CDS™

Command Double Shoulder Connection

Increased Torque Over API With Double Shoulder Connections

- Reach total depth faster
- Fully Interchangeable with generic API and API DS connections
- NS-1 approved double shoulder connection
- The secondary shoulder is a mechanical stop that reduces internal stresses at the pin and box connection

Command Tubular Products

commandtubular.com

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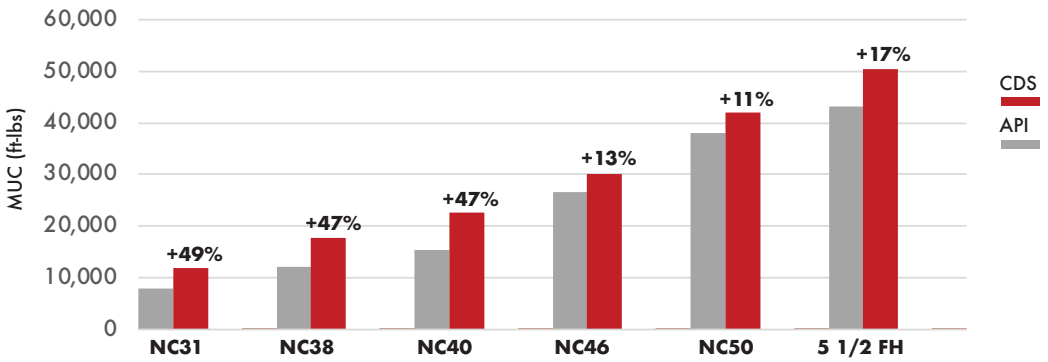
Improved Torque

The CDS™ has increased torsional yield strength due to the addition of a secondary shoulder and provides 11 to 49% more torque than API single-shouldered connections of the same dimensions. The secondary shoulder is a mechanical stop that reduces internal stresses at the pin and box connection allowing the connection to handle more torque. The increased torsional strength allows better performance in challenging well conditions such as deep or highly deviated wells.

CDS™ vs API Torque Benefit



Improved Hydraulic Efficiencies

The CDS connection has a smooth ID. The connection can be made with smaller OD's and larger ID's than an API connection with equivalent torque capacities. These characteristics improve the hydraulic efficiency. The smoother, larger ID of the connection also prevents cement and other items from becoming stuck in the tool joint.

Compatibility

The CDS connection can be made up with API numbered connections and other available double shoulder API connections. The chart below shows the performance capabilities of the CDS connection.

Operation and Service

The simplified licensing structure of the CDS connection does not require proprietary machine inserts and leverages over 50 licensee shops in all major operating regions around the world, reducing service costs. Command Tubular Products Field Service Representatives are available for on-location care and handling training to assist rig crews by providing expert knowledge on best practices.

Connection Type	Tool Joint OD (in)	Tool Joint ID (in)	Recommended Make-up Torque (ft-lbs)	Tensile Yield Strength (lbs)	Torsional Yield Strength (ft-lbs)
CDS 238PAC	2 7/8	1 1/2	4,100	215,000	6,300
CDS 238SLH90*	3 1/8	1 1/2	7,700	238,000	11,800
CDS 278PAC	3 1/8	1 1/2	5,900	288,600	9,100
CDS 26	3 3/8	1 3/4	5,600	319,100	9,300
CDS 278AOH	3 7/8	2 1/8	8,700	378,800	13,400
CDS 278SLH90	3 7/8	2 1/8	10,500	417,300	16,100
CDS 31	4 1/8	2	11,800	524,100	18,600
CDS 38	4 7/8	2 9/16	17,600	687,400	27,700
CDS 40	5 1/4	2 11/16	22,500	824,100	35,400
CDS 46	6 1/4	3 1/4	30,100	957,200	46,300
CDS 50	6 5/8	3 1/2	42,100	1,181,600	64,800
CDS 55	7	4	50,500	1,348,300	79,000
CDS 65	8	4 7/8	80,700	1,791,000	126,400

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