### Class 80 t

#### Crawler Crane QUY80E CE

<table>
<thead>
<tr>
<th>Main Technical Specifications</th>
<th>Data</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Lifting capacity</td>
<td>80</td>
<td>t</td>
</tr>
<tr>
<td>Max. Load moment</td>
<td>3375</td>
<td>kN/m</td>
</tr>
<tr>
<td>Main boom length</td>
<td>13.5</td>
<td>m</td>
</tr>
<tr>
<td>Main boom angle</td>
<td>30°</td>
<td></td>
</tr>
<tr>
<td>Single line speed main winch system</td>
<td>0 to 120</td>
<td>min/rev</td>
</tr>
<tr>
<td>Single line speed aux. Winch system</td>
<td>0 to 120</td>
<td>min/rev</td>
</tr>
<tr>
<td>Single line speed elevating system</td>
<td>0 to 57</td>
<td>min/rev</td>
</tr>
<tr>
<td>Gradeability</td>
<td>30</td>
<td>%</td>
</tr>
<tr>
<td>Swing speed</td>
<td>0 to 2</td>
<td>rpm</td>
</tr>
<tr>
<td>Travel speed</td>
<td>0 to 1.2</td>
<td>km/h</td>
</tr>
<tr>
<td>Average ground pressure</td>
<td>0.097</td>
<td>MPa</td>
</tr>
<tr>
<td>Max. engine output</td>
<td>183</td>
<td>kW</td>
</tr>
<tr>
<td>Fixed jib length</td>
<td>9.0</td>
<td>m</td>
</tr>
<tr>
<td>U/C reaction angle</td>
<td>180</td>
<td>°</td>
</tr>
<tr>
<td>Total vehicle mass (main hook block, 1.3m boom)</td>
<td>78</td>
<td>t</td>
</tr>
<tr>
<td>Max. weight of single part in transport state</td>
<td>28</td>
<td>t</td>
</tr>
<tr>
<td>Dimension of single part (main machine) in transport state (LxWxH)</td>
<td>6,5x3,3x5,5</td>
<td>m</td>
</tr>
</tbody>
</table>

#### Main Parts

**Main Unit**
- x 1
- L: 7900mm
- W: 3400mm
- H: 3310mm
- Weight: 28000kg

**80t - 6 sheaves Capacity Hook Block**
- x 1
- L: 1800mm
- W: 800mm
- H: 700mm
- Weight: 890kg

**50t - 4 sheaves Capacity Hook Block**
- x 1
- L: 1720mm
- W: 800mm
- H: 600mm
- Weight: 725kg

**26t - 2 sheaves Capacity Hook Block**
- x 1
- L: 1650mm
- W: 800mm
- H: 600mm
- Weight: 434kg

**8t Capacity Hook Block**
- x 1
- L: 700mm
- W: 400mm
- H: 400mm
- Weight: 235kg

**Superstructure counterweight**
- x 1
- L: 3300mm
- W: 1200mm
- H: 450mm
- Weight: 9100kg

**Superstructure counterweight**
- x 1
- L: 3300mm
- W: 1200mm
- H: 430mm
- Weight: 9000kg
Main Parts

- **Superstructure**
  - Countertweight III x 1
  - L: 3300mm
  - W: 1200mm
  - H: 440mm
  - Weight: 8900kg

- **Track Frame**
  - x 2
  - L: 6500mm
  - W: 1100mm
  - H: 1100mm
  - Weight: 9500kg

- **6.5 Boom Butt**
  - x 1
  - L: 6705mm
  - W: 1630mm
  - H: 2000mm
  - Weight: 1200kg

- **3 Boom Insert**
  - x 1
  - L: 3130mm
  - W: 1630mm
  - H: 1780mm
  - Weight: 400kg

- **8 Boom Insert**
  - x 1
  - L: 6130mm
  - W: 1630mm
  - H: 1780mm
  - Weight: 700kg

- **9 Boom Insert**
  - x 1
  - L: 9130mm
  - W: 1630mm
  - H: 1780mm
  - Weight: 1000kg

- **8.5 Boom top**
  - x 1
  - L: 6875mm
  - W: 1630mm
  - H: 1780mm
  - Weight: 1500kg

- **4.5 Fixed Jib Butt**
  - x 1
  - L: 4700mm
  - W: 900mm
  - H: 900mm
  - Weight: 420kg

- **4.5 Fixed Jib Insert**
  - x 1
  - L: 4610mm
  - W: 900mm
  - H: 900mm
  - Weight: 350kg

- **4.5 Fixed Jib top**
  - x 1
  - L: 4960mm
  - W: 900mm
  - H: 900mm
  - Weight: 280kg

**Notes**
- The above part figures are only sketch maps, which are not drawn on actual sizes. The dimensions shown are design values and don’t include package.
- The weight is design value, may have slight difference due to error in manufacture.
**Detailed Introduction**

**Engine**

**QUY80E:** A Cummins original 6-cylinder, water-cooled, super-charging and intercooled electric jet OSC engine with rated output power 183kW, rated speed 2000 rpm and maximum output torque 1268N·m. Its emission complies with Euro III standard.

**Control System**

Intelligent computer integrated programmable control system is the key technology of the crane. PLC programmable controller is used, in combination with conventional electrics, to ensure logic and the hydraulic proportional control functions of the system, and to improve safety, reliability and efficiency of the crane operation. Crane operation can be shown by a large computer display, which is convenient for man-machine interaction.

**Hydraulic System**

It takes hydraulic proportional control, closed/open type circuit, constant power and variable displacement pump system. Hydraulic system: winch system, elevating system, slewing system, propelm system, auxiliary assembly system. Features: winch, elevating and propelm systems use open type system; main pump is a constant power and variable displacement pump, wherein, variable displacement is controlled by hydraulically pilot, with the function of power limit and pressure cut-off. Main pump may satisfy the requirement of multiple actuator movement. Slewing system takes close type system, with the advantages of quick response, accurate control, stable starting, braking and direction changing, no impact, can satisfy the operation of frequent direction changing and fine motion.

**Winch System**

The main and auxiliary winch system of QUY80E are driven independently. This model takes disc type constant closed brake and Raxfor built-in speed reducer. The main/auxiliary winches are connected with turntable by pin shafts, easy for assembly. The driving motor and balance valve are both Germany imported. The maximum speed is 120m/min, with good fine speed performance. The winch system also features easy oil replacement, low noise, high efficiency and long service life.

**Elevating System**

**QUY80E:** Boom elevating is driven separately and has built-in speed reducer (Raxfor), and disc-type constant closed brake; winch drum has a ratchet locking device to realize safely and reliably mechanical braking. Driving motor and balance valve are both imported from Germany.

**Slewing System**

**QUY80E:** Slewing system is arranged at the left of the turntable. The planetary reducer (Raxfor) is internal meshed with the slewing ring. It has the function of hydraulic buffering and free sliding. Controllable constant -closed disc brake of the planetary reducer works reliably and is easy for maintenance.

**Slewing Bearing**

Slewing bearing is made by Rothe Erde, with stable and reliable quality.

---

**Superstructure Counterweight I:** 1 slab  
**Superstructure Counterweight II:** 1 slab  
**Superstructure Counterweight III:** 1 slab

**Operator’s Cabin**

Operator’s cabin is steel frame structure. Its front windshield is provided with overall sandwich glass, other glass is all hardened glass. Equipped with adjustable seat, a set of ergonomic designed instruments and control devices, air-conditioner, CD player, fire extinguisher, etc.

**Turntable**

Turntable is a mixed structure of box type and single web plate, with good overall stability. Turntable is a key structural part linking crane superstructure with and crane carrier for load bearing. It connects with the carrier through slewing bearing. Operator’s cabin, winch system, elevating system, engine, gantry, mast, boom and counterweight etc. respectively connect with the turntable at different positions.

**Lower structure**

Lower structure comprises car-body, track frame, and propelm unit.

**Car-body**

Car-body uses high strength steel box-shape structure. With good overall stability, it features simple structure, high loading capacity and well rigidity.

**Track Frame**

Track frame consists of track beam, drive sprocket, idler wheel, upper roller, lower roller and track. Crawler beam takes box-shape structure. Its connection position with frame is strengthened partially, and cross panel is installed in the middle of it. Two track frames are symmetrically arranged, with track blocks of 0.76m width.

**Propelm Unit**

Propelm unit has Germany imported built-in planetary gear reducer and hydraulic release service brake; can be operated synchronously or independently to realize straight traveling and turning around. Each reducer is driven by German imported axial piston motor.

**Traveling Speed**

Variable displacement pump can realize infinite variable speed whose maximum value is 1.2 km/h.

---

**Lifting Operation Parts**

**Lifting Boom**

Lifting boom comprises main boom and fixed jib, both of which are lattice structure of four tubular chords with intermediate equal section and two end variable section, wherein, main boom chord use imported high strength tube and web rod use domestic high quality tube.

**Gantry**

Gantry is one of the important structural parts, its front part is box-type structure of twin tubular chord and equipped with oil cylinder for lifting and lowering gantry and the rear part is folded pendant.

**Hook Block**

Standard configuration: 80t capacity hook block, 50t capacity hook block, 26t capacity hook block and 8t capacity hook block.

---

**Safety Devices**

Safety devices comprise: load moment limiter Krueger Mark 4K, turntable lock pin, boom backstop, height limiter, anemometer, level gauge, hydraulic overflow valve, balance valve, two-way hydraulic lock, slewing warning, travel warning, monitor, etc.

**Load Moment Limiter: Krueger Mark 4K**


**Main/Auxiliary Winch Over-Wind Protection Device**

When main/auxiliary winch hoists up to a certain lifting height, an over-wind warning lamp on instrument panel lights on, at the same time, load moment limiter stops crane operation.

---

**Main/Auxiliary Winch Over-Release Protection Device**

When access switch in winch drum detects only three turns of wire rope left on the drum, an over-release warning lamp on instrument panel lights on, at the same time, load moment limiter stops crane operation.

**Winch Ratchet Locking Device**

Winch drum has a ratchet locking device which must be turned on when lowering boom, otherwise boom cannot be lowered. The device is used to slow the boom for safety.

**Boom Angle Limit**

When boom angle is more than 80°, load moment limiter and hold limit switch stop boom rising. When boom angle is less than 30°, load moment limiter stops boom lowering.

**Audio/Video Warning**

When crawler crane is moving and stowing, there is light and sound for warning.

**LMI Tricolor Warning Lamp**

The lamp comprises 3 colors, when crane loading is below 90% of total rated lifting load, “Green Lamp” lights on to indicate that crane is running in safety; when crane loading is in 90%-100% of total rated lifting load, “Yellow Lamp” lights on to indicate that crane is close to total rated lifting load; when crane loading is above 100%-105% of total rated lifting load, both “Red Lamp” and “Yellow Lamp” light on to indicate that crane is overloaded. In dangerous area, control system can automatically cut off crane movement to dangerous direction.

**Illumination Lamp**

There are illumination lamps at the front of turntable, on boom and inside operator’s cabin for night operation.

**Height Mark Lamp**

Boom tip has a height mark lamp for high-level operation warning.

**Anemometer**

Anemometer at boom head can detect current wind speed and send wind signal to a monitor in operator’s cabin to alert operator for safety.

---

**XCMG**

MICHELSENS trading
CLASS 80 t

CRAWLER CRANE QUY80E CE

Hardcore with fixed jib

<table>
<thead>
<tr>
<th>37°</th>
<th>19</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
<th>25</th>
<th>26</th>
<th>27</th>
<th>28</th>
<th>29</th>
<th>30</th>
<th>31</th>
<th>32</th>
<th>33</th>
<th>34</th>
<th>35</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>38°</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>39°</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>40°</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>37°</th>
<th>19</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
<th>25</th>
<th>26</th>
<th>27</th>
<th>28</th>
<th>29</th>
<th>30</th>
<th>31</th>
<th>32</th>
<th>33</th>
<th>34</th>
<th>35</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>38°</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>39°</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>40°</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
</tr>
</tbody>
</table>
QUY80E (CE)

SOME HIGHLIGHTS

- Simple operation
- Limited electronics
- Solid construction
- Low cost of ownership
- Low purchasing cost
- Low operating cost
- 1 year full guarantee on spare parts
- Special design for Europe, CE–approved
- SGS- approved

Michielsens Trading is sole distributor for XCMG in Europe. XCMG is the acronym for Xuzhou Construction Machinery Group, the biggest manufacturer of cranes and construction machines in China.

T +32 3 324 40 00 • F +32 3 888 42 22 • trading@cranes4u.com
Bisschopenhoflaan 275 • B 2100 Deurne - Belgium (Europe)
www.cranes4u.com