

ROTARY SCREW AIR COMPRESSOR MAINTENANCE CHART

Last Updated: November 17, 2011

Rig #	128	Oil Type	<input type="checkbox"/> Palasyn 45 Summit SH46
MODEL #	QSI-245i	SERIAL #	BU0902160142
ASSET #			2-1200
HRS	24083	W/O #	49068
DATE	10/10/2017		
COMPANY	Unit Texas Drilling	TECHNICIAN	Bill Anderson
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 checked="" 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		
	Needs new solid door panel for L side of cabinet		
Condition of equipment		GOOD	

ROTARY SCREW AIR COMPRESSOR MAINTENANCE CHART

Last Updated: November 17, 2011

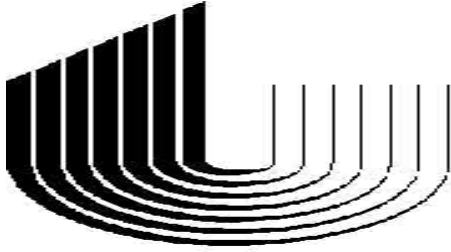
Palasyn 45

Rig #	128	Oil Type	Summit SH46		
MODEL #	QSI-245i	SERIAL #	BU0902160142	ASSET #	2-1201
HRS	22600	W/O #	49068	DATE	10/10/2017
COMPANY	Unit Texas Drilling	TECHNICIAN	Bill Anderson		

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 checked="" 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

Condition of equipment **GOOD**



RIG

128

Engine Inspection

NAME Bill Anderson

Work Order No. NA

JOB TITLE Mechanic

DATE MAINTENANCE STARTED: 6/13/2017

COMPLETED 6/16/2017

EQUIPMENT DESCRIPTION: 3512C Gen Sets

ASSET # :

#1 Engine 22-1442

SERIAL NUMBER: LLAxxxxx

#1 Gen. 24-942

Travel Time to Rig _____ FROM: HOME SHOP

#2 Engine 22-1443

Time from Rig _____ FROM: HOME SHOP

#2 Gen. 24-943

Time at Rig: _____

#3 Engine 22-1444

#3 Gen. 24-944

ACTON ITEMS

Other HPU Duetz

Asset # _____ Position _____

Other _____

Asset # _____ Position _____

Other _____

Asset # _____ Position _____

Other _____

Asset # _____ Position _____

Other _____

Asset # _____ Position _____

Other _____

Asset # _____ Position _____

Other _____

Asset # _____ Position _____

Other _____

Asset # _____ Position _____

REPAIRS MADE:

#1 engine side radiator leaking at center bolt flange, #2 radiator leaking same
Separate and pull out on #1 and both rads on #2 and send to Huckaby Ind
for repair. Reinstall rads and refill coolant, run engines and check for leaks.

Scheduled Engine Inspections

Rig: 128

Antifreeze: Red Green

Date: 6/16/2017

Freeze point: _____

Engine Position: 1

If antifreeze is green test the NA-Cool level

Make: Cat

Pass

Model: 3512C

Serial Number: LLA02144

For 3512's: Radiator -30

Asset Number: 22-1442

Hours: 25,806

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.

(4) 5VX950, 2-3/8 x 28, 16' shv, Dodge brg 8" bolt center, 2-11/16 x 14, 7" shv, Dodge brg 6" bolt center

Generator position:	<u>1</u>	Torque converter	
Make:	<u>Baylor</u>	Oiler chain	
Model:	<u>S637UUT-200FH</u>	Clutch size	
Asset Number:	<u>24-942</u>	Hrs since last P.M.	
KW:	<u>1225</u>	RPM:	<u>1200</u>
		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: 128

Antifreeze: Red Green

Freeze point: _____

Date: 6/16/2017

If antifreeze is green test the NA-Cool level

Engine Position: 2

Pass

Make: Cat

Model: 3512C

For 3512's: Radiator -30

Serial Number: LLA02149

Asset Number: 22-1443

Aftercooler -30

Hours: 25,706

- 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 opposite 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.

Same as #1. Engines not equipped with crankcase filters

Generator position:	<u>2</u>	Torque converter	
Make:	<u>Baylor</u>	Oiler chain	
Model:	<u>S637UUT-200FH</u>	Clutch size	
Asset Number:	<u>24-943</u>	Hrs since last P.M.	
KW:	<u>1225</u>	RPM:	<u>1200</u>
		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: 128

Antifreeze: Red Green

Freeze point: _____

Date: 6/16/2017

If antifreeze is green test the NA-Cool level

Engine Position: 3

Pass

Make: Cat

Model: 3512C

For 3512's: Radiator -34

Serial Number: LLA02155

Asset Number: 22-1444

Aftercooler -34

Hours: 25,284

- 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 auxilliary 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.

Same as #1

Generator position:	<u>3</u>	Torque converter	_____
Make:	<u>Baylor</u>	Oiler chain	_____
Model:	<u>S637UUT-200FH</u>	Clutch size	_____
Asset Number:	<u>24-944</u>	Hrs since last P.M.	_____
KW:	<u>1225</u>	RPM:	<u>1200</u>
		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: 128

Antifreeze: Red Green

Freeze point: Air Cooled

Date: 6/16/2017

If antifreeze is green test the NA-Cool level

Engine Position: Main HPU

Make: Duetz

Model: TCD914L06

For 3512's: Radiator

Serial Number: 8DZXL06.5074

Asset Number:

Aftercooler

Hours:

- 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 oppsite 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.

Generator position: Main HPU Torque converter

Make: Oiler chain

Model: Clutch size

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: 128

Antifreeze: Red Green

Freeze point: _____

Date: 6/16/2017

If antifreeze is green test the NA-Cool level

Engine Position: _____

Make: _____

Model: _____

For 3512's: Radiator _____

Serial Number: _____

Asset Number: _____

Aftercooler _____

Hours: _____

- 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 oppsite 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.

Generator position: _____ Torque converter _____

Make: _____ Oiler chain _____

Model: _____ Clutch size _____

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: 128

Antifreeze: Red Green
Freeze point: _____

Date: 6/16/2017

If antifreeze is green test the NA-Cool level

Engine Position: _____

Make: _____

Model: _____

For 3512's: Radiator _____

Serial Number: _____

Asset Number: _____

Aftercooler _____

Hours: _____

- 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 auxilliary 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.

Generator position: _____ Torque converter _____

Make: _____ Oiler chain _____

Model: _____ Clutch size _____

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: 128

Antifreeze: Red Green

Freeze point: _____

Date: 6/16/2017

If antifreeze is green test the NA-Cool level

Engine Position: _____

Make: _____

Model: _____

Serial Number: _____

Asset Number: _____

Hours: _____

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 auxilliary 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.

Generator position: _____ Torque converter _____

Make: _____ Oiler chain _____

Model: _____ Clutch size _____

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:

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engine

gen

engine

gen

engine

gen

engine

gen

Individual Pump Inspections

Company/Division:		Asset # 38-477		
Rig:		128		
Pump#: 1				
Field Inspection Report -		Make: national	Model: fd-1600	
Recommended Running Clearances		Inches		
	Min.	Max.	Actual	
			General	
Crosshead to slide - Left	.020	.045	0.025	Check all oil lines <input checked="" type="checkbox"/>
Crosshead to slide - Center	.020	.040	0.027	Check all tied Bolts <input checked="" type="checkbox"/>
Crosshead to slide - Right	.020	.045	0.026	Drain & check Cleanouts <input type="checkbox"/>
Main Bearing - Left	.005	.020	0.004	Check and clean, gear end with diesel if needed <input type="checkbox"/>
Main Bearing - Right	.005	.020	0.003	
Pinion Shaft Bearing - Left	.002	.015	0.008	Pony Rod Alignment <input type="checkbox"/>
Pinion Shaft Bearing - Right	.002	.015	0.007	Check pony rods for cracks and wear (replace if necessary) <input checked="" type="checkbox"/>
Crosshead Pin Bearing - Left	.002	.005	0.001	
Crosshead Pin Bearing - Center	.002	.005	0.001	Check piston rods for cracks and wear (replace if necessary) <input checked="" type="checkbox"/>
Crosshead Pin Bearing - Right	.002	.005	0.001	
Connecting Rod to Eccentric Bearing - LH	.002	.020	0.004	Check clamps for wear (replace if necessary) <input checked="" type="checkbox"/>
Connecting Rod to Eccentric Bearing - CTN	.002	.020	0.004	
Connecting Rod to Eccentric Bearing - RH	.002	.020	0.002	Check all bearings w/ mirror for pitting and flaking <input type="checkbox"/>
Oil Pump Pinion to Main Gear - Backlash	.010	.025	0.025	
Pinion Shaft to Main Gear - Backlash	.010	.050	0.020	Check all oil pump screens <input checked="" 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 checked="" type="checkbox"/>
Comments:				
pulsation dampner 0# bladder was replaced and charged				
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 #		38-478	
Rig:		128			
Pump#:2					
Field Inspection Report -		Make:	national	Model:	fd-1600
Recommended Running Clearances		Inches			
		Min.	Max.	Actual	General
Crosshead to slide - Left		.020	.045	0.035	Check all oil lines <input checked="" type="checkbox"/>
Crosshead to slide - Center		.020	.040	0.026	Check all tied Bolts <input checked="" type="checkbox"/>
Crosshead to slide - Right		.020	.045	0.035	Drain & check Cleanouts <input checked="" type="checkbox"/>
Main Bearing - Left		.005	.020	0.003	Check and clean, gear end with diesel if needed <input type="checkbox"/>
Main Bearing - Right		.005	.020	0.003	
Pinion Shaft Bearing - Left		.002	.015	0.006	Pony Rod Alignment <input type="checkbox"/>
Pinion Shaft Bearing - Right		.002	.015	0.006	Check pony rods for cracks and wear (replace if necessary) <input checked="" type="checkbox"/>
Crosshead Pin Bearing - Left		.002	.005	0.004	
Crosshead Pin Bearing - Center		.002	.005	0.003	Check piston rods for cracks and wear (replace if necessary) <input checked="" type="checkbox"/>
Crosshead Pin Bearing - Right		.002	.005	0.002	
Connecting Rod to Eccentric Bearing - LH		.002	.020	0.003	Check clamps for wear (replace if necessary) <input checked="" type="checkbox"/>
Connecting Rod to Eccentric Bearing - CTN		.002	.020	0.004	
Connecting Rod to Eccentric Bearing - RH		.002	.020	0.003	Check all bearings w/ mirror for pitting and flaking <input type="checkbox"/>
Oil Pump Pinion to Main Gear - Backlash		.010	.025	0.020	
Pinion Shaft to Main Gear - Backlash		.010	.050	0.018	Check all oil pump screens <input checked="" 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 checked="" type="checkbox"/>
<u>Comments:</u>					
pulsation dampner 800#					
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 #
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Rig:	128
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Pump#:3	
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Field Inspection Report -	Make:	Model:
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Recommended Running Clearances	Inches		
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	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					

Comments:			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)

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:

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

Rig: 128

Date: 8/17/2017

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- 10
 #2 ASSET 27-
 #3 ASSET 27-

Comments:

Empty comment box for Air Hoist section.

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

YC-450

Empty comment box for Blocks section.

Brakes:

Hydromatic Brakes:

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

ASSET # 66-
 ODS _____

Comments:

Empty comment box for Brakes section.

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:

Empty comment box for Electric Brakes section.

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- _____

- 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 _____ 0.004 _____
- Other _____ low clutch .008 _____
- Other _____ high clutch .007 _____
- Other _____

Comments:

Brake Linkage:

15- 159 _____

- 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 15/16 _____ ODS 1" _____
- MPI Inspection on brake Linkage (brake bands, slack adjusters, equalizer without removal).

Input Shaft:

Inspect for leaking seals.

15- 159

Jack bearing readings

DS _____ 0.004 _____

ODS _____ 0.006 _____

Other _____ _____

Other _____ _____

Comments:

Output Shaft:

Grease all zerks and inspect oil system.

Jack bearing readings

DS _____ 0.004 _____

ODS _____ 0.003 _____

Other _____ high sprocket .006 _____

Other _____ low sprocket .004 _____

Comments:

Rotary Counter Shaft:

Grease all zerks and inspect oil system.

Jack Bearings (Findings)

DS _____

ODS _____

Other _____

Other _____

Other _____

Other _____

Comments:

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-

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:

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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:

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Kelly Spinner:

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

ASSET #	69-
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Comments:

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Mud Pumps:

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

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

Comments:

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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.

ASSET # 44-

Inspect through bore.

Record main bearing play.

Reading 0.009

Record pinion bearing play.

Reading 0.006

Record backlash play in gears.

Reading 0.017

Check quality of oil

Comments:

Swivel:

Clean mud accumulation around top seals and install mud guard.

ASSET # 50-

Roll check swivel for smoothness of roll.

Record endplay readings. Radial run out.

Reading _____

Check quality of oil

Comments:

Crown:

Inspect grooves for wear.

ASSET # 10-

Check for play in bearings.

Check for smoothness of roll.

Grease all zerks.

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 128 GENERAL LAYOUT

Last Revision: 7/31/2010

