**Drill Pipe / Dril Collar Calculations**

Capacities (bbl/ft), displacement (bbl/ft), and weight (lb/ft) can be calculated from the following formulas :

*Weight (lb/ft) = displacement (bbl/ft) x 2747 lb/bbl*

Case : Determine the capacity (bbl/ft), displacement (bbl/ft), and

Weight (lb/ft) for the following :

Drill collar OD = 8.0 inch  
Drill collar ID = 2-13/16 inch

Convert 13/16 to decimal equivalent:

13 : 16 = 0.8125

0.007684 bbl/ft

*c. Weight (lb/ft) = 0.0544879 bbl/ft x 2747 lb/bbl*

*= 149.678 lb/ft*

**Rule of thumb formulas**

**Weight (lb/ft) for REGULAR DRILL COLLARS can be approximated by the following formula :**

Weight (lb/ft) = (OD2 inch — ID2 inch) 2.66

Case : Regular drill collars

Drill collar OD = 8.0 inch  
Drill collar ID = 2-13/16 inch  
Decimal equivalent = 2.8125 inch

Weight (lb/ft) = (8.02 — 2.81252) 2.66

= 56.089844 x 2.66

= 149.19898 lb/ft

**Weight (lb/ft) for SPIRAL DRILL COLLARS can be approximated by the following formula :**

Weight (lb/ft) = (OD2 inch — ID2 inch) 2.56

Case : Spiral drill collars

Drill collar OD = 8.O inch  
Drill collar ID = 2-13/16 inch  
Decimal equivalent = 2.8125 inch

Weight (lb/ft) = (8.02 — 2.81252) 2.56

= 56.089844 x 2.56

= 143.59 lb/ft