

# DHJ25-5

## Hydraulic Pile Driving Rig

# SPECIFICATION

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Due to company policy of continuous development and improvement, NIPPON SHARYO reserves the right to change designs and specifications without notice.

Main specification of DHJ25-5 is as below ;

**1. Model of basic machine** ..... DHJ25-5

**2. Nominal dimensions** (excluding 40mm height of rubber pad)

- 1) Overall width (Max. in transportation) ..... 2,490 mm
- 2) Crawler overall width ..... 2,490 mm
- 3) Crawler center to center distance ..... 1,990 mm
- 4) Crawler shoe width ..... 500 mm
- 5) Crawler overall length ..... 3,488 mm
- 6) Tumblers center to center distance ..... 2,780 mm
- 7) Ground clearance ..... 455 mm
- 8) Rear end radius ..... 2,604 mm
- 9) Overall length (Transportation) ..... 13,717 mm
- 10) Overall height (Transportation) ..... 2,849 mm

**3. Performance of front-end attachment**

**3.1 Auger model : HA-280SK-28W (SL system)**

- 1) Rotation torque (Low) ..... 30 ~ 91 kN·m  
(High) ..... 91 ~ 276 kN·m
- 2) Rotation speed (Low) ..... \* 2.5 ~ 7.5 min<sup>-1</sup>  
(High) ..... \* 5.0 ~ 15.0 min<sup>-1</sup>
- 3) Driving (Push down) / Extracting speed (Low) ..... 196 kN  
(High) ..... 98 kN  
(Ultra high) ..... 196 kN
- 4) Elevating speed (Low) ..... 2.8 m/min  
(High) ..... 5.5 m/min  
(Ultra high) ..... Approx. 10 m/min

Note 1: When elevating speed is “Ultra high”, only “Low” rotation speed is available.

Note 2: Driving (push down) / extracting force is the calculated value of rack drive.  
Maximum driving force is the load until the main body is lifted up (ie, approx.. 98 kN), as it depends on the site condition.

Note 3: Actual elevating force will decrease due to pressure loss or sliding resistance with guide.

Note 4: The acting force against ground related to elevating should be considered with the mass of front-end attachment.

### 3.2 Leader

- 1) Standard length ..... 12.38 m
- 2) Range of movement (with respect to vertical axis) (Forward) ..... 3 °  
(Backward) ..... 90 °  
(Leftward) ..... 3 °  
(Rightward) ..... 3 °
- 3) Auger elevating stroke ..... 10,755 mm

### 3.3 Winch

- 1) Maximum lifting load ..... 17.7 kN
- 2) Hoisting / Lowering speed ..... 10.5 m/min
- 3) Working radius ..... 3.5 m
- 4) Wire rope ..... IWRC6 x Fi(29)  $\phi$  12 mm x 30m

**4. Swing speed** ..... 2.4 min<sup>-1</sup>

Note 5: When steering action of traveling is impossible, jack up and swing.

**5. Travel speed** (Normal / Low) ..... \* 2.0 / 0.4 km/hr

**6. Gradeability** ..... 40 %

### 7. Diesel engine

- 1) Maker ..... Hino Motors, Ltd.
  - 2) Model ..... J05E-TA diesel engine
  - 3) Type ..... Water cooled, 4-cycle, Overhead valve, in-line  
4-cylinder, direct fuel injection, turbo-charged.
- |                       |  |
|-----------------------|--|
| Rated output          | 118 kW / 2000 min <sup>-1</sup><br>(160 PS / 2000 min <sup>-1</sup> )      |
| Maximum torque        | 592 N·m / 1600 min <sup>-1</sup><br>(60.4 kgf·m / 1600 min <sup>-1</sup> ) |
| Fuel consumption rate | 208 g/kW · hr<br>(153 g/PS · hr)   |

Note 6: This diesel engine applies with EU Stage IIIA and USA Tier3 of emission standard.

**8. Fuel tank capacity** ..... 250 liters

## 9. Mass

1) Total working mass .....	32.8 ton
2) Transporting mass (excluding drive rod and pile) .....	30.8 ton
3) Stability (Forward) .....	9.4 °
4) Ground contacting area .....	30,222 cm <sup>2</sup>
5) Average ground pressure (total working mass) .....	107 kPa

Note 7: "\*"marked speed changes in accordance with load.

10. General view of DHJ25-5

