

SSDS

High-Torque Connection

APPLICATIONS

Drillpipe connection when

- drilling torque exceeds the limits of the standard API connection
- tool joint ID needs to be larger, for reduced pressure loss through the drillstring and improved hydraulic efficiency
- tool joint and connection size needs to be smaller than standard API without compromising torsional strength or hydraulics

BENEFITS

- Improves drilling performance in aggressive drilling programs
- Increases hydraulic efficiency by accommodating a larger ID tool joint
- Reduces cost by allowing more tool joint wear, thus extending drillpipe service life

FEATURES

- Torsional strength approximately 30% to 40% greater than an equivalent API connection
- Option of tool joint ID larger than standard
- Double-shoulder design for improved torsional and hydraulic performance
- Rig handling procedures and makeup speed similar to an API connection

The SSDS* high-torque connection improves drilling performance by providing greater torque capacity than standard API connections, making it ideal for use in aggressive drilling programs. Improved flow rates can be obtained by using a larger-than-standard bore in the tool joint.

The double-shoulder design incorporates a primary external shoulder that serves as the connection sealing surface, and a secondary internal shoulder that serves as a mechanical stop and friction surface to provide additional resistance to torque. The design uses the same thread form and taper as an equivalent API connection size and has an extended profile to help balance contact forces between the two shoulders providing additional torsional strength for high-torque applications.

See your DRILCO representative for connection interchangeability.



SSDS pin

SSDS38 CONNECTION

Tool Joint		Make-Up Torque, ft.lbf	Torsional Yield, ft.lb	Pin Tensile Yield, lb
OD, in	ID, in			
4 3/4	2 7/16	18,066	30,110	708,063
	2 9/16	17,170	28,617	649,158
	2 11/16	15,543	25,905	587,308
4 7/8	2 7/16	19,795	32,992	708,063
	2 9/16	17,726	29,543	649,158
	2 11/16	15,543	25,905	587,308
5	2 7/16	19,795	32,992	708,063
	2 9/16	17,726	29,543	649,158
	2 11/16	15,543	25,905	587,308

SSDS40 CONNECTION

Tool Joint		Make-Up Torque, ft.lbf	Torsional Yield, ft.lb	Pin Tensile Yield, lb
OD, in	ID, in			
5 1/4	2 9/16	23,108	38,513	819,050
	2 11/16	20,821	34,702	757,200
	2 13/16	18,415	30,692	692,405
5 3/8	2 9/16	23,108	38,513	819,050
	2 11/16	20,821	34,702	757,200
	2 13/16	18,415	30,692	692,405
5 1/2	2 9/16	23,108	38,513	819,050
	2 11/16	20,821	34,702	757,200
	2 13/16	18,415	30,692	692,405

SSDS46 CONNECTION

Tool Joint		Make-Up Torque, ft.lbf	Torsional Yield, ft.lb	Pin Tensile Yield, lb
OD, in	ID, in			
6	3	34,382	57,303	1,048,427
	3 1/8	31,370	52,284	976,268
	3 1/4	28,224	47,040	901,164
6 1/8	3	34,382	57,303	1,048,427
	3 1/8	31,370	52,284	976,268
	3 1/4	28,224	47,040	901,164
6 1/4	3	34,382	57,303	1,048,427
	3 1/8	31,370	52,284	976,268
	3 1/4	28,224	47,040	901,164

SSDS50 CONNECTION

Tool Joint		Make-Up Torque, ft.lbf	Torsional Yield, ft.lb	Pin Tensile Yield, lb
OD, in	ID, in			
6 3/8	3 1/4	46,427	77,378	1,268,963
	3 1/2	39,245	65,409	1,109,920
	3 3/4	31,480	52,467	939,096
6 1/2	3 1/4	46,427	77,378	1,268,963
	3 1/2	39,245	65,409	1,109,920
	3 3/4	31,480	52,467	939,096
6 5/8	3 1/4	46,427	77,378	1,268,963
	3 1/2	39,245	65,409	1,109,920
	3 3/4	31,480	52,467	939,096

SSDS55 CONNECTION

Tool Joint		Make-Up Torque, ft.lbf	Torsional Yield, ft.lb	Pin Tensile Yield, lb
OD, in	ID, in			
7	3 3/4	54,522	90,870	1,448,407
	3 7/8	50,823	84,705	1,358,577
	4	46,199	76,998	1,265,801
7 1/8	3 3/4	55,287	92,145	1,448,407
	3 7/8	50,823	84,705	1,358,577
	4	46,199	76,998	1,265,801
7 1/4	3 3/4	55,287	92,145	1,448,407
	3 7/8	50,823	84,705	1,358,577
	4	46,199	76,998	1,265,801

¹ Tables contain connection data for common tool joint sizes. Contact DRILCO for data on sizes not listed.

² Performance properties based on 120,000 psi yield strength tool joint material, and thread compound with 1.0 API friction factor. Torsional yield values shown in bold type indicate the connection is box weak in torsion. Make-up torque is based on 72,000 psi stress level.