RIG 307

Engine Inspection

NAME Randy Reid

Work Order No. _____

JOB TITLE Engine Mech

DATE MAINTENANCE STARTED: 10-20-14

COMPLETED _____

EQUIPMENT DESCRIPTION: Engines Generators Radiators & Torque Converters

SERIAL NUMBER: _____

Travel Time to Rig 12 FROM: ☐ HOME ☒ SHOP

Time from Rig 12 FROM: ☒ HOME ☐ SHOP

Hours at Rig: 36

ACTON ITEMS

#1 D379
All 4 heads leaking oil

#1 Gen Set
oil Pan Gasket needs changed

#2 Gen Set
oil Pan Gasket needs changed

ASSET # :

#1 Engine 22-924

#1 Gen. 91-150

#2 Engine 22-702

#2 Gen. 91-149

#3 Engine 22-370

#3 Gen. _____

#2 Pump Other 22-1420 engine
Asset # Position

91-09 gen
Asset # Position

#1 Gen Other 22-1366 engine
Asset # Position

24-897 gen
Asset # Position

#2 Gen Other 22-1367 engine
Asset # Position

24-898 gen
Asset # Position

T.D Other 22-1420 engine
Asset # Position

_____ gen
Asset # Position

Scheduled Engine Inspections

Rig: 307

Date: 10-20

Antifreeze: ☐ Red ☒ Green

Freeze point: _____

If antifreeze is green test the NA-Cool level

_____

Engine Position:	1
Make:	Cat
Model:	D379
Serial Number:	GBR6530
Asset Number:	22924
Hours:	801

For 3512's: Radiator -40 1600

Aftercooler _____

☒ 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 valvetrain.

☒ Grease fan hub bearings and idler bearings.

☒ Inspect and clean radiators. Note: Wash in oppisite direction of air flow. (You should 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).

Record belt #'s, radiator fan brg.,idler brg., shaft size, and pulley sizes.

CAT # 3-C

Generator position:	1	Torque converter	C-245-125
Make:		Oiler chain	
Model:		Clutch size	91-150
Asset Number:		Hrs since last P.M.	
KW:		RPM:	

2-BRG

Review service procedures for engines with rig personell.

☐ Grease and inspect for wear.

☐ Clean generator and blow out if necessary.

Check and Grease Drive Couplings, Plug and Remove all Grease Fittings, Install New Rubbers and O-Ring Yearly!!!, (3)7L-5589 Rubber, (1) 9H846 O-Ring, (3) Tubes 5N5561 Compound Rubber Coupling,

Comments:

All Heads leaking oil

Scheduled Engine Inspections

Rig: 307

Date: 10-20-14

Antifreeze: ☐ Red ☒ Green

Freeze point: _____

If antifreeze is green test the NA-Cool level

_____

Engine Position: 2

Make: Cat

Model: D379

Serial Number: N/A

Asset Number: 22-702

Hours: 872

For 3512's: Radiator -40 1600

Aftercooler _____

☒ 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 valvetrain.

☒ Grease fan hub bearings and idler bearings.

☒ Inspect and clean radiators. Note: Wash in oppisite direction of air flow. (You should 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).

Record belt #'s, radiator fan brg.,idler brg., shaft size, and pulley sizes.

CAT # 3-C

Generator position: 2

Make: _____

Model: _____

Asset Number: _____

KW: _____

Torque converter C-245-125

Oiler chain _____

Clutch size 9J-149

Hrs since last P.M. _____

RPM: _____

2-BRG

Review service procedures for engines with rig personell.

☐ Grease and inspect for wear.

☐ Clean generator and blow out if necessary.

Check and Grease Drive Couplings, Plug and Remove all Grease Fittings, Install New Rubbers and O-Ring Yearly!!!, (3)7L-5589 Rubber, (1) 9H846 O-Ring, (3) Tubes 5N5561 Compound Rubber Coupling,

Comments:

Scheduled Engine Inspections

Rig: 307

Date: 10-21-14

Engine Position: #2 Pump

Make: Cat

Model: 3512 HD

Serial Number:

Asset Number: 22-1420

Hours: 16385

Antifreeze: ☐ Red ☒ Green

Freeze point: _____

If antifreeze is green test the NA-Cool level

For 3512's: Radiator -30

Aftercooler -30

- ☐ 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 valvetrain.
- ☐ Grease fan hub bearings and idler bearings.
- ☒ Inspect and clean radiators. Note: Wash in oppisite direction of air flow. (You should 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).

Record belt #'s, radiator fan brg.,idler brg., shaft size, and pulley sizes.

5VX1320

Generator position: _____ Torque converter C-300-100

Make: _____ Oiler chain _____

Model: _____ Clutch size 91-09

Asset Number: _____ Hrs since last P.M. _____

KW: _____ RPM: _____

2-BRG

Review service procedures for engines with rig personell.

- ☐ Grease and inspect for wear.
- ☐ Clean generator and blow out if necessary.

Check and Grease Drive Couplings, Plug and Remove all Grease Fittings, Install New Rubbers and O-Ring Yearly!!!, (3)7L-5589 Rubber, (1) 9H846 O-Ring, (3) Tubes 5N5561 Compound Rubber Coupling,

Comments:

Scheduled Engine Inspections

Rig: 307

Date: 10-21-14

Antifreeze: ☐ Red ☒ Green

Freeze point: _____

If antifreeze is green test the NA-Cool level

_____

Engine Position: #1 Gen

Make: Detroit

Model: 60 Series

Serial Number: 06R0973096

Asset Number: 22-1366

Hours: 17564

For 3512's: Radiator -40 1800

Aftercooler _____

- ☐ 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 valvetrain.
- ☒ Grease fan hub bearings and idler bearings.
- ☒ Inspect and clean radiators. Note: Wash in oppisite direction of air flow. (You should 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).

Record belt #'s, radiator fan brg.,idler brg., shaft size, and pulley sizes.

3-A64

Generator position: _____

Make: _____

Model: 450REQZDP

Asset Number: 24-897

KW: 450

Torque converter _____

Oiler chain _____

Clutch size 1

Hrs since last P.M. _____

RPM: _____

2-BRG

Review service procedures for engines with rig personell.

- ☒ Grease and inspect for wear.
- ☒ Clean generator and blow out if necessary.

Check and Grease Drive Couplings, Plug and Remove all Grease Fittings, Install New Rubbers and O-Ring Yearly!!!, (3)7L-5589 Rubber, (1) 9H846 O-Ring, (3) Tubes 5N5561 Compound Rubber Coupling,

Comments:

Scheduled Engine Inspections

Rig: 307

Date: 10-22-14

Antifreeze: ☐ Red ☒ Green 2000

Freeze point: -40 2000

If antifreeze is green test the NA-Cool level

Engine Position: #2 Gen

Make: Detroit

Model: 60 series

Serial Number: 06R0973097

Asset Number: 22-1367

Hours: 13846

For 3512's: Radiator

Aftercooler

- ☐ 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 valvetrain.
- ☒ Grease fan hub bearings and idler bearings.
- ☒ Inspect and clean radiators. Note: Wash in oppisite direction of air flow. (You should 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).

Record belt #'s, radiator fan brg.,idler brg., shaft size, and pulley sizes.

3-A64

Generator position: #2 Gen

Make: Detroit

Model: 450REOZDP

Asset Number: 24-898

KW: 450

Torque converter

Oiler chain

Clutch size

Hrs since last P.M.

RPM:

2-BRG

Review service procedures for engines with rig personell.

- ☒ Grease and inspect for wear.
- ☒ Clean generator and blow out if necessary.

Check and Grease Drive Couplings, Plug and Remove all Grease Fittings, Install New Rubbers and O-Ring Yearly!!!, (3)7L-5589 Rubber, (1) 9H846 O-Ring, (3) Tubes 5N5561 Compound Rubber Coupling,

Comments:

ROTARY SCREW AIR COMPRESSOR MAINTENANCE CHART

Last Updated: SEPTEMBER 05, 2013

Rig #	307	Oil Type	☐ Palasyn 45

MODEL #	palatek 50 dg	SERIAL #		ASSET #	2-372
HRS	11568	W/O #	51589	DATE	3/11/2014
COMPANY	Unit	TECHNICIAN	Guy Phillips		

DESCRIPTION OF WORK AND PARTS USED

☑ Completed	CHANGED OIL
☑ Completed	CHANGED OIL FILTER
☑ Completed	CHANGED AIR FILTER
☑ Completed	CHANGED SEPERATOR
☑ Completed	CLEANED RADIATOR
☑ Completed	ADDED NEW OIL SAMPLE VALVE
☑ Completed	CHECK AND INSPECT DRIVE COUPLINGS
☑ Completed	DRAIN WATER FROM TANK
☑ Completed	OPEN PANEL DOOR AND CHECK TO BE SECURE
☑ Completed	CHECK ALL SIGNAL LINES (BLACK PLASTIC)
☐ Completed	ENSURE IT IS CLEAN AND WASH WITH SOLVENT

PALATEK COLD START

☐ Completed	CHANGE ENGINE OIL, FILTER, AIR FILTER, FUEL FILTER AND TAKE AN OIL SAMPLE EVERY TIME YOU SERVICE THE RIG AIR COMPRESSORS.
☐ Completed	YEARLY SERVICE THE AIR END OF THE COMPRESSOR (OIL AND ALL FILTERS)- MARK THE DATE ON THE FILTER.

PALATEK AIR DRYER

☐ 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 #	307		Oil Type	☐ Palasyn 45	
MODEL #	palatek 50 dg	SERIAL #		ASSET #	2-371
HRS	2094	W/O #		DATE	
COMPANY		TECHNICIAN			

DESCRIPTION OF WORK AND PARTS USED

☑ Completed	CHANGED OIL
☑ Completed	CHANGED OIL FILTER
☑ Completed	CHANGED AIR FILTER
☑ Completed	CHANGED SEPERATOR
☑ Completed	CLEANED RADIATOR
☑ Completed	ADDED NEW OIL SAMPLE VALVE
☑ Completed	CHECK AND INSPECT DRIVE COUPLINGS
☑ Completed	DRAIN WATER FROM TANK
☑ Completed	OPEN PANEL DOOR AND CHECK TO BE SECURE
☑ Completed	CHECK ALL SIGNAL LINES (BLACK PLASTIC)
☐ Completed	ENSURE IT IS CLEAN AND WASH WITH SOLVENT

PALATEK COLD START

☐ Completed	CHANGE ENGINE OIL, FILTER, AIR FILTER, FUEL FILTER AND TAKE AN OIL SAMPLE EVERY TIME YOU SERVICE THE RIG AIR COMPRESSORS.
☐ Completed	YEARLY SERVICE THE AIR END OF THE COMPRESSOR (OIL AND ALL FILTERS)- MARK THE DATE ON THE FILTER.

PALATEK AIR DRYER

☐ Completed	CHANGED INLET AND OUTLET FILTER TO DRYER. USE ONLY PALATEK FILTERS.

Condition of equipment

doc # /ms-mf-1/ rev. date 11-11-2011

RIG **307**

Pump Inspection

NAME guy phillips

JOB TITLE: **field tech** **Work Order N** **52800**

DATE MAINTENANCE STARTED: 5/19/2014 **COMPLETED:** 5/22/2014

EQUIPMENT DESCRIPTION: CE FB-1600

SERIAL NUMBER:

#1 Asset 38-413
Make CE
Model FB-1600

#2 Asset 38-412
Make CE
Model FB-1600

#3 Asset
Make
Model

Travel Time to Rig From: ☐ HOME ☐ SHOP

Time at Rig:

Travel Time from Rig To: ☐ HOME ☐ SHOP

ACTON ITEMS

changed radiator on #1 pump assemble

Individual Pump Inspections

Company/Division:			Asset #	38-413	
Rig:			307		
Pump#:1					
Field Inspection Report -	Make:	CE	Model:	FB-1600	
Recommended Running Clearances	Inches				
	Min.	Max.	Actual	General	
Crosshead to slide - Left	.020	.045	0.026	Check all oil lines	☑
Crosshead to slide - Center	.020	.040	0.024	Check all tied Bolts	☑
Crosshead to slide - Right	.020	.045	0.029	Drain & check Cleanouts	☑
Main Bearing - Left	.005	.020	0.010	Check and clean, gear end	☐
Main Bearing - Right	.005	.020	0.009	with diesel if needed	
Pinion Shaft Bearing - Left	.002	.015	0.008	Pony Rod Alignment	☑
Pinion Shaft Bearing - Right	.002	.015	0.009	Check pony rods for cracks	☑
Crosshead Pin Bearing - Left	.002	.005	0.002	and wear (replace if necessary)	
Crosshead Pin Bearing - Center	.002	.005	0.002	Check piston rods for cracks	☑
Crosshead Pin Bearing - Right	.002	.005	0.003	and wear (replace if necessary)	
Connecting Rod to Eccentric Bearing - LH	.002	.020	0.010	Check clamps for wear	☑
Connecting Rod to Eccentric Bearing - CTN	.002	.020	0.006	(replace if necessary)	
Connecting Rod to Eccentric Bearing - RH	.002	.020	0.008	Check all bearings w/ mirror	☑
Oil Pump Pinion to Main Gear - Backlash	.010	.025	0.015	for pitting and flaking	
Pinion Shaft to Main Gear - Backlash	.010	.050	0.032	Check all oil pump screens	☑
Bull Gear Wear				Check pillow block bearings	☑
Pinion Gear Wear				on independent pump	
Extension Rods				On inspection replace pony	☑
				rod seals (Regardless if the	
Comments:				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)	

National		Gardner Denver		Continental Emsco	
Check troughs	☐	Oil pressure and Gauge	☐	Oil pressure and Gauge	☑
Check crosshead's for cracks	☐	Oil Filter	☐	Check pony rod wiper if equipped	☑
at pony rod clamp		Oil spray bar for crossheads	☐	if not equipped with wipers get parts	
Check pony rod clamp	☐	Check to see if correct pony	☐	to correct	
on bolts on crosshead's		rods are installed by gauging		Check to see if baffle plates	☑
Loosen pony rod clamp bolts and	☐	distance between it and oil		are doweled in pump	
tighten pony rod then retorque bolts		stop plate.			
		Oil pump Screen	☐		
		If new floaters are not there get	☐		
		parts to install floating seals			

Action Items:

Individual Pump Inspections

Company/Division:	Asset # 38-412
Rig:	307
Pump#:2	

Field Inspection Report - Make: CE Model: FB-1600

Recommended Running Clearances — Inches

	Min.	Max.	Actual
Crosshead to slide - Left	.020	.045	0.026
Crosshead to slide - Center	.020	.040	0.028
Crosshead to slide - Right	.020	.045	0.031
Main Bearing - Left	.005	.020	0.010
Main Bearing - Right	.005	.020	0.012
Pinion Shaft Bearing - Left	.002	.015	0.006
Pinion Shaft Bearing - Right	.002	.015	0.005
Crosshead Pin Bearing - Left	.002	.005	0.003
Crosshead Pin Bearing - Center	.002	.005	0.001
Crosshead Pin Bearing - Right	.002	.005	0.003
Connecting Rod to Eccentric Bearing - LH	.002	.020	0.012
Connecting Rod to Eccentric Bearing - CTN	.002	.020	0.016****
Connecting Rod to Eccentric Bearing - RH	.002	.020	0.004
Oil Pump Pinion to Main Gear - Backlash	.010	.025	0.019
Pinion Shaft to Main Gear - Backlash	.010	.050	0.035
Bull Gear Wear			
Pinion Gear Wear			
Extension Rods			

General	
Check all oil lines	☑
Check all tied Bolts	☑
Drain & check Cleanouts	☑
Check and clean, gear end with diesel if needed	☐
Pony Rod Alignment	☑
Check pony rods for cracks and wear (replace if necessary)	☑
Check piston rods for cracks and wear (replace if necessary)	☑
Check clamps for wear (replace if necessary)	☑
Check all bearings w/ mirror for pitting and flaking	☑
Check all oil pump screens	☑
Check pillow block bearings on independent pump	☑
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)	☑

Comments:

center con rod clearance is high

these pmps looked very clean inside good to see care on equipment

National		Gardner Denver		Continental Emsco	
Check troughs	☐	Oil pressure and Gauge	☐	Oil pressure and Gauge	☑
Check crosshead's for cracks at pony rod clamp	☐	Oil Filter	☐	Check pony rod wiper if equipped if not equipped with wipers get parts to correct	☑
		Oil spray bar for crossheads	☐		
Check pony rod clamp on bolts on crosshead's	☐	Check to see if correct pony rods are installed by gauging distance between it and oil stop plate.	☐	Check to see if baffle plates are doweled in pump	☑
Loosen pony rod clamp bolts and tighten pony rod then retorque bolts	☐				
		Oil pump Screen	☐		
		If new floaters are not there get parts to install floating seals	☐		

Action Items:

Individual Pump Inspections

Company/Division:	Asset #

Rig:	307
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	☐
Crosshead to slide - Center	.020	.040		Check all tied Bolts	☐
Crosshead to slide - Right	.020	.045		Drain & check Cleanouts	☐
Main Bearing - Left	.005	.020		Check and clean, gear end	☐
Main Bearing - Right	.005	.020		with diesel if needed	
Pinion Shaft Bearing - Left	.002	.015		Pony Rod Alignment	☐
Pinion Shaft Bearing - Right	.002	.015		Check pony rods for cracks	☐
Crosshead Pin Bearing - Left	.002	.005		and wear (replace if necessary)	
Crosshead Pin Bearing - Center	.002	.005		Check piston rods for cracks	☐
Crosshead Pin Bearing - Right	.002	.005		and wear (replace if necessary)	
Connecting Rod to Eccentric Bearing - LH	.002	.020		Check clamps for wear	☐
Connecting Rod to Eccentric Bearing - CTN	.002	.020		(replace if necessary)	
Connecting Rod to Eccentric Bearing - RH	.002	.020		Check all bearings w/ mirror	☐
Oil Pump Pinion to Main Gear - Backlash	.010	.025		for pitting and flaking	
Pinion Shaft to Main Gear - Backlash	.010	.050		Check all oil pump screens	☐
Bull Gear Wear				Check pillow block bearings	☐
Pinion Gear Wear				on independent pump	
Extension Rods				On inspection replace pony	
				rod seals (Regardless if the	
Comments:				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)	

National		Gardner Denver		Continental Emsco	
Check troughs	☐	Oil pressure and Gauge	☐	Oil pressure and Gauge	☐
Check crosshead's for cracks	☐	Oil Filter	☐	Check pony rod wiper if equipped	☐
at pony rod clamp		Oil spray bar for crossheads	☐	if not equipped with wipers get parts	
Check pony rod clamp	☐	Check to see if correct pony		to correct	
on bolts on crosshead's		rods are installed by gauging	☐	Check to see if baffle plates	☐
Loosen pony rod clamp bolts and	☐	distance between it and oil		are doweled in pump	
tighten pony rod then retorque bolts		stop plate.			
		Oil pump Screen	☐		
		If new floaters are not there get	☐		
		parts to install floating seals			

Action Items:

Doc# /ms-mf-1.1/ **Rev.Date 7-23-2012**

RIG 307

Rig Inspection

NAME guy phillips

JOB TITLE field tech **Work Order No.** 52800

DATE MAINTENANCE STARTED: 5/19/2014 **COMPLETED** 5/22/2014

EQUIPMENT DESCRIPTION: GD-800

SERIAL NUMBER: ASSET # : 15-123

Travel Time to Rig **FROM:** ☐HOME ☐SHOP

Time at Rig:

Time from Rig **FROM:** ☐HOME ☐SHOP

ACTON ITEMS

change quick releases on master clutch

repair fan shrouds on both gen sets

order new fan for #2 gen set

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

Rig: 307

Date: 5/22/2014

Scheduled Rig Inspection Check List

Air Hoist:

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

#1 ASSET 27- 111

#2 ASSET 27- 43

#3 ASSET 27-

Comments:

Blocks:

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

ASSET # 5-

ASSET # 67- 122 COMBO

Comments:

Brakes:

Hydromatic Brakes:

- [x] Jack bearings.
- [x] Inspect couplings.
- [x] Grease all zerks.

ASSET # 66- 140

DS 0.008 ODS 0.011

Comments:

Electric Brakes:

Electric Brake Only:

66-

- [ ] 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-

- ☐ Grease all zerks.
- ☐ Inspect bearing clearance — DS _____ ODS _____
- ☐ Check gap between reaction plates — Reading: X gap _____ Y gap _____ Z gap _____
- ☐ Record Quantity of discs — Number of discs _____
- ☐ Check Eaton Brake Temp Gauges — Drillers Console _____ At the Brake _____
- ☐ Function brakes Auto Safety System — Follow Eaton & Hydraulic Weekly Check Sheet
- ☐ Inspect all hose and hard plumbing (leaks, cracks, kinks, crushed)
- ☐ Inspect high temperature warning system for correct operation
- ☐ Inspect flow meter for correct operation. Record GPM: _____

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:

Dry Cooler:

78-

- ☐ Inspect all hose and hard plumbing (leaks, cracks, kinks, crushed)
- ☐ Inspect coolant tank low coolant alarm for correct operation. NOTE: Does system still need to be installed? ☐ YES ☐ NO
- ☐ Inspect and record coolant level in tank. Coolant Level: _____
- ☐ Clean Strainer
- ☐ Check fresh water pressures — Inlet _____ Outlet _____
- ☐ Flush Heat Exchange

Drawworks:

Drum Shaft:

ASSET # 15- 123

- ☑ Grease all zerks. Change all filters and clean screens.
- ☑ 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 0.007
- ☑ ODS 0.009
- ☑ Other low clutch .003
- ☐ Other high clutch .002
- ☐ Other

Comments:

Brake Linkage:

15- 123

- ☑ 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 0.001 ODS 0.003
- ☐ MPI Inspection on brake Linkage (brake bands, slack adjusters, equalizer without removal).

Input Shaft:

☑ Inspect for leaking seals.

15- 123

Jack bearing readings

☑	DS	0.005
☑	ODS	0.007
☑	Other	live sprocket .009
☑	Other	barrel sprocket .004

Comments:

Output Shaft:

☑ Grease all zerks and inspect oil system.

Jack bearing readings

☑	DS	0.008
☑	ODS	0.004
☑	Other	live sprocket .008
☑	Other	barrel sprocket .007

Comments:

Rotary Counter Shaft:

☑ Grease all zerks and inspect oil system.

Jack Bearings (Findings)

☑	DS	0.004
☑	ODS	0.006
☑	Other	live sprocket .005
☐	Other	
☐	Other	
☐	Other	

Comments:

Cat Shaft:

☑ Grease all zerks and inspect oil system.

☑ Grease cathead with 4 shots of grease.

Jack bearing readings

☑	DS	0.006	ASSET # MU	68- 333
☑	ODS	0.008	ASSET # BO	68- 342
☐	Other			
☐	Other			

Compound:

15- 123

Engine shafts:

#1 DS	.005	#1 ODS	.003
#2 DS	.003	#2 ODS	.007
#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	

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

Comments:

Hook:

ASSET # 28-

ASSET # 67- 122
COMBO

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

Comments:

bell area is showing wear

Kelly Spinner:

ASSET # 69-

- [ ] Run spinner and check bearings.
- [ ] Ensure air pressure is 90 PSI.
- [ ] Grease all zerks.

Comments:

Mud Pumps:

ASSET # #1 38- 413

ASSET # #2 38- 412

ASSET # #3 38-

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

Comments:

Independent Pump Drive #1:

- [x] Inspect belts and sheave grooves for wear.
- [ ] Inspect chains and chain sprockets for wear.
- [x] Inspect clutch and clutch drum.
- [x] Check air lines and record PSI. — PSI: 116
- [x] Record bearing play on engine side of shaft. — Reading: 0.006
- [x] Record bearing play on pump side of shaft. — Reading: 0.008

Comments

Independent Pump Drive #2

- [x] Inspect belts and sheave grooves for wear.
- [ ] Inspect chains and chain sprockets for wear.
- [x] Inspect clutch and clutch drum.
- [x] Check air lines and record PSI. — PSI: 116
- [x] Record bearing play on engine side of shaft. — Reading: 0.004
- [x] Record bearing play on pump side of shaft. — Reading: 0.007

Comments:

Over running clutch:

- [x] Roll clutch and check oil.
- [x] Check seals for leaks. Note: identify leak found in comments section.)
- [x] 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:

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

ASSET # 44- 172

Reading 10 5/16

Reading 0.015

Reading 0.075

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-

Reading

Comments:

Crown:

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

ASSET # 10-

Comments:

could not locate asset tag

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