

RIG MAINTENANCE REPORT #1 of 12

Rig#:	Make/Model:	Serial #:
Drilling Crew:		Service Technician:
Inspection Date:		Location:
Component:	OK	Needs repair
Get maintenance and safety data from suppliers with lube data on: rig, mud pump, compressor, truck, engine, transmission, all clutches, all hydraulic items (pumps, motors, filters), swivel, etc.		
Steam clean equipment. Visually inspect for broken members, cracks in welds, leaks of power transmission boxes, leaks of hydraulic fluid and fuel leaks.		
Hold safety meeting around the rig, pay special attention to the new comers in our field. Never allow horseplay ever!		
Duplex. Check oil and grease. Note what oil is used in power end. Use a synthetic (white) grease that is water resistant on all lube points. Check drain plugs, remove during freezing. Adjust packing glands. Inspect power end components, fluid end parts.		
Prime pump properly, start up and listen with equipment stethoscope for proper internal sounds. Check for leaks. Note piston size and SPM. Note rod taper type and valve type.		
Inspect the shear relief valve (safety valve) for proper operation and correct nail size. Inspect the pressure gauge and flowline valves and hoses. Inspect the mudhose safety chains for proper installation and inspect the surge chamber. Look at the hammer unions.		
Replace quick coupler seal on suction line, inspect suction hose, foot valve and strainer. Review your suction pit design.		
Swivel. Inspect and adjust bearings. Lube swivel with water resistant synthetic lube. Inspect seal rings or packing set. Adjust packing properly according to manufacturer's guidelines.		
Check swivel mounting assembly and lube track roller bearings if installed.		
Inspect wash down/mud mixing hose. Inspect and clean the mud hopper. Review system to hold the suction strainer off the bottom of the pit.		
Centrifugal Pump: Inspect the main shaft seal. Lubricate with synthetic water resistant grease. Adjust packing set carefully. Too tight will burn shaft and seal. Lube the shaft bearings with the same grease.		
Note: Vertically installed pumps that operate at 2000 RPM or above will need oilbath lubrication.		
Remove the involute and inspect the impellar for proper condition. Use new gaskets on flanges.		
Check the duplex and/or centrifugal pump drive. Inspect hydraulic motor, mounting and chain coupling. Lube coupling. Make sure all rotating parts are covered by heavy guard.		

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RIG MAINTENANCE REPORT #2 of 12

Rig#:	Make/Model:	Serial #:
Drilling Crew:		Service Technician:
Inspection Date:		Location:

Component:	OK	Needs repair
Centrifugal pump priming system. Check cut-off valves to be airtight. Foot valve to be water tight. Check diaphragm air pump and hose connections. If rig is equipped with an air compressor, consider installation of an air primer system.		
Drill Stem: Inspect those threads. All of them! Kelly, subs, drill pipe, drill collars, and bits. Kelly to swivel sub may be LH or RH. If righthand, this connection may be spot welded. Check this. Chemically clean and wire brush threads. Inspect, cover boxes and pins with pipe dope compound. Do not use grease. Check all hoisting plugs.		
Check drill pipe for tooljoint OD wear and check midbody tube for worn spots. Check drillpipe and collars to be straight.		
Check elevators and links for wear. Lube all pins.		
Confirm that elevators match the drillpipe style. Do not ever lift 18° shoulder pipe with square shoulder elevators.		
Check break-out tongs, consider oversize pins to correct wear in jaws. Lube all pins. Clean, inspect, or replace the tong dies.		
Clean, inspect all pipe wrenches. Lube the threads with a silicon dry spray. Replace worn heels and jaws.		
Check slips and replace rollers or slipdogs if needed.		
Check the master bushing for wear in the taper.		
Check snatch block and lifting block bearings and pins for wear. Check sheave grooves to match wireline size. Lube the bearings.		
Check the kelly drive bushing and pins or keys for wear. Replace pins frequently.		
Dis-assemble roller type kelly drive bushings and inspect roller size, bearings, and pins. Lube bearings. Note make, model, and size.		
Rotary tables: Drain lube, inspect for contamination. Check end play of pinion bearings. Check back lash of gear set. If water and sand is found in table, dis-assemble the table. Check all bearings for wear. Replace all seals and inspect seal surfaces. Repair if worn. Do not pre-load the tapered roller bearings. Caution: Threads above the ring gear are generally left hand. Do not use “EP” style gear lube if the table has brass components. Fill with fresh oil and lube all grease fittings. Note lube specifications.		

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RIG MAINTENANCE REPORT #3 of 12

Rig#:	Make/Model:	Serial #:
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Inspection Date:		Location:

Component:	OK	Needs repair																																				
<p>Inspect the wireline. Note the size and construction and length for each drum below.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%;">Size</th> <th style="width: 15%;">Length</th> <th style="width: 10%;">Construction</th> </tr> </thead> <tbody> <tr><td>Kelly Drum</td><td></td><td></td><td></td></tr> <tr><td>Trip Drum</td><td></td><td></td><td></td></tr> <tr><td>Sandreeel</td><td></td><td></td><td></td></tr> <tr><td>Winch #1</td><td></td><td></td><td></td></tr> <tr><td>Winch #2</td><td></td><td></td><td></td></tr> <tr><td>Pulldown</td><td></td><td></td><td></td></tr> <tr><td>Tong C Balance</td><td></td><td></td><td></td></tr> <tr><td>Guy Lines</td><td></td><td></td><td></td></tr> </tbody> </table> <p>Recommended Construction – Kelly and Trip Lines: 19x7 Bailing Line: 6x19 or 6x26 with wire center Winch Lines: 6x36 with wire center Guylines: 6x36 with wire center</p>		Size	Length	Construction	Kelly Drum				Trip Drum				Sandreeel				Winch #1				Winch #2				Pulldown				Tong C Balance				Guy Lines					
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<p>Wireline clips. Check for proper installation clip size, number of clips, turn back of ropes and torque in ft. lbs. Never put a saddle on a dead horse! All saddles go on the long end and the U-bolts go around the short end. Threads must be dry.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 15%;">Size</th> <th style="width: 15%;">Quantity</th> <th style="width: 15%;">Turnback</th> <th style="width: 15%;">Torque Ft Lbs</th> </tr> </thead> <tbody> <tr><td>3/8</td><td>2</td><td>7"</td><td>45</td></tr> <tr><td>7/16</td><td>2</td><td>7"</td><td>65</td></tr> <tr><td>1/2</td><td>3</td><td>12"</td><td>65</td></tr> <tr><td>9/16</td><td>3</td><td>12"</td><td>95</td></tr> <tr><td>5/8</td><td>3</td><td>12"</td><td>95</td></tr> <tr><td>3/4</td><td>4</td><td>18"</td><td>130</td></tr> <tr><td>7/8</td><td>4</td><td>19"</td><td>225</td></tr> <tr><td>1</td><td>5</td><td>26"</td><td>225</td></tr> </tbody> </table>	Size	Quantity	Turnback	Torque Ft Lbs	3/8	2	7"	45	7/16	2	7"	65	1/2	3	12"	65	9/16	3	12"	95	5/8	3	12"	95	3/4	4	18"	130	7/8	4	19"	225	1	5	26"	225		
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Rig#:	Make/Model:	Serial #:
Drilling Crew:		Service Technician:
Inspection Date:		Location:
Component:	OK	Needs repair
Crownblock: Inspect the mounting of the crown. Nuts, bolts, or welds. Inspect sheaves for wear in groove and check groove size. Side wear indicates a side load. Disassemble all sheaves, inspect bearings, and pins. Reassemble and lube. Install sheave guards.		
Mast: Inspect all mast pins for wear and correct installation. If rusted, remove, clean, and install pins. Lube before installation. Mast hardware nuts and bolts. Torque check all bolts. This equipment operates above your head. Only use grade 5 nuts/bolts.		
Inspect all components mounted inside the mast. Hydraulic cylinders, wireline anchors, swinging tong brackets. Pulldown components and racking platforms. Check platform pipe spacer bars for cracked welds. Check all mast member welds and replace bent or missing mast members. Never use "pipe" to repair the mast. Check with your OEM to get steel and welding specs. Look close for wireline cuts and repair at once. Once again, check mud/air flow lines, safety chains. Lube often.		
Electric wiring. Check all wiring in the mast and on the rig. Repair or replace damaged wires. Electric sparks, even from 12 Volt systems, can and will start fires.		
Check electric connections. Especially in coastal areas. Clean connections and spray with a protective coating such as PDRP (Sprayon #710). Check supply of spare fuses.		
Check mast/ladder structure and safety climbing device. Inspect body harness.		
When drilling near any airport, check on regulations requiring a red flashing light on top of your mast. Install if required.		
Check and service the weight indicator.		
Note mast hookload capacity and number of lines strung to the block: Hookload cap _____lbs on _____ lines.		
Note date of weight indicator calibration:		
Instruct driller, helper, and tool pusher on proper way to raise and lower a mast.		
Inspect mast locking devices for proper operation.		
Inspect the mast supporting structure: hinge post, drill frame, mechanical jack system, and hydraulic jacks. Replace rusted load support members to avoid structural failure.		
Drawworks: Inspect drum clutches. A clutch that needs a cheater pipe needs immediate repair. Smell for burned plates. After disassembly, check that hub and back plate friction surface is exactly square 90° with the centerline. Take skim cut if required. Inspect splines.		

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Rig#:	Make/Model:	Serial #:
Drilling Crew:		Service Technician:
Inspection Date:		Location:

Component:	OK	Needs repair
On mechanical clutches, check and lube sliding cones, brass collars, engagement rollers and adjusting ring threads. Check guards.		
On air clutches, check the air tube or diaphragm. Check for proper adjustment of clutch and check pneumatic system for leaks. Check air pressure at nearest point to clutch. Note _____ PSI.		
On drawworks clutches, make sure that the sliding cone is a NON-LOCKING style. Never use a locking cone on a drawworks clutch.		
Check the clutch for oil or grease contaminants. Find the source and fix the leak. On equipment with oil in the drum to lube the drum bearings, clean the assembly and use double sealed bearings as replacement. These do not require oil in the drums.		
Clutch linkage. Adjust linkage for best mechanical advantage. Replace worn pins and consider drilling the yokes to use oversize pins. Double check the installation of cotter pins.		
Inspect the brake bands for adequate and efficient friction material. Replace grease or oil soaked linings.		
Inspect brake drums for smooth surface. Check diameter for adequate flange thickness and roundness. A wobble on the brake lever indicates a warped or egg shaped drum.		
Inspect brake linkage same as clutch linkage.		
Inspect equalizer mechanism for dual band brakes and anchor bolt of single bands. Lube all pins with dry spray-on lube. Clean off all grease that may get onto friction surface.		
Disc brakes. Inspect pads for proper thickness and condition. Inspect rotors for smooth surface.		
Auxiliary brakes. Water brakes, Parmac's, Hydromatic, etc. Check for external leakage. Check operating temperature. A cool brake does not absorb energy. Replace internal rotors and stators. A good brake gets up to 200°F with 100°F or less input water temperature. Check shaft bearings for endplay. Check grease lube and seals. Replace worn bearings and seals. Do not preload tapered roller bearings. Check brake internal pressure. This must be less than 25 PSI.		
Install guards over all rotating drivelines and chain drives.		
Check the jaw clutch teeth and sliding splines on shaft.		

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Rig#:	Make/Model:	Serial #:
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Inspection Date:		Location:
Component:	OK	Needs repair
Electric retarders. Check electric connections and potentiometer. Check if coils get extremely hot. Lube bearings on shaft. Install expanded metal guards over the retarder. Do not block air flow. Check input drive to auxiliary brake. Lube drive lines and check for balance. Check lube in one-way overriding clutch or check inline clutch for proper condition.		
Check to be sure that hydromatic supply line valve has a 1/2" hole drilled through to avoid total cut-off. Make sure there is no cut-off valve in the discharge line from the brake.		
Catheads. Check the drum for groove. Turn the drum smooth. Do not weld grooves for repair. The harder material will grab your rope. Check the condition of the rope splitter (divider). Inspect catline ropes, chains, and wirelines.		
Inspect cathead wireline drum (chain drum). Check the clutch and clutch operating mechanism.		
Check the cathead mounting and the drive mechanism and jaw clutch		
Bevel gear boxes or right angle drives. Used on drawworks, pulldowns, etc. Check for endplay of pinion shaft. Drain lube and inspect for contamination. If you find steel or brass shavings, disassemble the box and inspect gear set, bearings and seals. Check shaft seal surfaces. Inspect the wear pattern of the gear set. Do not pre-load the tapered roller bearings. Fill with fresh lube to level. Make sure the vent system works properly on all enclosed drives.		
Installation of bevel gear box in between two drums of two clutches. Typically the gear box is mounted to the frame and the two shaft ends are held by pillow blocks. This must be perfectly aligned and shimmed. The bolts must slide in without pulling on the shaft. Once bolted in, the shaft must rotate without friction. Shaft end bearings can not have any play radially. Lube all pillow blocks.		
Drawworks chains. Check for stretched or worn chains and sprockets. Chains need to be snug but not tight. Use a dry moly type lube on chain and sprockets. Check master links.		
Inspect drawworks frame or mounting structure for damage by sloppy chains. Repair cut frame parts today.		
Check chain idler assemblies or other chain tightening device.		
Torque check the mounting bolts that bolt the drawworks to the rig frame.		
Guard. Repair the drawworks guard and replace missing parts. The guard should cover all rotating parts and also cover the brake bands to keep them dry.		

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RIG MAINTENANCE REPORT #7 of 12

Rig#:	Make/Model:	Serial #:
Drilling Crew:		Service Technician:
Inspection Date:		Location:
Component: SAFETY SAFETY SAFETY SAFETY	OK	Needs action
Inspect rig before clean-up. Make notes of leaks. Steam clean and inspect with drilling crew.		
Inspect crews safety gear. Hard hats, shoes, glasses, ear plugs, gloves, and mast climbing system. Check uniforms or normal work clothing.		
Inspect special safety gear such as plastic cover-alls, boots, oxygen mask, etc.		
Check truck emergency gear, flares and fire extinguisher. Trailer units must have one on the trailer.		
Check the emergency first aid kit located on the rig and check the water container and cups to be absolutely clean.		
Check the communication system for proper condition, phones, two-way radios, or other. Check on spare batteries.		
Check hand tools for proper condition, inspect hammer and shovel handles, pipe wrenches, etc. Inspect punches and chisels. Look at slip handles, kelly bushing rings, etc.		
Check start, kill, and emergency kill controls on the rig daily.		
Inspect heavy equipment lifting aids such as a hydraulic winch.		
Check warning and caution plates and control function data plates to be legible, then assure that the control and plate match.		
Check the night working lights.		
Check control panel gauges to be in working order.		
Inside the office, conduct a safety meeting. Review the past accident records. Have printed meeting program for every attendant to sign and date at end of meeting. As a meeting guide refer to: Drilling Safety Guide booklet by NDA; Video on safe drilling by Mobile-Foremost; Chapter 28 of "Transfer of Technology" by John L'Espoir; Chapter 7&8 of "Basic Procedures" by Will Acker III		
Inspect safety latches on block hooks, rod hooks, and snatch blocks.		
Inspect safety locks/latches on toolboxes, auger racks, platforms, and mud pans. Check mud hose safety chains.		
Relief valves: Mud pump, compressors, Hydraulics, pneumatics		
Heat shields/guards over mufflers, coolers, exhaust systems		
Wireline and clips. Do a torque check.		
All guards over rotating or moving equipment.		
Mast crown light, crown cover, and mast locks.		
Grease lines/hoses, check other end.		
Hydraulic tank cut-off valve locks.		
Battery box covers and battery straps and posts.		
Air compressor dump valve muffler		
Seals on flanged or dual-wall drill pipe		

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Inspection Date:		Location:

Component:	OK	Needs repair
Check the drawworks cooling fans to cool the brakes for proper installation and operation.		
Inspect all hydraulic winches. Drain the gear lube and inspect it for contaminants. If water or shavings are found, take the winch apart and check for internal damage.		
Inspect the internal spring applied, hydraulic released brake discs. A winch will brake only in one direction, make sure wireline is spooled correct way.		
Inspect the winch mounting bolts to the frame. Check seals for leakage.		
Hydraulics. Inspect the fluid for proper level in tank. Take fluid sample and have it inspected by a lab. Check tank, hoses, valves, filters for leaks. Replace worn or frayed hoses. Note number of filters and elements. Replace elements frequently.		
Check relief valves to be operational and note the relief setting. While in normal drilling operation take temperature of the system and check flowline items temps, especially the control valves and relief valves. A bypassing valve will get extremely hot. Fix or replace this problem item at once, 225° F is very hot.		
Check control valves for leaks around spools and for proper action. Spool seals are o-rings. The detent or spring centering cartridges may need replacement. Check handles, replace broken levers.		
Inspect fitting leaks closely. Are the threads matching threads? Pipe threads need to be cleaned and a sealing compound is recommended. JIC fittings do not require a sealing compound.		
Check all hydraulic gauges to be operational with clean lenses. Record normal operating pressures and or temps.		
Check tank cut-off valves. Gate valves must be fully open and wire locked to avoid closing of the valve caused by vibration. A partially closed valve will starve your pump. Fully junk in 2 minutes.		
Bundle all hydraulic hoses and keep them away from rotating drivelines, chains, sprockets, and truck tires. Note that tires can move up and down – and sideways too!		
Check hoses that connect sliding items such as rotary tables and tilting items such as mast cylinders, to be clear and free in both extreme positions.		
Hydraulic leaks. Find all of them and fix them.		

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Component:	OK	Needs repair
Hydraulic pumps and motors. Check seal cavity drainline. It must be open and flow below 15 PSI. At 25 PSI, the shaft seals will blow out.		
Hydrostat systems. Note pump, motor, and filter part numbers. Note type of fluid used. Locate the charge pump pressure gauge and note operating pressure. If charge pressure drops too low, the pump de-strokes. Service all filters in this system: in-tank suction screen, charge flow filter, and return line filter.		
Check, lube, and adjust mechanical linkage to hydrostatic pump.		
Check component and tank temperatures on the hydrostat circuits.		
Pneumatics. Check the air control system for leaks. First build up pressure and turn all engines off. Listen. Then operate one control at a time and listen for the air to flow and stop. Upon release of the control, the pressure bleeds off. On drum clutches, the QRV quick release valve or dump valve will release the internal clutch air fast. This is very noisy. Note the system pressure.		
Check the safety valve for proper operation.		
On units that use the truck air brake system as an air supply, check for installation of a pressure protection valve on the air tank.		
Drain the air tank into a clear container and inspect the fluid for rust, oil or other contaminants. Condensation water is clear.		
Check the lube in the compressor.		
Check the drive belts, lower drive and the compressor mounting hardware.		
Inspect inline components such as cut-off valve, pressure regulator, inline oiler, and antifreezer. Check the airline filter.		
Inspect all control valves for proper function. Inspect air cylinders for operation and make linkage adjustments as needed.		
Electrical. Check batteries of deck engines and or truck engine. Check battery disconnect switch and battery cables. Check battery box and mounting.		
Lifelines. Check cable switches or other emergency kill switches daily for proper operation.		
Check supply of fuses for truck and rig equipment.		
Inspect the compressor drive assembly.		

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Component:	OK	Needs repair
Drill air compressor. Screw type. Only use synthetic fluid. Check fluid for contaminants. Inspect coalescent filter, make sure grounding system is correct. Inspect and or replace the air intake filter and fluid filters. Check the safety valve for proper operation. Inspect all gauges and the safety shut-down system. Inspect the air intake throttling system. Clean the cooling core thoroughly.		
Drill air compressor. Piston type. We recommend to use a synthetic lubricant. Check lube oil for contaminants. Inspect or replace air intake filters and lube oil filter. Check the safety valve. Clean the cooling core thoroughly.		
Check the inline oiler system for DTHH drilling. Only use an approved vegetable oil. Do not use petroleum products.		
Check the water/foam injection system for proper operation. Check the valves for rust.		
Deck engines. Drain the lube oil and inspect for contaminants. Check coolant fluid for level and freezing point. Change all filters: air, fuel, and lube. Inspect all gauges. Note operating temperature and lube oil pressure. Check throttle linkage.		
Inspect and adjust mechanical PTO clutch.		
Inspect fluid level in fluid coupling or torque convertor. Inspect for leaks.		
Trucks. Engines see above. Inspect transmissions, clutch and differentials for proper lube. Grease all suspension items. Check tires. Inspect brakes and running lights. Check the steering systems components. Check exhaust system.		
Trailers. Inspect tires. Check air brakes, hoses, valves, and glad hands. Replace leaking seals. Inspect wheel bearings for proper lube. Check running lights.		
Auger rigs. Check augers for worn or torn flights. Inspect the auger pins, drive caps, complete lead assembly and connecting bolts for proper length. Check the auger drive coupling. Lube the bearings.		
Inspect the MOYNO pump, drive and plumbing for proper operation.		
Inspect the frame slides, sideways and fore and aft. Lube often.		
Inspect the high torque part of the mast and auger drive.		
Reverse drilling. Inspect the water swivel and air inlet swivel or combination thereof. Lube those packing sets.		
Replace the seals on flanged pipe and inspect that the flange surfaces are 100% flat. Replace bent bolts.		
Inspect the vacuum chamber nozzles for wear. Inspect the inside of this tapered housing for washouts.		

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Component:	OK	Needs repair
Inspect the ODEX or TUBEX components used to drill and set casing simultaneously.		
Check dual wall drillstring seals.		
Inspect casing hammers, mounting, controls, and plumbing.		
Core drilling. Inspect the core drill string, core barrels, and core bits.		
Check the weight control system to have a constant weight on the bit.		
Note rotary speeds during normal core drilling.		
Lube and inspect high speed swivel, rotary table, or top drive.		
Power-Take-Off: Drain the lube oil and check for contamination. If water or steel shavings are found, disassemble the units and inspect the bearings. Replace all seals.		
Inspect the chain and sprockets. Check splines, sliding fork, and shifting collar. Inspect the poppet detent to work properly. On a gear type PTO check the gears.		
Check the PTO shifting mechanism and adjust linkage as necessary. In case of air shift, check the cylinders for proper plumbing and adjustments.		
For 3TA92 auxiliary transmission with PTO provide lock to avoid shifting the wrong way.		
Drivelines, universal joints. Lube all journal bearings and inspect for wear. Torque check all nuts and bolts. Threads must be NF (National Fine) type. Lube splines and inspect for excessive wear especially on long stroke slip joints.		
Check drivelines for balancing weights and timing marks.		
Check all transfer boxes, gear boxes, reversing gear boxes, etc. for external leaks, change lube oil and inspect backlash on gears or chain slap in chain boxes. Check for vibration, knocking, or other noises.		
Tension all V-belt drives. Inspect individual belts or bands for hard spots and cracks. Check all pulleys for proper wear on groove sides. Lube idler bearings and adjust idler roller positioning. Lube overhung load adapter.		
Check that all drivelines, V-belt drives, and open chain drives are properly guarded.		
Topdrive rigs. Inspect the topdrive swivel and gear box. Change lube, inspect pivot points, and lube all grease zerks.		
Inspect the hoist/lowering system of the topdrive. Inspect all cylinders: hoist, jib boom, transverse slide, head tilt and more.		
Inspect the pipe handling system such as carrousel and single joint loader systems very critically. Inspect lifting slings/chains.		

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Check lube supplies on rig and in yard:	OK	Order
Please follow OEM instruction: Following are our general lube recommendations. Go find the old oilcans, use them.		
ENGINE OIL: 10W40 or 20W50 Detergent Oil All engines, truck, deckmounted, gen sets, pump units. Use old oil to lube wirelines.		
CHAIN OIL: Do NOT use multi viscosity or detergent oils. Use only straight weights SAE 30; SAE 40; SAE 50. All chain drives, or combo chain/gear boxes, chain PTO's, chain driven mud pumps ends, transfer and compound cases. High speed centrifugal pumps.		
GEAR OIL: SAE 85/140 Do not use "EP" classified lubes in boxes with brass parts. All gear drives, transmission, rear-ends or trucks, rotary tables, pulldown transmissions, bevel gear boxes, gear driven mud pump ends, triplex pumps. Planetary gear drives, winches, drillheads, worm gear drives, truck steering systems, and axles. Overhung load adapters.		
DTHH Lubrication: Do NOT use Rock Drill Oil or other petroleum products, only use vegetable based oils, such as MATEX RDO 302. All down the hole hammers and bits. Also use this on pump suction hose quick coupler seals.		
PISTON COMPRESSOR: Synthetic such as Mobil Rarus 827 SHC. Leroi compressors, IR and other piston type compressors.		
SCREW COMPRESSORS: Synthetic such as Mobil Rarus 824 SHC Sullair screw compressors, all other screw compressors.		
OTHER SYTHETICS: Mobil SHC 626: Hub City gear boxes, Gear PTO's and hyd. systems Mobil SHC 630: High speed topdrives, chain boxes, gear boxes Mobil Jet Oil II: One way clutches		
DEXRON III Funk transmissions, Allison convertors/transmission		
HYDRAULIC SYSTEMS: Conoco Super Hydraulic MV 32 Medium and low pressure hydraulic systems		
HYDROSTATIC SYSTEMS: Conoco Super Hydraulic 46 High pressure hydraulics for topdrives, rotaries, centrifugal drives etc		
PNEUMATIC CONTROL AIR SYSTEMS: Winter: Methyl alcohol Summer: SAE – 10W oil Air Clutch controls, air throttle systems, fluid couplings on engines		
GREASE: Water resistant synthetic grease. Swivel bearings and packing sets. Mud pump lubricated glands, centrifugal pump shaft seals. Kelly bushing rollers, Moyno pumps and Parmac brakes.		
GREASE: Excellent quality grease only. All grease zerks, except those mentioned above. Chain couplings, crown blocks, pillow blocks, sliding control rods, rotating brake shafts. Spline shaft adapter cavities.		
PIPE DOPE: Use BESTOLIFE products or equal. Do not use grease on drillpipe threads on water wells. Drillpipes, collars, subs, bits, kelly.		
SPRAY ON DRY LUBE: LPS Force 842 Dry Moly Lube Kelly pins, open chain and sprockets, pulldown chains, pivot pins on tongs, mast hinge and cylinder pins. Screw jacks. Brake band pins.		
WAGNER WF 100 Load cell type weight indicators. Available in quarts. To install use hand pump #WH 103.		

Chart creation by John L'Espoir, President of Enid Drill Systems, Inc. (EDSI). For additional information, contact EDSI by phone 580-234-5971 or fax 580-234-5980 or purchase your copy of

"Transfer of Technology" today.

LUBE OFTEN

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