ROTARY SCREW AIR COMPRESSOR MAINTENANCE CHART

Last Updated: SEPTEMBER 05, 2013

Rig #		32	25	Oil Type		☐ Palasyn 45 Corena AS46	
MODEL#	50DG	GH-TE	SERIAL#	10G()33	ASSET#	2-1206
HRS	25,	492	W/O #	571	76	DATE	9-Dec
COMPANY	UNIT	TEXAS DRIL	LING	TECHNICIAN	E	Bill Anderson 8	k Guy Phillips
		DESCRI	PTION OF		ND PARTS	SUSED	
✓ Completed				CHANGE	D OIL		
✓ Completed				CHANGED O	IL FILTER		
✓ Completed				CHANGED A	IR FILTER		
✓ Completed				CHANGED SE	PERATOR		
✓ Completed				CLEANED R	ADIATOR		
☐ Completed			ADI	DED NEW OIL S	SAMPLE VAL	VE	
✓ Completed			CHECK	AND INSPECT	DRIVE COUF	PLINGS	
✓ Completed			Γ	DRAIN WATER	FROM TANK		
✓ Completed			OPEN PANE	EL DOOR AND	СНЕСК ТО В	E SECURE	
✓ Completed			CHECK A	LL SIGNAL LIN	ES (BLACK F	LASTIC)	
✓ Completed			ENSURE IT I	IS CLEAN AND	WASH WITH	SOLVENT	
			PALAT	EK COLD S	START		
Completed		GINE OIL, FIL CE THE RIG A	TER, AIR FIL	TER, FUEL FIL		KE AN OIL SA	MPLE EVERY TIME
Completed	YEARLY SEF	RVICE THE AI	R END OF TH	HE COMPRESS	OR (OIL AND	ALL FILTERS	S)- MARK THE DATE ON
	PALATEK AIR DRYER						
Completed	CI	HANGED INLE	ET AND OUTL	ET FILTER TO	DRYER. USE	ONLY PALA	TEK FILTERS.
of equipr	of equipment Rebuild inlet valve, clean unit. Order air filter housing, tighten control pane						

ROTARY SCREW AIR COMPRESSOR MAINTENANCE CHART

Last Updated: SEPTEMBER 05, 2013

Rig #		32	25	Oil Type		☐ Palasyn 45 Corena AS 46	
MODEL#	50DG	GH-TE	SERIAL#	10G()34	ASSET#	2-1207
HRS	25,	534	W/O #	571	76	DATE	9-Dec
COMPANY	UNIT	TEXAS DRIL	LING	TECHNICIAN	E	Bill Anderson &	k Guy Phillips
		DESCRI	PTION OF	WORK AN	ND PARTS	SUSED	
✓ Completed				CHANGE			
✓ Completed				CHANGED O	IL FILTER		
✓ Completed				CHANGED A	IR FILTER		
✓ Completed				CHANGED SE	PERATOR		
✓ Completed				CLEANED R	ADIATOR		
Completed			ADI	DED NEW OIL S	SAMPLE VAL	VE	
✓ Completed			CHECK	AND INSPECT	DRIVE COUF	PLINGS	
✓ Completed			Г	DRAIN WATER	FROM TANK		
✓ Completed			OPEN PANE	EL DOOR AND	СНЕСК ТО В	E SECURE	
✓ Completed			CHECK A	LL SIGNAL LIN	ES (BLACK F	PLASTIC)	
✓ Completed			ENSURE IT I	IS CLEAN AND	WASH WITH	SOLVENT	
			PALAT	EK COLD S	START		
Completed		GINE OIL, FIL CE THE RIG A	TER, AIR FIL	TER, FUEL FIL		KE AN OIL SA	MPLE EVERY TIME
☐ Completed		RVICE THE AI			OR (OIL AND	ALL FILTERS	S)- MARK THE DATE ON
			PALA	ΓEK AIR DF	RYER		
Completed	CI	HANGED INLE		ET FILTER TO		ONLY PALA	TEK FILTERS.
: Tighten ı	upper skid	to tank, re	eplace mis	ssing bolts i	n cooler,	clean unit,	replace pressure

ENGINE INSPECTION FORM

		®	Rig:	325	Work C	Order Number:	Last Updated: 08/27/201 57176
	Dat	te Maintenan	ce Started:	12/10/2017	Date 	Completed:	12/12/2017
N	lame:	Bill A	Anderson	Guy Phillips		Job Title:	Eng. Mechanic
		Fime to Rig:	11 30	From: ☐ HOME ✓ SHOP		rom Rig: 11 Hours: 52	To: ☑ HOME ☐ SHOP
I NUMBERS	G E N S E T S	S/N#		#2 Gen. Model:	JDB00133	#3 Gen. 24	300130
ASSEI	P U M P	#1 Pump	22-	#2 Pump	22-	#3 Pump s/n#	22-
	F L O O R	#1 Floor	22-	#2 Floor	22-	#3 Floor	22
				Action	Items		

Rig: 3 Date: 12/12	25 2/2017			Engi	ne Position:	#1 ENGINE
<u> </u>						
		Antif	reeze	Rec	ord the following info	rmation:
_	Cat Detroit Waukesha	Green R	ed	Belt	Number: (4	4) 6N0073
Other C	32	Test NA-Cool		Radiator Fan	Bearing: CA	T FAN DRIVE
Model:			<u>LED</u>	Idle	r Bearing:	NA
S/N:	JBD00132	For 3512's: Radiator	Freeze Pt. NA-Cool		ulley Size:	
Asset:	22- 1542	Aftercooler		Shaft Size:	r Shaft	Fan Shaft
Hours:	5359			lule	1 Silait	Fall Silait
Clean wat Run overh Grease far Inspect an Test shutc	as 508 and D-3512 ind er passages on water nead valve train. In hub bearings and ic clean radiators. No down system and instaction according to the clean auxiliary oil file crank case filters ar	r cooled turbos (one ller bearings. te: Wash in oppisite direct call new belts. ter.	e time only). tion of air flow; (You shou			fins).
<u></u>	Marathon MTU Kato Baylor	☐ Magnamax ☐ GE		Generat	or Position:	#1 GEN
Model:	1200SR9F 24- 1025 1-bearing	Other:	Exciter Air C	Grease and inspec Clean generator ar Check and record of Fap: OP: 0.027	nd blow out if ne	,
KW	2-bearing	RPM180				
Torque Converter	91-		LEFT SII	DE : 0.033	RIGHT SIDE	: 0.027
Oiler Chain			со	MMENTS / ACTIO	N ITEMS:	
		Wash radiator	and have welder repair fo	n guards, replace coolant	t	
Clutch Size		Install new he	at wraps on exhaust			

Rig: 32 Date: 12/12				Engi	ne Position:	#2 ENGINE
Date. 12/12/	72017					
		Antifree	eze	Red	cord the following info	ormation:
	Detroit	Green Red	-25	Belt	: Number: (4) 6N0073
Other C3	Waukesha 2	Test NA-Cool (Green Only)	Radiator Fan	Bearing: C	at fan drive
Model:				Idle	r Bearing:	
S/N:	JDB00133	For 3512's: Radiator	eze Pt. NA-Cool	P Shaft Size:	ulley Size:	
Asset:	22- 1543	Aftercooler				
Hours:	5256			Idle	er Shaft	Fan Shaft
Clean water Run overhow Grease fan Inspect and Test shutd Check and Make sure	er passages on water ead valve train. hub bearings and id d clean radiators. Not own system and inst clean auxiliary oil fil	te: Wash in oppisite direction of tall new belts.	me only). of air flow; (You shou			fins).
✓ H	Kato Baylor Spectrum Cat	GE Other:	L	Generat	tor Position:	#2 GEN
Model:	1200SR9F 24- 1023	Other.	✓ (Grease and inspec Clean generator a Check and record	nd blow out if ne	ecessary.
	√ 1-bearing		ТО	P: 0.033	ВОТТОМ	l: <u>0.032</u>
KW Torque Converter	2-bearing 91-	RPM1800	LEFT SID	E : 0.027	RIGHT SIDE	:: <u>0.029</u>
•			COI	MMENTS / ACTIO	N ITEMS:	
Oiler Chain		<u> </u>		ards, replace coolant. R	eplace fan drive with s	pare and
Clutch Size		rebuild old after pi Install new heat w				
CIUICII SIZE		mstan new neat wi	iaps on exiidust			

Rig: 325 Date: 12/12/2017		Engine Position: #3 ENGINE
	Antifreeze	Record the following information:
Make: ☐ Cat ☐ Detroit ☐ Waukesha	Green Red Freeze Point: -25	Belt Number: (4) 6N0073
Other C32	Test NA-Cool (Green Only)	Radiator Fan Bearing: <u>CAT FAN DRIVE</u>
Model:	FAILED Freeze Pt. NA-Co	Idler Bearing: NA
S/N:JDB00130	For 3512's: Freeze Pt. NA-Co	Pulley Size:
Asset: 22- 1540	Aftercooler	Shaft Size:
Hours: 4799		Idler Shaft Fan Shaft
Clean water passages on water Run overhead valve train. Grease fan hub bearings and idl Inspect and clean radiators. Note Test shutdown system and insta Check and clean auxiliary oil filt Make sure crank case filters are	er bearings. e: Wash in oppisite direction of air flow; (You s all new belts. er.	houd be able to see clearly through the radiators fins).
Model: Marathon MTU Kato Baylor	☐ Magnamax ☐ GE	Generator Position: #3 GEN
Spectrum Cat Model: 1200SR9F Asset: 24- 1024	_	Grease and inspect for wear. Clean generator and blow out if necessary. Check and record exciter air gap. Air Gap:
✓ 1-bearing	•	TOP: 0.038 BOTTOM: 0.022
KW 2-bearing Torque Converter 91-	RPM 1800 LEFT	SIDE: 0.03 RIGHT SIDE: 0.029
Oiler Chain	- Wash radiator, have welder repair fa	COMMENTS / ACTION ITEMS: an guards, replace coolant
Clutch Size	Install new heat wraps on exhaust	

Rig: 32 Date: 12/12	25 2/2017				Engine	Position:	#4 ENGINE
NASIss: □	0-1		Antifre		Record	the following info	mation:
	Cat Detroit Waukesha		Green Red	· · · · · · · · · · · · · · · · · · ·	Belt Nu	ımber:	
Other			Test NA-Cool	(Green Only)	Radiator Fan Bea	aring:	
Model:			For 3512's: F	reeze Pt. NA-Cool	Idler Be	earing:	
S/N:			Radiator		Pulle Shaft Size:	y Size:	
Asset:	22-		Aftercooler		Idler Sha	aft	Fan Shaft
Ensure D-3 Clean wate Run overh Grease far Inspect an Test shute Check and Make sure	er passage lead valve t In hub beari Id clean rac lown syste I clean auxi	o-3512 indictions on water crain. Ings and id diators. Not me and inst	vidual gauge panels cooled turbos (one fler bearings. e: Wash in oppisite directionall new belts.	time only). n of air flow; (You shoud	be able to see clearly throu	igh the radiators f	ins).
	Kato Spectrum	Baylor Cat	GE Other:	L	Generator	Position:	#4 GEN
Model:	24-		-	☐ CI	rease and inspect fo ean generator and k neck and record exc	olow out if ne	cessary.
KW	1-k	earing earing	- RPM	TOP		воттом:	
Torque Converter	91-	ocuring		LEFT SIDE	::	RIGHT SIDE:	
Oiler Chain				COM	IMENTS / ACTION IT	ΓEMS:	
Clutch Size							

Rig: 325 Date: 12/12/2017		Engine Position: TOP DRIVE
	Antifreeze	Record the following information:
Make: Cat Detroit Waukesha	Green Red Freeze Point:	Belt Number:
Other	Test NA-Cool (Green Only)	Radiator Fan Bearing:
Model:	For 3512's: Freeze Pt. NA-Cool	Idler Bearing:
S/N:	Radiator	Pulley Size:Shaft Size:
Asset: 22-	Aftercooler	Idler Shaft Fan Shaft
☐ Clean water passages on water c☐ Run overhead valve train.☐ Grease fan hub bearings and idle	idual gauge panels has been silicone to cooled turbos (one time only). er bearings. Wash in oppisite direction of air flow; (You shoud b Il new belts.	
Model: Marathon MTU Baylor	☐ Magnamax ☐ GE	Generator Position: TOP DRIVE
Spectrum Cat Model: Asset: 24- 1-bearing	☐ Cle☐ Ch ☐ Ch Exciter Air Gap:	ease and inspect for wear. ean generator and blow out if necessary. eck and record exciter air gap. : BOTTOM:
KW 2-bearing Torque	RPM	RIGHT SIDE:
Converter 91- Oiler Chain		MENTS / ACTION ITEMS:
Clutch Size		

Rig: 325 Date: 12/12/2017		Engine Position: #1 PUMP
	Antifreeze	Record the following information:
Make: Cat Detroit Waukesha	Green Red Freeze Point:	Belt Number:
Other	Test NA-Cool (Green Only)	Radiator Fan Bearing:
Model:	Freeze Pt. NA-Cool	Idler Bearing:
S/N:	Freeze Pt. NA-Cool Radiator	Pulley Size:Shaft Size:
Asset: 22-	Aftercooler	Idler Shaft Fan Shaft
☐ Clean water passages on water of Run overhead valve train.☐ Grease fan hub bearings and idle	r bearings. Wash in oppisite direction of air flow; (You shoud b I new belts. r.	
Model: Marathon MTU [Kato Baylor [Spectrum Cat	Magnamax GE Other:	Generator Position: #1 PUMP
Model: Asset: 24-		ease and inspect for wear. ean generator and blow out if necessary. eck and record exciter air gap.
Lang 1-bearing KW 2-bearing	·	BOTTOM:
Torque Converter 91-		RIGHT SIDE:
Oiler Chain	COMI	MENTS / ACTION ITEMS:
Clutch Size		

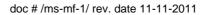
Rig: 325 Date: 12/12/2017		Engine Position: #2 PUMP
	Antifreeze	Record the following information:
Make: Cat Detroit Waukesha	Green Red Freeze Point:	Belt Number:
Other	Test NA-Cool (Green Only)	Radiator Fan Bearing:
Model:	Freeze Pt. NA-Cool	Idler Bearing:
S/N:	For 3512's: Radiator NA-Cool	Pulley Size:Shaft Size:
Asset: 22-	Aftercooler	Idler Shaft Fan Shaft
☐ Clean water passages on water of Run overhead valve train.☐ Grease fan hub bearings and idle	r bearings. Wash in oppisite direction of air flow; (You shoud b I new belts. r.	
Model: Marathon MTU [Kato Baylor [Spectrum Cat	Magnamax GE Other:	Generator Position: #2 PUMP
Model: Asset: 24-		ease and inspect for wear. ean generator and blow out if necessary. eck and record exciter air gap.
Lang 1-bearing KW 2-bearing	·	BOTTOM:
Torque Converter 91-		RIGHT SIDE: MENTS / ACTION ITEMS:
Oiler Chain		WILINIS / ACTION HEIVIS.
Clutch Size		

Rig: 325 Date: 12/12/2017		Engine Position: #3 PUMP
	Antifreeze	Record the following information:
Make: Cat Detroit Waukesha	Green Red Freeze Point:	Belt Number:
Other	Test NA-Cool (Green Only)	Radiator Fan Bearing:
Model:	For 3512's: Freeze Pt. NA-Cool	Idler Bearing:
S/N:	Radiator	Pulley Size:Shaft Size:
Asset: 22-	Aftercooler	Idler Shaft Fan Shaft
☐ Clean water passages on water co☐ Run overhead valve train.☐ Grease fan hub bearings and idle	r bearings. Wash in oppisite direction of air flow; (You shoud bo I new belts. r.	
Model: Marathon MTU Exact Baylor Exact Model: Spectrum	Magnamax GE	Generator Position: #3 PUMP
Spectrum Cat Model: Asset: 24-	☐ Cle ☐ Che Exciter Air Gap:	
KW 1-bearing	RPM	BOTTOM:
Torque Converter 91- Oiler Chain		RIGHT SIDE: MENTS / ACTION ITEMS:
Clutch Size		

Rig: 325 Date: 12/12/2017		Engine Position: #1 FLOOR
	Antifreeze	Record the following information:
Make: Cat Detroit Waukesha	Green Red Freeze Point:	Belt Number:
Other	Test NA-Cool (Green Only)	Radiator Fan Bearing:
Model:	Freeze Pt. NA-Cool	Idler Bearing:
S/N:	Freeze Pt. NA-Cool Radiator	Pulley Size:Shaft Size:
Asset: 22-	Aftercooler	Idler Shaft Fan Shaft
Clean water passages on water Run overhead valve train. Grease fan hub bearings and idl Inspect and clean radiators. Note Test shutdown system and insta Check and clean auxiliary oil filt Make sure crank case filters are	er bearings. E: Wash in oppisite direction of air flow; (You should new belts. er. being serviced (on 3508, 3512).	oud be able to see clearly through the radiators fins).
Model: Marathon MTU Kato Baylor Spectrum Cat	☐ Magnamax ☐ GE ☐ Other:	Generator Position: #1 FLOOR
Model:		Grease and inspect for wear. Clean generator and blow out if necessary. Check and record exciter air gap. Gap:
Lang 1-bearing KW 2-bearing	T RPM	OP: BOTTOM:
Torque Converter 91-	LEFT S	OMMENTS / ACTION ITEMS:
Oiler Chain		
Clutch Size	-	

Rig: 325 Date: 12/12/2017		Engine Position: #2 FLOOR
	Antifreeze	Record the following information:
Make: Cat Detroit Waukesha	Green Red Freeze Point:	Belt Number:
Other	Test NA-Cool (Green Only)	Radiator Fan Bearing:
Model:	For 3512's: Freeze Pt. NA-Cool	Idler Bearing:
S/N:	Radiator	Pulley Size:Shaft Size:
Asset: 22-	Aftercooler	Idler Shaft Fan Shaft
☐ Clean water passages on water co☐ Run overhead valve train.☐ Grease fan hub bearings and idle	r bearings. Wash in oppisite direction of air flow; (You shoud be I new belts. r.	
Model: Marathon MTU [Kato Baylor [Magnamax GE	Generator Position: #2 FLOOR
Spectrum Cat Model: Asset: 24-	☐ Cle ☐ Cho Exciter Air Gap:	
KW 1-bearing	RPM	BOTTOM:
Torque Converter 91- Oiler Chain		RIGHT SIDE: MENTS / ACTION ITEMS:
Clutch Size		

Date: 12/12/2017		Engine Pos	sition: #3 FLOOR
	Antifreeze	Record the f	following information:
Make: Cat Detroit Waukesha	Green Red Freeze Point:	Belt Numb	oer:
Other	Test NA-Cool (Green Only)	Radiator Fan Bearin	g:
Model:	Freeze Pt. NA-Co	Idler Beari	ng:
S/N:	For 3512's: Radiator NA-Co	Pulley Si	ize:
Asset: 22-	Aftercooler	Shaft Size:	
Hours:	_	Idler Shaft	Fan Shaft
 ☐ Clean water passages on water ☐ Run overhead valve train. ☐ Grease fan hub bearings and idl ☐ Inspect and clean radiators. Note 	er bearings.	houd be able to see clearly through t	the radiators fins)
Test shutdown system and instanceCheck and clean auxiliary oil filtMake sure crank case filters are	er.		ine rudiutors misj.
Check and clean auxiliary oil filt Make sure crank case filters are Model: Marathon MTU Kato Baylor	er. being serviced (on 3508, 3512). Magnamax GE	Generator Pos	
☐ Check and clean auxiliary oil filt☐ Make sure crank case filters are Model: ☐ Marathon ☐ MTU	er. being serviced (on 3508, 3512). Magnamax GE Other:	Generator Post Grease and inspect for word Clean generator and blow Check and record exciter	sition: #3 FLOOR rear. w out if necessary.
Check and clean auxiliary oil filt Make sure crank case filters are Model: Marathon MTU Kato Baylor Spectrum Cat Model:	er. being serviced (on 3508, 3512). Magnamax GE Other:	Generator Post Grease and inspect for word Clean generator and blow Check and record exciter hir Gap:	sition: #3 FLOOR rear. w out if necessary.
Check and clean auxiliary oil filt Make sure crank case filters are Model: Marathon MTU Kato Baylor Spectrum Cat Model: 24- 1-bearing KW 2-bearing Torque	er. being serviced (on 3508, 3512). Magnamax GE Other: Exciter A	Generator Post Grease and inspect for word clean generator and blow Check and record exciter hir Gap: TOP:	sition: #3 FLOOR year. w out if necessary. r air gap.
Check and clean auxiliary oil filt Make sure crank case filters are Model: Marathon MTU Kato Baylor Spectrum Cat Model: Asset: 24- 1-bearing KW 2-bearing Torque Converter 91-	er. being serviced (on 3508, 3512). Magnamax GE Other: Exciter A RPM LEFT	Generator Post Grease and inspect for word clean generator and blow Check and record exciter hir Gap: TOP:	sition: #3 FLOOR year. w out if necessary. r air gap. BOTTOM:
Check and clean auxiliary oil filt Make sure crank case filters are Model: Marathon MTU Kato Baylor Spectrum Cat Model: 1-bearing KW 2-bearing Torque Converter 91-	er. being serviced (on 3508, 3512). Magnamax GE Other: Exciter A RPM LEFT	Generator Pos Grease and inspect for w Clean generator and blow Check and record exciter or Gap: TOP: RI	sition: #3 FLOOR year. w out if necessary. r air gap. BOTTOM:





RIG 325	
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Pump Inspection

NAME	guy phillips		
JOB TITLE:	field tech	Work Order N	53705
DATE MAINTENANCE STARTED:	7/7/2017	COMPLETED:	7/10/2017
EQUIPMENT DESCRIPTION:		National 12P160	
SERIAL NUMBER:		#1 Asset Make Model	national
Travel Time to Rig			national
Time at Rig:		#3 Asset	
Travel Time from Rig		To: HOME Model	
		ACTON ITEMS	

Company/Division:				Asset #	38-306	
Rig:				325		
-	1					
Pump#:1 Field Inspection Report -		Make:	national	Mode	l: 12p	
r leid mapeellon Report -		Wake.	Hational	Wode	1. 12μ	
Recommended Running Clearances		Inches				
		Min.	Max.	Actual	General	
Crosshead to slide - Left		.020	.045	0.021	Check all oil lines	√
Crosshead to slide - Center		.020	.040	0.019	Check all tied Bolts	✓
Crosshead to slide - Right		.020	.045	0.023	Drain & check Cleanouts	√
Main Bearing - Left		.005	.020	0.007	Check and clean, gear end	
Main Bearing - Right		.005	.020	0.005	with diesel if needed	
Pinion Shaft Bearing - Left		.002	.015	009	Pony Rod Alignment	
Pinion Shaft Bearing - Right		.002	.015	0.010	Check pony rods for cracks	√
Crosshead Pin Bearing - Left		.002	.005	0.003	and wear (replace if necessary)	
Crosshead Pin Bearing - Center		.002	.005	0.003	Check piston rods for cracks	✓
Crosshead Pin Bearing - Right		.002	.005	0.001	and wear (replace if necessary)	
Connecting Rod to Eccentric Bearing - LH		.002	.020	0.007	Check clamps for wear	4
Connecting Rod to Eccentric Bearing - CTN		.002	.020	0.006	(replace if necessary)	
Connecting Rod to Eccentric Bearing - RH		.002	.020	0.003	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	0.028	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	
	Co	mments:			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 Den	ver	Continental Emsco	
Check troughs	V	Oil pressu	re and Gauge		Oil pressure and Gauge	
Check crosshead's for cracks		Oil Filter	Ū		Check pony rod wiper if equipped	
at pony rod clamp	✓	Oil spray b	par for crossheads		if not equipped with wipers get parts	
Check pony rod clamp			see if correct pony		to correct	
on bolts on crosshead's	\checkmark		nstalled by gauging		Check to see if baffle plates	
Loosen pony rod clamp bolts and	V		etween it and oil		are doweled in pump	
tighten pony rod then retorque bolts	Ŭ	stop plate.				
	- U	Oil pump s			7	
			iters are not there g	et 🗆	7	
			stall floating seals			
			Action Items:		•	

Company/Division: Asset # 38-307							
Rig:				325			
Pump#:2							
Field Inspection Report -		Make:	national	Model:	12p		
Recommended Running Clearances		Inches	1	T	T		
		Min.	Max.	Actual	General		
Crosshead to slide - Left		.020	.045	0.020	Check all oil lines	<u> </u>	
Crosshead to slide - Center		.020	.040	0.019	Check all tied Bolts	<u></u>	
Crosshead to slide - Right		.020	.045	0.024	Drain & check Cleanouts	✓	
Main Bearing - Left		.005	.020	0.005	Check and clean, gear end		
Main Bearing - Right		.005	.020	0.004	with diesel if needed		
Pinion Shaft Bearing - Left		.002	.015	0.006	Pony Rod Alignment	✓	
Pinion Shaft Bearing - Right		.002	.015	0.005	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 -		.002	.020	0.005	Check clamps for wear	\checkmark	
Connecting Rod to Eccentric Bearing -		.002	.020	0.008	(replace if necessary)		
Connecting Rod to Eccentric Bearing -		.002	.020	0.007	Check all bearings w/ mirror	✓	
Oil Pump Pinion to Main Gear - Backla	ash	.010	.025		for pitting and flaking		
Pinion Shaft to Main Gear - Backlash		.010	.050	0.029	Check all oil pump screens		
Bull Gear Wear				ļ	Check pillow block bearings		
Pinion Gear Wear				ļ	on independent pump		
Extension Rods					On inspection replace pony		
					rod seals (Regardless if the		
	Comm	nents:			rig says they have already		
					been changed seals still	V	
					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 a	and Gauge		Oil pressure and Gauge		
Check crosshead's for cracks	✓	Oil Filter			Check pony rod wiper if equipped		
at pony rod clamp		1	for crossheads		if not equipped with wipers get parts		
Check pony rod clamp	✓		if correct pony		to correct		
on bolts on crosshead's		1	alled by gauging		Check to see if baffle plates		
Loosen pony rod clamp bolts and	✓		veen it and oil		are doweled in pump		
tighten pony rod then retorque bolts		stop plate.					
		Oil pump Scr					
			s are not there get				
		parts to instal	Il floating seals	1			
			Action Items:				
L							
	l.	adividual	I Dump Inch	octions			
(5)	II	iuiviuual	Pump Insp				
Company/Division: Asset #							

Rig:		325					
Pump#:3							
Field Inspection Report -		Make:		Mode	:		
December of December Of Section 1		la de e					
Recommended Running Clearances		Inches Min.	Max.	Actual	General		
Crosshead to slide - Left		.020	.045	Actual	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	П	
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	٦	
Connecting Rod to Eccentric Bearing - CTN		.002	.020		(replace if necessary)		
Connecting Rod to Eccentric Bearing - RH		.002	.020		Check all bearings w/ mirror	П	
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	٦		
Pinion Gear Wear				on independent pump			
Extension Rods				On inspection replace pony			
					rod seals (Regardless if the		
	Comn	nents:			rig says they have already		
					been changed seals still		
					need to be checked)	Ш	
					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	П	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	e if correct pony		to correct		
on bolts on crosshead's		rods are inst	alled by gauging		Check to see if baffle plates		
Loosen pony rod clamp bolts and		distance bet	ween it and oil		are doweled in pump		
tighten pony rod then retorque bolts		stop plate.					
		Oil pump Sc	reen				
		If new floater	rs are not there get				
		parts to insta	all floating seals				
			Action Items:				
1							





RIG 325

Rig Inspection

NAME	guy phill	ips				
JOB TITLE	field tech		_	Work Order No	53705	
DATE MAINTEN	IANCE STARTED:	7/7	7/2017	COMPLETED	7/10/	2017
EQUIPMENT DESC	RIPTION:			National		
SERIAL NUMBER:			ASSE	ET#:	15-120	
Travel Time to Rig		FROM:	ПНОМЕ	□sho)P	
Time at Rig:		<u> </u>				
Time from Rig		FROM:	Пноме	□sho	OP	
		ACTO	ON ITEMS			

Doc# /ms-mf-1.1/ Rev.Date 7-23-2012 YOU NEED TO HAVE SIGNATURE'S AND TIME FILLED OUT ON FIRST PAGE

Rig:	325					
Date:	7/10/2017					
		Scheduled F	Rig Inspection	Check List		
Air Hoist:						
Check oil in air mo	or.			#1 ASSET	27-	
Check grease in ge	ar case.			#2 ASSET	27-	
Grease throttle valv	e.			#3 ASSET	27-	
Check brake system	ı for wear.			·	_	
Check cable for fray	ring.					
			Commer	nts:		
Blocks:						
Check grooves for	wear.			ASSET#	5-	
Check smoothness				ASSET#	67-	
Check for play in be	arings.			710021 11	COMBO	
Ensure bolts are in	olace.					
Grease all zerks.						
			Commer	nts:		
Duelle	i					
Brakes:		Hy	dromatic Brake	s:		
☐Jack bearings.				ASSET#	66-	
☐Inspect couplings.	DS			ODS		
Grease all zerks.	-					
			Commer	nts:		
			Electric Brokes			
Electric Brake O	nly:		Electric Brakes:		66-	
	must meet Unit I	Drillings Specificatio	ns) Note: contact the	maintenance department for i	instructions.	
✓Inspect plumbing (Reading:		DS .018 ODS .0	19	
✓ Take air gap reading	•	_				
✓Take air gap reading ✓Ensure brass shifting	g collars suspend					
= ' ' '	g collars suspend					

Eaton Brake						66-		
Grease all zerks		DC			000			
☐Inspect bearing ☐Check gap betw		DS						
Record Quantity	•	rtodding.	X gap		Y gap	Z	gap	
Check Eaton Bra		Number of discs						
		Drillers Console	·		At the Bra	-		
Function brakes	, ,			on & Hydrai	ulic Weekly	Check Sheet		
		ing (leaks, cracks, kinks,	•					
	•	ng system for correct ope	eration					
	ter for correct or	peration. Record GPM:						
Tolerances:	Qty of				Test	with 25 psi of air p	oressure	1
Disc Size	WC Discs	X new	X max (Adjustment)	Y new	Y min	Z new	Z min	
	1	0.12	0.54	2.75	2.31	_	_	
36	2	0.24	0.66	2.75	2.31		_	
	3	0.36 0.48	0.78 0.90	2.75 2.75	2.31	2.75	2.31	1
		35	Comments:		2.01	2.70	2.01	
Dry Coole		.: (Ill l::-l				78-		
= '		oing (leaks, cracks, kinks, t alarm for correct operat	-	still need to b	e installed?	□YES □N	10	
Inspect and rec		•						
Clean Strainer								
Check fresh wat		Inlet			Outlet			
Drawworl	KS:							
_			Drum Shaft:					
_	-	rs and clean screens.		ASS	ET#	15- 120		
✓Inspect oil lines.	. Check oil level	& oil quality. Clean pickup	p screens.					
✓Inspect clutches	for wear and ai	r pressure.						
✓Inspect tight me	ember teeth for v	· ·						
_		Jac	k bearing readings					
□ DS			0.003					
□ OD	s		0.001					
☐ Oth			low drum .003					
Oth	er	l	high drum .006					
Oth	ier		_					
			Comments:					
		air/water spea	r plugged-unplug s	pear andcha	inge seals			
Brake Link	age:							
✓ Grease all zerks	and insure linka	ige is tight.				15- 120		
☐Inspect break b	ands for cracks a	and wear.						
= '		sure bolts are tight.						
		s, record <u>thinnest</u>	50	4 11		000	411	
block measureme		e (brake bands, slack adj	Usters equalizer without	1" t removal)		ODS	1"	

In	put Shaft:			
✓Inspe	ect for leaking seals.		15- 120	0
		Jack bearing readings		
	DS	0.012		
	ODS	0.016		
	Other			
Ш	Other	Comments:		
		Comments.		
	utput Shaft:	at all austam		
⊡Geas	se all zerks and inspe	Jack bearing readings		
	DS	0.005		
	ODS	0.006		
	Other	low trnsmission .001		
	Other	high transmission .001		
		Comments:		
F	Rotary Counter S	Shaft:		
	se all zerks and inspe			
	•	Jack Bearings (Findings)		
	DS			
	ODS			
	Other			
		Comments:		
	Cat Shaft:			
Greas	se all zerks and inspe	t oil system.		
Greas	se cathead with 4 sho	ts of grease.		
		Jack bearing readings		
	DS		ASSET#MU	68-
	ODS		ASSET#BO	68-
	Other			
	Other			

Compound:			15- 120	
	Engine shafts:			<u> </u>
#1 DS	#1 ODS		•	
#2 DS	#2 ODS			
#3 DS	#3 ODS			
	Pump drive shaft:			
#1 DS	#1 ODS		-	
#2 DS	#2 ODS		<u>.</u>	
	Pump sheave shaft:			
#1 DS	#1 ODS		-	
#2 DS	#2 ODS			
Grease all zerks and inspec	-			
Inspect all chains for wear				
Ensure all oil pumps are w	orking properly.			
Change all filters and clear				
	Comments	ii .		1
Hook	 !	^	20	
Hook: Check oil in snubber.		ASSET#	28-	_
		ASSET #	67- COMBO	
Grease all zerks.			0050	
Visually check for cracks o				
Rotate hook and feel for s	moothness of roll.			
Ensure lock is working pro	· -			
	Comments	:		1
Kelly Spinner:	I			
Run spinner and check bea	arings.	ASSET#	69-	
Ensure air pressure is 90 F	_	7,002.1.		<u> </u>
Grease all zerks.				
	Comments	:		
Mud Pumps:				
Fill out pump inspection re	eport.	ASSET#	#1 38- 306	_
Check piston rods and rep	lace if worn.	ASSET#	#2 38- 307	
✓ Check rod clamps and rep	lace if worn.	ASSET #	#3 38-	
	Comments			-

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.	PSI			
Record bearing play on engine side of shaft.	Reading			
Record bearing play on pump side of shaft.	Reading			
Г	Comments	-		
Independent Pump Drive #2	1			
Inspect belts and sheave grooves for wear.	<u></u>			
Inspect chains and chain sprockets for wear.				
☐Inspect clutch and clutch drum.				
Check air lines and record PSI.	PSI			
Record bearing play on engine side of shaft.	Reading			
Record bearing play on pump side of shaft.	Reading			
	Comments:			
Over running slutch				
Over running clutch: Roll clutch and check oil.				
Check seals for leaks. Note: identify leak found in comme	ents section.)			
Service clutch and grease splines.	,			
Changed Oil				
	Comments:			
Pipe Spinners:				
Ensure Spinner is hung level with drill pipe.		ASSET#	41-	
Inspect drive chains and rollers for wear. (clean if necess	sary)			
Grease all zerks and check hanger spring.				
	Comments:			

Rotary Table:					
Pull top off and wash mud out of table.			ASSET #	44-	
Inspect through bore.					
Record main bearing play.		Reading			
Record pinion bearing play.		Reading			
Record backlash play in gears.		Reading			
Check quality of oil					
	Con	nments:			
Swivel:					
Clean mud accumulation around top seals	and install mud guard.		ASSET #	50- 233	
✓Roll check swivel for smoothness of roll.					
Record endplay readings. Radial run out.		Reading	end play .	003 runout .002	
Check quality of oil	0				
	Con	nments:			
Crown:					
Inspect grooves for wear.			ASSET#	10-	
Check for play in bearings.				_	
Check for smoothness of roll.					
Grease all zerks.					
_	Con	nments:			
Fail Safe System:					
Test System					
ST-80					
		Con	nments		
Test operation & check leaks					
Perform ST-80 Inspection Form					
Service ST-80 HPU					
Pacifice 31-00 ULO					
HPU					
		Con	nments		
Run HPU & check leaks					
✓ Change all filters					

Insure Rig Manager knows to change HPU oil once a year

