CUSTOMER INFORMATION

CUSTOMER: __________________________
INQUIRY/P.O. NO.: ____________________
QUOTE NO.: __________________________
ITEM NO.: ____________________________
SALES OFFICE: _______________________ 
DATE: ________________________________

HEAT EXCHANGER
G GEARBOX, LUBE OIL

API PLAN 21 — SINGLE STAGE
ORIFICE

SEAL VENT

PUMP DRAIN

MAXIMUM ALLOWABLE FORCES AND MOMENTS ON FLANGES OF SUNDYNE UNITS

PUMP MODELS LMV-311, 322, 331, 801, 802, 806, BMP-311, 331

FORCES = LBF  MOMENTS = FT-LBF

<table>
<thead>
<tr>
<th>FLANGES</th>
<th>Fx</th>
<th>Fy</th>
<th>Fz</th>
<th>Mx</th>
<th>My</th>
<th>Mz</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUCTION 3&quot;</td>
<td>480</td>
<td>600</td>
<td>400</td>
<td>1400</td>
<td>100</td>
<td>1060</td>
</tr>
<tr>
<td>DISCHARGE 2&quot;</td>
<td>320</td>
<td>400</td>
<td>260</td>
<td>600</td>
<td>340</td>
<td>520</td>
</tr>
</tbody>
</table>

FORCES = NEWTON  MOMENTS = NEWTON METER

<table>
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<th>Fx</th>
<th>Fy</th>
<th>Fz</th>
<th>Mx</th>
<th>My</th>
<th>Mz</th>
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<td>SUCTION 3&quot;</td>
<td>2135</td>
<td>2659</td>
<td>1779</td>
<td>1808</td>
<td>949</td>
<td>1437</td>
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<tr>
<td>DISCHARGE 2&quot;</td>
<td>1423</td>
<td>1779</td>
<td>1157</td>
<td>922</td>
<td>461</td>
<td>705</td>
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</tbody>
</table>

THESE VALUES DEVELOPED FROM FORCED AND MOMENTS LIMITS AS ESTABLISHED IN API 610, 9TH EDITION

6 GAUGE, TEMPERATURE, 5" DIAL
5 ORIFICE, MULTIPLE/SINGLE
4 HEAT EXCHANGER
3 VALVE, GATE, VOGT#SW12401, 1/2" SW, BOLTED BONNET, ORNAY
2 VALVE, GATE, VOGT#SW12401, 1" SW BOLTED BONNET, ORNAY
1 HEAT EXCHANGER, 2 X 9, 1 PASS

ITEM  DESCRIPTION

MATERIAL: LMV-311
API PLAN 21 (TUBING)  VENT & DRAIN

L. WEBER 11/13/01
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