

ROTARY SCREW AIR COMPRESSOR MAINTENANCE CHART

Last Updated: SEPTEMBER 05, 2013

Rig #	125	Oil Type	PAO46 <input type="checkbox"/> Palasyn 45
MODEL #	50DGH-TE	SERIAL #	10J035
ASSET #		DATE	2-1248
HRS	40590	W/O #	68258
COMPANY	UNIT	TECHNICIAN	ROBBIE SANDS
DESCRIPTION OF WORK AND PARTS USED			
<input checked="" type="checkbox"/> Completed	CHANGED OIL		
<input checked="" type="checkbox"/> Completed	CHANGED OIL FILTER		
<input checked="" type="checkbox"/> Completed	CHANGED AIR FILTER		
<input type="checkbox"/> Completed	CHANGED SEPERATOR		
<input checked="" type="checkbox"/> Completed	CLEANED RADIATOR		
<input type="checkbox"/> Completed	ADDED NEW OIL SAMPLE VALVE		
<input checked="" type="checkbox"/> Completed	CHECK AND INSPECT DRIVE COUPLINGS		
<input checked="" type="checkbox"/> Completed	DRAIN WATER FROM TANK		
<input checked="" type="checkbox"/> Completed	OPEN PANEL DOOR AND CHECK TO BE SECURE		
<input checked="" type="checkbox"/> Completed	CHECK ALL SIGNAL LINES (BLACK PLASTIC)		
<input checked="" type="checkbox"/> Completed	ENSURE IT IS CLEAN AND WASH WITH SOLVENT		
PALATEK COLD START			
<input checked="" type="checkbox"/> Completed	CHANGE ENGINE OIL, FILTER, AIR FILTER, FUEL FILTER AND TAKE AN OIL SAMPLE EVERY TIME YOU SERVICE THE RIG AIR COMPRESSORS.		
<input checked="" type="checkbox"/> Completed	YEARLY SERVICE THE AIR END OF THE COMPRESSOR (OIL AND ALL FILTERS)- MARK THE DATE ON THE FILTER.		
PALATEK AIR DRYER			
<input type="checkbox"/> Completed	CHANGED INLET AND OUTLET FILTER TO DRYER. USE ONLY PALATEK FILTERS.		
Condition of equipment			

ROTARY SCREW AIR COMPRESSOR MAINTENANCE CHART

Last Updated: SEPTEMBER 05, 2013

Rig #	125	Oil Type	PAO46 <input type="checkbox"/> Palasyn 45
MODEL #	50DGH-TE	SERIAL #	11L027
ASSET #			2-1249
HRS	41109	W/O #	68258
DATE			9/7/2017
COMPANY	UNIT	TECHNICIAN	ROBBIE SANDS
DESCRIPTION OF WORK AND PARTS USED			
<input checked="" type="checkbox"/> Completed	CHANGED OIL		
<input checked="" type="checkbox"/> Completed	CHANGED OIL FILTER		
<input checked="" type="checkbox"/> Completed	CHANGED AIR FILTER		
<input type="checkbox"/> Completed	CHANGED SEPERATOR		
<input checked="" type="checkbox"/> Completed	CLEANED RADIATOR		
<input type="checkbox"/> Completed	ADDED NEW OIL SAMPLE VALVE		
<input checked="" type="checkbox"/> Completed	CHECK AND INSPECT DRIVE COUPLINGS		
<input checked="" type="checkbox"/> Completed	DRAIN WATER FROM TANK		
<input checked="" type="checkbox"/> Completed	OPEN PANEL DOOR AND CHECK TO BE SECURE		
<input checked="" type="checkbox"/> Completed	CHECK ALL SIGNAL LINES (BLACK PLASTIC)		
<input checked="" type="checkbox"/> Completed	ENSURE IT IS CLEAN AND WASH WITH SOLVENT		
PALATEK COLD START			
<input type="checkbox"/> Completed	CHANGE ENGINE OIL, FILTER, AIR FILTER, FUEL FILTER AND TAKE AN OIL SAMPLE EVERY TIME YOU SERVICE THE RIG AIR COMPRESSORS.		
<input type="checkbox"/> Completed	YEARLY SERVICE THE AIR END OF THE COMPRESSOR (OIL AND ALL FILTERS)- MARK THE DATE ON THE FILTER.		
PALATEK AIR DRYER			
<input type="checkbox"/> Completed	CHANGED INLET AND OUTLET FILTER TO DRYER. USE ONLY PALATEK FILTERS.		
Condition of equipment			



ENGINE INSPECTION FORM

Last Updated: 08/27/2014

Rig: 125

Work Order Number: 67100

Date Maintenance Started: 7/19/2017

Date Completed: 7/20/2017

Name: ROBBIE SANDS STEVE CASSELL

Job Title: Eng. Mechanic

Travel Time to Rig: _____

From: HOME
 SHOP

Travel Time from Rig: _____

To: HOME
 SHOP

Hours at Rig: _____

Total Hours: _____

ASSET NUMBERS

G E N E R A T O R	#1 Engine 22- <u>1511</u> S/N# <u>LLA02891</u>	#2 Engine 22- <u>1507</u> S/N# <u>LLA02896</u>	#3 Engine 22- <u>1504</u> S/N# <u>LLA02902</u>						
	#1 Gen. 24- <u>992</u> Model: <u>AA27673013</u>	#2 Gen. 24- <u>988</u> Model: <u>AA27673013</u>	#3 Gen. 24- <u>985</u> Model: <u>AA27673013</u>						
	#4 Engine 22- _____ S/N# _____	<table border="1"> <tr> <th colspan="2">Top Drive</th> </tr> <tr> <td>22- _____</td> <td>94- _____</td> </tr> <tr> <td>S/N# _____</td> <td>_____</td> </tr> </table>		Top Drive		22- _____	94- _____	S/N# _____	_____
	Top Drive								
22- _____	94- _____								
S/N# _____	_____								
#4 Gen. 24- _____ Model: _____	<table border="1"> <tr> <th colspan="2">Torque Converter</th> </tr> <tr> <td>#1 91- _____</td> <td>#2 91- _____</td> </tr> <tr> <td>#3 91- _____</td> <td>_____</td> </tr> </table>		Torque Converter		#1 91- _____	#2 91- _____	#3 91- _____	_____	
Torque Converter									
#1 91- _____	#2 91- _____								
#3 91- _____	_____								
P U M P	#1 Pump 22- _____ S/N# _____	#2 Pump 22- _____ S/N# _____	#3 Pump 22- _____ S/N# _____						
	F L O O R	#1 Floor 22- _____ S/N# _____	#2 Floor 22- _____ S/N# _____	#3 Floor 22- _____ S/N# _____					

Action Items

EVERYTHING LOOKED GREAT

Scheduled Engine Inspection

Work Order No: 67100

Rig: 125
Date: 7/20/2017

Engine Position: #1 ENGINE

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: -35

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool

Radiator _____

Aftercooler _____

Model: _____

S/N: LLA02891

Asset: 22- 1511

Hours: 38415

Record the following information:

Belt Number: 5VX1120

Radiator Fan Bearing: 2 3/16

Idler Bearing: 1 11/16

Pulley Size: 18.5

Shaft Size:
1 11/16 Idler Shaft
2 3/16 Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #1 GEN

Model: AA27673013

Asset: 24- 992

KW 1204 1-bearing 2-bearing RPM 1200

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:
TOP: 70 BOTTOM: 68
LEFT SIDE: 70 RIGHT SIDE: 68

Torque Converter 91-

Oiler Chain _____

Clutch Size _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #2 ENGINE

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: -35

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool

Radiator _____

Aftercooler _____

Model: _____

S/N: LLA02896

Asset: 22- 1507

Hours: 38306

Record the following information:

Belt Number: 5VX1120

Radiator Fan Bearing: 2 3/16

Idler Bearing: 1 11/16

Pulley Size: 18.5

Shaft Size:
1 11/16 2 3/16
Idler Shaft Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. **Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).**
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #2 GEN

Model: AA27673013

Asset: 24- 988

1-bearing
KW 1204 2-bearing RPM 1200

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:
TOP: 70 BOTTOM: 70
LEFT SIDE: 68 RIGHT SIDE: 70

Torque
Converter 91-

Oiler Chain _____

Clutch Size _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #3 ENGINE

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: -35

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool

Radiator _____

Aftercooler _____

Model: _____

S/N: LLA02902

Asset: 22- 1504

Hours: 39085

Record the following information:

Belt Number: 5VX1120

Radiator Fan Bearing: 2 3/16

Idler Bearing: 1 11/16

Pulley Size: 18.5

Shaft Size:
1 11/16 2 3/16
Idler Shaft Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. **Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).**
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #3 GEN

Model: AA27673013

Asset: 24- 985

KW 1204 1-bearing 2-bearing

Torque Converter 91-

Oiler Chain _____

Clutch Size _____

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:
TOP: 68 BOTTOM: 68
LEFT SIDE: 70 RIGHT SIDE: 70

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #4 ENGINE

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: _____

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool
Radiator _____
Aftercooler _____

Model: _____

S/N: _____

Asset: 22- _____

Hours: _____

Record the following information:

Belt Number: _____

Radiator Fan Bearing: _____

Idler Bearing: _____

Pulley Size: _____

Shaft Size: _____

Idler Shaft Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #4 GEN

Model: _____

Asset: 24- _____

1-bearing
 2-bearing

KW _____ RPM _____

Torque _____

Converter 91- _____

Oiler Chain _____

Clutch Size _____

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:
TOP: _____ BOTTOM: _____
LEFT SIDE: _____ RIGHT SIDE: _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: TOP DRIVE

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: _____

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool
Radiator _____
Aftercooler _____

Model: _____

S/N: _____

Asset: 22-

Hours: _____

Record the following information:

Belt Number: _____

Radiator Fan Bearing: _____

Idler Bearing: _____

Pulley Size: _____

Shaft Size: _____

Idler Shaft Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: TOP DRIVE

Model: _____

Asset: 24-

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:
TOP: _____ BOTTOM: _____
LEFT SIDE: _____ RIGHT SIDE: _____

KW _____ RPM _____
 1-bearing
 2-bearing

Torque
Converter 91-

Oiler Chain _____

Clutch Size _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #1 PUMP

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: _____

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool
Radiator _____
Aftercooler _____

Model: _____

S/N: _____

Asset: 22-

Hours: _____

Record the following information:

Belt Number: _____

Radiator Fan Bearing: _____

Idler Bearing: _____

Pulley Size: _____

Shaft Size: _____

Idler Shaft Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #1 PUMP

Model: _____

Asset: 24-

1-bearing

KW _____ 2-bearing RPM _____

Torque _____

Converter 91-

Oiler Chain _____

Clutch Size _____

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:
TOP: _____ BOTTOM: _____
LEFT SIDE: _____ RIGHT SIDE: _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #2 PUMP

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: _____

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool

Radiator _____

Aftercooler _____

Model: _____

S/N: _____

Asset: 22- _____

Hours: _____

Record the following information:

Belt Number: _____

Radiator Fan Bearing: _____

Idler Bearing: _____

Pulley Size: _____

Shaft Size: _____

Idler Shaft

Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #2 PUMP

Model: _____

Asset: 24- _____

1-bearing

2-bearing

KW _____ RPM _____

Torque _____

Converter 91- _____

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:

TOP: _____ BOTTOM: _____

LEFT SIDE: _____ RIGHT SIDE: _____

Oiler Chain _____

Clutch Size _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #3 PUMP

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: _____

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool

Radiator _____

Aftercooler _____

Model: _____

S/N: _____

Asset: 22-

Hours: _____

Record the following information:

Belt Number: _____

Radiator Fan Bearing: _____

Idler Bearing: _____

Pulley Size: _____

Shaft Size: _____

_____ Idler Shaft _____ Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #3 PUMP

Model: _____

Asset: 24-

1-bearing

KW _____ 2-bearing RPM _____

Torque _____

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap: TOP: _____ BOTTOM: _____

LEFT SIDE: _____ RIGHT SIDE: _____

Converter 91-

Oiler Chain _____

Clutch Size _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #1 FLOOR

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: _____

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool

Radiator _____
Aftercooler _____

Model: _____

S/N: _____

Asset: 22- _____

Hours: _____

Record the following information:

Belt Number: _____

Radiator Fan Bearing: _____

Idler Bearing: _____

Pulley Size: _____

Shaft Size: _____

Idler Shaft Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #1 FLOOR

Model: _____

Asset: 24- _____

1-bearing

2-bearing

KW _____ RPM _____

Torque _____

Converter 91- _____

Oiler Chain _____

Clutch Size _____

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:
TOP: _____ BOTTOM: _____
LEFT SIDE: _____ RIGHT SIDE: _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #2 FLOOR

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: _____

Test NA-Cool (Green Only)

For 3512's: Freeze Pt. NA-Cool
Radiator _____
Aftercooler _____

Model: _____

S/N: _____

Asset: 22- _____

Hours: _____

Record the following information:

Belt Number: _____

Radiator Fan Bearing: _____

Idler Bearing: _____

Pulley Size: _____

Shaft Size: _____

Idler Shaft Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #2 FLOOR

Model: _____

Asset: 24- _____

1-bearing
 2-bearing

KW _____ RPM _____

Torque _____

Converter 91- _____

Oiler Chain _____

Clutch Size _____

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

Exciter Air Gap:
TOP: _____ BOTTOM: _____
LEFT SIDE: _____ RIGHT SIDE: _____

COMMENTS / ACTION ITEMS:

Rig: 125
Date: 7/20/2017

Engine Position: #3 FLOOR

Make: Cat
 Detroit
 Waukesha
 Other _____

Antifreeze

Green Red
Freeze Point: _____

Model: _____

Test NA-Cool (Green Only)

S/N: _____

For 3512's:	Freeze Pt.	NA-Cool
Radiator	_____	_____
Aftercooler	_____	_____

Asset: 22-

Hours: _____

Record the following information:

Belt Number: _____

Radiator Fan Bearing: _____

Idler Bearing: _____

Pulley Size: _____

Shaft Size: _____

_____ Idler Shaft _____ Fan Shaft

- Tighten pan bolts on D-379, 398, 399
- Ensure D-3508 and D-3512 individual gauge panels has been silicone to prevent water entry.
- Clean water passages on water cooled turbos (one time only).
- Run overhead valve train.
- Grease fan hub bearings and idler bearings.
- Inspect and clean radiators. *Note: Wash in oppisite direction of air flow; (You shoud be able to see clearly through the radiators fins).*
- Test shutdown system and install new belts.
- Check and clean auxiliary oil filter.
- Make sure crank case filters are being serviced (on 3508, 3512).

Model: Marathon MTU Magnamax
 Kato Baylor GE
 Spectrum Cat Other: _____

Generator Position: #3 FLOOR

Model: _____

Asset: 24-

- Grease and inspect for wear.
- Clean generator and blow out if necessary.
- Check and record exciter air gap.

KW _____ 1-bearing 2-bearing RPM _____

Exciter Air Gap:
TOP: _____ BOTTOM: _____
LEFT SIDE: _____ RIGHT SIDE: _____

Torque Converter 91-

COMMENTS / ACTION ITEMS:

Oiler Chain _____

Clutch Size _____

Individual Pump Inspections

Company/Division:		Asset #		38-479	
Rig:		125			
Pump#: 1					
Field Inspection Report -		Make: TFI		Model: F-1600	
Recommended Running Clearances		Inches			
		Min.	Max.	Actual	General
Crosshead to slide - Left		.020	.045	F.029,R.028	Check all oil lines <input checked="" type="checkbox"/>
Crosshead to slide - Center		.020	.040	F.029,R.024	Check all tied Bolts <input checked="" type="checkbox"/>
Crosshead to slide - Right		.020	.045	F.029,R.025	Drain & check Cleanouts <input checked="" type="checkbox"/>
Main Bearing - Left		.005	.020	0.014	Check and clean, gear end with diesel if needed <input checked="" type="checkbox"/>
Main Bearing - Right		.005	.020	0.012	
Pinion Shaft Bearing - Left		.002	.015	0.007	Pony Rod Alignment <input type="checkbox"/>
Pinion Shaft Bearing - Right		.002	.015	0.005	Check pony rods for cracks and wear (replace if necessary) <input type="checkbox"/>
Crosshead Pin Bearing - Left		.002	.005		
Crosshead Pin Bearing - Center		.002	.005		Check piston rods for cracks and wear (replace if necessary) <input checked="" type="checkbox"/>
Crosshead Pin Bearing - Right		.002	.005		
Connecting Rod to Eccentric Bearing - LH		.002	.020	0.009	Check clamps for wear (replace if necessary) <input checked="" type="checkbox"/>
Connecting Rod to Eccentric Bearing - CTN		.002	.020	0.010	
Connecting Rod to Eccentric Bearing - RH		.002	.020	0.008	Check all bearings w/ mirror for pitting and flaking <input checked="" type="checkbox"/>
Oil Pump Pinion to Main Gear - Backlash		.010	.025	0.020	
Pinion Shaft to Main Gear - Backlash		.010	.050	0.026	Check all oil pump screens <input checked="" type="checkbox"/>
Bull Gear Wear		GOOD			Check pillow block bearings <input checked="" type="checkbox"/>
Pinion Gear Wear		GOOD			on independent pump
Extension Rods		GOOD			On inspection replace pony rod seals (Regardless if the rig says they have already been changed seals still need to be checked) replace gaskets if need do not use silicone unless need to fill a void. (do not use to excess because it gets into gear end) <input checked="" type="checkbox"/>
Comments:					
National		Gardner Denver		Continental Emsco	
Check troughs	<input type="checkbox"/>	Oil pressure and Gauge	<input type="checkbox"/>	Oil pressure and Gauge	<input checked="" type="checkbox"/>
Check crosshead's for cracks at pony rod clamp	<input type="checkbox"/>	Oil Filter	<input type="checkbox"/>	Check pony rod wiper if equipped if not equipped with wipers get parts to correct	<input checked="" type="checkbox"/>
		Oil spray bar for crossheads	<input type="checkbox"/>		
Check pony rod clamp on bolts on crosshead's	<input type="checkbox"/>	Check to see if correct pony rods are installed by gauging distance between it and oil stop plate.	<input type="checkbox"/>	Check to see if baffle plates are doweled in pump	<input checked="" type="checkbox"/>
Loosen pony rod clamp bolts and tighten pony rod then retorque bolts	<input type="checkbox"/>				
		Oil pump Screen	<input type="checkbox"/>		
		If new floaters are not there get parts to install floating seals	<input type="checkbox"/>		

Action Items:

Individual Pump Inspections

Company/Division:		Asset # 38-498			
Rig:		125			
Pump#:2					
Field Inspection Report -		Make: H&H	Model: HHF-1600		
Recommended Running Clearances		Inches			
		Min.	Max.	Actual	General
Crosshead to slide - Left		.020	.045	F.028,R.028	Check all oil lines <input checked="" type="checkbox"/>
Crosshead to slide - Center		.020	.040	F.031,R.027	Check all tied Bolts <input checked="" type="checkbox"/>
Crosshead to slide - Right		.020	.045	F.0,R33.027	Drain & check Cleanouts <input checked="" type="checkbox"/>
Main Bearing - Left		.005	.020	0.014	Check and clean, gear end with diesel if needed <input type="checkbox"/>
Main Bearing - Right		.005	.020	0.014	
Pinion Shaft Bearing - Left		.002	.015	0.010	Pony Rod Alignment <input type="checkbox"/>
Pinion Shaft Bearing - Right		.002	.015	0.008	Check pony rods for cracks and wear (replace if necessary) <input checked="" type="checkbox"/>
Crosshead Pin Bearing - Left		.002	.005		
Crosshead Pin Bearing - Center		.002	.005		Check piston rods for cracks and wear (replace if necessary) <input checked="" type="checkbox"/>
Crosshead Pin Bearing - Right		.002	.005		
Connecting Rod to Eccentric Bearing - LH		.002	.020	0.010	Check clamps for wear (replace if necessary) <input checked="" type="checkbox"/>
Connecting Rod to Eccentric Bearing - CTN		.002	.020	0.007	
Connecting Rod to Eccentric Bearing - RH		.002	.020	0.010	Check all bearings w/ mirror for pitting and flaking <input checked="" type="checkbox"/>
Oil Pump Pinion to Main Gear - Backlash		.010	.025	0.020	
Pinion Shaft to Main Gear - Backlash		.010	.050	0.022	Check all oil pump screens <input checked="" type="checkbox"/>
Bull Gear Wear				GOOD	Check pillow block bearings on independent pump <input type="checkbox"/>
Pinion Gear Wear				GOOD	
Extension Rods				GOOD	On inspection replace pony rod seals (Regardless if the rig says they have already been changed seals still need to be checked) <input checked="" type="checkbox"/> replace gaskets if need do not use silicone unless need to fill a void. (do not use to excess because it gets into gear end)
Comments:					
EVERYTHING LOOKED GOOD					
National		Gardner Denver		Continental Emsco	
Check troughs	<input type="checkbox"/>	Oil pressure and Gauge	<input type="checkbox"/>	Oil pressure and Gauge	<input checked="" type="checkbox"/>
Check crosshead's for cracks at pony rod clamp	<input type="checkbox"/>	Oil Filter	<input type="checkbox"/>	Check pony rod wiper if equipped if not equipped with wipers get parts to correct <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Oil spray bar for crossheads	<input type="checkbox"/>		
Check pony rod clamp on bolts on crosshead's	<input type="checkbox"/>	Check to see if correct pony rods are installed by gauging distance between it and oil stop plate.	<input type="checkbox"/>	Check to see if baffle plates are doweled in pump <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Loosen pony rod clamp bolts and tighten pony rod then retorque bolts	<input type="checkbox"/>				
		Oil pump Screen	<input type="checkbox"/>		
		If new floaters are not there get parts to install floating seals	<input type="checkbox"/>		

[Action Items:](#)

Individual Pump Inspections

Company/Division:	Asset #
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Rig:	125				
Pump#:3					
Field Inspection Report -	Make:	Model:			
Recommended Running Clearances	Inches				
	Min.	Max.	Actual	General	
Crosshead to slide - Left	.020	.045		Check all oil lines	<input type="checkbox"/>
Crosshead to slide - Center	.020	.040		Check all tied Bolts	<input type="checkbox"/>
Crosshead to slide - Right	.020	.045		Drain & check Cleanouts	<input type="checkbox"/>
Main Bearing - Left	.005	.020		Check and clean, gear end with diesel if needed	<input type="checkbox"/>
Main Bearing - Right	.005	.020			
Pinion Shaft Bearing - Left	.002	.015		Pony Rod Alignment	<input type="checkbox"/>
Pinion Shaft Bearing - Right	.002	.015		Check pony rods for cracks and wear (replace if necessary)	<input type="checkbox"/>
Crosshead Pin Bearing - Left	.002	.005			
Crosshead Pin Bearing - Center	.002	.005		Check piston rods for cracks and wear (replace if necessary)	<input type="checkbox"/>
Crosshead Pin Bearing - Right	.002	.005			
Connecting Rod to Eccentric Bearing - LH	.002	.020		Check clamps for wear (replace if necessary)	<input type="checkbox"/>
Connecting Rod to Eccentric Bearing - CTN	.002	.020			
Connecting Rod to Eccentric Bearing - RH	.002	.020		Check all bearings w/ mirror for pitting and flaking	<input type="checkbox"/>
Oil Pump Pinion to Main Gear - Backlash	.010	.025			
Pinion Shaft to Main Gear - Backlash	.010	.050		Check all oil pump screens	<input type="checkbox"/>
Bull Gear Wear				Check pillow block bearings on independent pump	<input type="checkbox"/>
Pinion Gear Wear					
Extension Rods				On inspection replace pony rod seals (Regardless if the rig says they have already been changed seals still need to be checked) replace gaskets if need do not use silicone unless need to fill a void. (do not use to excess because it gets into gear end)	<input type="checkbox"/>
Comments:					
National		Gardner Denver		Continental Emsco	
Check troughs	<input type="checkbox"/>	Oil pressure and Gauge	<input type="checkbox"/>	Oil pressure and Gauge	<input type="checkbox"/>
Check crosshead's for cracks at pony rod clamp	<input type="checkbox"/>	Oil Filter	<input type="checkbox"/>	Check pony rod wiper if equipped if not equipped with wipers get parts to correct	<input type="checkbox"/>
		Oil spray bar for crossheads	<input type="checkbox"/>		
Check pony rod clamp on bolts on crosshead's	<input type="checkbox"/>	Check to see if correct pony rods are installed by gauging distance between it and oil stop plate.	<input type="checkbox"/>	Check to see if baffle plates are doweled in pump	<input type="checkbox"/>
Loosen pony rod clamp bolts and tighten pony rod then retorque bolts	<input type="checkbox"/>				
		Oil pump Screen	<input type="checkbox"/>		
		If new floaters are not there get parts to install floating seals	<input type="checkbox"/>		

Action Items:

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RIG _____ 125 _____

Rig Inspection

NAME STEVE CASSEL ROBBIE SANDS

JOB TITLE MECHANIC

Work Order No. 67100

DATE MAINTENANCE STARTED: 7/20/2017 COMPLETED 7/21/2017

EQUIPMENT DESCRIPTION: DRAWWORKS INSPECTION

SERIAL NUMBER: JN 1500 ASSET # : 15-162

Travel Time to Rig _____ FROM: HOME SHOP

Time at Rig: _____

Time from Rig _____ FROM: HOME SHOP

ACTON ITEMS

REPLACED ROTARY CLUTCH DUE TO LEAK IN AIR BOOT

REPLACED ROTARY BACK BRAKE DUE TO BOOT SWELLED UP AND PADS WERE DRAGGING

YOU NEED TO HAVE SIGNATURE'S AND TIME FILLED OUT ON FIRST PAGE

Rig: 125

Date: 7/21/2017

Scheduled Rig Inspection Check List

Air Hoist:

- Check oil in air motor.
- Check grease in gear case.
- Grease throttle valve.
- Check brake system for wear.
- Check cable for fraying.

#1 ASSET 27- 594
 #2 ASSET 27- 595
 #3 ASSET 27-

Comments:

RIG HAS HYD TUGGERS NO PROBLEMS NOTED

Blocks:

- Check grooves for wear.
- Check smoothness of roll.
- Check for play in bearings.
- Ensure bolts are in place.
- Grease all zerks.

ASSET # 5-
 ASSET # 67-
 COMBO

Comments:

CHANGED OUT BLOCKS FOR A 4 YEAR INSP

Brakes:

Hydromatic Brakes:

- Jack bearings.
- Inspect couplings. DS _____
- Grease all zerks.

ASSET # 66-
 ODS _____

Comments:

Electric Brakes:

Electric Brake Only:

- Inspect plumbing (must meet Unit Drillings Specifications) Note: contact the maintenance department for instructions.
- Take air gap reading. Reading: _____
- Ensure brass shifting collars suspend off of sleeve OD.
- Ensure vents are in place and clean.
- Grease all zerks.
- Inspect bearing clearance DS _____ ODS _____

Comments:

Eaton Brake Only:

66- 295

- Grease all zerks.
- Inspect bearing clearance DS _____ ODS _____
- Check gap between reaction plates Reading: X gap _____ Y gap _____
- Record Quantity of discs Number of discs 3
- Check Eaton Brake Temp Gauges Drillers Console _____ At the Brake _____
- Function brakes Auto Safety System

Follow Eaton & Hydraulic Weekly Check Sheet

Tolerances:

Test with 25 psi of air pressure

Disc Size	Qty of WC Discs	X new	X max (Adjustment)	Y new	Y min	Z new	Z min
36	1	0.12	0.54	2.75	2.31	—	—
	2	0.24	0.66	2.75	2.31	—	—
	3	0.36	0.78	2.75	2.31	2.75	2.31
	4	0.48	0.90	2.75	2.31	2.75	2.31

Comments:

EATON 2.80/2.82/2.81/.330

Dry Cooler:

78- 391

- Flush Dry Cooler
- Clean Strainer
- Check water Pressures Inlet 20 Outlet 15

Drawworks:

Drum Shaft:

- Grease all zerks. Change all filters and clean screens. ASSET # 15- 162
- Inspect oil lines. Check oil level & oil quality. Clean pickup screens.
- Inspect clutches for wear and air pressure.
- Inspect tight member teeth for wear and grease.

Jack bearing readings

- DS 0.006
- ODS 0.008
- Other HIGH TRANS LIVE .005
- Other LOW TRANS LIVE .003
- Other _____

Comments:

Brake Linkage:

15- 162

- Grease all zerks and insure linkage is tight.
- Inspect break bands for cracks and wear.
- Check brake block bolts and ensure bolts are tight.
- Check brake block thickness, record **thinnest** block measurement. DS 17MM ODS 18MM
- MPI Inspection on brake Linkage (brake bands, slack adjusters, equalizer without removal).

Comments:

DISC BRAKES

Input Shaft:

Inspect for leaking seals.

15- 162

Jack bearing readings

- DS _____ 0.006 _____
- ODS _____ 0.006 _____
- Other _____ HIGH CLUTCH LIVE .005 _____
- Other _____ LOW CLUTCH LIVE .004 _____

Comments:

Output Shaft:

Grease all zerks and inspect oil system.

Jack bearing readings

- DS _____ 0.004 _____
- ODS _____ 0.004 _____
- Other _____ _____
- Other _____ _____

Comments:

Rotary Counter Shaft:

Grease all zerks and inspect oil system.

Jack Bearings (Findings)

- DS _____
- ODS _____ 0.002 _____
- Other _____
- Other _____
- Other _____
- Other _____

Comments:

NEW ROTARY CLUTCH AND NEW BACK BRAKE

Cat Shaft:

Grease all zerks and inspect oil system.

Grease cathead with 4 shots of grease.

Jack bearing readings

- DS _____ ASSET # MU 68- _____
- ODS _____ ASSET # BO 68- _____
- Other _____
- Other _____

Compound:

15- 162

Engine shafts:

#1 DS	_____	#1 ODS	_____
#2 DS	_____	#2 ODS	_____
#3 DS	_____	#3 ODS	_____

Pump drive shaft:

#1 DS	_____	#1 ODS	_____
#2 DS	_____	#2 ODS	_____

Pump sheave shaft:

#1 DS	_____	#1 ODS	_____
#2 DS	_____	#2 ODS	_____

- Grease all zerks and inspect oil system.
- Inspect all chains for wear.
- Ensure all oil pumps are working properly.
- Change all filters and clean screens.

Comments:

Hook:

ASSET #	28-
ASSET #	67-
	COMBO

- Check oil in snubber.
- Grease all zerks.
- Visually check for cracks or wear.
- Rotate hook and feel for smoothness of roll.
- Ensure lock is working properly.

Comments:

Kelly Spinner:

ASSET #	69-
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- Run spinner and check bearings.
- Ensure air pressure is 90 PSI.
- Grease all zerks.

Comments:

Mud Pumps:

ASSET #	#1 38-
ASSET #	#2 38-
ASSET #	#3 38-

- Fill out pump inspection report.
- Check piston rods and replace if worn.
- Check rod clamps and replace if worn.

Comments:

INSP WAS FILLED OUT

Independent Pump Drive #1:

- Inspect belts and sheave grooves for wear.
- Inspect chains and chain sprockets for wear.
- Inspect clutch and clutch drum.
- Check air lines and record PSI.
- Record bearing play on engine side of shaft.
- Record bearing play on pump side of shaft.

PSI _____
Reading _____
Reading _____

Comments

Independent Pump Drive #2

- Inspect belts and sheave grooves for wear.
- Inspect chains and chain sprockets for wear.
- Inspect clutch and clutch drum.
- Check air lines and record PSI.
- Record bearing play on engine side of shaft.
- Record bearing play on pump side of shaft.

PSI _____
Reading _____
Reading _____

Comments:

Over running clutch:

- Roll clutch and check oil.
- Check seals for leaks. Note: identify leak found in comments section.)
- Service clutch and grease splines.
- Changed Oil

Comments:

Pipe Spinners:

- Ensure Spinner is hung level with drill pipe.
- Inspect drive chains and rollers for wear. (clean if necessary)
- Grease all zerks and check hanger spring.

ASSET # 41- _____

Comments:

Rotary Table:

- Pull top off and wash mud out of table.
- Inspect through bore.
- Record main bearing play.
- Record pinion bearing play.
- Record backlash play in gears.
- Check quality of oil

ASSET # 44-

Reading _____

Reading _____

Reading _____

Comments:

Swivel:

- Clean mud accumulation around top seals and install mud guard.
- Roll check swivel for smoothness of roll.
- Record endplay readings. Radial run out.
- Check quality of oil

ASSET # 50- 203

Reading _____

Comments:

Crown:

- Inspect grooves for wear.
- Check for play in bearings.
- Check for smoothness of roll.
- Grease all zerks.

ASSET # 10-

Comments:

Fail Safe System:

- Test System

ST-80

Comments

- Test operation & check leaks
- Perform ST-80 Inspection Form
- Service ST-80 HPU

HPU

Comments

- Run HPU & check leaks
- Change all filters

Insure Rig Manager knows to change HPU oil once a year

UNIT DRILLING RIG 125 GENERAL LAYOUT

Last Revision: 1/13/2016

