

MechLOK™ Drill Pipe Swivel

MECHANICALLY LOCKABLE. FOR ERD WELL LINER INSTALLATIONS.

The MechLOK™ Drill Pipe Swivel can be run on any string where potential problems exist in reaching Target Depth due to frictional issues, typically in long, horizontal extended reach drilling (ERD) wells.

A drill-string deployed swivel tool, our MechLOK™ Swivel facilitates the rotation of the drill pipe above the liner in an ERD well, reducing drag, redistributing friction and mitigating helical buckling of the work-string. It also increases the available weight to push completions and liners to Target Depth in ERD wells.

Our MechLOK™ Swivel can be locked and prevented from swivelling immediately by a simple, mechanical manipulation of the drill-string. Once locked, the tool can be rotated to the right or left, in compression or in tension. Using this unique, patented single tool mitigates the HSE risk involved in handling multiple roller bearing subs or alternative drag reducing tools.

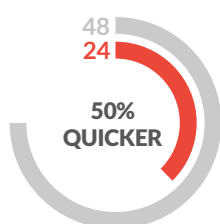
THE BENEFITS

- Reduces the need for heavy-weight drill pipe or collars
- Protects items from potentially harmful torque
- Immediate locking enables mechanical release of setting tools when required
- No drop ball, no hydraulic concerns
- Ensures completions or liners get to TD
- Maximises ROI

IN NUMBERS

■ Conventional Technology

■ MechLOK™ Drill Pipe Swivel



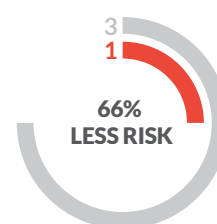
24 HOURS SAVED

Using the MechLOK™ Swivel guarantees getting to Target Depth safely on the first attempt.



\$450,000 SAVED

By running a completion or liner in and ERD well in half the time.



REDUCED HSE EXPOSURE

Personnel injury risk drops dramatically due to the minimal manpower requirement.

MechLOK™ Drill Pipe Swivel Data Sheet

Tool Specifications	MechLOK™ 3.5" Tool Parameters		MechLOK™ 5.5" Tool Parameters	
	Imperial Data Figures	Metric Data Figures	Imperial Data Figures	Metric Data Figures
Drill Pipe Size	3.500" - 4.500"	88.90mm to 114.30mm	5.000" - 5.875"	127.00mm to 149.23mm
Tool O.D.	5.625"	142.30mm	8.250"	209.60mm
Tool I.D.	1.830in	46.50mm	2.60"	66.00mm
Tool Length Extended	144" / 12.00ft	3.65m	151" / 12.61ft	3.85m
Tool Length Compressed	134" / 11.15ft	3.40m	139" / 11.58ft	3.55m
Tool End Connections	To match drill-pipe connections		To match drill-pipe connections	
Max. Operating Temperature	350°F	175°C	350°F	175°C
Approximate Tool Weight	784lbs	356kg	1,686lbs	765kg
Internal Yield Pressure	13,500 psi	930 bar	12,500psi	860bar
External Collapse Pressure	11,000psi	760 bar	10,000psi	690bar
Tensile Yield of Tool	300,000lbs	135 metric tons	900,000lbs	410 metric tons
Compressive Yield of Tool	300,000lbs	135 metric tons	900,000lbs	410 metric tons
Max. Dog Leg of Tool	10° /100ft (6.125 hole)	10° /30m (155.60 hole)	10° /100ft	10° /30m
Operating Differential Pressure Rating	5,000psi	345bar	5,000psi	345bar
Bearing Life – Compression Load	(50,000lbs / 23 metric tons) 12hrs @ 50rpm		(125,000lbs / 57 metric tons) 12hrs @ 50rpm	
Bearing Life at 50,000lbs Compression Load	(20,000lbs / 9 metric tons) 50hrs @ 50rpm		(50,000lbs / 23 metric tons) 50hrs @ 50 rpm	
Recommended Rotary Speed	30 – 50rpm			
Max. ntermittent Rotary Speed	85rpm			
Method to Lock Swivel	100% Mechanical			
Locking Method (RH – Clockwise)	25 Rotations in Tension			
Max. Operating Torque Locked (RH or LH)	30,000 ft*lbs	40,800 Nm	40,000ft.lbs	54,235Nm
Max. Static Load on Bearings	125,000lbs (static) 60,000lbs (rotating)	57 metric tons (static) 27 metric tons (rotating)	325,000lbs (static) 150,000lbs (rotating)	147 metric tons (static) 68 metric tons (rotating)
Max. Casing Size to Deploy Tool	7.000" 29.0#	177.80mm 42.3kg/m	9.625" 53.3# & 9.875" 9.875" 62.8#	244.50mm 78.1kg/m & 250.83mm 91.6kg/m
Operating Range of Tool	0-35,000ft	0-10,670m	0-35,000ft	0-10,670m

• Nomenclature: # - Pounds per foot Patent Number: GB 2559273

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