<table>
<thead>
<tr>
<th>Rig No.</th>
<th>T49</th>
<th>T48</th>
<th>T47</th>
<th>T46</th>
<th>T45</th>
<th>T44 / T43</th>
<th>T41 / T38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rig type</td>
<td>S&amp;S 550 SD</td>
<td>S&amp;S 1000 SD</td>
<td>Satvia TB1800V</td>
<td>Cabot 900</td>
<td>IRI750</td>
<td>Salzgitter ZA420</td>
<td>Salzgitter ZA417</td>
</tr>
<tr>
<td>Mast type</td>
<td>S&amp;S-110-300K</td>
<td>DTS-01000-124-440</td>
<td>TM180</td>
<td>112·350,000</td>
<td>KM117-358</td>
<td>GT120/33</td>
<td>GT120/33</td>
</tr>
<tr>
<td>Mast height (m)</td>
<td>38.10</td>
<td>38.10</td>
<td>37.50</td>
<td>34.10</td>
<td>35.70</td>
<td>36.00</td>
<td>36.00</td>
</tr>
<tr>
<td>Mast erection</td>
<td>telescopic</td>
<td>telescopic</td>
<td>telescopic</td>
<td>telescopic</td>
<td>telescopic</td>
<td>telescopic</td>
<td>telescopic</td>
</tr>
<tr>
<td>Total height substructure (mtr.)</td>
<td>4.90</td>
<td>6.10</td>
<td>6.10</td>
<td>4.60</td>
<td>5.80</td>
<td>4.90</td>
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<tr>
<td>Max. hookload (tons)</td>
<td>155</td>
<td>220</td>
<td>200</td>
<td>165</td>
<td>180</td>
<td>120</td>
<td>120</td>
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<tr>
<td>Setback load substructure (tons)</td>
<td>85</td>
<td>150</td>
<td>150</td>
<td>160</td>
<td>135</td>
<td>70</td>
<td>70</td>
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<tr>
<td>Setback capacity (5” tubing in mtr.)</td>
<td>3000</td>
<td>3500</td>
<td>3500</td>
<td>2500</td>
<td>3500</td>
<td>2500</td>
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<tr>
<td>Rotary table type</td>
<td>American Block</td>
<td>American Block</td>
<td>Upetrom</td>
<td>National</td>
<td>Hacker</td>
<td>IDECO</td>
<td>Upetrom</td>
</tr>
<tr>
<td>Rotary table clearance (mm)</td>
<td>520</td>
<td>27” 1/2”</td>
<td>27” 1/2”</td>
<td>27” 1/2”</td>
<td>17” 1/2”</td>
<td>17” 1/2”</td>
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</tr>
<tr>
<td>Drawworks type</td>
<td>S&amp;S CE550SD</td>
<td>S&amp;S CE1000SD</td>
<td>ZHP 4.29-EG + Viking MK44</td>
<td>Cabot 2346</td>
<td>IRI 2042 DB</td>
<td>ZA420</td>
<td>ZA417/5</td>
</tr>
<tr>
<td>Drive motors drawworks</td>
<td>1x CAT C15</td>
<td>2x CAT C15</td>
<td>3x Deutz TCD 2015 V8</td>
<td>2x CAT D343</td>
<td>2x CAT 3406</td>
<td>1x Deutz BF12</td>
<td>1x Deutz BF12</td>
</tr>
<tr>
<td>Power output (kW/PS)</td>
<td>397/540</td>
<td>795/1081</td>
<td>883/1200</td>
<td>588/800</td>
<td>596/810</td>
<td>316/430</td>
<td>316/430</td>
</tr>
<tr>
<td>Diameter of line (mm)</td>
<td>28.6</td>
<td>31.8</td>
<td>31.8</td>
<td>28.6</td>
<td>28.6</td>
<td>25.4</td>
<td>25.4</td>
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<tr>
<td>Top drive type</td>
<td>-</td>
<td>TESCO 250 HXI 700</td>
<td>Satvia KDK 220</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

2x CASING JACK EEW CJU 230

A casing jack is a substructure equipped with an integrated hydraulic lifting system. It is used in jobs where the weight of the casing string exceeds the hook load of the rig. Since these load peaks often represent only a small percentage of the total job, the combination of a smaller rig and a casing jack is much more economical than the use of a bigger rig.

- Max. lifting capacity (tons): 230
- Travel (mtr.): 1.7
- Lifting / lowering speed (mm/sec): 22.4 / 34
- Total height substructure (mtr.): 5.50
- Clear height below spider platform (mtr.): 2.50
- Setback load substructure (tons): 100
- Rotary table clearance (mm): 520

DIN EN ISO 9001:2008
SCC®:2011 STANDARD

In order to provide replicable services at the highest level, our operations are displayed in a defined process landscape. This also includes the complete documentation, reporting and regular review of all processes and work instructions.

In order to ensure that the most recent regulations are applied in quality management and work safety, we regularly undertake the verification of external certification organizations.

HOLISTIC CUSTOMER SUPPORT

Our project management is strictly focused on the fulfillment of customer requirements. On request we execute drilling, workover and abandonment services as turn-key projects. We also work as main contractor including the coordination of sub contractors.

Support for project planning and licensing procedures as well as the documentation works are also part of our portfolio.
DRILLING AND HEAVY WORKOVER SERVICES

Drilling
- Drilling of oil, gas, cavern and geothermal wells up to 3,500 m
- Drilling of sidetracks out of existing wells
- Directional drilling and drilling of horizontal wells
- Arranging and organizing of contractor services during drilling and workover projects

Workover on caverns
- Change of pipe level during leaching processes on caverns
- Changing of cavern completions from leaching process to initial filling
- Leak tests on caverns
- Re-completions

Plug and abandonment of wells
- Plug and abandonment of wells according to the regulations

ESP replacement
- Dismantling of well head flanges and well packers
- Removal of ESP incl. control line
- Configuration and run-in of submersible pump on production tubing with control line
- Positioning and function test of submersible pump

Change-out of production tubings
- Release of the production packer
- Removing and installing of the tubing string

Pressure test
- Test of production tubing, annulus, well head, BOP

Fishing and milling during workover jobs
- Fishing of e.g. casings, tubings, sucker rods, lost cables, sand filter, production packer etc.
- Milling of e.g. packer, casings, tubings, cement bridges etc.

Cementation
- Annular cementation or bottom hole cementation
- Cement-Squeezing to seal the well against formation, gaps, cracks or depleted reservoirs
- Execution of plug or bottom hole cementations
- Plug and abandonment of decommissioned or uneconomic wells

Pumping and acid treatments
- Self-reliant execution of pumping operations like pressure tests, killing wells, cementations, circulation operations, well cleaning, acid treatment, pumping of annular protective fluid, setting of packers, release of setting tool, opening and closing of circulation systems (i.e. sliding doors)

Gravel Packs
- Installation and removal of gravel pack assemblies

Wellhead installation and nippling up works
- Installation and dismantling of flanges
- Configuration, installation and dismantling of well heads

Production tests
- Production tests after perforation or acid treatments

Treatment performances on H2S-wells, operative personnel is instructed in handling with hydrogen sulphides
- Handling of hydrogen sulfide
- Kick and emergency exercises
- Personnel instructed in handling of respiratory protection and gas measuring devices

Change-out of production wells
- First completion, pull-out of old completion, run-in of new completion

MB Well Services GmbH
Head office
Brietzer Weg 4
29410 Salzwedel/Germany

Tel. +49 3901 8352-0
Fax +49 3901 35056
info@mbwellservices.com
www.mbwellservices.com