptable









4.	Seals:			
	Wear	Physical	Contaminants	
	acceptable			
5.	Environmental Conditions			
	Ambient Temparature (F)	Humidity	Contaminants	
6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	Contaminants	
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence	Contaminants	
Gearb	ox Inspection & Evaluation Chec	klist		
Ω	Primary drive rotates input shaft in co	rrect direction		(Voc) Voc

G	earb	ox inspection & Evaluation Checklist	
	8.	Primary drive rotates input shaft in correct direction	(Yes) Yes
	9.	Condition of Machinery Guards if Present	(Pass) Acceptable
	10.	Condition of Coupling Guards if Present	
	11.	Type of Coupler:	
	12.	Coupling Alignment	
	13.	Condition of Housing	(Pass) Acceptable

	14.	Condition of Mounting Hardware	(Pass) Acceptable
	15.	Breather Vent Installed:	(Pass) Present/Acceptable
	16.	Condition of Piping & connections (if forced lube system installed)	(Pass) Acceptable
	17.	Condition of switches, alarms, heaters, coolers or other devices	(NA)
	18.	Condition of inspection covers	(Pass) Present/Acceptable
	19.	Condition of seals & bearings	(Pass) Acceptable
	20.	Gearbox Oil Level	(NA)
	21.	Gearbox Oil Level [COPY]	(NA)
	22.	Type and Grade of Specified Lubricant	
	23.	Correct type and grade of specified lubricant	(NA)
	24.	Appearance of lubricant	(Fail) Unacceptable
	25.	Free rotation of shafts	(Yes) Yes
	26.	Condition of Input shaft	(Pass) Acceptable
	27.	Gear tooth condition	(Pass) Acceptable
	28.	Degree of Gear Wear	(Mild) Mild
	29.	Gear tooth Contact	(Pass) Acceptable
G	earb	ox Summary	
	30.	Summary of Issues and Overall Condition of the Gearbox  Oil and gear casing has contamination.	
	31.	Technician Signature	Kevin Maxwell