

Equipment No's: Ref. Enclosed page

Spec. No.: HWDP-3.5-04

### TECHNICAL SPECIFICATIONS

#### 3-1/2" OD Heavy-Weight Drill Pipe, 1340, NC-38 Conn's.

**New**
**Premium**

80% Remaining Body Wall

#### DESCRIPTION

 Type AISI-1340, 21.24#  
 Range 2  
 Conventional=welded T-J. / Integral=Monoblock Conventional

#### TUBE DATA

|                          |                   |                    |       |         |       |
|--------------------------|-------------------|--------------------|-------|---------|-------|
| Material grade           |                   | AISI-1340 (55 ksi) |       |         |       |
| Internal plastic coating |                   | NA                 |       |         |       |
| Tube body OD x ID        | inch              | 3,500              | 2,063 | 3,213   | 2,063 |
| Wall thickness, nominal  | inch              | 0,719              |       | 0,575   |       |
| Cross Sectional Area     | inch <sup>2</sup> | 6,280              |       | 4,764   |       |
| Polar Sectional Modulus  | inch <sup>3</sup> | 7,403              |       | 5,404   |       |
| Tensile yield pipe       | lbf               | 345 400            |       | 262 000 |       |
|                          | kN                | 1 536              |       | 1 165   |       |
| Torsional yield pipe     | lbf-ft            | 19 580             |       | 14 290  |       |
|                          | kNm               | 26,5               |       | 19,4    |       |
| 80% Torsional Yield      | lbf-ft            | 15 664             |       | 11 432  |       |
|                          | kNm               | 21,2               |       | 15,5    |       |

#### CONNECTIONS DATA

|                           |        |                      |       |         |       |
|---------------------------|--------|----------------------|-------|---------|-------|
| Connection type           |        | NC-38                |       |         |       |
| Stress Relief Grooves     |        | SRG / BB             |       |         |       |
| Material grade            |        | AISI-4145H (120 ksi) |       |         |       |
| Hardbanding               |        | Arnco-300XT          |       |         |       |
| OD x ID                   | inch   | 4,750                | 2,063 | 4,719   | 2,063 |
| B.S.R.                    | x : 1  | 1,83                 |       | 1,77    |       |
| Tensile yield tooljoint   | lbf    | 606 800              |       | 579 100 |       |
|                           | kN     | 2 699                |       | 2 576   |       |
| Torsional yield tooljoint | lbf-ft | 19 180               |       | 18 270  |       |
|                           | kNm    | 26,0                 |       | 24,8    |       |
| Make up torque (Max.)     | lbf-ft | 11 500               |       | 11 000  |       |
|                           | kNm    | 15,6                 |       | 14,9    |       |

#### OPERATIONAL DATA

|                                        |         |        |       |        |
|----------------------------------------|---------|--------|-------|--------|
| Tool-joint/Drill-pipe torsional ratio  |         | 0,98   |       | 1,34   |
| Drift diameter                         | inch    |        | 1,938 |        |
| Type of elevator shoulder              |         |        | 18°   |        |
| Burst pressure                         | psi     | 19 770 |       | 18 070 |
|                                        | Mpa     | 136    |       | 125    |
| Collapse pressure                      | psi     | 17 950 |       | 16 160 |
|                                        | MPa     | 124    |       | 111    |
| Adjusted weight                        | lbs/ft  |        | 26,5  |        |
|                                        | kg/mtr  |        | 39,4  |        |
| Approx weight each joint               | lbs     |        | 822   |        |
|                                        | kg      |        | 373   |        |
| Capacity                               | gal/ft  |        | 0,179 |        |
|                                        | ltr/mtr |        | 2,22  |        |
| Open end displacement                  | gal/ft  |        | 0,41  |        |
|                                        | ltr/mtr |        | 5,09  |        |
| Closed end displacement                | gal/ft  |        | 0,59  |        |
|                                        | ltr/mtr |        | 7,31  |        |
| Built In Length (shoulder to shoulder) | ft      |        | 31,0  |        |
|                                        | mtr.    |        | 9,45  |        |

Calculated using nominal OD &amp; ID. Safety &amp; Dope friction factor used: 1.0

Values herein is meant as guidelines only. Odfjell will not be held liable for any damage or injuries !

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# ODFJELL WELL SERVICES

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| String number: | Joints: | Individual serial numbers:                                      |                                                         |                                               |                                               |
|----------------|---------|-----------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| OWS-HWDP-3126  | 22      | OWS-<br>98688<br>102803<br>102815<br>102828<br>102833<br>102838 | 98689<br>102812<br>102816<br>102829<br>102834<br>102839 | 98690<br>102813<br>102817<br>102830<br>102836 | 98691<br>102814<br>102818<br>102832<br>102837 |