



## Dual Circulation Sub - TT0710



### Description

The Dual Circulation Sub was designed to provide a means of circulation in an emergency situation if the string below the sub becomes plugged. It can also be used to bypass circulation through the mud motor to reduce unnecessary wear on the motor while circulating out of the hole.

### Operation

The sub has a rupture disc incorporated that will burst when a vast increase of pressure is created due to the string becoming plugged. This allows enough flow to pump a ball to the piston. An increase in pump pressure causes the brass shear screws to shear, allowing the ports to become exposed so adequate circulation can be continued. The sub is also used when the motor job is complete and circulation is required while tripping out of the hole. The sub is placed above the motor and circulation is again diverted through the port holes and unnecessary wear on the motor is eliminated.

Part Number	OD		ID		Length		Maximum Tensile Load		Maximum Torsional Yield	
	in.	mm	in.	mm	in.	cm	lbf	daN	ft-lbf	N-m
TT0710-168B	1.688	42.9	0.375	9.5	11.800	30.0	35,000	15,568	610	827
TT0710-175B	1.750	44.5	0.375	9.5	11.800	30.0	42,600	18,948	800	1,085
TT0710-181B	1.813	46.1	0.375	9.5	11.800	30.0	47,600	21,172	1,010	1,370
TT0710-213B	2.125	54.0	0.438	11.1	14.800	37.6	62,400	27,756	1,490	2,020
TT0710-225B	2.250	57.2	0.438	11.1	14.800	37.6	62,000	27,578	2,050	2,780
TT0710-288B	2.875	73.0	0.563	14.3	16.600	42.2	104,000	46,259	4,110	5,573
TT0710-313B	3.125	79.4	0.563	14.3	18.000	45.7	116,000	51,597	5,670	7,689