

# XTR20

**Tiltrotator 15-20 tonnes**

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## High performance tiltrotator for excavators between 33 000 and 44 000 lbs



Steelwrist third generation tiltrotators, introduced in 2024, have best in class tilt geometry, LockSense patented safety solution for work tool locking and OptiLube – an onboard lubrication system. These are only some of the technical developments of the third generation tiltrotators. Naturally, they have the low building height that is typical for all Steelwrist tiltrotators.

With a midsized excavator you can take on projects of varying sizes, from small scale landscaping tasks to roadwork or foundation work on construction sites. The XTR20 tiltrotator enhances the efficiency of the excavator as it enables you to rotate a work tool 360 degrees and tilt 45 degrees in each direction, with top of the class precision and controllability. This facilitates the work and makes you flexible to take on a variety of challenging new jobs.

### Advanced tilt geometry ensures smooth operation for the driver

Our design minimizes cylinder spread throughout the tilt stroke, providing fluid and high-torque movement. The refined position of the tilt cylinders prevent interference with the excavator's arm, enhancing functionality and ease of use.

### A leap in safety with LockSense technology

The tiltrotator features our patented LockSense technology – a state-of-the-art sensor system for secure work tool locking. The wireless design eliminates cables and connectors from being exposed to the harsh environment.

### Lubrication made easy with OptiLube

The onboard OptiLube system takes care of lubrication automatically, ensuring consistent and optimal performance. The lubricant used is specially developed for Steelwrist tiltrotators and reduces friction and extends lifetime. OptiLube is integrated into the tiltrotator's control system, allowing for continuous monitoring of lubrication performance and alerts when it is time to replace the lubricant cartridge.

### Modular design for upgrade to SQ/Open-S

The tiltrotator is available with interfaces following the symmetrical standard (S standard), which is the fastest growing standard internationally. Thanks to the modular design it is possible to upgrade the tiltrotator from S-type to SQ-type. Steelwrist SQ is our high performing automatic oil connection technology used to easily change and connect hydraulic work tools on the excavator. Naturally all SQ products comply with the Open-S standard.

### Easy installation with the guidance app

Our intuitive mobile app simplifies the tiltrotator installation process. It provides step-by-step instructions in most languages, making setup straightforward and user-friendly.

### Control system

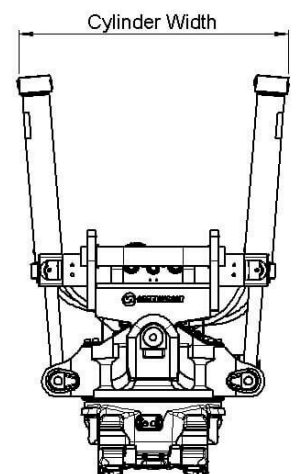
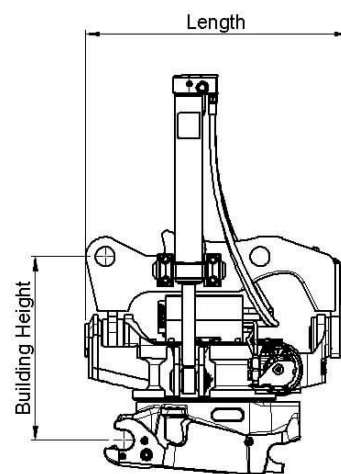
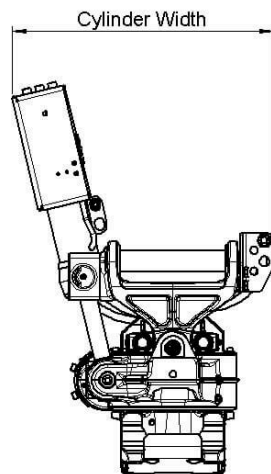
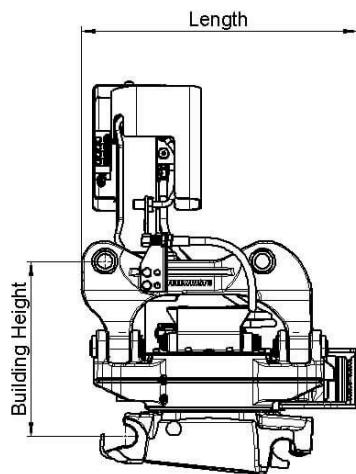
The tiltrotator is delivered with the advanced QuantumConnect control system platform. State-of-the-art components make installation and operation of the tiltrotator easier than ever before. The platform includes the InstallMate and QuantumConnect apps, and with sophisticated connectivity the system is always up to date.

### Gripper cassette with enhanced reach and functionality (option)

The downward angled 3-finger gripper extends the reach of your excavator. With its improved geometry it gives you wide opening and near-complete closure, and it handles objects with unmatched precision. The robust design, including sturdy cylinder covers, ensures smooth operation in all your jobs.

## 🔧 Technical specification

| Tiltrotator                      | XTR20       | XTR20       | XTR20       | XTR20       |
|----------------------------------|-------------|-------------|-------------|-------------|
| Machine Interface                | S60         | SQ60        | DF          | DF          |
| Tiltrotator Quick Coupler        | S60         | SQ60        | S60         | SQ60        |
| Machine weight [lb]              | 33000-44000 | 33000-44000 | 33000-44000 | 33000-44000 |
| Max Breakout torque [kNm]        | 180         | 180         | 180         | 180         |
| Weight from [lb]                 | 1188        | 1188        | 1188        | 1188        |
| Gripper weight [lb]              | 227         | 227         | 227         | 227         |
| Building height [inch]           | 22          | 22          | 23.54       | 23.54       |
| Length [inch]                    | 32          | 32          | 36.61       | 36.61       |
| Cylinder width [inch]            | 31.46       | 31.46       | 31.46       | 31.46       |
| Height cylinder [inch]           | 20          | 20          | 20          | 20          |
| Max tilt angle [degrees]         | ±45         | ±45         | ±45         | ±45         |
| Max width dipper arm [inch]      | –           | –           | 13.19       | 13.19       |
| Pin diameter [inch]              | –           | –           | 2.36-3.15   | 2.36-3.15   |
| Pin distance [cc-measure] [inch] | –           | –           | 11.81-19.69 | 11.81-19.69 |
| Tilt Torque [kNm]                | 46          | 46          | 46          | 46          |
| Rotational Torque [kNm]          | 11,4        | 11,4        | 11,4        | 11,4        |
| Hydraulic AUX with gripper       | 1           | 1           | 1           | 1           |
| Hydraulic AUX without gripper    | 2           | 2           | 2           | 2           |
| Lifting hook [lb]                | –           | –           | 17600       | 17600       |
| Oil Flow [gallons/min]           | 26          | 26          | 26          | 26          |
| Max pressure [bar]               | 220         | 220         | 220         | 220         |
| Max Pressure Separate AUX [bar]  | 350         | 350         | 350         | 350         |
| Safety solution                  | LockSense   | LockSense   | LockSense   | LockSense   |



# Work tools and Open-S – the world industry standard for fully automatic quick couplers

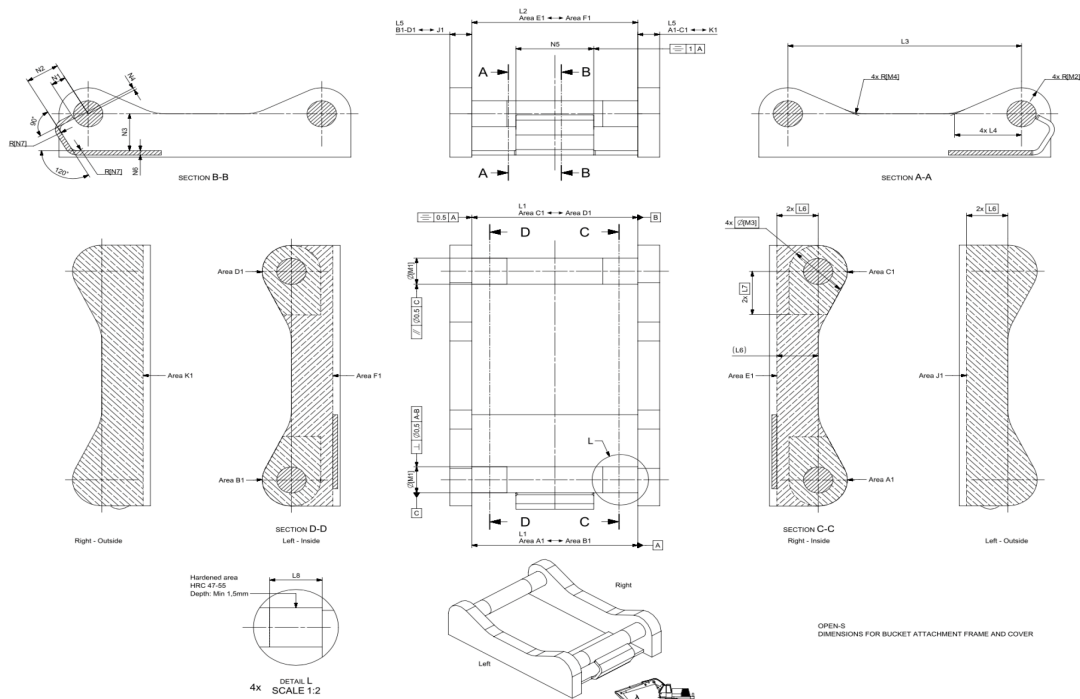


The Symmetrical Quick Coupler standard for excavators (the S-Standard) is an industry standard that was originally defined in 2006 by the Swedish Trade Association for Suppliers of Mobile Machines.

The Symmetrical standard, which is an open standard not controlled by one specific manufacturer, has since its inception grown to become a well-known coupler standard on the international market. The demand for quick couplers with integrated hydraulic couplings and electrical connectors, so called Fully Automatic Quick Couplers continue to grow.

In order to achieve interchangeability the request for a standardized and well-defined interface is therefore apparent.

As fully Automatic Quick Couplers have more intricate functions than a standard Mechanical Quick Coupler it is crucial that also non hydraulic work tools include certain features such as hardened shafts and cover plates etc. The purpose of this document is to define the technical dimensions for mechanical (non fully hydraulic) work tools to be used with Open-S Quick Couplers.



|          | L1<br>Width      | L2<br>C. Width | L3<br>C-C         | L4            | L5<br>Thickn. | L6<br>Tot. area | L7<br>Tot. area | L8<br>Hardening | M1<br>Shaft D | M2<br>Radius | M3<br>Tot Area | M4         | N1           | N2          | N3      | N4<br>Offset | N5<br>Width | N6<br>Rec Th. | N7<br>Radius |
|----------|------------------|----------------|-------------------|---------------|---------------|-----------------|-----------------|-----------------|---------------|--------------|----------------|------------|--------------|-------------|---------|--------------|-------------|---------------|--------------|
| OS45M    | 291,5<br>+1/-0,5 | 291 Min        | 430,25<br>+/-0,25 | 100 +/-2      | 40 Max        | 70              | 85              | 60 Min          | 45 f8         | 45 Max       | 90             | 30<br>+/-2 | 23,5<br>+/-1 | 65<br>+/-1  | 70 Min  | 8<br>+/-1    | 140<br>+/-1 | 8             | 15 Max       |
| OS50M    | 271,5<br>+1/-0,5 | 271 Min        | 430,25<br>+/-0,25 | 100 +/-2      | 40 Max        | 70              | 85              | 70 Min          | 50 f8         | 45 Max       | 90             | 30<br>+/-2 | 26<br>+/-1   | 65<br>+/-1  | 70 Min  | 8<br>+/-1    | 140<br>+/-1 | 8             | 15 Max       |
| OS60M    | 341,5<br>+1/-0,5 | 341 Min        | 480,25<br>+/-0,25 | 137,5<br>+/-2 | 45 Max        | 85              | 100             | 75 Min          | 60 f8         | 60 Max       | 120            | 30<br>+/-2 | 31<br>+/-1   | 70<br>+/-1  | 85 Min  | 6<br>+/-1    | 160<br>+/-1 | 10            | 20 Max       |
| OS65M    | 441,5<br>+1/-0,5 | 441 Min        | 530,25<br>+/-0,25 | 152,5<br>+/-2 | 55 Max        | 90              | 110             | 90 Min          | 65 f8         | 65 Max       | 130            | 30<br>+/-2 | 33,5<br>+/-1 | 83<br>+/-1  | 90 Min  | 6<br>+/-1    | 230<br>+/-1 | 10            | 20 Max       |
| OS70M    | 451,5<br>+1/-0,5 | 451 Min        | 600,25<br>+/-0,25 | 205 +/-2      | 55 Max        | 115             | 115             | 95 Min          | 70 f8         | 75 Max       | 150            | 50<br>+/-2 | 36<br>+/-1   | 90<br>+/-1  | 115 Min | 7<br>+/-1    | 225<br>+/-1 | 12            | 30 Max       |
| OS70/55M | 551,5<br>+1/-0,5 | 551 Min        | 600,25<br>+/-0,25 | 205 +/-2      | 55 Max        | 115             | 115             | 95 Min          | 70 f8         | 75 Max       | 150            | 50<br>+/-2 | 36<br>+/-1   | 102<br>+/-1 | 115 Min | 5<br>+/-1    | 320<br>+/-1 | 12            | 30 Max       |
| OS80M    | 591,5<br>+1/-0,5 | 591 Min        | 670,25<br>+/-0,25 | 220 +/-2      | 65 Max        | 135             | 135             | 120 Min         | 80 f8         | 90 Max       | 180            | 50<br>+/-2 | 41<br>+/-1   | 110<br>+/-1 | 135 Min | 8<br>+/-1    | 310<br>+/-1 | 15            | 30 Max       |
| OS90M    | 751,5<br>+1/-0,5 | 751 Min        | 750,25<br>+/-0,25 | 225 +/-2      | 80 Max        | 155             | 150             | 160 Min         | 90 f8         | 110 Max      | 220            | 50<br>+/-2 | 46<br>+/-1   | 130<br>+/-1 | 155 Min | 2<br>+/-1    | 400<br>+/-1 | 15            | 30 Max       |

Standardization by the Open-S Alliance. Revision A, May 17, 2021 | For more information please see [www.opens.org](http://www.opens.org)