

rig 108

Engine Inspection

NAME	Broken Arrow				Work Order No.				
					JOB	TITLE	Mech	anic	
DATE MAINTEN	IANCE STARTED:	11	1/25/2018		COMPLE	TED _		11/25/20)18
EQUIPMENT DES		ENSETS w	/ KATO 12	05 KW GEN	IFRATORS				
SERIAL	. NUMBER:								
Travel Time to Rig	2	_FROM:	✓ HOME	SHOP					
Time from Rig	2	FROM:	✓HOME	SHOP					
Time at Rig:		_			ASSET # : #1	Engine	22-787		
						#1 Gen	24-409		
	ACTON I	TEMS			#2	Engine	22-786		
						#2 Gen	24-408		
					 #3	Engine _	22-788		
						#3 Gen	24-410		
					Other				engine
						Asset #		Position	gen
						Asset #		Position	
					Other_	Asset #		Position	engine
					<u> </u>	Asset #		Position	gen
					Other	Asset #		Position	engine
									gen
					Other	Asset #		Position	engine
						Asset #		Position	
					-	Asset #		Position	gen

Scheduled Engine Inspections

Rig: 10	08					
		Antifreeze:	☑Red ☐Gi	reen		
Date:11/25	5/2018	Freeze point:				_
	 1	·	If antifranza	is groon tost t	he NA-Cool level	-
Engine Position:	CAT	-	ii alillileeze	is green test t	ne na-cooriever	
Make: Model:	3512	-				-
Serial Number:	LLA00113	-	For 3512's:	Radiator	pass -50	
Asset Number:	22-787	-	1 01 00 12 0.	- radiator	P400 00	-
Hours:	46311	_	Δ	Aftercooler	pass -45	
Clean water passages Run overhead valvetra Grease fan hub bearir Inspect and clean rad Test shutdown system Check and clean auxil	-3512 individual gauge panels on water cooled turbos (one ain. ngs and idler bearings. iators. Note: Wash in oppisite n and install new belts.	e time only). de direction of air floor air stool air s	w. (You should	be able to see cl	, ,	diators fins.)
Generator position:	1		Torque conv	verter		
Make:	KATO		Oiler chain			
Model:	aa276730		Clutch size			
Asset Number:	24-409		Hrs since las	et P.M.		
KW:	1204	2-1	RPM: BRG	_		
	r wear.	46 O-Ring, (3)	Grease Fittir	ngs, Install N	ew Rubbers and	
overything looked go	od					

Scheduled Engine Inspections

Rig: 1	08	Antifreeze:	✓ Red Gre	een		
		Freeze point:				
Date: 11/25	5/2018					
			If antifreeze i	s green test t	he NA-Cool level	
Engine Position:	2	_				
Make:	CAT					
Model:	3512		For 3512's:	Radiator	pass -40	
Serial Number:	LLA00116					
Asset Number:	22-786		Af	ftercooler	pass -38	ı
Hours:	47487					
Clean water passages Run overhead valvetr Grease fan hub bearii Inspect and clean rad Test shutdown syster Check and clean auxil	r-3512 individual gauge panels h s on water cooled turbos (one ti ain. ngs and idler bearings. liators. Note: Wash in oppisite on m and install new belts.	me only). direction of air flow 508,3512).	w. (You should b	e able to see cl		liators fins.)
Generator position:	2		Torque conve	erter		
Make:	KATO		Oiler chain			
Model:	AA2767300	8	Clutch size			
Asset Number:	24-408		Hrs since last	t P.M.		
KW:	1204		RPM: BRG			
		nd Remove all 6 O-Ring, (3) T	Grease Fittin	gs, Install N	ew Rubbers and	

Scheduled Engine Inspections

Rig:	108	3	Antifreeze:	☑ Red	Green		
			Freeze point:				
Date:	11/25/2	2018	·				
				If antifreez	ze is green test	the NA-Cool level	
Engine Posit	tion:	3					
Make:		CAT					
Model:		3512		For 3512's:	Radiator	pass -38	
Serial Numb	er:	LLA00115					
Asset Numb	er:	22-788			Aftercooler	pass -40	
Hours:	_	47616					
		379, 398, 399.	anala haa haan silisans	to provent	atar anto.		
_		512 individual gauge pa		e to prevent wa	ater entry.		
_		n water cooled turbos	(one time only).				
Run overhe							
_	_	and idler bearings.					
✓ Inspect and	d clean radiat	ors. Note: Wash in opp	pisite direction of air flo	ow. (You shoul	ld be able to see o	learly through the radi	ators fins.)
✓ Test shutdo	own system a	and install new belts.					
✓ Check and	clean auxiliar	y oil filter.					
✓ Make sure	crank case fil	ters are being serviced	I (on 3508,3512).				
		Record belt #'s,	radiator fan brg.,io	der brg., sh	aft size, and pi	ulley sizes.	
Generator po	osition:	3	3	Torque co	nverter		
Make:	_	KA ⁻	то	Oiler chain			
Model:	_	AA276	73008	Clutch size	e		
Asset Numb	er:	24-4	410	Hrs since I	ast P.M.		
KW:		120	04	RPM:			
	_		2-	BRG			
		Review s	ervice procedures	for engines	s with ria perso	nell.	
✓ Grease and	l inspect for v			J	31		
_	•						
[✓]Clean gene	erator and blo	w out if necessary.					
Charle and	Cross D	riva Caunlinas Dl	un and Damaya al	l Crana Fi	ttings Install N	lavy Dychhara and (O Dina Vaarbill
Check and						lew Rubbers and (d Rubber Coupling	
	(0)1 = (5000 (tabbot, (1) c	rio-io o rang, (o)	1 0000 0140	oo i compoun	a rabber coupling	9,
			0				
			Com	ments:			
everything lo	ooked good	t e					
			Sidniddes (Riffing Gladallich) Poli Lierie efile	DAY ABBANCHETH	Malineable to see o	learly through the radi	iators fins)

ROT	ARY S	CREV	V AIR (COMPRES CHART	SSOR	MAINT	TENANCE
Rig	#	1(38	Oil Ty _l	ре	F	PAO-46
MODEL#	50DG	GF-TE	SERIAL#	05G068	3	ASSET#	2-368
HRS	52′	132	W/O#			DATE	11/25/2018
COMPANY	U	NIT DRILLI	NG	TECHNICIAN		RANDAL	L RAINS
		Des	scription	of work and p	parts use	ed	
NO				FLUSHED OIL	SYSTEM		
YES				CHANGED	OIL		
YES				CHANGED OIL	FILTER		
YES				CHANGED AIR	FILTER		
YES				CHANGED SEP	ERATOR		
YES				CLEANED RAI	DIATOR		
NO			AΓ	DDED NEW OIL SA	AMPLE VAL	VE	
			everyt	hing looked g	jood		

ROT	ARY S	CREV	V AIR (COMPRES CHART	SSOR	MAINT	ENANCE
Rig	#	1(08	Oil Ty	ре	F	PAO-46
MODEL#	50DG	GF-TE	SERIAL#	05L069)	ASSET#	2-376
HRS	41	65	W/O#			DATE	11/25/2018
COMPANY	UI	NIT DRILLII	NG	TECHNICIAN		RANDAL	L RAINS
		Des	scription	of work and	oarts us	ed	
NO				FLUSHED OIL	SYSTEM		
YES				CHANGED	OIL		
YES				CHANGED OIL	. FILTER		
YES				CHANGED AIR	FILTER		
YES				CHANGED SEP	ERATOR		
YES				CLEANED RA	DIATOR		
NO			ΑD	DED NEW OIL SA	AMPLE VAL	.VE	
			every	thing looks go	ood		



RIG 108

Pump Inspection

NAME	CASPER INSPECTION	ON TEAM		
JOB TITLE:	mechanics	_	Work Order No.	
DATE MAINTENANCE STARTED:	11/25/2018	_	COMPLETED:	11/25/2018
EQUIPMENT DESCRIPTION:				
SERIAL NUMBER:		_	#1 Asset <u>38-284</u> Make Model	1600
Travel Time to Rig	1hr	From: □HOME	#2 Asset <u>38-282</u> Make	
Time at Rig:	12hrs	— □SHOP	Model	1600
Travel Time from Rig	1hr	To:	Mako	
		ACTON ITEMS	i	

Company/Division:				Asset #	38-284	
Rig:		108				
Pump#:1						
Field Inspection Report -		Make:		Mode	l: 1600	
Recommended Running Clearances		Inches				
		Min.	Max.	Actual	General	
Crosshead to slide - Left		.030	.045	0.035	Check all oil lines	✓
Crosshead to slide - Center		.030	.045	0.035	Check all tied Bolts	✓
Crosshead to slide - Right		.030	.045	0.035	Drain & check Cleanouts	✓
Main Bearing - Left		.005	.020	0.012	Check and clean, gear end	
Main Bearing - Right		.005	.020	0.007	with diesel if needed	
Pinion Shaft Bearing - Left		.002	.015	0.006	Pony Rod Alignment	
Pinion Shaft Bearing - Right		.002	.015	0.007	Check pony rods for cracks	✓
Crosshead Pin Bearing - Left		.002	.005	0.003	and wear (replace if necessary)	
Crosshead Pin Bearing - Center		.002	.005	0.002	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	0.006	Check clamps for wear	✓
Connecting Rod to Eccentric Bearing -	CTN	.002	.020	0.008	(replace if necessary)	
Connecting Rod to Eccentric Bearing -	RH	.002	.020	0.005	Check all bearings w/ mirror	✓
Oil Pump Pinion to Main Gear - Backla	sh	.010	.025	0.018	for pitting and flaking	
Pinion Shaft to Main Gear - Backlash		.010	.050	0.036	Check all oil pump screens	>
Bull Gear Wear				good	Check pillow block bearings	
Pinion Gear Wear				good	on independent pump	
Extension Rods				good	On inspection replace pony	✓
					rod seals (Regardless if the	
	Com	ments:			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 a	nd Gauge		Oil pressure and Gauge	V
Check crosshead's for cracks		Oil Filter			Check pony rod wiper if equipped	✓
at pony rod clamp		Oil spray bar fo	or crossheads		if not equipped with wipers get parts	
Check pony rod clamp		Check to see i	f correct pony		to correct	
on bolts on crosshead's		rods are instal	led by gauging		Check to see if baffle plates	\ \
Loosen pony rod clamp bolts and		distance betwe	een it and oil		are doweled in pump	
tighten pony rod then retorque bolts		stop plate.				
		Oil pump Scre	en			
		If new floaters	are not there get			
		parts to install	floating seals			
						_

Rigs		Individual	Pump Insp	pections		
Pump#:2	Company/Division:			Asset #	38-282	
Make: Model: 1600	Rig:	108				
Inches I	Pump#:2					
Min. Max. Actual General	Field Inspection Report -	Make:		Mode	il: 1600	
Min. Max. Actual General	Decommended Dunning Clearences	Inches				
Crosshead to slide - Left	Recommended Running Clearances		Mov	Actual	Conoral	
Crosshead to slide - Center	Crosshead to slide - Left			T		
Crosshead to slide - Right						_
Main Bearing - Left .005 .020 0.010 Check and clean, gear end will deself in eeded Main Bearing - Right .005 .020 0.009 with dieself in eeded Philon Shaft Bearing - Left .002 .015 0.006 Pony Rod Alignment □ Crosshead Pin Bearing - Left .002 .015 0.007 Check pony rods for cracks ☑ Crosshead Pin Bearing - Left .002 .005 0.002 and wear (replace if necessary) Crosshead Pin Bearing - Center .002 .005 0.003 Check pistor rods for cracks ☑ Connecting Rod to Eccentric Bearing - LH .002 .020 0.008 Check clamps for wear ☑ Connecting Rod to Eccentric Bearing - RH .002 .020 0.008 Check admys for wear ☑ Connecting Rod to Eccentric Bearing - RH .002 .020 0.008 Check all oil purp serings writter ☑ Oil Pump Pinion to Main Gear - Backlash .010 .050 .027 Check all oil purp sereens ☑ Bull Gear Wear						
Main Bearing - Right						
Pinion Shaft Bearing - Left	-				–	
Pinion Shaft Bearing - Right						П
Crosshead Pin Bearing - Left						
Crosshead Pin Bearing - Center	• •				-	
Crosshead Pin Bearing - Right					` '	V
Connecting Rod to Eccentric Bearing - LH						
Connecting Rod to Eccentric Bearing - CTN						V
Connecting Rod to Eccentric Bearing - RH Oil Pump Pinion to Main Gear - Backlash Oil 0.025 Oil Pump Pinion to Main Gear - Backlash Oil 0.025 Oil Pump Pinion to Main Gear - Backlash Oil 0.050 Oil Pump Pinion to Main Gear - Backlash Oil 0.050 Oil Pump Pinion to Main Gear - Backlash Oil 0.050 Oil Pump Pinion Shaft to Main Gear - Backlash Oil 0.050 Oil Pump Pinion Shaft to Main Gear - Backlash Oil 0.050 Oil Pump Pinion Shaft to Main Gear - Backlash Oil 0.050 Oil Pump Pinion Shaft to Main Gear - Backlash Oil 0.050 Oil Pump Pinion Shaft to Main Gear - Backlash Oil Oil Pump Screen Oil Pump Pinion Shaft to Main Gear - Backlash Oil Oil Pump Screen Oil Pump Pinion to Main Gear - Backlash Oil Pump Pinion Shaft to Main Gear - Backlash Oil Pump Pinion to Main Gear - Backlash Oil Pump Pinion to Main Gear - Backlash Oil Pump Screen Oil Pump Pinion to Main Gear - Backlash Oil Oil Pump Screen Oil Pump Pinion to Main Gear - Backlash Oil Pump Screen Oil Pump Pinion to Main Gear - Backlash Oil Pump Screen Oil P					-	
Oil Pump Pinion to Main Gear - Backlash Pinion Shaft to Main Gear - Backlash Pinion Shaft to Main Gear - Backlash Pinion Shaft to Main Gear - Backlash Pinion Gear Wear Extension Rods Comments: Comme						V
Pinion Shaft to Main Gear - Backlash Bull Gear Wear Pinion Gear Wear Extension Rods Comments: Continetal Emsco Continetal Emsco Continetal Emsco Continetal E		.010	.025	0.016		
Bull Gear Wear good Gheck pillow block bearings 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) The continental Emisco Oil pressure and Gauge Oheck crosshead's Oil pressure and Gauge Oil pressure and Gauge Oheck pony rod viper if equipped if not equipped with wipers get parts to correct Oheck to see if correct pony on bolts on crosshead's Oil pressure and oil distance between it and oil stop plate. Oil pump Screen Oil	·	.010		0.027		V
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) National Gardner Denver Continental Emsco	Bull Gear Wear			good	, ,	
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	Pinion Gear Wear			good	on independent pump	
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	Extension Rods			good	On inspection replace pony	V
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					rod seals (Regardless if the	
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 Oil pressure and Gauge	C	omments:			rig says they have already	
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					been changed seals still	
use silicone unless need to fill a void. (do not use to excess because it gets into gear end) National Gardner Denver Continental Emsco					need to be checked)	
a void. (do not use to excess because it gets into gear end) National Gardner Denver Continental Emsco					replace gaskets if need do not	
National Check troughs Check crosshead's for cracks at pony rod clamp On bolts on crosshead's Loosen pony rod then retorque bolts Oil pump Screen If new floaters are not there get parts to install floating seals Dil gardner Denver Continental Emsco Chort continental Emsco Check pony rod clamp Oil pressure and Gauge					use silicone unless need to fill	
National Check troughs Check crosshead's for cracks at pony rod clamp Check to see if correct pony on bolts on crosshead's Loosen pony rod then retorque bolts Check pony rod then retorque bolts Check to see if correct Oil pressure and Gauge Check pony rod wiper if equipped if not equipped with wipers get parts to correct Check to see if baffle plates are doweled in pump Check to see if baffle plates are doweled in pump Check to see if baffle plates are doweled in pump					a void. (do not use to excess	
Check troughs Oil pressure and Gauge Check crosshead's for cracks at pony rod clamp Check pony rod clamp Check pony rod clamp Check to see if correct pony on bolts on crosshead's Loosen pony rod clamp bolts and tighten pony rod then retorque bolts Oil pressure and Gauge Check pony rod wiper if equipped if not equipped with wipers get parts to correct Check to see if correct pony rods are installed by gauging distance between it and oil stop plate. Oil pump Screen If new floaters are not there get parts to install floating seals					because it gets into gear end)	
Check crosshead's for cracks at pony rod clamp Check pony rod clamp Check pony rod clamp Check to see if correct pony on bolts on crosshead's Loosen pony rod clamp bolts and tighten pony rod then retorque bolts Oil Filter Oil spray bar for crossheads Check to see if correct pony rods are installed by gauging distance between it and oil stop plate. Oil pump Screen If new floaters are not there get parts to install floating seals			Gardner Denve		Continental Emsco	
at pony rod clamp Check pony rod clamp Check to see if correct pony on bolts on crosshead's Loosen pony rod clamp bolts and tighten pony rod then retorque bolts Oil spray bar for crossheads Check to see if correct pony rods are installed by gauging distance between it and oil stop plate. Oil pump Screen If new floaters are not there get parts to install floating seals	Check troughs	Oil pressure a	nd Gauge		Oil pressure and Gauge	
Check pony rod clamp on bolts on crosshead's 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	Check crosshead's for cracks	Oil Filter			Check pony rod wiper if equipped	\checkmark
on bolts on crosshead's 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	at pony rod clamp	Oil spray bar f	or crossheads		if not equipped with wipers get parts	
Loosen pony rod clamp bolts and tighten pony rod then retorque bolts Oil pump Screen	Check pony rod clamp	Check to see	if correct pony		to correct	
tighten pony rod then retorque bolts Stop plate. Oil pump Screen If new floaters are not there get parts to install floating seals	on bolts on crosshead's	rods are instal	lled by gauging		Check to see if baffle plates	\checkmark
Oil pump Screen If new floaters are not there get parts to install floating seals	Loosen pony rod clamp bolts and	distance betw	een it and oil		are doweled in pump	
If new floaters are not there get parts to install floating seals	tighten pony rod then retorque bolts	stop plate.				
parts to install floating seals		-			_	
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Rig Inspection

NAME	CASPER INSPEC								
JOB TITLE			MECH	MECHANIC					
DATE MAINTEN	ANCE STARTED:	11/2	5/2018	COMPLETED	11/25/2018				
EQUIPMENT DESCR	IPTION:								
SERIAL NUMBER:			_ ASSE	T#:					
Travel Time to Rig	3HRS	FROM:	Пноме	SHOP					
Time at Rig:	30HRS								
Time from Rig	3HRS	FROM:	Пноме	SHOP					
		ACTO	N ITEMS						

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

Rig: 108						
Date: 11/25/20	118					
	Scheduled Rig Ins	pection Chec	k List			
Air Hoist:]					
Check oil in air motor.	•		#1 ASSET	27- 465		
✓ Check grease in gear case.			#2 ASSET	27- 530		
✓Grease throttle valve.			#3 ASSET	27- N/A		
✓Check brake system for wea	ar.					
		Comments:				
	EVERYTHING I	OOKED REALL	Y GOOOD			
Blocks:	1					
✓ Check grooves for wear.	4		ASSET#	5- 51		
✓ Check smoothness of roll.			ASSET#	67-		
✓Check for play in bearings.				COMBO		
Ensure bolts are in place.						
✓Grease all zerks.						
<u> </u>		Comments:				
BL	OCKS JUST CAME BACK FRO	OM FOREMANS	AFTER THE RI	GS 5 YEAR		
Drekee	1					
Brakes:	Hydromat	ic Brakes:				
✓Jack bearings.			ASSET#	66- 115		
✓Inspect couplings.	DS 0.0	05	ODS	0.006		
✓ Grease all zerks.	-					
		Comments:				
NEW BRAKE BANDS WERE INSTALLED AN THE OLD ONE HAD GOTTEN INTO THE FLANGE A 1/16"						
	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 Ensure vents are in place an	•					
Grease all zerks.	a oldani					
Inspect bearing clearance	DS	0	ODS_			
		Comments:				
		N/A				

	ease all zerks	,.							
Inspect bearing clearance			DS			ODS			
Check gap between reaction plates		tes Reading	g: <u>X</u> gap	Υ (gap	Z g	ар		
Red	cord Quantity	y of discs		scs					
Che	eck Eaton Bra	ake Temp Gauge		ole		At the Brake			
∃Fur	nction brakes	s Auto Safety Sys							
olerar				Follow Eato	on & Hydrau		Check Sheet rith 25 psi of air p	ressure	
	Disc	Qty of WC	100	X max					1
	Size	WC Discs	X new	(Adjustment)	Y new	Y min	Z new	Z min	
Г		1	0.12	0.54	2.75	2.31	_	_	1
	36	2	0.24	0.66	2.75	2.31	-		2
		3	0.36	0.78	2.75	2.31	2.75	2.31	4
		4	0.48	0.90 Comments:	2.75	2.31	2.75	2.31	
				Comments.					
				N/A					
	Dry Coo	ler:					78-		
TFIU	ish Dry Coole						, 0		
	ean Strainer	,							
Che	eck water Pro	essures	Inlet		c	Outlet			
	Drawnia								
		rke							
	Drawwoi	rks:		Drum Shaft:					
√Gre			rs and clean screens	Drum Shaft:	ASSE	Т#	15- 86		
	ease all zerks	s. Change all filte	rs and clean screens.		ASSE	Т#	15- 86		
√Ins	ease all zerks	s. Change all filters. Check oil level	& oil quality. Clean picku		ASSE	Т#	15- 86		
√Ins	ease all zerks	s. Change all filte	& oil quality. Clean picku		ASSE	Т#	15- 86		
√Ins √Ins	ease all zerks spect oil lines spect clutches	s. Change all filters. Check oil level	& oil quality. Clean pickur pressure. wear and grease.	ip screens.	ASSE	Т#	15- 86		
√Ins √Ins	ease all zerks spect oil lines spect clutches	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur pressure. wear and grease.		ASSE	Τ#	15- 86		
√Ins √Ins √Ins	ease all zerks spect oil lines spect clutches	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur r pressure. wear and grease. Jac	ip screens.	ASSE	Τ#	15- 86		
√Ins √Ins √Ins	ease all zerks spect oil lines spect clutche: spect tight m	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur r pressure. wear and grease. Jac 0.0	up screens.	ASSE	Τ#	15- 86		
√Ins √Ins √Ins	ease all zerks spect oil lines spect clutches spect tight me	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur r pressure. wear and grease. Jac 0.0	up screens. Sk bearing readings 108 DRUM SHAFT	ASSE	Τ#	15- 86		
√Ins √Ins √Ins	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur r pressure. wear and grease. Jac 0.0	up screens. Sk bearing readings 108 DRUM SHAFT	ASSE	T#	15- 86		
√Ins √Ins √Ins	ease all zerks spect oil lines spect clutches spect tight me	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur r pressure. wear and grease. Jac 0.0	up screens. Sk bearing readings 108 DRUM SHAFT	ASSE	T#	15- 86		
√Ins √Ins	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur r pressure. wear and grease. Jac 0.0	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT	ASSE	T#	15- 86		
√Ins √Ins √Ins	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other Other	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur r pressure. wear and grease. Jac 0.0	up screens. Sk bearing readings 108 DRUM SHAFT	ASSE	Τ#	15- 86		
√Ins √Ins √Ins	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other Other	s. Change all filter s. Check oil level of s for wear and ai	& oil quality. Clean pickur r pressure. wear and grease. Jac 0.0	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT	ASSE	Τ#	15- 86		
Insulation	ease all zerks spect oil lines spect clutche: spect tight m DS ODS Other Other Other	s. Change all filter s. Check oil level of s for wear and ai ember teeth for v	& oil quality. Clean pickur r pressure. wear and grease. Jac 0.0	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT	ASSE	T#	15- 86		
Insulation Insulation	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other Other Other	s. Change all filter s. Check oil level of s for wear and ai ember teeth for v	& oil quality. Clean pickur pressure. wear and grease. Jac 0.0 0.0	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT	ASSE	T#			
✓Ins ✓Ins ✓Ins ✓Ins	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other Other Other	s. Change all filter s. Check oil level of s for wear and ai ember teeth for o	& oil quality. Clean pickur pressure. wear and grease. Jac 0.0 0.0	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT	ASSE	T#	15- 86		
✓Ins ✓Ins ✓Ins ✓Ins	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other Other Other	s. Change all filter s. Check oil level of s for wear and ai ember teeth for v	& oil quality. Clean pickur pressure. wear and grease. Jac 0.0 0.0	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT	ASSE	Τ#			
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Insurance Insura	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other Other Other ease all zerks spect break beeck brake blek	kage: s and insure linka	& oil quality. Clean pickur pressure. wear and grease. Jac 0.0 0.0	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT Comments:			15- 86		
Ins	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other Other Other ease all zerks spect break besek brake bit heck brake burement.	kage: s and insure linkatouck bolts and ensible kinds and ensible	& oil quality. Clean pickur pressure. wear and grease. Jac 0.0 0.0 0.0 ge is tight. and wear. sure bolts are tight. s, record thinnest block	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT Comments:	1 1/4"			1 1/4"	
Ins	ease all zerks spect oil lines spect clutches spect tight m DS ODS Other Other Other ease all zerks spect break besek brake bit heck brake burement.	kage: s and insure linkatouck bolts and ensible kinds and ensible	& oil quality. Clean pickur pressure. wear and grease. Jac 0.0 0.0 0.0 ge is tight. and wear. sure bolts are tight. s, record thinnest block	ck bearing readings 108 DRUM SHAFT 113 DRUM SHAFT Comments:	1 1/4"		15- 86	1 1/4"	

	Input Shaft:			
✓Ins	spect for leaking seals.		15- 86	
	50	Jack bearing readings		
✓	DS	0.008		
	ODS	0.01		
	Other		<u> </u>	
Ш	Other	Comments:		
		LOOKS GOOD		
	Output Shaft:	I		
✓Gr	ease all zerks and inspect	oil system. Jack bearing readings		
V	DS	0.007		
7	ODS	0.009		
	Other	0.009	<u>—</u>	
	Other		<u>—</u>	
	Otnei	Comments:		
		LOOKS GOOD		
	Determ Counter C			
[]Cr	Rotary Counter S rease all zerks and inspect	<u></u>		
[√]GI	ease all zerks and inspect	Jack Bearings (Findings)		
V	DS	0.004		
V	ODS	0.004		
	Other			
	Other			
	Other			
	Other			
		Comments:		
		EVERYTHING LOOKED GOOD		
	Cat Shaft:	1		
√Gr	rease all zerks and inspect	s oil system.		
	ease cathead with 4 shots			
		Jack bearing readings		
\checkmark	DS	0.009	ASSET#MU	68- 273
✓	ODS	0.006	ASSET#BO	68- 115
	Other			
	Other			

Engine shafts:	Compound:			15- 86	
#2 DS #3 DS #3 DS Pump drive shaft: #1 DS #1 DS #1 DS #2 DS Pump sheave shaft: #1 DS #1 DS #1 DS #1 DS #2 DS Pump sheave shaft: #1 DS #1 DS #1 DS #2 DS #2 DS Pump sheave shaft: #1 DS #1 DS #2 DS #2 DDS #2 DDS #2 DDS #3 DDS #4		Engine shafts:			
#3 DS #3 ODS Pump drive shaft: #1 DS #1 ODS #2 DS #2 ODS Pump sheave shaft: #1 DS #1 ODS #2 ODS Grease all zerks and inspect oil system. Inspect all chains for wear. Ensure all of pumps are working property. Change all filters and clean screens. Comments:	#1 DS	#1 ODS			
#1 DS	#2 DS	#2 ODS			
#1 DS #2 DS #2 ODS Pump sheave shaft: #1 DS #1 ODS #2 ODS Pump sheave shaft: #1 DS #2 DS #2 ODS	#3 DS				
#2 DS #2 ODS		Pump drive shaft:			
Pump sheave shaft: #1 DS #1 DS #2 DS #2 ODS Grease all zerks and inspect oil system. Inspect all chains for wear. Ensure all oil pumps are working property. Comments: Comments:	#1 DS	#1 ODS			
#1 DS #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: N/A	#2 DS				
#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: N/A Hook: ASSET # 28- ASSET # 67- Grease all zerks. COMBO Visually check for cracks or wear. Rotate hook and feel for smoothness of roll. Ensure lock is working properly. Comments: N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. ASSET # #1 38- ASSET # #2 38- ASSET # #2 38- ASSET # #2 38- ASSET # #3 38- Comments:		•			
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. N/A	#1 DS				
Inspect all chains for wear. Ensure all oil pumps are working properly. Change all filters and clean screens.	_	#2 ODS			
Ensure all oil pumps are working properly. Change all filters and clean screens. N/A	Grease all zerks and inspect oil system.				
Comments: N/A Hook: Check oil in snubber. Grease all zerks. N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. Comments: ASSET # #1 38- ASSET # #2 38- ASSET # #3 38- Comments:	Inspect all chains for wear.				
N/A Hook: Check oil in snubber. Grease all zerks. Comments: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Kelly Spinner: Run spinner and check bearings. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check rod clamps and replace if worn. Comments: ASSET # 138- ASSET # 28- ASSET # 67- COMBO COMBO ASSET # 69- ASSET # 69- ASSET # 138- ASSET # 238- ASSET # 28- ASSET # 28- ASSET # 138- ASSET # 28- ASSET # 28- ASSET # 138- ASSET # 238- ASSET # 338- ASSET # 338- Comments:	Ensure all oil pumps are working properly.				
N/A Hook: Check oil in snubber.	Change all filters and clean screens.				
Hook: Check oil in snubber.		Comments:			
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: N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. Comments: Comments: ASSET # #1 38- ASSET # #2 38- ASSET # #3 38- Comments:		N/A			
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: N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. Comments: Comments: ASSET # #1 38- ASSET # #2 38- ASSET # #3 38- Comments:	Heels		ACCET #	20	
Grease all zerks. Nisually check for cracks or wear. Rotate hook and feel for smoothness of roll. Ensure lock is working properly. Comments: N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. Comments: ASSET # #1 38- ASSET # #2 38- ASSET # #3 38- Comments:			-		_
			ASSET#		
Rotate hook and feel for smoothness of roll. Ensure lock is working properly. Comments: N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. ASSET # #1 38- Check rod clamps and replace if worn. Comments:				0020	
Ensure lock is working properly. Comments: N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. ASSET # #1 38- ASSET # #2 38- ASSET # #3 38- Comments:	☐Visually check for cracks or wear.				
Comments: N/A Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. ASSET # #1 38- Check rod clamps and replace if worn. ASSET # #2 38- ASSET # #3 38- Comments:	Rotate hook and feel for smoothness of roll.				
Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. ASSET # #1 38- Check rod clamps and replace if worn. ASSET # #2 38- ASSET # #3 38- Comments:	Ensure lock is working properly.				
Kelly Spinner: Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. Check rod clamps and replace if worn. Comments: ASSET # #1 38- ASSET # #2 38- ASSET # #3 38- Comments:		Comments:			
Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. ASSET # #1 38- ASSET # #2 38- ASSET # #3 38- Comments:		N/A			
Run spinner and check bearings. Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. ASSET # #1 38- ASSET # #2 38- ASSET # #3 38- Comments:	Kelly Spinner				
Ensure air pressure is 90 PSI. Grease all zerks. Comments: N/A Mud Pumps: Fill out pump inspection report. Check piston rods and replace if worn. Check rod clamps and replace if worn. Comments: Comments:	_		ACCET#	60	
Comments: N/A Mud Pumps: Fill out pump inspection report. ASSET # #1 38- Check piston rods and replace if worn. ASSET # #2 38- Check rod clamps and replace if worn. ASSET # #3 38- Comments:			A33E1#	09-	_
N/A Mud Pumps: Fill out pump inspection report.					
Mud Pumps: Fill out pump inspection report.	Grease all Zerks.	Comments:			
Mud Pumps: Fill out pump inspection report.					
□ Fill out pump inspection report. □ Check piston rods and replace if worn. □ Check rod clamps and replace if worn. □ Check rod clamps and replace if worn. □ Check rod clamps and replace if worn. □ Comments: □ Comments:		N/A			
Check piston rods and replace if worn. ASSET # #2 38- Comments: ASSET # #3 38-	Mud Pumps:				
Check rod clamps and replace if worn. ASSET # #3 38- Comments:	Fill out pump inspection report.		ASSET#	#1 38-	
Check rod clamps and replace if worn. ASSET # #3 38- Comments:	Check piston rods and replace if worn.			#2 38-	-
Comments:	Check rod clamps and replace if worn.				
ON PUMP INSPECTION REPORT		Comments:			
		ON PUMP INSPECTION	REPORT		

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			
	Comments			
	N/A			
Independent Pump Drive #2	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			
	Comments:			
Over running clutch:				N/A
Roll clutch and check oil.				
Check seals for leaks. Note: identify leak found in comments	s section.)			
Service clutch and grease splines.				
✓Changed Oil				
	Comments:			
EVER	RYHTING LOOKED G	OOD		
Pipe Spinners:				
✓Ensure Spinner is hung level with drill pipe.		ASSET#	41-	
Inspect drive chains and rollers for wear. (clean if necessary	")			
✓Grease all zerks and check hanger spring.				
	Comments:			
EVEF	RYTHING LOOKED G	OOD		

Rotary Table:					
Pull top off and wash mud out of table.			ASSET#	44- 66	
Inspect through bore.					
Record main bearing play.		Reading	UF	P-DOWN .010	
Record pinion bearing play.		Reading	SII	DE-SIDE .010	
Record backlash play in gears.		Reading		N-OUT .015	
✓ Check quality of oil					
	Cor	nments:			
	EVERYTHIN	G LOOKS GO	DOD		
Swivel:					
Clean mud accumulation around top seals	and install mud guard.		ASSET#	50- 177	
Roll check swivel for smoothness of roll.					
Record endplay readings. Radial run out.		Reading		0.012	
✓ Check quality of oil		9			
	Cor	mments:			
J	IUST GOT BACK FRO	M FOREMAN	IS FOR 5YEAR		
Crown:					
✓Inspect grooves for wear.			ASSET#	10- 108	
Check for play in bearings.			110021	.0 .00	
Check for smoothness of roll.					
Grease all zerks.					
	Cor	mments:			
	JUST GOT BACK FR	OM FOREM	ANS 5 YEAR		
Fail Safe System:					
Test System					
OT 00					
ST-80		Con	nments		
Test operation & check leaks					
Perform ST-80 Inspection Form					<u></u>
Service ST-80 HPU					
HPU					
Run HPU & check leaks		Con	nments		
LIKUII HYU & CHECK IEAKS					
Change all filters					

Insure Rig Manager knows to change HPU oil once a year

