### pipelayer P70 / P90 features

#### **Performance**

Cummins NT855-C360 engine, providing power and improved machine maneuverability for any pipelayer application. With compact structure, reliable performance and convenient maintenance. EU-I emission standard, with high power but low fuel consumption, can be adapt to bad environment and diesel condition.

#### **Chassis Stability**

Improved machine center of gravity, rigidly connected frame, and lengthened track-roller frame with widened track shoes places more track on the ground, (lengthened semi-axis and gear hub), flexible counterweight to ensure good stability of chassis.

#### **Operator Interface**

Advanced Mechatronic Systems equipped with electronic monitors, centralized monitoring, and automatic alarm.

Torque limiter is installed to accurately indicate the angle and amplitude of the boom, lifting height and weight of the boom. It can alarm when overload and limit the movement.

Equipped with a safety lock and quickly release button to prevent the rollover accident in the state of emergency.







# Structure Underlying strength

we actually makes its own structural parts, including arms, tracks, under carriages, roller sets, buckets, and also makes its own transmissions, torque converters and much more for a wide range of construction machinery products. The Pipelayer mainframe is engineered to handle the most demanding applications.

The purpose-built Pipelayer mainframe is built to absorb high impact shock loads and twisting forces,

(Lengthened semi-axis and gear hub, so that the overall track center distance to be widened, and more stable operation of the whole machine.)



# **Engine and Undercarriage**

Engineered for performance

#### Engine

Cummins NT855-C360 engine, providing power and improved machine maneuverability for any pipelayer application. With compact structure, reliable performance and convenient maintenance. EU-I emission standard, with high power but low fuel consumption, can be adapt to bad environment and diesel condition.

#### **Undercarriage - Excellent Stability:**

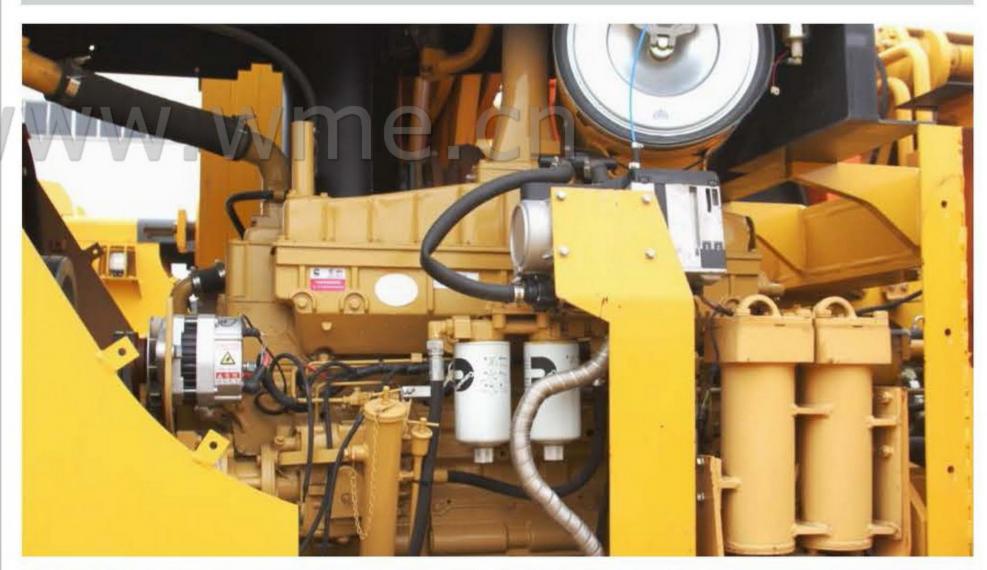
The undercarriage is rigidly connected with the frame with lengthened and widened tracks, flexible counterweight to ensure good stability of chassis.

Undercarriage components are built for long life and ease of serviceability.

Also lubricated tracks is available for your choice.

#### Transmission:

we make our own transmissions for our many lines. This is a key component in our vertical integration, further contributing to our trademark value proposition.





# Pipelayer

Purpose-built, robust components

#### Winches

Proven heavy-duty winch design works with updated hydraulic control for more precise implement control. Boom and hook winches are driven by independent hydraulic winches. Planetary gear reduction mechanism provides smooth operation and positive retention of boom and hook positions, safe falling hook function and normally closed brake arranged at the input end of the speed reducer are provided to ensure safety and reliability. Modular design allows for fast removal and easy field service. The winch profile is compact and enhances visibility

#### Counterweight

The counterweight is composed of a counterweight frame, a counterweight block and cylinder. The counterweight frame is an externally swinging four connecting rod form, and the counterweight block can be adjusted according to the lifting weight at work. The expansion of the counterweight mechanism is driven by hydraulic cylinder. The whole mechanism is mature in structure and reliable in use

#### Boom

Short profile block set enhances visibility to the work area and helps maximize the working range of the full length of the boom. The boom is equipped with limiting mechanism, hook over protection device and free falling hook function to ensure the safety of the machine during operation. The hook over protection device prevents the hook from being pressed together with the fixed pulley to avoid the breakage of the wire rope or other parts

#### Pinned Pipelayer Frame Structure

Heavy duty pipelayer frame structures are designed to be easily pinned together to provide robust strength and durability in addition to improved serviceability.







# **Operator Station**

### Designed for productive comfort







#### **Comfortable Operating Environment:**

Cabin with wide range of vision, Escape window at top which is also easy to observe hanging.

ROPS cab and air conditioning are available for selection.

Speed change, steering, throttle control are all placed on the left side of the driver, which is flexible and easy to operate.

The working device is controlled by pressure relief pilot valve. The control rod is arranged reasonably, thereby effectively preventing the operator from misoperation and greatly reducing the fatigue strength of the operator.

Equipped with a safety lock and quickly release button to prevent the rollover accident in the state of emergency.

#### Advanced Mechatronic Systems:

The chassis is equipped with electronic monitors, centralized monitoring, and automatic alarm.

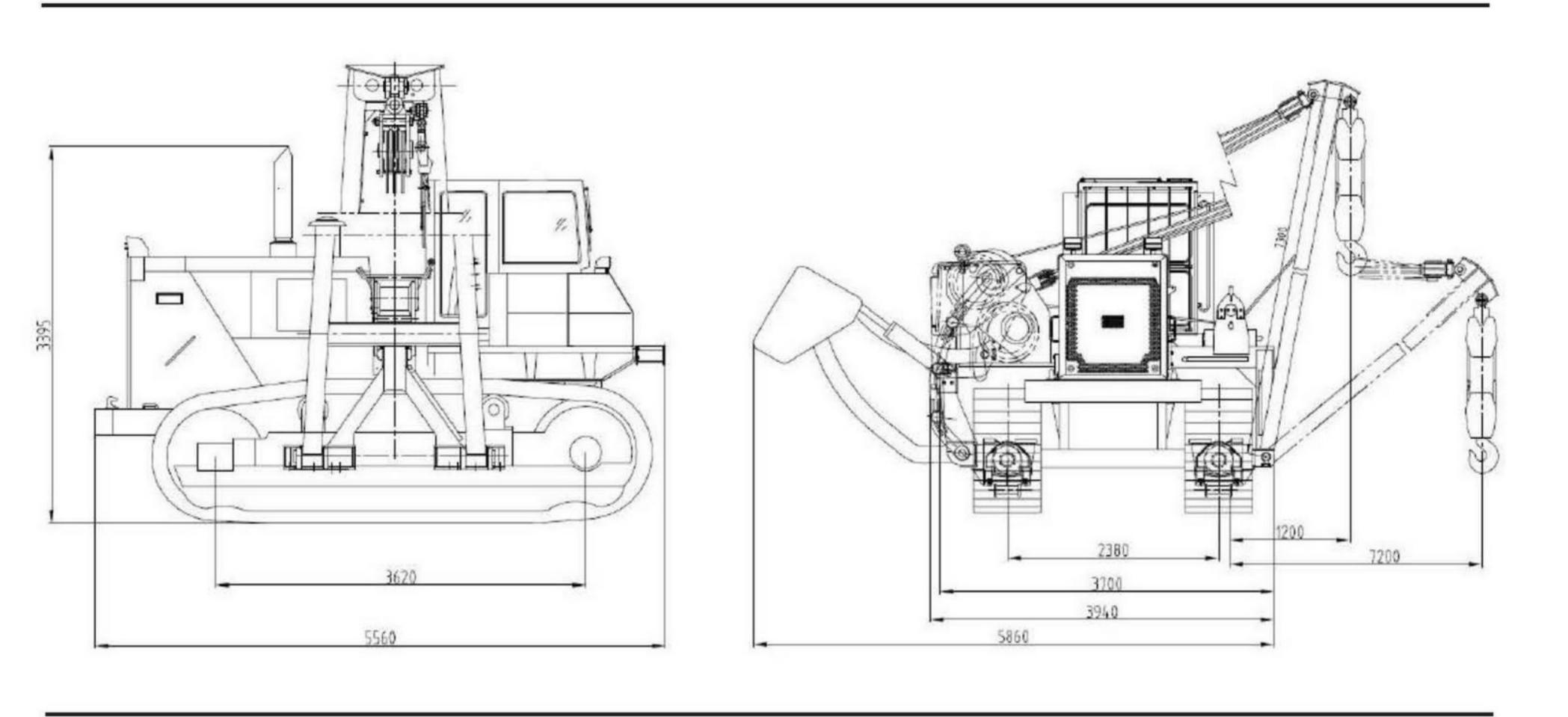
Torque limiter is installed to accurately indicate the angle and amplitude of the boom, lifting height and weight of the boom. It can alarm when overload and limit the movement.

# P70 / P90 pipelayer specifications

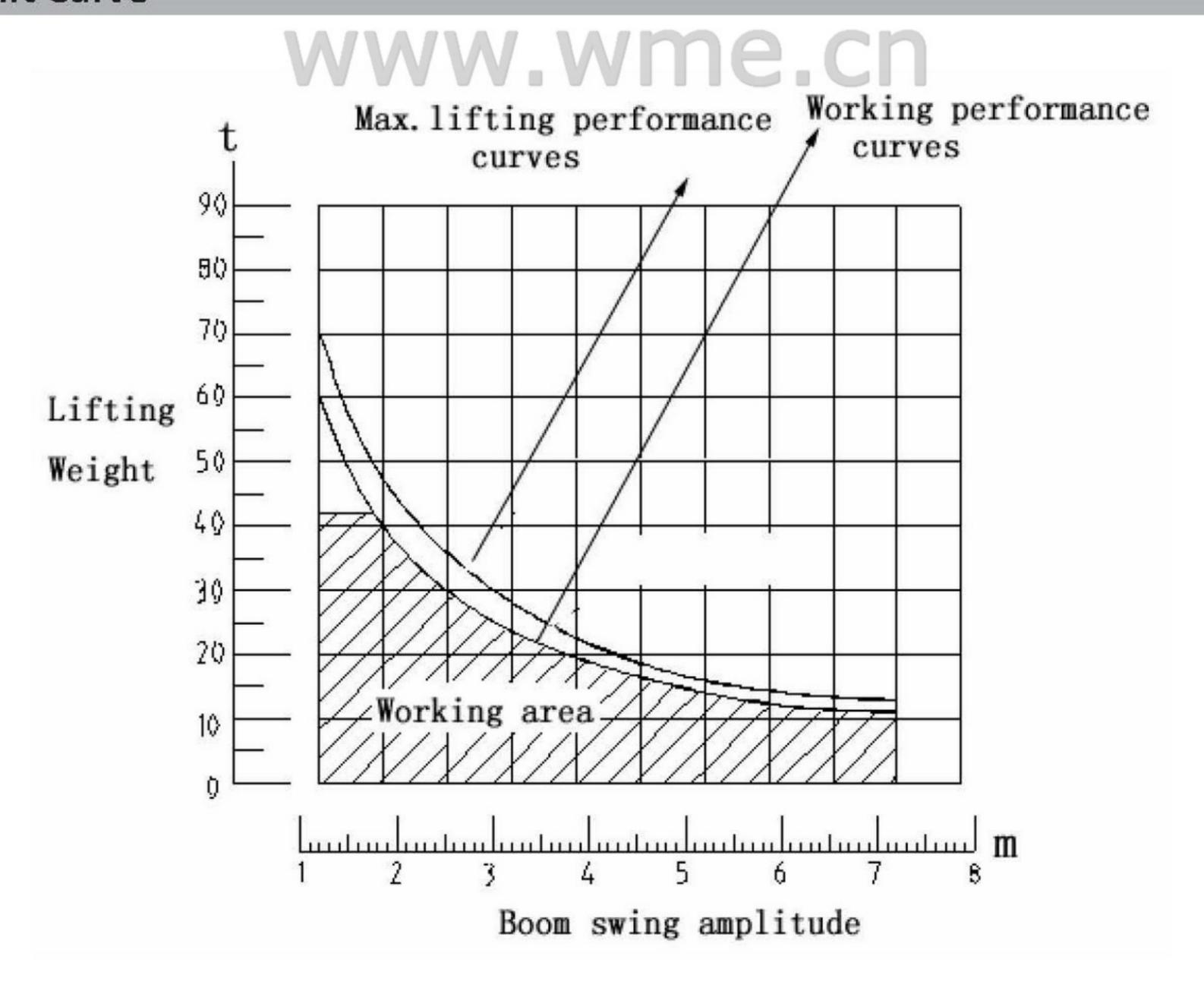
|        |                                 |                                    | P70                                | P90                                |
|--------|---------------------------------|------------------------------------|------------------------------------|------------------------------------|
|        | WEIGHT AND<br>DIMENSIONS        | Operating weight                   | 50000 kg                           | 57500 kg                           |
|        |                                 | Maximum lifting weight             | 70000 kg                           | 90000 kg                           |
|        |                                 | Track shoe width                   | 760 mm                             | 860 mm                             |
|        |                                 | Minimum turning radius             | 3950 mm                            | 3950 mm                            |
|        |                                 | Ground length                      | 3620 mm                            | 3620 mm                            |
|        |                                 | Ground clearance                   | 485 mm                             | 500 mm                             |
| 100 TO | ENGINE                          | Rated power                        | 235 kW                             | 257 kW                             |
|        |                                 | Model                              | Cummins NT855-C360                 | Cummins NT855-C360                 |
|        |                                 | Cylinder                           | 6 cylinder in line                 | 6 cylinder in line                 |
|        |                                 | Bore × Stroke                      | 139.7 × 152.4 mm                   | 139.7 × 152.4 mm                   |
|        |                                 | Model Type                         | Water cooled 4-cycle, turbo-       | Water cooled 4-cycle, turbo-       |
|        |                                 | Emission Standard                  | EU-Stage I                         | EU-Stage I                         |
|        |                                 | Max. torque                        | 1411 Nm (144 kg.M)                 | 1411 Nm (144 kg.M)                 |
|        |                                 | Piston displacement                | 14 L                               | 14 L                               |
|        |                                 | Rated revolution                   | 2000 rpm                           | 2000 rpm                           |
|        | TRANSMISSION<br>SYSTEM          | Type                               | Hydraulic transmission             | Hydraulic transmission             |
|        |                                 | Hydraulic torque converter         | 3-element, 1 stage, 1 phase        | 3-element, 1 stage, 1 phase        |
|        |                                 | Transmission                       | Planetary gear, forced lubrication | Planetary gear, forced lubrication |
|        |                                 | Travel speed 1st (forward/reverse) | 3.7/4.5 km/h                       | 3.6/4.4 km/h                       |
|        |                                 | Travel speed 2nd (forward/reverse) | 6.8/8.2 km/h                       | 6.6/7.8 km/h                       |
|        |                                 | Travel speed 3rd (forward/reverse) | 11.8/13.7 km/h                     | 11.2/12.9 km/h                     |
|        | UNDERCARRIAGE                   | Minimum turning radius             | 3950 mm                            | 3950 mm                            |
|        |                                 | Track gauge                        | 2380 mm                            | 2380 mm                            |
|        |                                 | Length of track on ground          | 3620 mm                            | 3620 mm                            |
|        |                                 | Width of track plate               | 760 mm                             | 860 mm                             |
|        |                                 | Ground Specific Pressure           | 0.089 MPa                          | 0.076 MPa                          |
|        |                                 | Number of Rollers (each side)      | 9                                  | 9                                  |
|        |                                 | No. of Carrier Rollers (each side) | 2                                  | 2                                  |
|        |                                 | Track Type and NO.                 | Single Tooth (45/each side)        | Single Tooth (45/each side)        |
| *      | WORKING PUMP                    | Type                               | Duplex pump                        | Duplex pump                        |
|        |                                 | Displacement of large pump         | 201.49 ml/r                        | 130 ml/r                           |
|        |                                 | Rated pressure of large pump       | 21 MPa                             | 31 MPa                             |
|        |                                 | Displacement of small pump         | 10.16 ml/r                         |                                    |
|        |                                 | Rated pressure of small pump       | 5 MPa                              |                                    |
|        | SERVICE<br>REFILL<br>CAPACITIES | Fuel tank capacity                 | 600 L                              | 640 L                              |
|        |                                 | Hydraulic tank capacity            | 103 L                              | 103 L                              |
|        |                                 | Engine Oil Pan                     | 27 L                               | 27 L                               |
|        |                                 | Torque converter and transmission  | 136 L                              | 136 L                              |
|        |                                 | Final drive Case (each)            | 55 L                               | 55 L                               |
|        | PIPEL AYING<br>EQUIPMENT        | Boom Length                        | 7300 mm                            | 7300/8600 mm                       |
|        |                                 | Max.lifting height                 | 6550 mm                            | 7000 mm                            |
|        |                                 | Max. lift capacity                 | 70T ±3%                            | 70T ±3%                            |
|        |                                 | Boom Line speed                    | 0~6 m/min                          | 0~6.8 m/min                        |
|        |                                 | Boom swing amplitude               | 1220~7200 mm                       | 1220~7900 mm                       |
|        |                                 | Grade-ability                      | 20°                                | 20°                                |

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### **Dimensions**

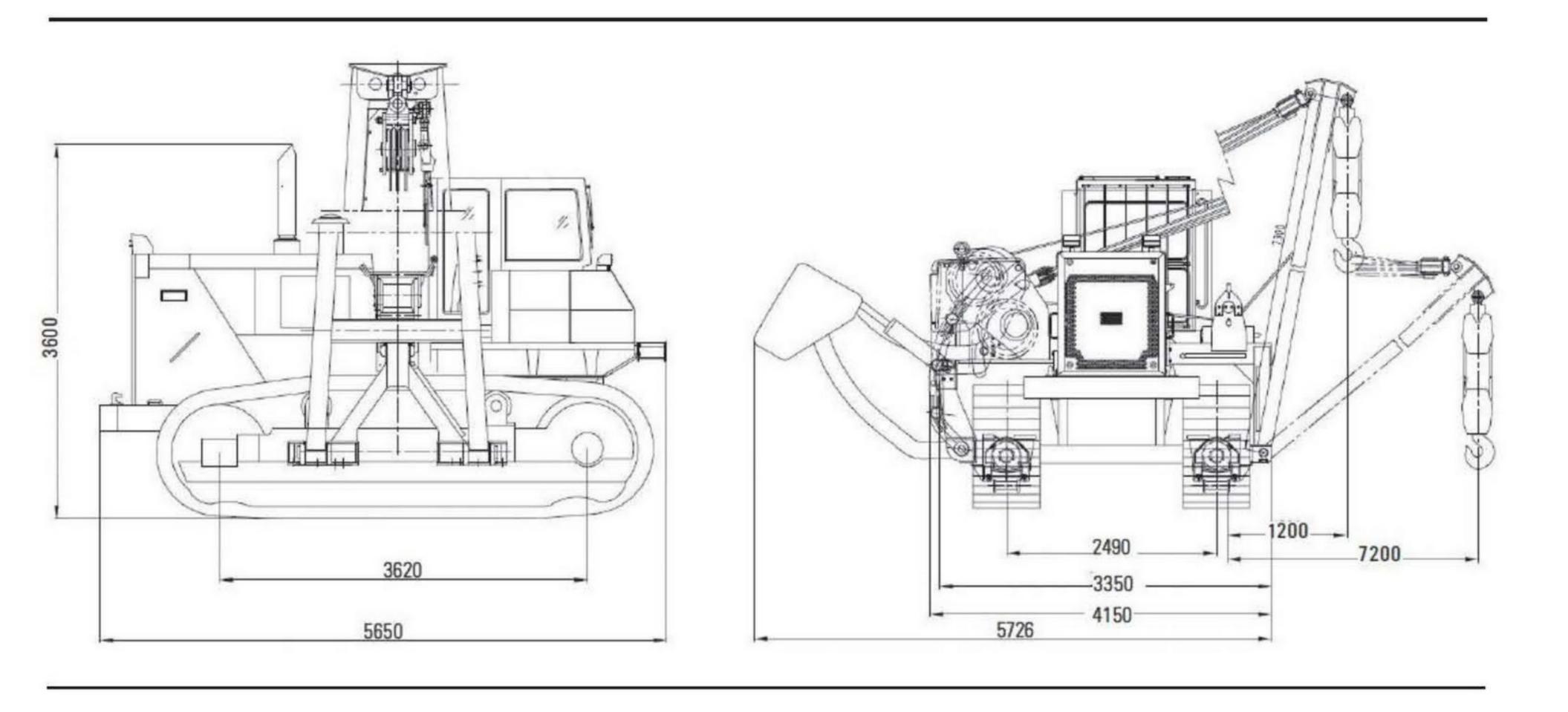


## **Lift Curve**

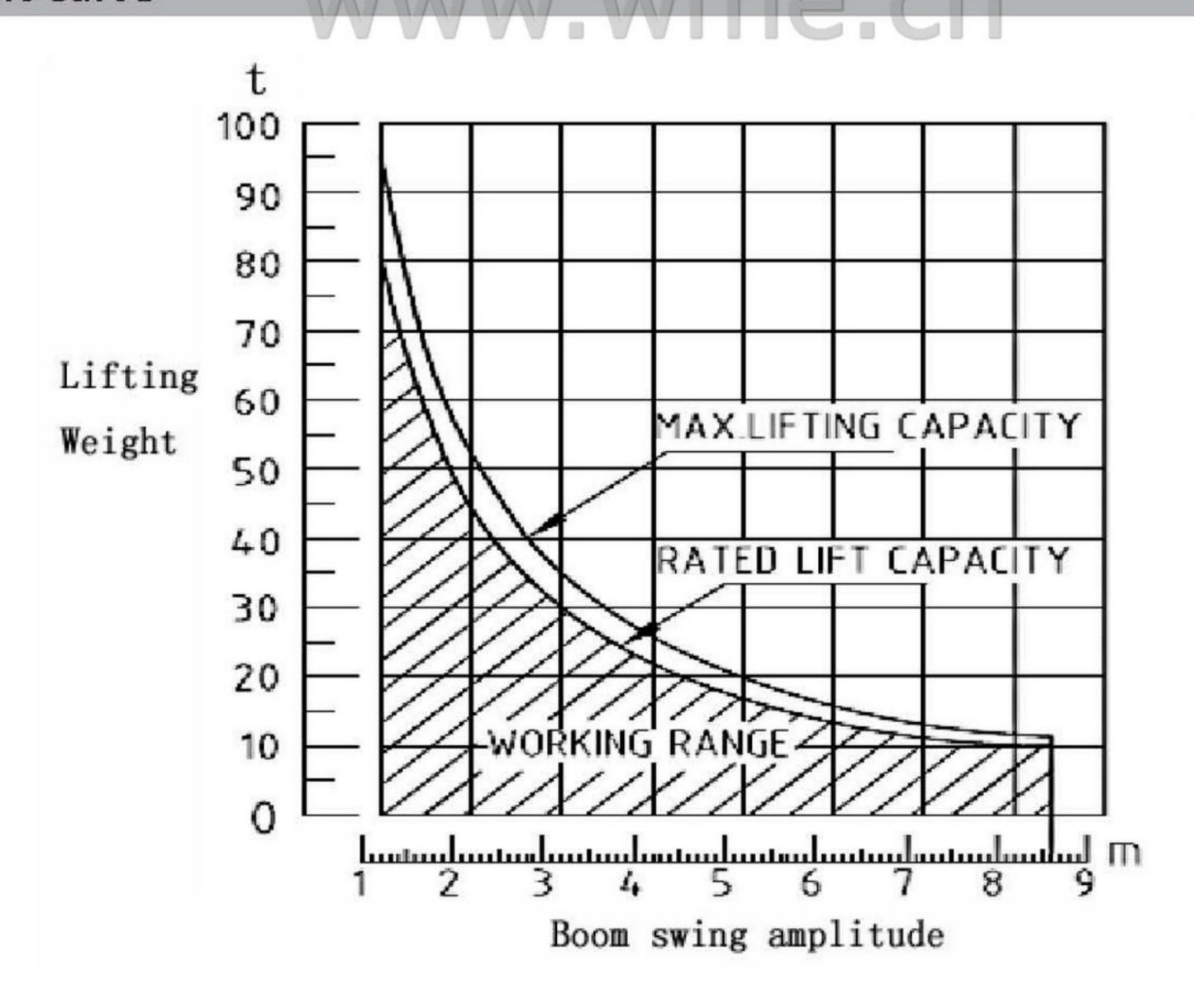


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### **Dimensions**



# **Lift Curve**



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