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|--|------|-----------------------------|-----------|
| * HYDROSTATIC TEST PRESSURE INDICATED APPLIES FOR COMPLETE REPLACEMENT. OWNER TO SPECIFY TEST PRESSURE FOR PARTIAL REPLACEMENT | | | |
| DESIGN CODE: | | EN13480-3 | |
| CONDITIONS | | PRESS (kPa) | TEMP (°C) |
| LINE CLASS: | N/A | DESIGN 4300 kPa (g) | 70 °C |
| LINE COMMODITY: | OIL | OPERATING 2700 kPa (g) | 50 °C |
| INSULATION: | NONE | HYDROSTATIC TEST PRESSURE * | _____ kPa |

| LEGEND | | | |
|--------|--------------------|-----|---------------------|
| AG | - ABOVE GRADE | RF | - RAISED FACE |
| BE | - BEVELLED END | SCH | - SCHEDULE |
| EL | - ELEVATION | SO | - SLIP ON |
| CL | - CENTRELINE | LR | - LONG RADIUS |
| DRG | - DRAWING | STL | - STEEL |
| TOE | - THREADED ONE END | TBE | - THREADED BOTH END |
| WT | - WALL THICKNESS | FW | - FIELD WELD |
| FLG | - FLANGE | WN | - WELDING NECK |
| FS | - FINISHED SURFACE | | |

PRELIMINARY

| PIPING DESIGNER DECLARATION | | |
|---|----------------|-------------------|
| I, THE UNDERSIGNED, BEING EXPERIENCED AND COMPETENT IN THE APPLICABLE FIELD OF PIPING DESIGN AS REQUIRED BY SANS 347 ANNEX B, DECLARE THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS REVISION OF THE DESIGN IS COMPLETE, ACCURATE AND COMPLIES WITH THE REQUIREMENTS OF THE APPLICABLE HEALTH AND SAFETY STANDARD. | | |
| DESIGN CODE: | EN 34580 | PR. ENGR. TECH |
| CONFORMANCE | SANS 347: 2012 | REGISTRATION NO. |
| HAZARD CATEGORY | II | REGISTRATION BODY |
| CONFORMITY ASSESSMENT MODULE | | DATE |

| MATERIAL LIST | | | | | |
|---------------|-----|-----------|--|------|--|
| ITEM No. | QTY | SIZE | DESCRIPTION | REV. | |
| 01 | 9m | 5" | PIPE 139,7 x 4,0 SMLS DIN 2448 AND DIN 17 175 ST 35.8 III | 0 | |
| 02 | 1m | 2" | PIPE 60,3 x 4,0 SMLS DIN 2448 AND DIN 17 175 ST 35.8 III | | |
| 03 | 2m | 1/2" | PIPE 20,5 x 2,5 SMLS DIN 2448 AND DIN 17 175 ST 35.8 III | | |
| 04 | 7 | 1/2" | PIPE COLD BEND 50 2.5mmWT DIN 2606 SMLS ST 35.8 III | | |
| 05 | 8 | 5" | ELL 90 DEG 1,50 4mmWT DIN 2605 ST 35.8 III | | |
| 06 | 2 | 2" | ELL 45 DEG 1,50 4mmWT DIN 2605 ST 35.8 III | 0 | |
| 07 | 1 | 5" | TEE STRAIGHT 4mmWT DIN 2615 ST 36.8 III | 0 | |
| 08 | 1 | 5" x 2" | TEE REDUCING 4mmWT DIN 2615 ST 36.8 III | 0 | |
| 09 | 1 | 6" x 5" | REDUCER CONC 4mmWT DIN 2616 ST 35.8 III | 0 | |
| 10 | 1 | 6" | FLG WN PN 64 RF BW 4.5mmWT DIN 2636 C22.3 | 0 | |
| 11 | 1 | 6" | GASKET PN 64 304 SS SP WND GRAFOIL 4,5MM | 0 | |
| 12 | 8 | M30x150mm | STUD BOLT FORM L/N DIN 2510 24Cr Mo5 W/ DIN 2510 C35 NUTS | 0 | |
| 13 | 6 | 5" | FLG WN PN 64 RF BW 4.5mmWT DIN 2636 C22.3 | 0 | |
| 14 | 6 | 5" | GASKET PN 64 304 SS SP WND GRAFOIL 4,5MM | 0 | |
| 15 | 6 | M27x130mm | STUD BOLT FORM L/N DIN 2510 24Cr Mo5 W/ DIN 2510 C35 NUTS | | |
| 16 | 8 | M27x130mm | STUD BOLT FORM L/N DIN 2510 24Cr Mo5 W/ DIN 2510 C35 NUTS | | |
| 17 | 2 | 2" | FLG WN PN 64 RF BW 4.5mmWT DIN 2636 C22.3 | | |
| 18 | 2 | 2" | GASKET PN 64 304 SS SP WND GRAFOIL 4,5MM | | |
| 19 | 8 | M20x110mm | STUD BOLT FORM L/N DIN 2510 24Cr Mo5 W/ DIN 2510 C35 NUTS | | |
| 20 | 1 | 2" | GLOBE NP 64 RF OS&Y TYPE DIN 3202 C22.8 BODY BB | | |
| 21 | 2 | 1/2" | GLOBE PN 64 BW OS&Y TYPE DIN 3202 C22.8 WB | | |
| 22 | 2 | 5" | CHECK PN 64 RF TYPE DIN 3202 15Mo3 BODY 13CrMo STEEL TRIM BB | | |
| 23 | 4 | 1/4" | ELL 90 DEG 1,50 4mmWT DIN 2605 ST 35.8 III | | |
| 24 | 1 | 1/4" | WELDED STUB | | |
| 25 | 5m | 1/4" | PIPE 42.2 x 3.56 SMLS DIN 2448 AND DIN 17 175 ST 35.8 III | | |
| 26 | 1 | 3 WAY | SAFETY BLOCK | | |
| | | | | | |
| | | | | | |

| PIPE SUPPORT MATERIAL | | | |
|-----------------------|----|------|------------------------------------|
| 06 | 1m | 1/8" | PIPE 273,0 x 9mm ERW SANS 719 GR B |
| -- | -- | -- | -- |
| -- | -- | -- | -- |
| -- | -- | -- | -- |

- GENERAL NOTES:
- WELDRODS FOR ROOTS & FILLER RUNS AND FOR CAPPING.SEE???
 - F.W. - DENOTES FIELD FIT WELD PLUS 150mm FOR SITE ADJUSTMENT.
 - UNDERGROUND PIPING TO BE COATED & WRAPPED AS PER INSPECTION DOC. No.????
 - RADIOGRAPHYSEE ?????
 - WELDHARDNESS200.....BHN
 - PAINTING TO PAINT PROCEDURE No.SEE ???
 - WELDING PROCEDURE SPEC.???????
 - PIPING INSTALLATION PROCEDURE SPEC.?????
 - ALL DIMENSIONS ARE IN MILLIMETERS(mm), UNLESS OTHERWISE STATED.

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