

重日本車両



NIPPON SHARYO



천조코퍼레이션
CHUNJO CORPORATION



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DH718K-145M

MANUFACTURER:

NIPPON SHARYO, LTD.

SALES&MANUFACTURER

SHINUI PETRA CO., LTD.

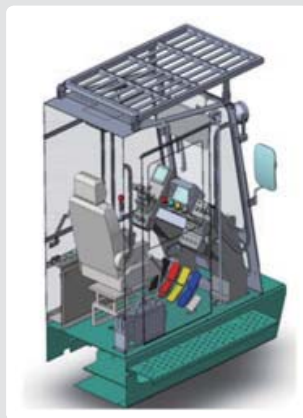
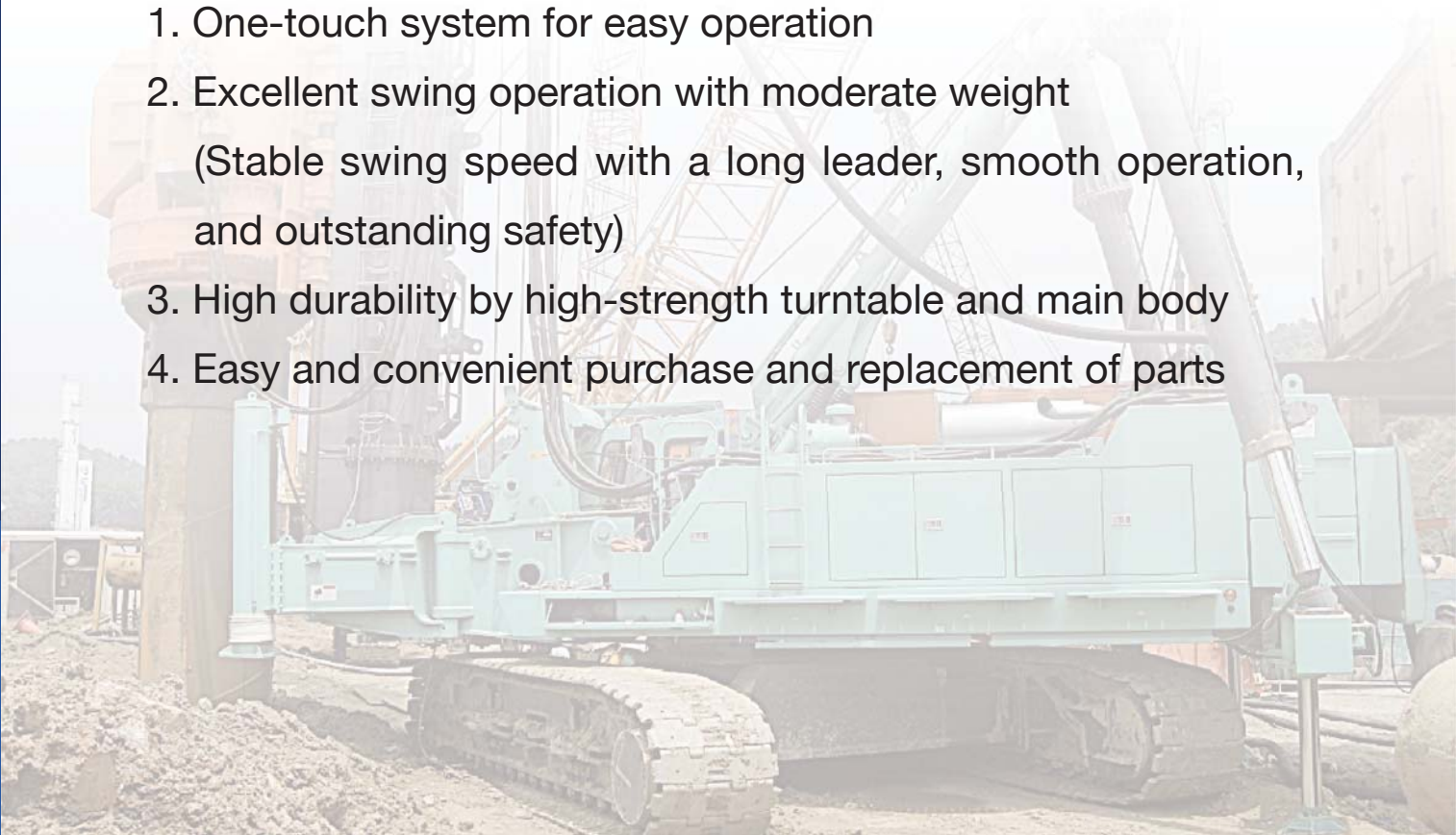


NIPPON SHARYO PHOENIX SERIES

DH718K-145M

■ Features

1. One-touch system for easy operation
2. Excellent swing operation with moderate weight
(Stable swing speed with a long leader, smooth operation, and outstanding safety)
3. High durability by high-strength turntable and main body
4. Easy and convenient purchase and replacement of parts



World-class Pile Driver

NIPPON SHARYO

ECO-FRIENDLY ENGINES



Satisfying the Tier 3 Standards

Powerful low-pollution engines

Low-noise type

Satisfying the low-noise standards of the Japanese Ministry of Land, Infrastructure, Transport and Tourism



少数特例2006年基準

低騒音認定ワッペン

Parts made by Shinui Petra Co.,Ltd.

■ Leader



- 1 Reduced strain rates and damage rates with Shinui Petra's patented technology
- 2 Improved stability with durable processing and precise welding
- 3 Outstanding compatibility with a back-tension top sheave

- 4 Improves leader strength and torque with integral flange
- 5 Inosculates annular plate inside the leader pipe, effectively dealing with the external force applied on the leader when piledriver is running

■ Bolt

- 1 Improved bolt durability with high-strength heat treatment



- 2 Improved inconvenience of reassembly by lowering strain and damage rates of bolts for disassembly
- 3 Plate washers' more durable clamping force than existing spring washers

WATCH AND OPERATE THE VEHICLE IN THE OPERATION ROOM EASILY



▲ Airconditioning duct

We reduced the number of winch levers by introducing the one-drum-one-motor individual lever system to a multi-drum pile driver.

In addition, we simplified the operator's seat by moving all levers from the operator's seat to the side stand except the stay cylinder lever in order to secure a wider view for operators. The operation room was designed to have a pleasant environment so that operators experience less stress from fatigue.



▲ Air-conditioning system using alternative Freon

MORE WIDELY APPLICABLE FOR THE WALL FOUNDATION AND SOIL IMPROVING METHODS IN ADDITION TO THE PILE DRIVING METHODS

Standardized slow speed control

The control scope of the rope speed increased to maximum 13 level (from 1 to 13 level) so that it is applicable for various auger methods, which improved pile driving quality and lifespan. (The rope speed varies depending on loads.)

Various kinds of hydraulic discharge (Option)

You can obtain required pressure or a flow rate with standard pumps for hydraulic discharge for NH-70 or forcers or with exclusive pumps for excavating forcers such as NH-100.



REDUCED STRESS WITH OUTSTANDING LAYOUT AND OPERATION FUNCTIONS

Standardized negative brakes and drum locks (Patented)

Automatic brakes are available for each drum when the one-drum-one-motor individual lever system is selected and a winch is easy to operate. As drum locks are automated with lever arrangement, it is easier to check the drum lock conversion status.



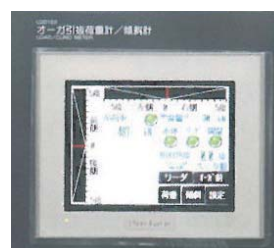
▲ Main, Sub, Third drum lock

▲ Fourth drum lock (option)

Load cell with inclinometer functions

In order to prevent the risk of tumble, the load cell measures an angle of inclination of the main body and leader and rings the alarm. In addition, it measures a pull-out load of the auger and informs the allowable pull-out load with an alarm. Its anti-sagging function prevents a tangle by automatically stopping lowering when wire tension reduces during extrusion.

※ Auto stop is available for the main drum only.



▲ Load cell with inclinometer functions

OK monitor display

It displays air filter clogging, water volume of the radiator, liquid measure of batteries, engine oil filter clogging, engine pressure, fuel gauge and battery charging status, and engine water temperatures.



External display of drum locks (Option)

You can check the status of drum locks with an external display, which improves operational safety.

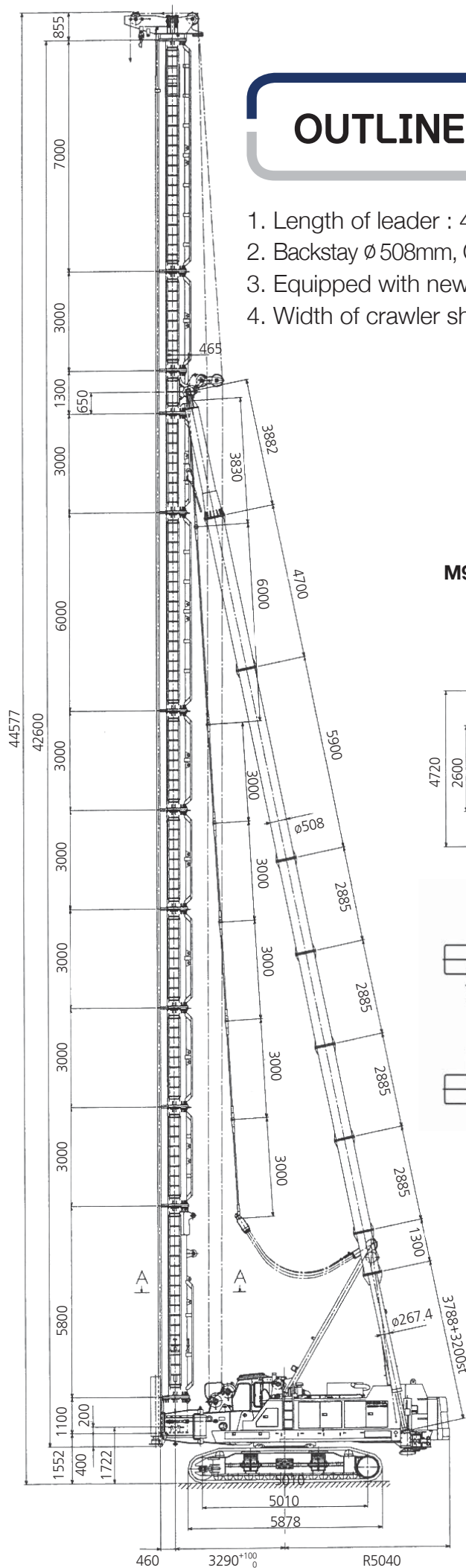
Red : Main drum

Yellow : Third drum

Blue : Sub drum

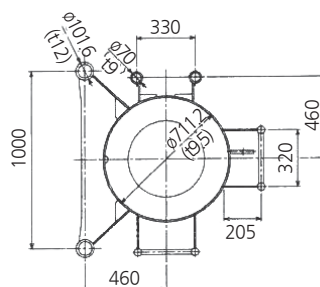
Green : Fourth drum





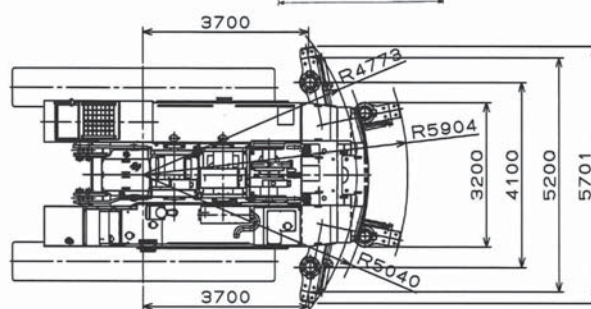
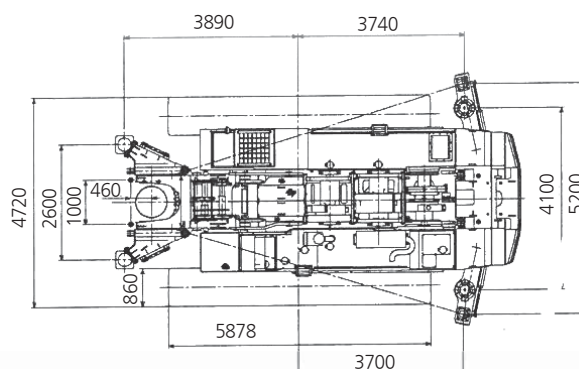
OUTLINE DIMENSION

1. Length of leader : 42m
2. Backstay \varnothing 508mm, Guide pipe \varnothing 1,000mm (optional : guide pipe \varnothing 600mm)
3. Equipped with new type of roller 14 pieces per each tracks
4. Width of crawler shoe : 860mm



M95C-W type Leader cross section

(guide pipe \varnothing 1,000mm)



- ※ Installing the generator board backward of counter weight makes the central location move backward and it improves the stability of forward and overall stability of the machine.

- ※ In case of installing the generator board below the counter weight, 4ton counter weight should be detached from the machine.

Counter weights can be attached/detached to/from the machine according to the weight of front attachment.

SPECIFICATIONS

MODEL		DH718K-145M
General dimensions	Type of Leader	M95C-W
	Length of leader	Standard 21m (Maximum 42m)
	Weight of base machine	49,000kg (480.2kN)
	Operating weight	145,000kg (1,421kN)
	Counter weight	18.5t (5.5t+2.7t×2+3.6t+4t)
	Average ground pressure	1.68kgf/cm ²
	Crawler overall width	Working 4,720 mm
		Transportation 3,420 mm
	Crawler center to center distance	Working 3,860 mm
		Transportation 2,560 mm
	Crawler shoe width	860 mm
	Crawler overall length	5,878 mm
	Tumblers center to center distance	5,010 mm
	Gantry height	Working 7,368 mm
		Transportation 3,322 mm
Drum	Main drum width (φ20 x total cable capacity)	541mm (565m)
	Main drum width (φ20 x total cable capacity)	374mm (390m)
	Auxiliary drum width (φ20 x total cable capacity)	146mm (145m)
	Fourth drum width (φ20 x total cable capacity)	200mm (120m)
Operation speed	Main drum winding speed (high/low)	66/33m/min
	Third drum winding speed (high/low)	66/33m/min
	Auxiliary drum winding speed (high/low)	66/33m/min
	Fourth drum winding speed	39m/min
	Leader hoist drum winding speed	47m/min
	Swing speed	2.4min ⁻¹
	Travel speed	0.8km/H
Engine	Manufacturer	Hino motors, Ltd.
	Model	J08E-TM
	Rated output	159kW/2000min ⁻¹ (216 PS/2000rpm)
	Maximum torque	797N·m/1600min ⁻¹ (81.3 kgf·m/1600rpm)
	Fuel consumption rate	208g/Kw · h (153g/PS · h)
	Battery	24V-120A · h×2

M95C-W LEADER COMPOSITION - STANDARD

Length of leader (m)	Composition
21	Pendant Stay Leader $\phi 37.5$ $\phi 508$
24	
27	
30	
33	
36	
39	
42	

- ※ The table above is an example to show the composition of leader, it's not compulsory. The length and composition of leader can be changed depending on the weight of attachment and the distance of center distance.
- ※ The maximum leader length should be applied in accordance with the model recognition of construction equipment approved by Korean Construction Equipment Safety Institute and working capacity table.
- ※ The above composition of leader changeable by manufacturer.

M95C-W LEADER COMPOSITION - EXAMPLE

Length of leader (m)	Composition
21	Pendant $\varnothing 37.5$ Stay $\varnothing 508$ Leader
24	
27	
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42	

※ The table above is an example to show the composition of leader, it's not compulsory. The length and composition of leader can be changed depending on the weight of attachment and the distance of center distance.

※ The composition of leader can be adjusted by the user's working condition.

WORKING CAPACITY TABLE

Safety is measured according to the structural standards of construction machinery vehicles notified by the Japanese Ministry of Health, Labor and Welfare. According to the standards, a vehicle should have a 5 or higher degree of front-rear stability and bilateral stability on flat and durable ground. Our products meet these standards.

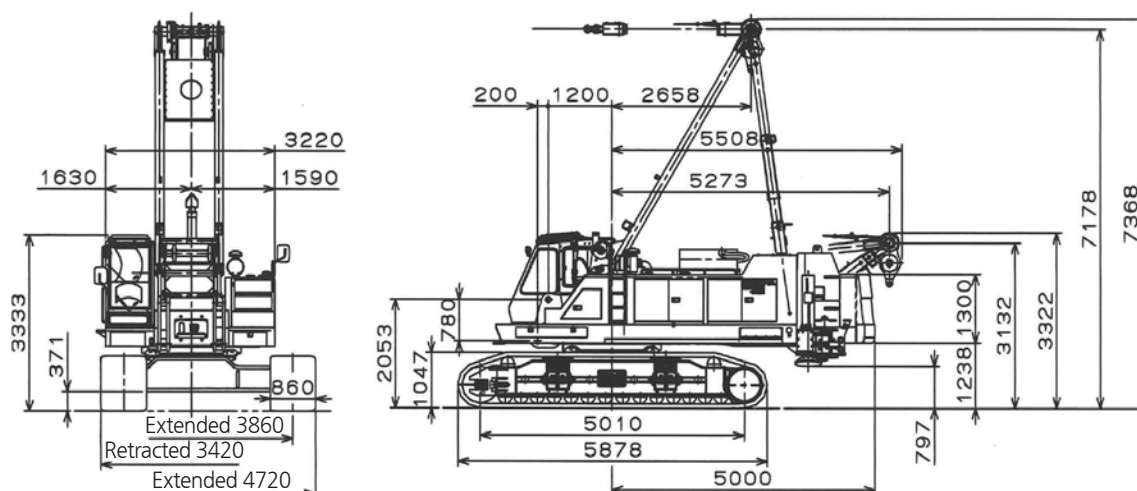
Rated power	159kW(216PS)/2000min ⁻¹	Leader type	M95C-W	Counter weight	18.5t
Travel speed (Max.)	0.8km/h	Leader bracket type	3.0M	Base machine weight	49.0t

Auger				Screw		Casing		Hammer	Lead- er	Vertical drive stability without pile (working)		Total operating weight without pile	Average ground pressure with pile	
Upper auger		Lower auger												
Type (Class)	Weight (t)	Type (Class)	Weight (t)	Length (m)	Weight (t)	Length (m)	Weight (t)	Weight (t)	Length (m)	Front & rear	Left & right	t	kPa	kgf/cm²
120PS	5.8	150PS	6.7	30	5.0	22	10.5	4	36	7.0° (* * *)	12.0	137	155.8	1.59
120P	5.8	-	-	35	8.8	-	-	5.8	39	9.0	11.8	127.5	145.0	1.48
SW- 120PW	6.5	SW- 150PW	8.5	38	5.0	34.0	2.0	7.0	42	77° (* *)	10.0	145	164.9	1.68

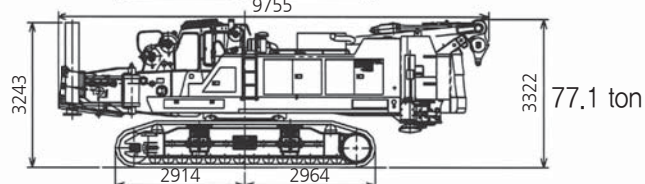
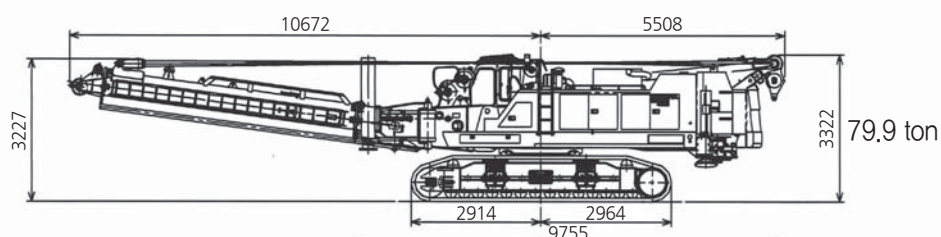
Note

1. The table shown above is based on NIPPON SHARYO standard specification. Consult us when special specifications are required.
2. The maximum leader length of self-erection is 27m with front jacks being installed. An assistant crane is required for erecting longer leader than 27m.
3. Take the safety factor of 5 or more for the auger suspension rope and other winch ropes.
4. The maximum operating weight is 145t.
5. The permissible torque of the auger drive to be installed is 245kN-m (25ton-m).
6. The maximum extraction force applied to the leader is 637kN(65t). 27m leader and the distance between auger center and guide pipe is 800mm.
7. Apply front jacks when the suspension load of the auger exceeds 510kN (52t)
8. When installing 33m or 36m leader, generator board can be put on the counter weight. In case the length of leader is higher than 36m, make sure that the generator board is installed below the counter weight for stability.
9. Maximum length of leader should be under 42m working while working on the weak ground. In case of installing leaders higher than 42m, calculation of ground contract pressure and ground reinforcement are necessary. In addition, operators should pay particular attention for traveling in this situation.
10. The above working can be changed depending on the attachment, leader length and the position of generator. etc.

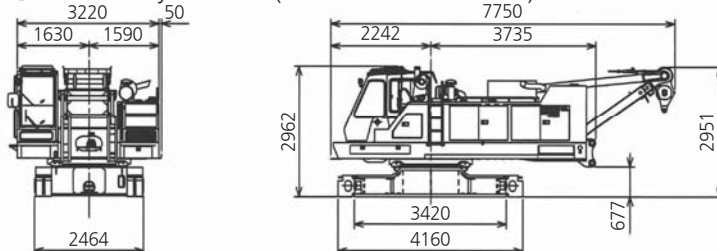
GENERAL VIEW



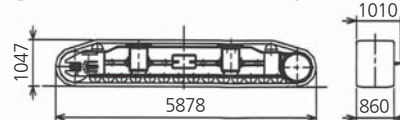
TRANSPORTATION DIMENSION AND WEIGHT



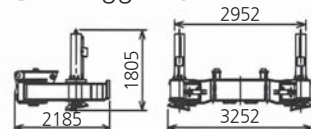
① Main body 29.5 ton (installed fourth drum)



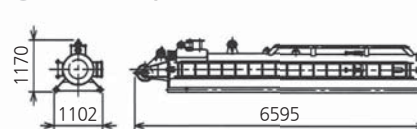
② Crawler Side frame 8.8 ton x 2



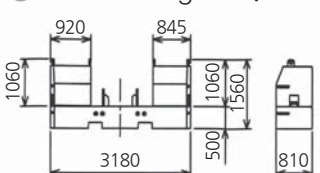
③ Outrigger 3.9 ton



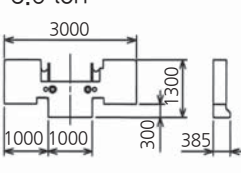
④ Leader 2.8 ton



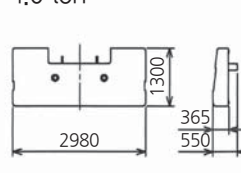
⑤ Counterweight 10.9 ton



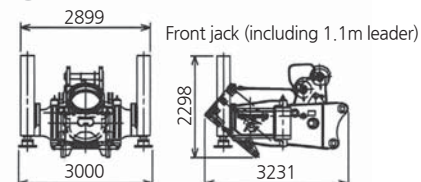
3.6 ton



4.0 ton



⑥ Leader bracket 9.5 ton





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