

EMPIRE T O O L

Heavy Weight Drill Pipe Specs

Size: 4.5"

Grade: 95ksi 41lb

Range: II (~9.5m)

Connection: DS40

Tube

	New		Premium	
OD	4.500 in	114.30 mm	4.138 in	105.09 mm
Wall thickness	0.906 in	23.02 mm	0.725 in	18.42 mm
ID	2.688 in	68.26 mm	2.688 in	68.26 mm
Torsional strength	71,300 ft-lbs	96,670 N-m	52,200 ft-lbs	70,774 N-m
80% Torsional strength	57,000 ft-lbs	77,282 N-m	41,800 ft-lbs	56,673 N-m
Tensile strength	972,000 lbs	432,367 daN	738,400 lbs	328,457 daN
Internal Pressure capacity	33,481 psi	230,843 kPa	26,785 psi	184,676 kPa
Collapse capacity	30,558 psi	210,690 kPa	27,459 psi	189,323 kPa
Cross sectional area	10.232 in ²	6,601 mm ²	7.772 in ²	5,014 mm ²
Section modulus	7.808 in ³	127,950 mm ³	3.347 in ³	54,848 mm ³
Polar section modulus	15.616 in ³	255,900 mm ³	6.694 in ³	109,695 mm ³

Tool Joint

Yield Strength	130,000	psi	896,319	kPa
OD	5.250	in	133.30	mm
ID	2.688	in	68.26	mm
Pin length	29.528	in	750.00	mm
Box length	26.575	in	675.00	mm
Torsional Strength	49,600	ft-lbs	67,249	N-m
Recommended Make-up Torque	29,800	ft-lbs	40,403	N-m
Min Make-up Torque	18,300	ft-lbs	24,812	N-m
Tensile strength	874,800	lbs	389,130	daN

Heavy-weight Assembly with Connection

Adjusted weight	41.00	lbs/ft	27.55	kg/m
Approximate length	31.17	ft	9.50	m
Fluid displacement	0.5853	gal/ft	0.007269	m ³ /m
Fluid capacity	0.2947	gal/ft	0.003660	m ³ /m
Drift size	2.4375	in	61.91	mm

While every effort has been made to insure the accuracy of the tables herein, this material is presented as a reference guide only. Empire Tool Company Ltd. cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended. All torques are based on a 1.0 friction factor.

Suite 2400, 333 7th Ave SW, Calgary AB T2P 2Z1

www.empiretool.ca

(877) 259-6589