



Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232

FolderID: NUCOR FormID: 10463454

Gearbox Inspection Completed by: Motor Shop 1 on 04/20/2021			
Location:	Roll Mill		
Serial Number:	1A STAND		
Job Number:	144888		
Description:Roll Stand 1A			

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

Priorities Found: 1 - Low



Gearbox Visual Inspection

0

P2

Date Inspection Performed 04/05/2021

Oil Condition 2.

Physical Wear Contaminants **Acceptable** Unacceptable Unacceptable

Oil is contaminated with what appears to be rust or some time of flaking material.



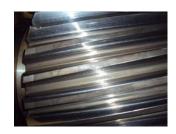


РЗ 3. Gears:

Wear Physical Contaminants Acceptable **Acceptable Acceptable**









Seals:

Wear Physical Contaminants acceptable acceptable acceptable

	5.	Environmental Conditions			
	5.		I I com initia		
		Ambient Temparature (F)	Humidity		
	_	65	60		
	6.	Physical Issues	0		
		Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	_	0.1			
	7.	Other conditions			
		Gearbox Temperature (F)	Moisture Presence		
G		ox Inspection & Evaluation C			
	8.	Primary drive rotates input shaft		(Yes) Yes	
	9.	Condition of Machinery Guards if		(NA)	
	10.	Condition of Coupling Guards if F	Present	(NA)	
	11.	Type of Coupler:		gear	
	12.	Coupling Alignment		Ok	
	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		(Pass) Present/Acceptable	
	18.	Condition of inspection covers		(Pass) Present/Acceptable	
	19.	Condition of seals & bearings		(Pass) Acceptable	
	20.	Gearbox Oil Level		(Pass) Acceptable	
	21.	Type and Grade of Specified Lubricant		220	
	22.	Correct type and grade of specified lubricant		(Pass) Acceptable	
	23.	Appearance of lubricant		(Pass) Acceptable	
	24.	Free rotation of shafts		(Yes) Yes	
	25.	Condition of Input shaft		(Pass) Acceptable	
	26.	Gear tooth condition		(Pass) Acceptable	
	27.	Degree of Gear Wear		(Mild) Mild	
	28.	Gear tooth Contact		(Pass) Acceptable	
G	earbo	ox Summary			
	29.	Summary of Issues and Overall 0			
		Debris is present in gear case. Ge	ars look ok.		
	30.	Technician Signature	MXY	Kevin Maxwell	





Flowood, MS 39232

FolderID: NUCOR FormID: 10463453

Gearbox Inspection Completed by: Motor Shop 1 on 04/20/2021			
Location:	Roll Mill		
Serial Number:	2 MAIN STAND		
Job Number:	144888		
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: 1 - Good



0

1.	Date Inspection Performed	04/05/2021

Oil Condition 2. Physical Wear Contaminants acceptable acceptable acceptable

РЗ Gears: Wear Physical Contaminants

marginal acceptable marginal

Gears appear to have marginal tooth wear.













acceptable	acceptable	acceptable
Wear	Physical	Contaminants

	5.	Environmental Conditions		
		Ambient Temparature (F)	Humidity	
		65	60	
	6.	Physical Issues	Signs of Lubricant Leaks?	
		Signs of Excessive Heat?		
	7.	Other conditions	Moisture Presence	
		Gearbox Temperature (F)		
C	o o v b	ay Inanastian ⁹ Evaluation C	hooklist	
G		ox Inspection & Evaluation C		(Vas) Vas
	8.	Primary drive rotates input shaft		(Yes) Yes
	9.	Condition of Machinery Guards if		(NA)
	10.	Condition of Coupling Guards if	rieseni	(NA)
	11.	Type of Coupler:		gear
	12.	Coupling Alignment		ok (Paga) Assantable
	13.	Condition of Housing		(Pass) Acceptable
	14.	Condition of Mounting Hardware Breather Vent Installed:		(Pass) Acceptable
	15.		(Pass) Present/Acceptable	
	16.	Condition of Piping & connections (if forced lube system installed) Condition of switches, alarms, heaters, coolers or other devices		(Pass) Acceptable
	17. 18.			(Pass) Present/Acceptable
	19.	Condition of seals & bearings		(Pass) Acceptable
	20.	Gearbox Oil Level		(Pass) Acceptable (Pass) Acceptable
	21.			(Pass) Acceptable
	22.	Type and Grade of Specified Lubricant Correct type and grade of specified lubricant		(Pass) Acceptable
	23.	Correct type and grade of specified lubricant		(Pass) Acceptable
	24.	Appearance of lubricant		
	25.	Free rotation of shafts		(Yes) Yes (Pass) Acceptable
	26.	Gear tooth condition	Condition of Input shaft	
	27.	Degree of Gear Wear		(Pass) Acceptable (Mild) Mild
		Gear tooth Contact		(Pass) Acceptable
G		ox Summary		(i ass) Acceptable
	29.	Summary of Issues and Overall	Condition of the Gearboy	
	۷٦.	•	of gear case. Gears look ok with slight wear.	
	30.	Technician Signature	3	Kevin Maxwell
	00.		- na //a	
		Kain	Y/Jul	



Flowood, MS 39232

FolderID: NUCOR FormID: 10468181

Gearbox Inspection			
Completed by: Motor Shop 1 on 04/20/2021			
Location:	Roll Mill		
Serial Number:	2 STAND INTERMEDIATE		
Job Number:	144888		
Description: Roll Stand 2 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::	2 Intermediate
Coupling Type: :	Gear

Priorities Found: 1 - Good

Thomas Tourist 1. Cook							
(Gearbox Visual Inspection					O	
	1.	Date Inspection Performed			04/05/2021		
	2.	Oil Condition					
		Wear	Physical	Contaminants			
		acceptable	acceptable	acceptable			
	3.	Gears:				P;	3
		Wear	Physical	Contaminants			
		acceptable	acceptable	acceptable			











	65	60	
	Ambient Temparature (F)	Humidity	
5.	Environmental Conditions		
	acceptable	acceptable	acceptable
	Wear	Physical	Contaminants
4.	Seals:		

6.	Physical Issues			
0.	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	Signs of Excessive fleat:	Signs of Eublicant Leaks:		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	ox Inspection & Evaluation C			
8.	Primary drive rotates input shaft		(Yes) Yes	
9.	Condition of Machinery Guards in	Present	(NA)	
10.	Condition of Coupling Guards if I	Present	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
13.	Condition of Housing		(Pass) Acceptable	
14.	Condition of Mounting Hardware		(Pass) Acceptable	
15.	Breather Vent Installed:		(Pass) Present/Acceptable	
16.	Condition of Piping & connection	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Luk	pricant	220	
22.	Correct type and grade of specifi	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(Mild) Mild	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
2 9.	Summary of Issues and Overall	Condition of the Gearbox		
	Gears look good. No issues to rep	ort.		
30.	Technician Signature	Mall	Kevin Maxwell	

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Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232

FolderID: NUCOR FormID: 10468239

Completed by: Motor Shop 1 on 04/20/2021		
Location:	Roll Mill	
Serial Number:	1 MAIN STAND	
Job Number:	144888	
Description:Roll	Stand 1 Main	

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::	1 Main
Coupling Type: :	Gear

Priorities Found: 1 - Low



Gearbox Visual Inspection



P2

Date Inspection Performed 04/05/2021

2. Oil Condition

Physical Wear Contaminants acceptable requires attention requires attention

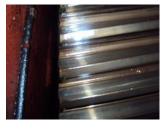
Debris found in gear casing.





РЗ 3. Gears:

Wear Physical Contaminants acceptable acceptable acceptable





Seals: 4.

> Wear Physical Contaminants marginal marginal marginal

5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	65	60	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	
earbo	ox Inspection & Evaluation C	hecklist	
8.	Primary drive rotates input shaft	in correct direction	(Yes) Yes
9.	Condition of Machinery Guards it	Present	(NA)
10.	Condition of Coupling Guards if F	Present	(NA)
11.	Type of Coupler:		gear
12.	Coupling Alignment		acceptable
13.	Condition of Housing		(Pass) Acceptable
14.	Condition of Mounting Hardware		(Pass) Acceptable
15.	Breather Vent Installed:		(Pass) Present/Acceptable
16.	• •	s (if forced lube system installed)	(Pass) Acceptable
17.	Condition of switches, alarms, he	eaters, coolers or other devices	(Pass) Present/Acceptable
18.	Condition of inspection covers		(Pass) Present/Acceptable
19.	Condition of seals & bearings		(Fail) Unacceptable
20.	Gearbox Oil Level		(Pass) Acceptable
21.	Type and Grade of Specified Lub		220
22.	Correct type and grade of specifi	ed lubricant	(Pass) Acceptable
23.	Appearance of lubricant		(Fail) Unacceptable
24.	Free rotation of shafts		(Yes) Yes
25.	Condition of Input shaft		(Pass) Acceptable
26.	Gear tooth condition		(Pass) Acceptable
27.	Degree of Gear Wear		(Mild) Mild
	Gear tooth Contact		(Pass) Acceptable
	ox Summary	2 199	
29.	Summary of Issues and Overall (nnaava ta ha laaling
00		sing. Gears have minor wear. Input seal a	
30.	Technician Signature	MACI	Kevin Maxwell





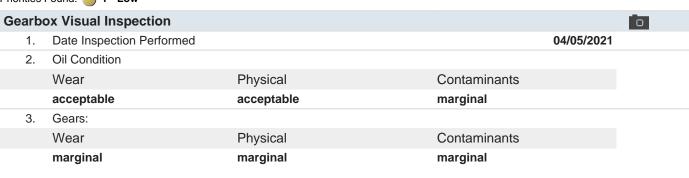
Flowood, MS 39232

FolderID: NUCOR FormID: 10469425

ocation:	Roll Mill
Serial Number:	3 STAND MAIN
ob Number:	144888

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

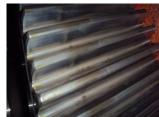
Priorities Found: 1 - Low











РЗ



4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	65	60	

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	oox Inspection & Evaluation C	hecklist		
8.	Primary drive rotates input shaft i	in correct direction	(Yes) Yes	
9.	Condition of Machinery Guards if	Present	(NA)	
10.	Condition of Coupling Guards if F	Present	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
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	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub	pricant	220	
22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(Mild) Mild	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	oox Summary			
2 9.	Summary of Issues and Overall (Condition of the Gearbox		
		sue with a gear in this unit. We could not s in this report. Gears do have what appear		
30.	Technician Signature		Kevin Maxwell	
	Kin	MXC		



Gearbox Inspection

Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232

FolderID: NUCOR FormID: 10489305

Completed by: Motor Shop 1 on 04/23/202	
Location:	Roll Mill
Serial Number:	3 INTERMEDIATE
Job Number:	144888
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

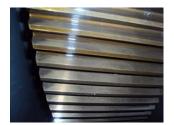
Priorities Found: 1 - Good



Gearbox Visual Inspection						
	1.	Date Inspection Performed		04/05/2021		
	2.	Oil Condition				
		Wear	Physical	Contaminants		
		acceptable	acceptable	acceptable		
	3.	Gears:			P3	
		Wear	Physical	Contaminants		
		acceptable	acceptable	acceptable		







4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	65	60	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
7.	Other conditions Gearbox Temperature (F)	Moisture Presence	

Gearbox Inspection & Evaluation Checklist

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:	gear	
12.	Coupling Alignment	acceptable	
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	(Pass) Present/Acceptable	
18.	Condition of inspection covers	(Pass) Present/Acceptable	
19.	Condition of seals & bearings	(Pass) Acceptable	
20.	Gearbox Oil Level	(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(Pass) Acceptable	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(Pass) Acceptable	
27.	Degree of Gear Wear	(Mild) Mild	
28.	Gear tooth Contact	(Pass) Acceptable	
Gearbo	ox Summary		
29.	Summary of Issues and Overall Condition of the Gearbox		
	No real issue to mention. Gears looked ok.		
30.	Technician Signature	Kevin Maxwell	



Flowood, MS 39232

FolderID: NUCOR FormID: 10489361

Completed by: Motor Shop 1 on 04/23/2021		
Location:	Roll Mill	
Serial Number:	4 INTERMEDIATE	
Job Number:	144888	
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: 1 - Good

Gearbo	ox Visual Inspection			О
1.	Date Inspection Performed		04/05/202	1
2.	Oil Condition			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
3.	Gears:			ı
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
	•	•	•	









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4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	68	55	

	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	7.	Other conditions			
	٠.		Moisture Presence		
		Gearbox Temperature (F)	Moisture Freserice		
Ge	arbo	ox Inspection & Evaluation C	hecklist		
	8.	Primary drive rotates input shaft i		(Yes) Yes	
	9.	Condition of Machinery Guards if		(NA)	
	10.	Condition of Coupling Guards if F		(NA)	
	11.	Type of Coupler:	TOOGH.	gear	
	12.	Coupling Alignment		acceptable	
	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	s (if forced lube system installed)	(Pass) Acceptable	
	17.	Condition of switches, alarms, he	· · · · · · · · · · · · · · · · · · ·	(Pass) Present/Acceptable	
	18.	Condition of inspection covers	,	(Pass) Present/Acceptable	
	19.	Condition of seals & bearings		(Pass) Acceptable	
	20.	Gearbox Oil Level		(Pass) Acceptable	
	21.	Type and Grade of Specified Lub	ricant	220	
	22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
	23.	Appearance of lubricant		(Pass) Acceptable	
	24.	Free rotation of shafts		(Yes) Yes	
	25.	Condition of Input shaft		(Pass) Acceptable	
	26.	Gear tooth condition		(Pass) Acceptable	
	27.	Degree of Gear Wear		(Mild) Mild	
	28.	Gear tooth Contact		(Pass) Acceptable	
Ge	arbo	ox Summary			
	29.	Summary of Issues and Overall O	Condition of the Gearbox		
		All looks good. Gears are in good	shape.		
	30.	Technician Signature	14 200	Kevin Maxwell	
		/ ramil	NXOL		





Flowood, MS 39232

FolderID: NUCOR FormID: 10489550

Gearbox Inspection	Customer Name::	Nucor Steel
Completed by: Motor Shop 1 on 04/23/2021	Location :	Flowood, MS
Location: Roll Mill	Contact::	Cliff Johnson
Serial Number: 4 MAIN	Manufacturer::	NA
Job Number: 144888	Ratio::	NA
Description:Roll Stand 4 Main	Serial#::	NA
	Type::	NA
	Model#::	NA
	Application ID::	4 Main
	Coupling Type: :	Gear

Gearb	ox Visual Inspection			
1.	Date Inspection Performed		04/05/2021	
2.	Oil Condition			
	Wear	Physical	Contaminants	
3.	Gears:			
	Wear	Physical	Contaminants	
4.	Seals:			
	Wear	Physical	Contaminants	
5.	Environmental Conditions			
	Ambient Temparature (F)	Humidity		
	68	55		
6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	ox Inspection & Evaluation C			
8.	Primary drive rotates input shaft		(Yes) Yes	
9.	Condition of Machinery Guards in		(NA)	
10.	Condition of Coupling Guards if I	Present	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
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	(Pass) Present/Acceptable	
18.	Condition of inspection covers	(Missing) Missing/Damaged	
19.	Condition of seals & bearings	(Pass) Acceptable	
20.	Gearbox Oil Level	(NA)	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(NA)	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(NA)	
27.	Degree of Gear Wear		
28.	Gear tooth Contact	(NA)	
Gearb	ox Summary		
29.	Summary of Issues and Overall Condition of the Gearbox Could not access gearbox because bolts heads were stripped.		
30.	Technician Signature A A A A A A A A A A A A A	Kevin Maxwell	



Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232 FolderID: NUCOR FormID: 10489801

Gearbox Inspe	ection	Customer Name::	Nucor Steel
Completed by: N	Motor Shop 1 on 04/23/2021	Location :	Flowood, MS
Location:	Roll Mill	Contact::	Cliff Johnson
Serial Number:	1 INTERMEDIATE	Manufacturer::	NA
Job Number:	144888	Ratio::	NA
Description:Roll	Stand 1 Intermediate	Serial#::	NA
		Type::	NA
		Model#::	NA
		Application ID::	1 Intermediate

Priorities Found: 1 - Good

		i odila.			
Gea	arbo	ox Visual Inspection			O
	1.	Date Inspection Performed		04/05/2021	
	2.	Oil Condition			
		Wear	Physical	Contaminants	
		acceptable	acceptable	acceptable	
	3.	acceptable Gears:	acceptable	acceptable	P3
	3.	· ·	acceptable Physical	acceptable Contaminants	P3
	3.	Gears:	·	·	P3

Coupling Type: :



Gearbox Inspection & Evaluation Checklist

Primary drive rotates input shaft in correct direction





Gear



(Yes) Yes

4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	70	55	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	

9.	Condition of Machinery Guards if Present	(NA)			
10.	. Condition of Coupling Guards if Present (NA)				
11.	Type of Coupler:	gear			
12.	Coupling Alignment	acceptable			
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	(Pass) Present/Acceptable			
18.	Condition of inspection covers	(Pass) Present/Acceptable			
19.	Condition of seals & bearings	(Pass) Acceptable			
20.	Gearbox Oil Level	(Pass) Acceptable			
21.	Type and Grade of Specified Lubricant	220			
22.	Correct type and grade of specified lubricant	(Pass) Acceptable			
23.	Appearance of lubricant	(Pass) Acceptable			
24.	Free rotation of shafts	(Yes) Yes			
25.	Condition of Input shaft	(Pass) Acceptable			
26.	Gear tooth condition	(Pass) Acceptable			
27.	Degree of Gear Wear	(Mild) Mild			
28.	Gear tooth Contact	(Pass) Acceptable			
Gearbo	ox Summary				
2 9.	Summary of Issues and Overall Condition of the Gearbox				
	Some markings on top of gear appear to line up to oil injectors. Gears look gpresent in gear casing.	good. Minor indication of moisture			
30.	Technician Signature	Kevin Maxwell			
	Knymell				





Flowood, MS 39232

FolderID: NUCOR FormID: 10490818

Gearbox Inspection Completed by: Motor Shop 1 on 04/23/2021		Customer Name::	Nucor Steel
		Location :	Flowood, MS
Location:	Roll Mill	Contact::	Cliff Johnson
Serial Number:	2A 90 DEGREE	Manufacturer::	NA
Job Number:	144888	Ratio::	NA
Description: Roll Stand 2A 90 Degree Gearbox		Serial#::	NA
		Type::	NA
		Model#::	NA
		Application ID::	2A 90 Degree Gearbox

Coupling Type: :

Gear

Gearbox Visual Inspection				
1.	Date Inspection Performed		04/05/2021	
2.	Oil Condition			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
3.	Gears:			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
4.	Seals:			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
5.	Environmental Conditions			
	Ambient Temparature (F)	Humidity		
	70	55		
6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearbo	ox Inspection & Evaluation C	hecklist		
8.	Primary drive rotates input shaft	in correct direction	(Yes) Yes	
9.	Condition of Machinery Guards it	Present	(NA)	
10.	Condition of Coupling Guards if F	Present	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		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	(Pass) Present/Acceptable	
18.	Condition of inspection covers	(Pass) Present/Acceptable	
19.	Condition of seals & bearings	(Pass) Acceptable	
20.	Gearbox Oil Level	(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(Pass) Acceptable	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(Pass) Acceptable	
27.	Degree of Gear Wear	(None) None/New	
28.	Gear tooth Contact	(Pass) Acceptable	
Gearbo	ox Summary		

Summary of Issues and Overall Condition of the Gearbox
 No good access to this gearbox to inspect gears. Cover that was removed only showed shafts.

Ken MACK

30. Technician Signature Kevin Maxwell



Hi-Speed Industrial Service 7030 Ryburn Dr Millington, Tn 38053 901-873-5300

FormID: 10491214

Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232

Gearbox Inspection
Completed by: Motor Shop 1 on 04/23/2021
Location: Roll Mill
Serial Number: STAND 5
Job Number: 144888
Description:Roll Stand 5

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: ___ 1 - Low

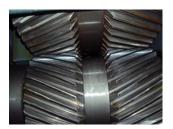
	Tioning Found.				
G	Gearbox Visual Inspection				
	1.	Date Inspection Performed		0	4/05/2021
	2.	Oil Condition			
		Wear	Physical	Contaminants	
		acceptable	acceptable	acceptable	

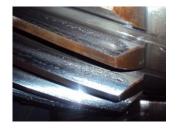
3. Gears: P3

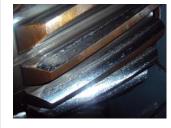
Wear Physical Contaminants marginal marginal acceptable



















4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	70	55	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	
'aarb	ay Inanastian ⁹ Evaluation C	hooklist	

Gearb	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:	gear		
12.	Coupling Alignment	acceptable		
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	(Pass) Present/Acceptable		

18.	Condition of inspection covers	(Pass) Present/Acceptable
19.	Condition of seals & bearings	(Pass) Acceptable
20.	Gearbox Oil Level	(Pass) Acceptable
21.	Type and Grade of Specified Lubricant	220
22.	Correct type and grade of specified lubricant	(Pass) Acceptable
23.	Appearance of lubricant	(Pass) Acceptable
24.	Free rotation of shafts	(Yes) Yes
25.	Condition of Input shaft	(Pass) Acceptable
26.	Gear tooth condition	(Pass) Acceptable
27.	Degree of Gear Wear	(Advanced) Advanced
28.	Gear tooth Contact	(Pass) Acceptable
Gearb	ox Summary	
2 9.	Summary of Issues and Overall Condition of the Gearbox Output gears appear to have decent wear. Other gears look ok.	
30.	Technician Signature Minimum M M M M M M M M M M M M M	Kevin Maxwell



Hi-Speed Industrial Service 7030 Ryburn Dr Millington, Tn 38053 901-873-5300

> FolderID: NUCOR FormID: 10491693

Gearbox Inspection Nucor Jackson (003555) 3630 Fourth St

Flowood, MS 39232

Gearbox Inspection Completed by: Motor Shop 1 on 04/23/2021 Location: Roll Mill		Customer Name::	Nucor Steel
Completed by: N	Motor Shop 1 on 04/23/2021	Location :	Flowood, MS
Location:	Roll Mill	Contact::	Cliff Johnson
Serial Number:	STAND 6	Manufacturer::	NA
Job Number:	144888	Ratio::	NA
Description:Roll	Stand 6	Serial#::	NA
		Type::	NA
		Model#::	NA
		Application ID::	Stand 6
		Coupling Type: :	Gear

Priorities Found: 1 - Medium

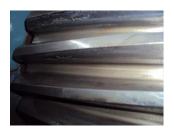
1 - Low

Gearbox Visual Inspection				
1.	Date Inspection Performed		04/05/2021	
2.	Oil Condition			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	

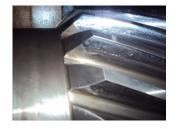




marginal



marginal













4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	70	55	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	
0 1		and Park	

Gearb	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:	gear	
12.	Coupling Alignment	acceptable	
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	(Pass) Present/Acceptable	

18.	Condition of inspection covers	(Pass) Present/Acceptable
19.	Condition of seals & bearings	(Pass) Acceptable
20.	Gearbox Oil Level	(Pass) Acceptable
21.	Type and Grade of Specified Lubricant	220
22.	Correct type and grade of specified lubricant	(Pass) Acceptable
23.	Appearance of lubricant	(Pass) Acceptable
24.	Free rotation of shafts	(Yes) Yes
25.	Condition of Input shaft	(Pass) Acceptable
26.	Gear tooth condition	(Pass) Acceptable
27.	Degree of Gear Wear	(Advanced) Advanced
28.	Gear tooth Contact	(Pass) Acceptable
earbo	ox Summary	
29.	Summary of Issues and Overall Condition of the Gearbox	
	Output gears appear to have some wear. There also appears to be	some wear on the input pinion gear.
30.	Technician Signature	Kevin Maxwell
	Konthall	





Flowood, MS 39232

FolderID: NUCOR FormID: 10492059

Gearbox Inspection		Customer Name::	Nucor Steel
Completed by: N	Notor Shop 1 on 04/23/2021	Location :	Flowood, MS
Location:	Roll Mill	Contact::	Cliff Johnson
Serial Number:	CROP SHEAR	Manufacturer::	NA
Job Number:	144888	Ratio::	NA
Description:Crop	Shear	Serial#::	NA
		Туре::	NA
		Model#::	NA
		Application ID::	Crop Shear
		Coupling Type: :	Gear

Priorities Found: 1 - Good

G	earbo	ox Visual Inspection			ō
	1.	Date Inspection Performed		04/05/2021	
	2.	Oil Condition			
		Wear	Physical	Contaminants	
		acceptable	acceptable	acceptable	
	3.	Gears:	acceptable	acceptable	P3
	3.	•	acceptable Physical	acceptable Contaminants	P3
	3.	Gears:	·	·	P3











4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Λ Is ' (T (- / Γ)	1.1 2.19	
	Ambient Temparature (F)	Humidity	

6.	Physical Issues			
Ŭ.	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	Oigno of Exococive Float.	Orgino of Eustroam Loune.		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	ox Inspection & Evaluation C	hecklist		
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 F	Present	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
13.	Condition of Housing		(Pass) Acceptable	
14.	Condition of Mounting Hardware		(Pass) Acceptable	
15.	Breather Vent Installed:		(Pass) Present/Acceptable	
16.	Condition of Piping & connection	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub	pricant	220	
22.	Correct type and grade of specifi	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(Mild) Mild	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
2 9.	Summary of Issues and Overall O	Condition of the Gearbox		
	Minor sighs of wear on lower pinion	on gear.		
30.	Technician Signature	man	Kevin Maxwell	



Hi-Speed Industrial Service 7030 Ryburn Dr Millington, Tn 38053 901-873-5300

> FolderID: NUCOR FormID: 10492114

Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232

Gearbox Inspection
Completed by: Motor Shop 1 on 04/23/2021
Location: Roll Mill
Serial Number: STAND 7
Job Number: 144888
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: 1 - Good

Gearbox Visual Inspection			O	
1.	Date Inspection Performed		04/05/2021	
2.	Oil Condition			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	





4.	Seals:			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
5.	Environmental Conditions			
	Ambient Temparature (F)	Humidity		
	72	55		
6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearbo	ox Inspection & Evaluation Ch	necklist		

Gearb	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:	gear	
12.	Coupling Alignment	acceptable	
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	(Pass) Present/Acceptable	

18.	Condition of inspection covers	(Pass) Present/Acceptable
19.	Condition of seals & bearings	(Pass) Acceptable
20.	Gearbox Oil Level	(Pass) Acceptable
21.	Type and Grade of Specified Lubricant	220
22.	Correct type and grade of specified lubricant	(Pass) Acceptable
23.	Appearance of lubricant	(Pass) Acceptable
24.	Free rotation of shafts	(Yes) Yes
25.	Condition of Input shaft	(Pass) Acceptable
26.	Gear tooth condition	(Pass) Acceptable
27.	Degree of Gear Wear	(Mild) Mild
28.	Gear tooth Contact	(Pass) Acceptable
Gearb	ox Summary	
2 9.	Summary of Issues and Overall Condition of the Gearbox There are some signs of wear on the input pinion.	
30.	Technician Signature	Kevin Maxwell



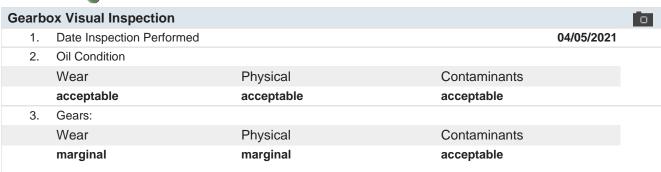
Flowood, MS 39232

FolderID: NUCOR FormID: 10492199

Gearbox Inspe Completed by: N	lotor Shop 1 on 04/23/2021
Location:	Roll Mill
Serial Number:	STAND 8
Job Number:	144888
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: 1 - Good











РЗ







4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	ox Inspection & Evaluation Cl	necklist		
8.	Primary drive rotates input shaft i		(Yes) Yes	
9.	Condition of Machinery Guards if		(Pass) Acceptable	
10.	Condition of Coupling Guards if F	Present	(Pass) Acceptable	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
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	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	aters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub	ricant	220	
22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(Mild) Mild	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
2 9.	Summary of Issues and Overall C	Condition of the Gearbox		
	There does appear to be some wea	r on the pinion gear.		
30.	Technician Signature	MAR	Kevin Maxwell	

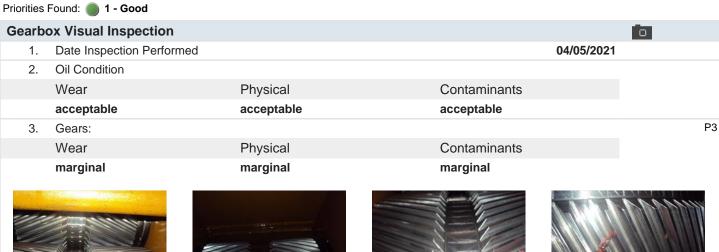


Flowood, MS 39232

FolderID: NUCOR FormID: 10492517

ocation:	Roll Mill
erial Number:	STAND 9
ob Number:	144888

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



















1	Spale.

acceptable	acceptable	acceptable
Wear	Physical	Contaminants

vironmental Conditions inbient Temparature (F) ysical Issues gns of Excessive Heat? her conditions earbox Temperature (F) inspection & Evaluation Ch imary drive rotates input shaft in indition of Machinery Guards if I indition of Coupling Guards if Pr inpe of Coupler: insupling Alignment indition of Housing indition of Mounting Hardware eather Vent Installed: indition of switches, alarms, hea indition of inspection covers	n correct direction Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	table table table table
ysical Issues gns of Excessive Heat? her conditions earbox Temperature (F) nspection & Evaluation Ch mary drive rotates input shaft in andition of Machinery Guards if It andition of Coupling Guards if Pr pe of Coupler: aupling Alignment andition of Housing andition of Mounting Hardware eather Vent Installed: andition of Piping & connections andition of switches, alarms, hea	Signs of Lubricant Leaks? Moisture Presence necklist n correct direction Present resent (if forced lube system installed)	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
ysical Issues gns of Excessive Heat? her conditions earbox Temperature (F) nspection & Evaluation Ch mary drive rotates input shaft in andition of Machinery Guards if Prope of Coupler: pupling Alignment andition of Housing andition of Mounting Hardware eather Vent Installed: andition of Piping & connections andition of switches, alarms, hea	Signs of Lubricant Leaks? Moisture Presence ecklist n correct direction Present resent (if forced lube system installed)	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
gns of Excessive Heat? ther conditions earbox Temperature (F) Inspection & Evaluation Character (F) Indition of Machinery Guards if Inspection of Coupling Guards if Property (F) Inspection of Coupling Guards if Property (F) Indition of Coupling Guards if Property (F) Indition of Housing (Inspection) Indition of Mounting Hardware (Installed) Indition of Piping & Connections (Indition of Switches, Indition of Switches, Indianactic Indianac	Moisture Presence necklist n correct direction Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
her conditions earbox Temperature (F) nspection & Evaluation Ch mary drive rotates input shaft in endition of Machinery Guards if Pr pe of Coupler: eupling Alignment endition of Housing endition of Mounting Hardware eather Vent Installed: endition of Piping & connections endition of switches, alarms, hea	Moisture Presence necklist n correct direction Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
earbox Temperature (F) nspection & Evaluation Ch mary drive rotates input shaft in andition of Machinery Guards if It andition of Coupling Guards if Pr pe of Coupler: aupling Alignment andition of Housing andition of Mounting Hardware eather Vent Installed: andition of Piping & connections andition of switches, alarms, hea	necklist n correct direction Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
earbox Temperature (F) nspection & Evaluation Ch mary drive rotates input shaft in andition of Machinery Guards if It andition of Coupling Guards if Pr pe of Coupler: aupling Alignment andition of Housing andition of Mounting Hardware eather Vent Installed: andition of Piping & connections andition of switches, alarms, hea	necklist n correct direction Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
Inspection & Evaluation Chamary drive rotates input shaft in andition of Machinery Guards if Property of Coupler: Suppling Alignment andition of Housing Hardware seather Vent Installed: Sundition of Piping & connections andition of switches, alarms, head	necklist n correct direction Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
mary drive rotates input shaft in andition of Machinery Guards if I andition of Coupling Guards if Prope of Coupler: pupling Alignment andition of Housing andition of Mounting Hardware eather Vent Installed: andition of Piping & connections andition of switches, alarms, hear	n correct direction Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table table
mary drive rotates input shaft in andition of Machinery Guards if I andition of Coupling Guards if Prope of Coupler: pupling Alignment andition of Housing andition of Mounting Hardware eather Vent Installed: andition of Piping & connections andition of switches, alarms, hear	n correct direction Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
andition of Machinery Guards if I andition of Coupling Guards if Property of Coupler: appling Alignment andition of Housing andition of Mounting Hardware teather Vent Installed: andition of Piping & connections andition of switches, alarms, hea	Present resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) (NA) gear able table table table
per of Coupling Guards if Property of Coupler: pupling Alignment pudition of Housing pudition of Mounting Hardware peather Vent Installed: pudition of Piping & connections pudition of switches, alarms, hear	resent (if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	(NA) gear able table table table table
pe of Coupler: pupling Alignment pudition of Housing pudition of Mounting Hardware peather Vent Installed: pudition of Piping & connections pudition of switches, alarms, hea	(if forced lube system installed	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	gear able table table table table
oupling Alignment andition of Housing andition of Mounting Hardware eather Vent Installed: andition of Piping & connections andition of switches, alarms, hea	· · · · · · · · · · · · · · · · · · ·	accepta (Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	able table table table table
endition of Housing condition of Mounting Hardware ceather Vent Installed: condition of Piping & connections condition of switches, alarms, hea	· · · · · · · · · · · · · · · · · · ·	(Pass) Accep (Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	table table table table
endition of Mounting Hardware eather Vent Installed: endition of Piping & connections endition of switches, alarms, heat	· · · · · · · · · · · · · · · · · · ·	(Pass) Accep (Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	table table table
eather Vent Installed: andition of Piping & connections andition of switches, alarms, hea	· · · · · · · · · · · · · · · · · · ·	(Pass) Present/Accep (Pass) Accep (Pass) Present/Accep	table table
ondition of Piping & connections andition of switches, alarms, hea	· · · · · · · · · · · · · · · · · · ·	(Pass) Accep	table
ondition of switches, alarms, hea	· · · · · · · · · · · · · · · · · · ·	(Pass) Present/Accep	
	aters, coolers or other devices		
ndition of inspection covers			table
		(Pass) Present/Accep	table
ondition of seals & bearings		(Pass) Accep	table
earbox Oil Level		(Pass) Accep	table
pe and Grade of Specified Lubr	ricant		220
rrect type and grade of specifie	d lubricant	(Pass) Accep	table
pearance of lubricant		(Pass) Accep	table
ee rotation of shafts		(Yes) Yes
ondition of Input shaft		(Pass) Accep	table
ear tooth condition		(Pass) Accep	
gree of Gear Wear		(Mild)	
ear tooth Contact		(Pass) Accep	table
Summary			
mmary of Issues and Overall C	ondition of the Gearbox		
ere is visible wear on the pinion a	and output gears.		
chnician Signature	Mal	Kevin Max	xwell
n e	ummary nmary of Issues and Overall C re is visible wear on the pinion of hnician Signature	ummary nmary of Issues and Overall Condition of the Gearbox re is visible wear on the pinion and output gears.	nmary nmary of Issues and Overall Condition of the Gearbox re is visible wear on the pinion and output gears. hnician Signature Kevin Max





Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232 FormID: 10492577

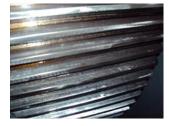
РЗ

Gearbox Inspe Completed by: M	ction lotor Shop 1 on 04/23/2021
Location:	Roll Mill
Serial Number:	10 INTERMEDIATE 1
Job Number:	144888
Description:Roll	Stand 10 1st Intermediate

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

Priorities Found: 1 - Low







4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	

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:	gear	
12.	Coupling Alignment	acceptable	
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	(Pass) Present/Acceptable	
18.	Condition of inspection covers	(Pass) Present/Acceptable	
19.	Condition of seals & bearings	(Pass) Acceptable	
20.	Gearbox Oil Level	(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(Pass) Acceptable	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(Pass) Acceptable	
27.	Degree of Gear Wear	(Mild) Mild	
28.	Gear tooth Contact	(Pass) Acceptable	
Gearb	ox Summary		
2 9.	Summary of Issues and Overall Condition of the Gearbox		
	There appears to be some flaking type wear on the upper output gear.		
30.	Technician Signature Mull	Kevin Maxwell	



Hi-Speed Industrial Service 7030 Ryburn Dr Millington, Tn 38053 901-873-5300

> FolderID: NUCOR FormID: 10492613

Gearbox Inspection Nucor Jackson (003555) 3630 Fourth St

Flowood, MS 39232

Gearbox Inspection		Customer Name::	Nucor Steel
Completed by: Motor Shop 1 on 04/23/2021		Location :	Flowood, MS
Location:	Roll Mill	Contact::	Cliff Johnson
Serial Number:	10 INTERMEDIATE 2	Manufacturer::	NA
Job Number:	144888	Ratio::	NA
Description:Roll	Stand 10 2nd Intermediate	Serial#::	NA
		Type::	NA
		Model#::	NA
		Application ID::	10 Intermediate 2
		Coupling Type: :	Gear

Priorities Found: 1 - Good

Gea	rbox Visu	ual Inspection				O
1	. Date I	nspection Performed			04/05/2021	
2	2. Oil Co	ndition				
	Wear		Physical	Contaminants		
	ассер	table	acceptable	acceptable		

3. Gears: P3

Wear Physical Contaminants acceptable acceptable acceptable



















4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	
Coorb	ox Inspection & Evaluation Cl	hooklist	

Gearb	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	(Pass) Acceptable
11.	Type of Coupler:	gear
12.	Coupling Alignment	acceptable
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	(Pass) Present/Acceptable

18.	Condition of inspection covers	(Pass) Present/Acceptable
19.	Condition of seals & bearings	(Pass) Acceptable
20.	Gearbox Oil Level	(Pass) Acceptable
21.	Type and Grade of Specified Lubricant	220
22.	Correct type and grade of specified lubricant	(Pass) Acceptable
23.	Appearance of lubricant	(Pass) Acceptable
24.	Free rotation of shafts	(Yes) Yes
25.	Condition of Input shaft	(Pass) Acceptable
26.	Gear tooth condition	(Pass) Acceptable
27.	Degree of Gear Wear	(Mild) Mild
28.	Gear tooth Contact	(Pass) Acceptable
Gearb	ox Summary	
29.	Summary of Issues and Overall Condition of the Gearbox Gears look ok. No issues to report.	
30.	Technician Signature	Kevin Maxwell





Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232 FolderID: NUCOR FormID: 10492676

Gearbox Inspe	ection	Custor
Completed by: N	Motor Shop 1 on 04/23/2021	Location
Location:	Roll Mill	Contac
Serial Number:	STAND 11	Manufa
Job Number:	144888	Ratio::
Description:Roll	Stand 11	Serial#
		Туре::
		Model#

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: 1 - Good

	iiiies					
Ge	arbo	ox Visual Inspection			Ō	
	1.	Date Inspection Performed		04/23/202	21	
	2.	Oil Condition				
		Wear	Physical	Contaminants		
		acceptable	acceptable	acceptable		
	3.	Gears:	acceptable	acceptable	P3	
	3.	•	Physical	acceptable Contaminants	P3	
	3.	Gears:		·	P3	







4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	

Gearbox Inspection & Evaluation Checklist

8. Primary drive rotates input shaft in correct direction

(Yes) Yes

		414)	
9.	Condition of Machinery Guards if Present	(NA)	
10.	Condition of Coupling Guards if Present	(NA)	
11.	Type of Coupler:	gear	
12.	Coupling Alignment	acceptable	
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	(Pass) Present/Acceptable	
18.	Condition of inspection covers	(Pass) Present/Acceptable	
19.	Condition of seals & bearings	(Pass) Acceptable	
20.	Gearbox Oil Level	(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(Pass) Acceptable	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(Pass) Acceptable	
27.	Degree of Gear Wear	(None) None/New	
28.	Gear tooth Contact	(Pass) Acceptable	
Gearbo	ox Summary		
2 9.	Summary of Issues and Overall Condition of the Gearbox		
	Gears look good. No issues to mention here.		
30.	Technician Signature	Kevin Maxwell	



Gearbox Inspection

Nucor Jackson (003555) 3630 Fourth St

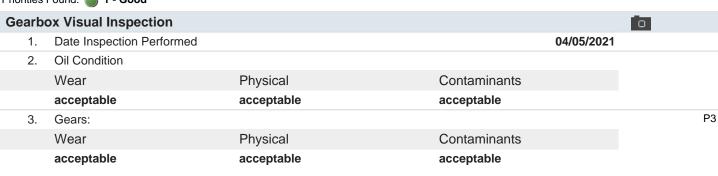
Flowood, MS 39232

FolderID: NUCOR FormID: 10492729

Completed by.	/lotor Shop 1 on 04/23/2021
Location: Roll Mill	
Serial Number:	STAND 12
Job Number:	144888
Description:Roll	Stand 12

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

Priorities Found: 1 - Good





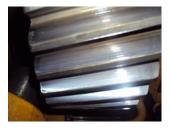












4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
	ox Inspection & Evaluation C			
8.	Primary drive rotates input shaft		(Yes) Yes	
9.	Condition of Machinery Guards if		(Pass) Acceptable	
10.	Condition of Coupling Guards if F	Present	(Pass) Acceptable	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
13.	Condition of Housing		(Pass) Acceptable	
14.	Condition of Mounting Hardware		(Pass) Acceptable	
15.	Breather Vent Installed:		(Pass) Present/Acceptable	
16.	Condition of Piping & connection	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub	pricant	220	
22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(None) None/New	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
2 9.	Summary of Issues and Overall (Condition of the Gearbox		
	All looked good in this gearbox.			
30.	Technician Signature	mxal	Kevin Maxwell	





Flowood, MS 39232

FolderID: NUCOR FormID: 10493414

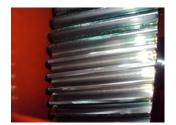
Gearbox Inspection			
Completed by: Motor Shop 1 on 04/23/2021			
Location: Roll Mill			
Serial Number:	STAND 13		
Job Number:	144888		
Description:Roll S	Stand 13		

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

G	earb	ox Visual Inspection			Ō
	1.	Date Inspection Performed		04/05/20	
	2.	Oil Condition			
		Wear	Physical	Contaminants	
		acceptable	acceptable	acceptable	
	3.	Gears:			I
		Wear	Physical	Contaminants	
		acceptable	acceptable	acceptable	









РЗ



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

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	- g	3		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	ox Inspection & Evaluation C	hecklist		
8.	Primary drive rotates input shaft	in correct direction	(Yes) Yes	
9.	Condition of Machinery Guards is	f Present	(Pass) Acceptable	
10.	Condition of Coupling Guards if I	Present	(Pass) Acceptable	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
13.	Condition of Housing		(Pass) Acceptable	
14.	Condition of Mounting Hardware		(Pass) Acceptable	
15.	Breather Vent Installed:		(Pass) Present/Acceptable	
16.	Condition of Piping & connection	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Luk	oricant	220	
22.	Correct type and grade of specifi	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(Mild) Mild	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
29.	Summary of Issues and Overall	Condition of the Gearbox		
	There appears to be some light pit	tting on a couple of the gears.		
30.	Technician Signature	nxeo	Kevin Maxwell	

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Gearbox Inspection

Nucor Jackson (003555) 3630 Fourth St Flowood, MS 39232 FolderID: NUCOR FormID: 10493439

Location:	Roll Mill
Serial Number:	STAND 14
Job Number:	144888

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

Priorities Found: 1 - Good

-					
	Gearb	ox Visual Inspection			o
	1.	Date Inspection Performed		04/05/2	021
	2.	Oil Condition			
		Wear	Physical	Contaminants	
		acceptable	acceptable	acceptable	
	3.	Gears:			P3
		Wear	Physical	Contaminants	
		acceptable	acceptable	acceptable	









4.	Seals:			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
5.	Environmental Conditions			
	Ambient Temparature (F)	Humidity		
	72	55		
6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		

Gearbox Inspection & Evaluation Checklist

8. Primary drive rotates input shaft in correct direction

(Yes) Yes

0	Condition of Machinery Cyclede if Dresent	(Doos) Assentable	
9.	Condition of Machinery Guards if Present	(Pass) Acceptable	
10.	Condition of Coupling Guards if Present	(Pass) Acceptable	
11.	Type of Coupler:	gear	
12.	Coupling Alignment	acceptable	
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	(Pass) Present/Acceptable	
18.	Condition of inspection covers	(Pass) Present/Acceptable	
19.	Condition of seals & bearings	(Pass) Acceptable	
20.	Gearbox Oil Level	(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(Pass) Acceptable	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(Pass) Acceptable	
27.	Degree of Gear Wear	(Mild) Mild	
28.	Gear tooth Contact	(Pass) Acceptable	
Gearb	ox Summary		
2 9.	Summary of Issues and Overall Condition of the Gearbox		
	Gears are showing some signs of light wear.		
30.	Technician Signature	Kevin Maxwell	

(Yes) Yes



Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232 FolderID: NUCOR FormID: 10493541

Gearbox Inspection			
Completed by: M	lotor Shop 1 on 04/23/2021		
Location:	Roll Mill		
Serial Number:	STAND 14 90 DEGREE		
Job Number:	144888		
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: 1 - Good

Gearbox Visual Inspection				
1.	Date Inspection Performed		04/23/202	21
2.	Oil Condition			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
3.	Gears:			P3
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	



Gearbox Inspection & Evaluation Checklist

Primary drive rotates input shaft in correct direction



4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	

_			
9.	Condition of Machinery Guards if Present	(Pass) Acceptable	
10.	Condition of Coupling Guards if Present	(Pass) Acceptable	
11.	Type of Coupler:	gear	
12.	Coupling Alignment	acceptable	
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	(Pass) Present/Acceptable	
18.	Condition of inspection covers	(Pass) Present/Acceptable	
19.	Condition of seals & bearings	(Pass) Acceptable	
20.	Gearbox Oil Level	(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(Pass) Acceptable	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(Pass) Acceptable	
27.	Degree of Gear Wear	(None) None/New	
28.	Gear tooth Contact	(Pass) Acceptable	
Gearb	ox Summary		
2 9.	Summary of Issues and Overall Condition of the Gearbox		
	Gears looked good. No other issues to note.		
30.	Technician Signature	Kevin Maxwell	
	Kningel		



Flowood, MS 39232

FolderID: NUCOR FormID: 10493592

Gearbox Inspection				
Completed by: N	lotor Shop 1 on 04/23/2021			
Location:	Roll Mill			
Serial Number:	STAND 15			
Job Number:	144888			
Description:Roll Stand 15				

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

Priorities Found: 1 - Good

The first is a second of the first is a second					
Gearbox Visual Inspection					
1.	Date Inspection Performed		04/05/202	1	
2.	Oil Condition				
	Wear	Physical	Contaminants		
	acceptable	acceptable	acceptable		
3.	acceptable Gears:	acceptable	acceptable	P3	
3.	·	acceptable Physical	acceptable Contaminants	P3	
3.	Gears:	·	·	P3	















4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
		• • •		
	ox Inspection & Evaluation Cl			
8.	Primary drive rotates input shaft i		(Yes) Yes	
9.	Condition of Machinery Guards if		(NA)	
10.	Condition of Coupling Guards if F	Present	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
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	· · · · · · · · · · · · · · · · · · ·	(Pass) Acceptable	
17.	Condition of switches, alarms, he	aters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub		220	
22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(Mild) Mild	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
2 9.	Summary of Issues and Overall C			
	Gears appear to have normal wear	pattern.		
30.	Technician Signature	myll	Kevin Maxwell	



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> FolderID: NUCOR FormID: 10493721

Gearbox Inspection Nucor Jackson (003555) 3630 Fourth St

Flowood, MS 39232

Gearbox Inspe	ction	Customer Name::	Nucor Steel
Completed by: N	lotor Shop 1 on 04/23/2021	Location :	Flowood, MS
Location:	Roll Mill	Contact::	Cliff Johnson
Serial Number:	STAND 16	Manufacturer::	NA
Job Number:	144888	Ratio::	NA
Description:Roll	Stand 16	Serial#::	NA
		Type::	NA
		Model#::	NA
		Application ID::	Stand 16
		Coupling Type: :	Gear

Priorities Found: 1 - Good

Gearb	ox Visual Inspection			o
1.	Date Inspection Performed		04/05	/2021
2.	Oil Condition			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	

3. Gears: P3

Wear Physical Contaminants acceptable acceptable acceptable



















4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	

Gearbo	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:	gear
12.	Coupling Alignment	acceptable
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	(Pass) Present/Acceptable

18.	Condition of inspection covers	(Pass) Present/Acceptable
19.	Condition of seals & bearings	(Pass) Acceptable
20.	Gearbox Oil Level	(Pass) Acceptable
21.	Type and Grade of Specified Lubricant	220
22.	Correct type and grade of specified lubricant	(Pass) Acceptable
23.	Appearance of lubricant	(Pass) Acceptable
24.	Free rotation of shafts	(Yes) Yes
25.	Condition of Input shaft	(Pass) Acceptable
26.	Gear tooth condition	(Pass) Acceptable
27.	Degree of Gear Wear	(None) None/New
28.	Gear tooth Contact	(Pass) Acceptable
Gearb	ox Summary	
2 9.	Summary of Issues and Overall Condition of the Gearbox Everything looks good in this gearbox.	
30.	Technician Signature	Kevin Maxwell





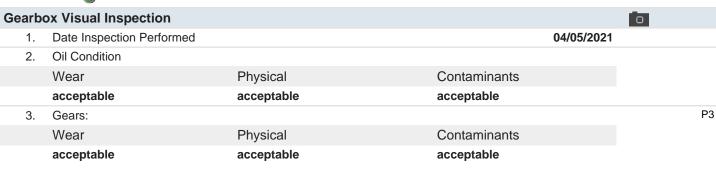
Flowood, MS 39232

FolderID: NUCOR FormID: 10493751

Gearbox Inspection Completed by: Motor Shop 1 on 04/23/2021	
Location:	Roll Mill
Serial Number:	STAND 16 90 DEGREE
Job Number:	144888
Description:Roll	Stand 16 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 16 90 Degree
Coupling Type: :	Gear

Priorities Found: 1 - Good













4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	72	55	

6.	Physical Issues			
0.	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	oigno of Exocosive fleat:	Oigno of Eubitourit Ecuno.		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	ox Inspection & Evaluation C	hecklist		
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 F	Present	(Pass) Acceptable	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
13.	Condition of Housing		(Pass) Acceptable	
14.	Condition of Mounting Hardware		(Pass) Acceptable	
15.	Breather Vent Installed:		(Pass) Present/Acceptable	
16.	Condition of Piping & connection	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub	oricant	220	
22.	Correct type and grade of specifi	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(None) None/New	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
2 9.	Summary of Issues and Overall (Condition of the Gearbox		
	Gears looked good in this gearbox	с.		
30.	Technician Signature	nancel	Kevin Maxwell	



Flowood, MS 39232

FolderID: NUCOR FormID: 10493859

Gearbox Inspection Completed by: Motor Shop 1 on 04/23/2021			
Location: Roll Mill			
Serial Number:	FLYING SHEAR INTERMEDIATE		
Job Number:	144888		
Description:Flyin	g 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: 1 - Good

Gearb	ox Visual Inspection			O
1.	Date Inspection Performed		04/06/20	21
2.	Oil Condition			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
3.	Gears:			P3
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	















	65	45		
	Ambient Temparature (F)	Humidity		
5.	Environmental Conditions			
	acceptable	acceptable	acceptable	
	Wear	Physical	Contaminants	
4.	Seals:			

	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	7.	Other conditions			
		Gearbox Temperature (F)	Moisture Presence		
Ge		ox Inspection & Evaluation Cl			
	8.	Primary drive rotates input shaft i		(Yes) Yes	
	9.	Condition of Machinery Guards if		(Pass) Acceptable	
	10.	Condition of Coupling Guards if P	Present	(Pass) Acceptable	
	11.	Type of Coupler:		gear	
	12.	Coupling Alignment		acceptable	
	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	s (if forced lube system installed)	(Pass) Acceptable	
	17.	Condition of switches, alarms, he	aters, 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		(Pass) Acceptable	
	21.	Type and Grade of Specified Lub	ricant	220	
	22.	Correct type and grade of specifie	ed lubricant	(Pass) Acceptable	
	23.	Appearance of lubricant		(Pass) Acceptable	
	24.	Free rotation of shafts		(Yes) Yes	
	25.	Condition of Input shaft		(Pass) Acceptable	
	26.	Gear tooth condition		(Pass) Acceptable	
	27.	Degree of Gear Wear		(Mild) Mild	
	28.	Gear tooth Contact		(Pass) Acceptable	
Ge	arbo	ox Summary			
	29.	Summary of Issues and Overall O	Condition of the Gearbox		
		Light wear is present on shear spe	ed gear.		
	30.	Technician Signature		Kevin Maxwell	
		Jai W	Will		



Flowood, MS 39232

FolderID: NUCOR FormID: 10493946

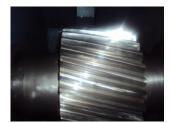
Completed by: Motor Shop 1 on 04/23/2021		
Location:	Roll Mill	
Serial Number:	FLYING SHEAR MAIN	
Job Number:	144888	
Description:Flying Shear Main		

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: 1 - Good

Gearb	ox Visual Inspection			O
1.	Date Inspection Performed		04	4/06/2021
2.	Oil Condition			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
3.	acceptable Gears:	acceptable	acceptable	
3.	•	acceptable Physical	acceptable Contaminants	
3.	Gears:	·	·	









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4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	65	45	

	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	7.	Other conditions			
		Gearbox Temperature (F)	Moisture Presence		
G	earbo	ox Inspection & Evaluation C			
	8.	Primary drive rotates input shaft i		(Yes) Yes	
	9.	Condition of Machinery Guards if	Present	(NA)	
	10.	Condition of Coupling Guards if F	Present	(NA)	
	11.	Type of Coupler:		gear	
	12.	Coupling Alignment		acceptable	
	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	s (if forced lube system installed)	(Pass) Acceptable	
	17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
	21.	Type and Grade of Specified Lub	ricant	220	
	22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
	23.	Appearance of lubricant		(Pass) Acceptable	
	24.	Free rotation of shafts		(Yes) Yes	
	25.	Condition of Input shaft		(Pass) Acceptable	
	26.	Gear tooth condition		(Pass) Acceptable	
	27.	Degree of Gear Wear		(Mild) Mild	
	28.	Gear tooth Contact		(Pass) Acceptable	
G	earbo	ox Summary			
	29.	Summary of Issues and Overall O			
		Normal wear pattern is present on	the gears.		
	30.	Technician Signature	mell	Kevin Maxwell	





Flowood, MS 39232

FolderID: NUCOR FormID: 10494033

Gearbox Inspection			
Completed by: Motor Shop 1 on 04/23/2021			
Location:	Roll Mill		
Serial Number:	2A VERTICAL		
Job Number:	144888		
Description:2A Vertical Stand			

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

Priorities Found: 1 - Low

Gearbox Visual Inspection

0

Date Inspection Performed 04/06/2021

2. Oil Condition P2

Wear Physical Contaminants acceptable marginal marginal

There appears to be some brass flaking in the bottom of the gear case



3.	Gears:			P3
0.	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
4.	Seals:			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
5.	Environmental Conditions	S		
	Ambient Temparature	(F) Humidity		
	68	50		
6.	Physical Issues			
	Signs of Excessive He	at? Signs of Lubricant Le	eaks?	
7.	Other conditions			
	Gearbox Temperature	(F) Moisture Presence		
Gearbo	ox Inspection & Evalua			
8.	Primary drive rotates input	ut shaft in correct direction		(Yes) Yes
9.	Condition of Machinery G	Guards if Present		(NA)
10.	Condition of Coupling Gu	ards if Present		(NA)
11.	Type of Coupler:			gear
12.	Coupling Alignment			acceptable
13.	Condition of Housing			ss) Acceptable
1.1	Condition of Mounting Ha	ardware	(Pa	ss) Acceptable
14.				
15.				ent/Acceptable
		nnections (if forced lube system ir	nstalled) (Pa	ent/Acceptable ss) Acceptable ent/Acceptable

18. Condition of inspection covers	(Pass) Present/Acceptable		
19. Condition of seals & bearings	(Pass) Acceptable		
20. Gearbox Oil Level	(Pass) Acceptable		
21. Type and Grade of Specified Lubricant	220		
22. Correct type and grade of specified lubricant	(Pass) Acceptable		
23. Appearance of lubricant	(Pass) Acceptable		
24. Free rotation of shafts	(Yes) Yes		
25. Condition of Input shaft	(Pass) Acceptable		
26. Gear tooth condition	(Pass) Acceptable		
27. Degree of Gear Wear	(Mild) Mild		
28. Gear tooth Contact	(Pass) Acceptable		
Gearbox Summary			

29. Summary of Issues and Overall Condition of the Gearbox

Gears look other than normal light wear. There is brass flaking present in the bottom of the gear case. This may be due to the brass spacer shims. Further inspections may be needed.

30. Technician Signature

Kevin Maxwell



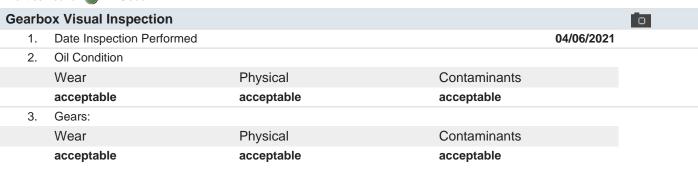
Flowood, MS 39232

FolderID: NUCOR FormID: 10494125

Gearbox Inspection			
Completed by: N	lotor Shop 1 on 04/23/2021		
Location:	Roll Mill		
Serial Number:	10 VERTICAL		
Job Number:	144888		
Description:10 V	Description:10 Vertical Stand		

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

Priorities Found: 1 - Good







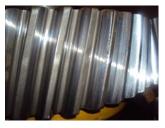




РЗ







4.	Seals:			
	Wear	Physical	Contaminants	
	acceptable	acceptable	acceptable	
5.	Environmental Conditions			
	Ambient Temparature (F)	Humidity		
	68	50		

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	ox Inspection & Evaluation C			
8.	Primary drive rotates input shaft		(Yes) Yes	
9.	Condition of Machinery Guards in	f Present	(NA)	
10.	Condition of Coupling Guards if I	Present	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
13.	Condition of Housing		(Pass) Acceptable	
14.	Condition of Mounting Hardware		(Pass) Acceptable	
15.	Breather Vent Installed:		(Pass) Present/Acceptable	
16.	Condition of Piping & connection	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Luk	pricant	220	
22.	Correct type and grade of specifi	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(None) None/New	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
29.	Summary of Issues and Overall (All looked good inside this gearbo			
30.	Technician Signature	MO	Kevin Maxwell	



Gearbox Inspection

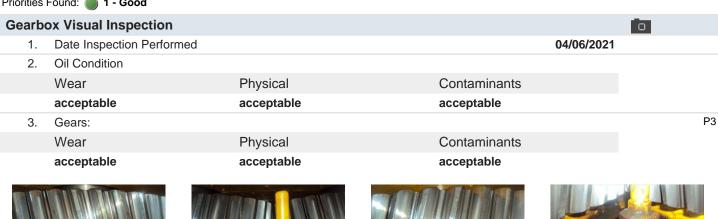
Nucor Jackson (003555) 3630 Fourth St Flowood, MS 39232

FolderID: NUCOR FormID: 10494238

Completed by: N	lotor Shop 1 on 04/23/2021
Location:	Roll Mill
Serial Number:	12 VERTICAL STAND
Job Number:	144888
Description:12 V	ertical Stand

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

Priorities Found: 1 - Good

















4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	68	50	

	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	7.	Other conditions			
		Gearbox Temperature (F)	Moisture Presence		
_					
G		ox Inspection & Evaluation C			
	8.	Primary drive rotates input shaft i		(Yes) Yes	
	9.	Condition of Machinery Guards if		(Pass) Acceptable	
	10.	Condition of Coupling Guards if F	Present	(Pass) Acceptable	
	11.	Type of Coupler:		gear	
	12.	Coupling Alignment		acceptable	
	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	s (if forced lube system installed)	(Pass) Acceptable	
	17.	Condition of switches, alarms, he	aters, 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		(Pass) Acceptable	
	21.	Type and Grade of Specified Lub	ricant	220	
	22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
	23.	Appearance of lubricant		(Pass) Acceptable	
	24.	Free rotation of shafts		(Yes) Yes	
	25.	Condition of Input shaft		(Pass) Acceptable	
	26.	Gear tooth condition		(Pass) Acceptable	
	27.	Degree of Gear Wear		(Mild) Mild	
	28.	Gear tooth Contact		(Pass) Acceptable	
Ge	earbo	ox Summary			
	29.	Summary of Issues and Overall (Condition of the Gearbox		
		Gears look good. Very light wear.			
	30.	Technician Signature	MQQ	Kevin Maxwell	



Hi-Speed Industrial Service 7030 Ryburn Dr Millington, Tn 38053 901-873-5300

> FolderID: NUCOR FormID: 10539866

Gearbox Inspection Nucor Jackson (003555) 3630 Fourth St

Flowood, MS 39232

Gearbox Inspe	ection	Customer Name::	Nucor Steel
Completed by: N	Motor Shop 1 on 04/30/2021	Location :	Flowood, MS
Location:	Roll Mill	Contact::	Cliff Johnson
Serial Number:	14 VERTICAL	Manufacturer::	NA
Job Number:	144888	Ratio::	NA
Description:Roll	Stand 14 Vertical	Serial#::	NA
		Type::	NA
		Model#::	NA
		Application ID::	14 Vertical
		Coupling Type: :	Gear

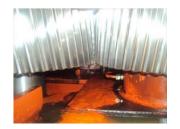
Priorities Found: 1 - Good

Ge	arbo	ox Visual Inspection				O
	1.	Date Inspection Performed			04/06/2021	
	2.	Oil Condition				
		Wear	Physical	Contaminants		
		acceptable	acceptable	acceptable		

3. Gears: P3

Wear Physical Contaminants acceptable acceptable acceptable























4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	73	50	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	

Gearbo	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:	gear
12.	Coupling Alignment	acceptable
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	(Pass) Present/Acceptable

18.	Condition of inspection covers	(Pass) Present/Acceptable
19.	Condition of seals & bearings	(Pass) Acceptable
20.	Gearbox Oil Level	(Pass) Acceptable
21.	Type and Grade of Specified Lubricant	220
22.	Correct type and grade of specified lubricant	(Pass) Acceptable
23.	Appearance of lubricant	(Pass) Acceptable
24.	Free rotation of shafts	(Yes) Yes
25.	Condition of Input shaft	(Pass) Acceptable
26.	Gear tooth condition	(Pass) Acceptable
27.	Degree of Gear Wear	(Mild) Mild
28.	Gear tooth Contact	(Pass) Acceptable
Gearbo	ox Summary	

Gearbox Summary

29. Summary of Issues and Overall Condition of the Gearbox

Kein Mell

There are some signs of gear wear in this gearbox. Wear pattern seems to be related to backlash. Wear is minor.

30. Technician Signature Kevin Maxwell





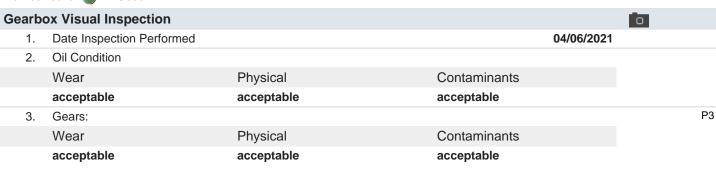
Gearbox Inspection

Nucor Jackson (003555) 3630 Fourth St Flowood, MS 39232 FormID: 10540400

ocation:	Roll Mill
Serial Number:	16 VERTICAL
Job Number:	144888

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

Priorities Found: 1 - Good















4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	73	50	

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Gearb	ox Inspection & Evaluation Cl	hecklist		
8.	Primary drive rotates input shaft i	n correct direction	(Yes) Yes	
9.	Condition of Machinery Guards if	Present	(NA)	
10.	Condition of Coupling Guards if F	Present	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
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	s (if forced lube system installed)	(Pass) Acceptable	
17.	Condition of switches, alarms, he	aters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub	ricant	220	
22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(None) None/New	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
2 9.	,			
	No issues to mention. Gears looke	d good.		
30.	Technician Signature		Kevin Maxwell	
	Noi 7	MXCC		



Hi-Speed Industrial Service 7030 Ryburn Dr Millington, Tn 38053 901-873-5300

> FolderID: NUCOR FormID: 10542506

Gearbox Inspection Nucor Jackson (003555) 3630 Fourth St

Flowood, MS 39232

Gearbox Inspection Completed by: Motor Shop 1 on 04/30/2021		Customer Name::	Nucor Steel
		Location :	Flowood, MS
Location:	Roll Mill	Contact::	Cliff Johnson
Serial Number:	STRAIGHTENER	Manufacturer::	NA
Job Number:	144888	Ratio::	NA
Description:Stra	ightener	Serial#::	NA
		Type::	NA
		Model#::	NA
		Application ID::	Straightener
		Coupling Type: :	Gear

Priorities Found: 1 - Medium

Gea	arbo	ox Visual Inspection				O
	1.	Date Inspection Performed			04/06/2021	
	2.	Oil Condition				
		Wear	Physical	Contaminants		
		marginal	marginal	marginal		

3.	Gears:			P3
	Wear	Physical	Contaminants	
	requires attention	requires attention	requires attention	
4.	Seals:	DL Cod	0. 1	
	Wear	Physical	Contaminants	
_	acceptable Environmental Conditions	acceptable	acceptable	
5.		Humidity		
	Ambient Temparature (F) 74	Humidity 50		
6.	Physical Issues	JU		
υ.		Signs of Lubricant Load	vc?	
	Signs of Excessive Heat?	Signs of Lubricant Leal	NO:	
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
	. ,			
Gearb	ox Inspection & Evaluation (Checklist		
_	Primary drive rotates input shaf	t in correct direction	(Yes) Yes	
8.	.,,			

10. Condition of Coupling Guards if Present (Pass) Acceptable 11. Type of Coupler: gear 12. Coupling Alignment acceptable 13. Condition of Housing (Pass) Acceptable (Pass) Acceptable 14. Condition of Mounting Hardware Breather Vent Installed: (Pass) Present/Acceptable 15. Condition of Piping & connections (if forced lube system installed) 16. (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	(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(Fail) Unacceptable	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(Fail) Unacceptable	
27.	Degree of Gear Wear	(Extreme) Extreme - Take Action Immediately	
28.	Gear tooth Contact	(Pass) Acceptable	
Gearbo	ox Summary		
2 9.	Summary of Issues and Overall Condition of the Gearbox		
	One gear has a broken tooth. Other gears have wear and oil is contaminat out.	ted and needs to be changed/flushed	
30.	Technician Signature	Kevin Maxwell	





Gearbox Inspection Nucor Jackson (003555) 3630 Fourth St

Flowood, MS 39232

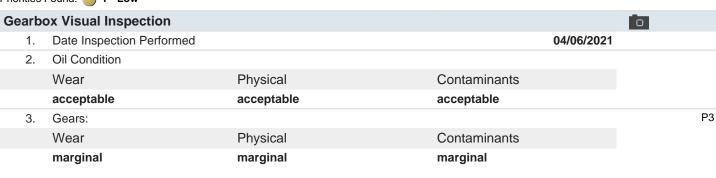
FolderID: NUCOR FormID: 10543931

Gearbox Inspe	ction lotor Shop 1 on 04/30/2021
Location:	Roll Mill
Serial Number:	WEST TRANSFER ARM
Job Number:	144888
Description:Wes	t Transfer Arm

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

Priorities Found: 1 - Low

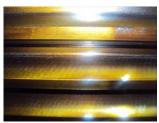














4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	74	50	

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
Coorb	ay Inanastian ⁹ Evaluatian C	hookist		
	ox Inspection & Evaluation C		(Van) Van	
8.	Primary drive rotates input shaft i		(Yes) Yes	
9.	Condition of Machinery Guards if		(NA)	
10.	Condition of Coupling Guards if F	resent	(NA)	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable (Page) Appartable	
13.	Condition of Housing		(Pass) Acceptable	
14.	Condition of Mounting Hardware		(Pass) Acceptable	
15.	Breather Vent Installed:	(if forced lists assets as installed)	(Pass) Present/Acceptable	
16.	Condition of Piping & connections	· · · · · · · · · · · · · · · · · · ·	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub		220	
22.	Correct type and grade of specific	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(Mild) Mild	
28.	Gear tooth Contact		(Pass) Acceptable	
	ox Summary			
29.	Summary of Issues and Overall O Brass gear has excessive wear on	Condition of the Gearbox right side of gear. Bottom gear is in earl	y stage of wearing through	
	hardened surface.			
30.	Technician Signature		Kevin Maxwell	
	No.	Mell		



Gearbox Inspection

Nucor Jackson (003555) 3630 Fourth St Flowood, MS 39232

FolderID: NUCOR FormID: 10544065

Gearbox Inspe	ction
Completed by: N	lotor Shop 1 on 04/30/2021
Location:	Roll Mill
Serial Number:	EAST TRANSFER ARM
Job Number:	144888
Description:East	Transfer Arm

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

Priorities Found: 2 - Low

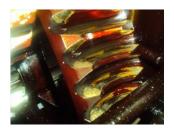




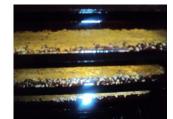


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4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	74	50	

	_	B			
	6.	Physical Issues			
		Signs of Excessive Heat?	Signs of Lubricant Leaks?		
	7.	Other conditions			
		Gearbox Temperature (F)	Moisture Presence		
36	earbo	ox Inspection & Evaluation C	hecklist		
	8.	Primary drive rotates input shaft		(Yes) Yes	
	9.	Condition of Machinery Guards if		(NA)	
	10.	Condition of Coupling Guards if F		(NA)	
	11.	Type of Coupler:		gear	
	12.	Coupling Alignment		acceptable	
	13.	Condition of Housing		(Pass) Acceptable	
	14.	Condition of Mounting Hardware		(Pass) Acceptable	
	15.	Breather Vent Installed:		(Pass) Present/Acceptable	
	16.	Condition of Piping & connection	s (if forced lube system installed)	(Pass) Acceptable	
	17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
	21.	Type and Grade of Specified Lub	pricant	220	
	22.	Correct type and grade of specifi	ed lubricant	(Pass) Acceptable	
	23.	Appearance of lubricant		(Pass) Acceptable	
	24.	Free rotation of shafts		(Yes) Yes	
	25.	Condition of Input shaft		(Pass) Acceptable	
	26.	Gear tooth condition		(Pass) Acceptable	
)	27.	Degree of Gear Wear		(Mild) Mild	
	28.	Gear tooth Contact		(Pass) Acceptable	
36	earbo	ox Summary			
)	29.	Summary of Issues and Overall O	Condition of the Gearbox		
		Brass gear has some wear. Botton	n gear is pitted and also has some wear.		
	30.	Technician Signature	mell	Kevin Maxwell	



Gearbox Inspection Nucor Jackson (003555)

3630 Fourth St Flowood, MS 39232 FolderID: NUCOR FormID: 10544258

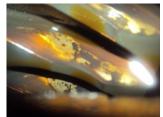
Completed by: N	lotor Shop 1 on 04/30/2021
Location:	Roll Mill
Serial Number:	NORTH RACK OVER
Job Number:	144888
Description:Nort	h Rack Over

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

Priorities Found: 1 - Good











4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	75	50	
6.	Physical Issues		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?	
7.	Other conditions		
	Gearbox Temperature (F)	Moisture Presence	

Gearbox Inspection & Evaluation Checklist

8. Primary drive rotates input shaft in correct direction

(Yes) Yes

9.	Condition of Machinery Guards if Present	(ALA)	
10.	•	(NA)	
	Condition of Coupling Guards if Present	(NA)	
11.	Type of Coupler:	gear	
12.	Coupling Alignment	acceptable	
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	(Pass) Present/Acceptable	
18.	Condition of inspection covers	(Pass) Present/Acceptable	
19.	Condition of seals & bearings	(Pass) Acceptable	
20.	Gearbox Oil Level	(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant	220	
22.	Correct type and grade of specified lubricant	(Pass) Acceptable	
23.	Appearance of lubricant	(Pass) Acceptable	
24.	Free rotation of shafts	(Yes) Yes	
25.	Condition of Input shaft	(Pass) Acceptable	
26.	Gear tooth condition	(Pass) Acceptable	
27.	Degree of Gear Wear	(Mild) Mild	
28.	Gear tooth Contact	(Pass) Acceptable	
Gearb	ox Summary		
2 9.	Summary of Issues and Overall Condition of the Gearbox		
	Minor gear wear. All else looked ok.		
30.	Technician Signature A A A A A A A A A A A A A	Kevin Maxwell	





Gearbox Inspection Nucor Jackson (003555) 3630 Fourth St

Flowood, MS 39232

FolderID: NUCOR FormID: 10544387

Gearbox Inspection Completed by: Motor Shop 1 on 04/30/2021		
Location:	Roll Mill	
Serial Number:	SOUTH RACK OVER	
Job Number:	144888	
Description:Sout	h Rack Over	

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

Priorities Found: 1 - Good















4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	75	50	

6.	Physical Issues			
0.	•	Signs of Lubricant Looks?		
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
0	outropostion 9 Fusivetion 0	h a a luli a t		
	ox Inspection & Evaluation C		W W	
8.	Primary drive rotates input shaft		(Yes) Yes	
9.	Condition of Machinery Guards if		(Pass) Acceptable	
10.	Condition of Coupling Guards if F	Present	(Pass) Acceptable	
11.	Type of Coupler:		gear	
12.	Coupling Alignment		acceptable	
13.	Condition of Housing		(Pass) Acceptable	
14.	Condition of Mounting Hardware		(Pass) Acceptable	
15.	Breather Vent Installed:		(Pass) Present/Acceptable	
16.	Condition of Piping & connection	•	(Pass) Acceptable	
17.	Condition of switches, alarms, he	eaters, 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		(Pass) Acceptable	
21.	Type and Grade of Specified Lub		220	
22.	Correct type and grade of specifi	ed lubricant	(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(Mild) Mild	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearb	ox Summary			
2 9.	Summary of Issues and Overall O			
	No real issues to mention. Normal	light wear on gears.		
30.	Technician Signature	Mell	Kevin Maxwell	





Gearbox Inspection Nucor Jackson (003555) 3630 Fourth St

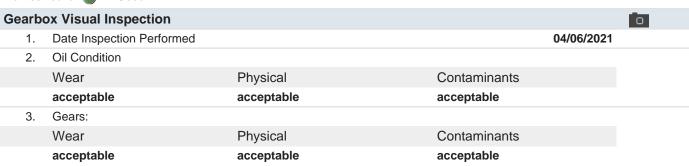
Flowood, MS 39232

FolderID: NUCOR FormID: 10544584

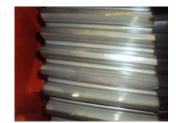
Completed by: M	lotor Shop 1 on 04/30/2021
Location:	Roll Mill
Serial Number:	COLD SHEAR
Job Number:	144888
Description:Cold	Shear

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

Priorities Found: 1 - Good











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4.	Seals:		
	Wear	Physical	Contaminants
	acceptable	acceptable	acceptable
5.	Environmental Conditions		
	Ambient Temparature (F)	Humidity	
	75	50	

6.	Physical Issues			
	Signs of Excessive Heat?	Signs of Lubricant Leaks?		
7.	Other conditions			
	Gearbox Temperature (F)	Moisture Presence		
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:		gear	
12.	Coupling Alignment		acceptable	
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		(Pass) Present/Acceptable	
18.	Condition of inspection covers		(Pass) Present/Acceptable	
19.	Condition of seals & bearings		(Pass) Acceptable	
20.	Gearbox Oil Level		(Pass) Acceptable	
21.	Type and Grade of Specified Lubricant		220	
22.	Correct type and grade of specified lubricant		(Pass) Acceptable	
23.	Appearance of lubricant		(Pass) Acceptable	
24.	Free rotation of shafts		(Yes) Yes	
25.	Condition of Input shaft		(Pass) Acceptable	
26.	Gear tooth condition		(Pass) Acceptable	
27.	Degree of Gear Wear		(None) None/New	
28.	Gear tooth Contact		(Pass) Acceptable	
Gearbox Summary				
2 9.	29. Summary of Issues and Overall Condition of the Gearbox			
	Gears look ok. No issues found.			
30.	Technician Signature	Wll	Kevin Maxwell	