

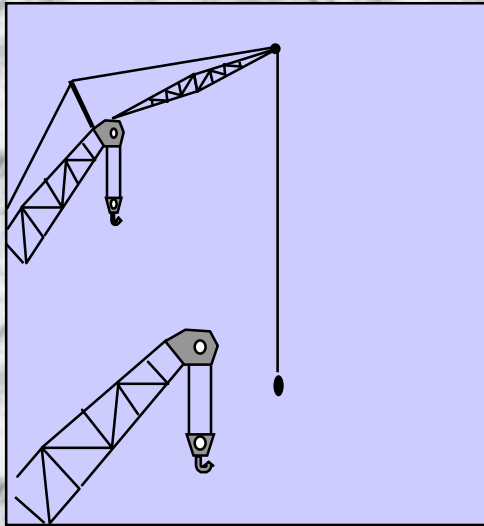
NISSHA

Crawler crane

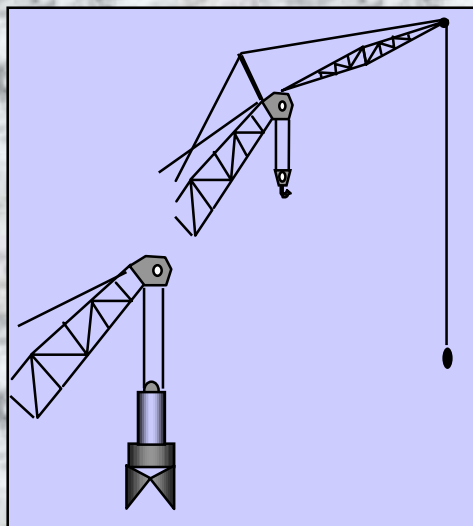


**NIPPON SHARYO**

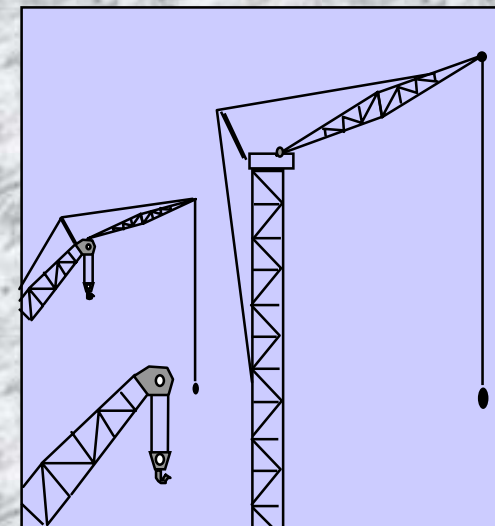
# A fleet of NISSHA DH-series Crawler Cranes



DH500-6, DH650-6



DH700D, DH900D



DH800

Specifications	DH500-6	DH650-6	DH700D	DH900D	DH800
Load(t) x radius(m)	<b>50 x 4.0</b>	<b>65 x 4.0</b>	<b>70 x 4.0</b>	<b>90 x 4.0</b>	<b>80 x 4.0</b>
Max. boom (m)	52	55	46	55	58
Max, boom(m)+jib(m)	43 + 18	46 + 18	-	46 + 16	49 + 22
Line speed (m/min.)	109	109	100	100	121
No. of drums	2	2	2 + (1)	2 + (1)	2

Note; (1) Optional extra

# ***DH800 [Operator-oriented design]***

## ***Safe and Facile operation first!***

- ***High winch performance (See ①~⑥)***
- ***Comfortable operating circumference (See ⑦、⑧)***
- ***Comfortable operation environment with safety (See ⑨)***
- ***Easy transportation ](See ⑩~⑫)***
- ***Clean exhaust gas emission, Low sound level (See ⑬ )***

# ***High performance of winch***

## **C o n t e n t s**

- ***Highest rope winding speed of 121 m/min. (See ①)***
- ***Powerful line pull of 25.4t with  $\phi$ 28mm rope (See ②)***
- ***Fully responded pump delivery to the engine speed from ultra low to the maximum winding speed. (See ③)***
- ***High inching performance at low line speed (See ④)***
- ***Total control of main and auxiliary hooks and boom winding speed for their simultaneous lifting and horizontal carrying. (See ⑤)***
- ***Planetary reduction gear with hydraulic brake provided each winch drum. (See ⑥ )***

# ① Highest line speed in this class

NISSHA			Kobelco	Sumitomo
DH700D	<b>DH800</b>	DH900D	7080 <sub>-2</sub>	SC800 <sub>-2</sub>
100~62 /31	<b>121~56 /28</b>	100~62 /31	100~60 /50~30	90~2

(High/Low) m/min<sup>-1</sup>

In case of 46m boom :

No. of part line(24t max.)

Lifting speed

**DH800**

**2-part lines**

**60m/min**

Competitor

3-part lines

33m/min

In case of 34m boom :

No. of part line(36t max.)

Lifting speed

**3-part lines**

**40m/min**

4-part lines

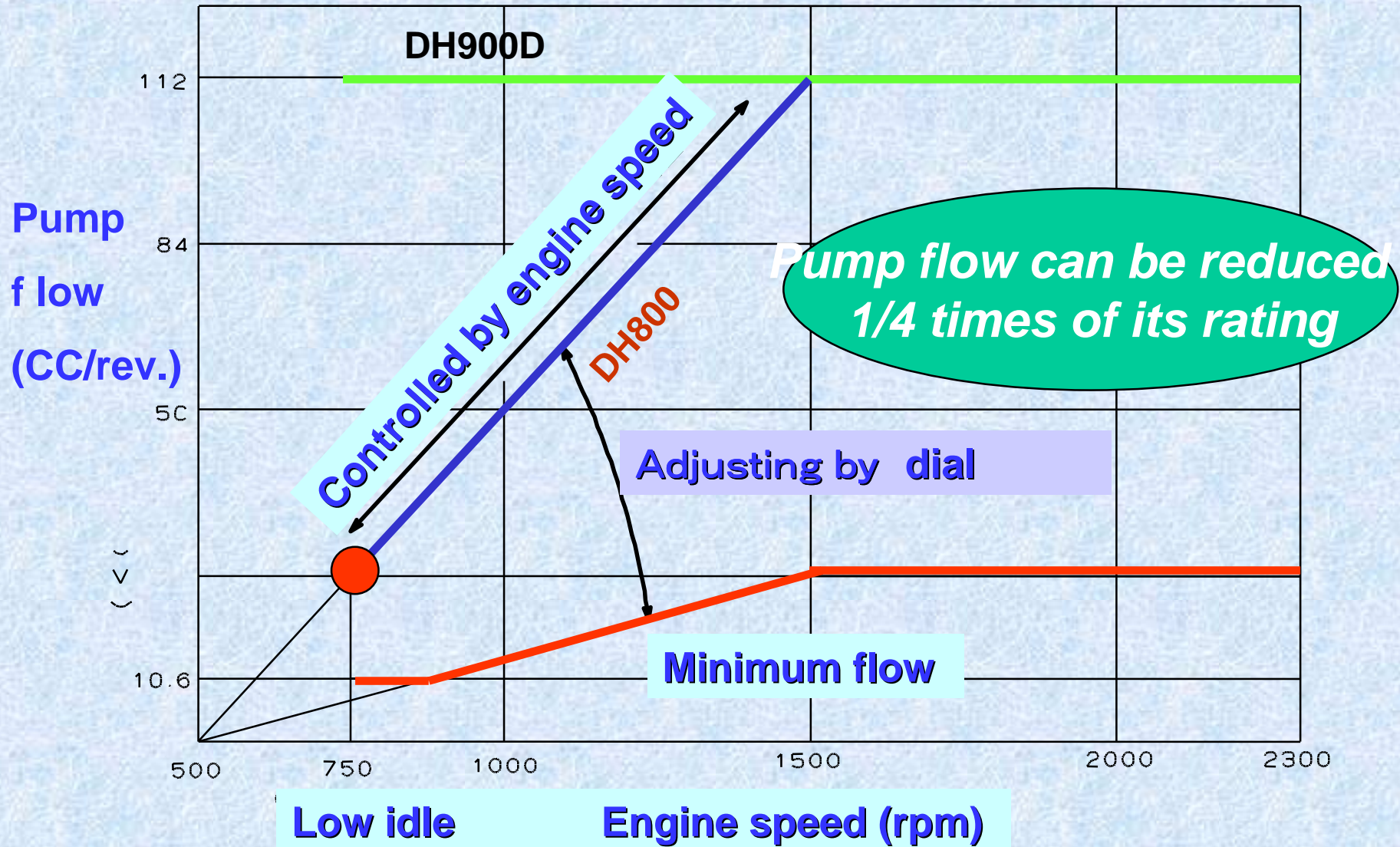
25m/min

## ② Strongest line pull in this class

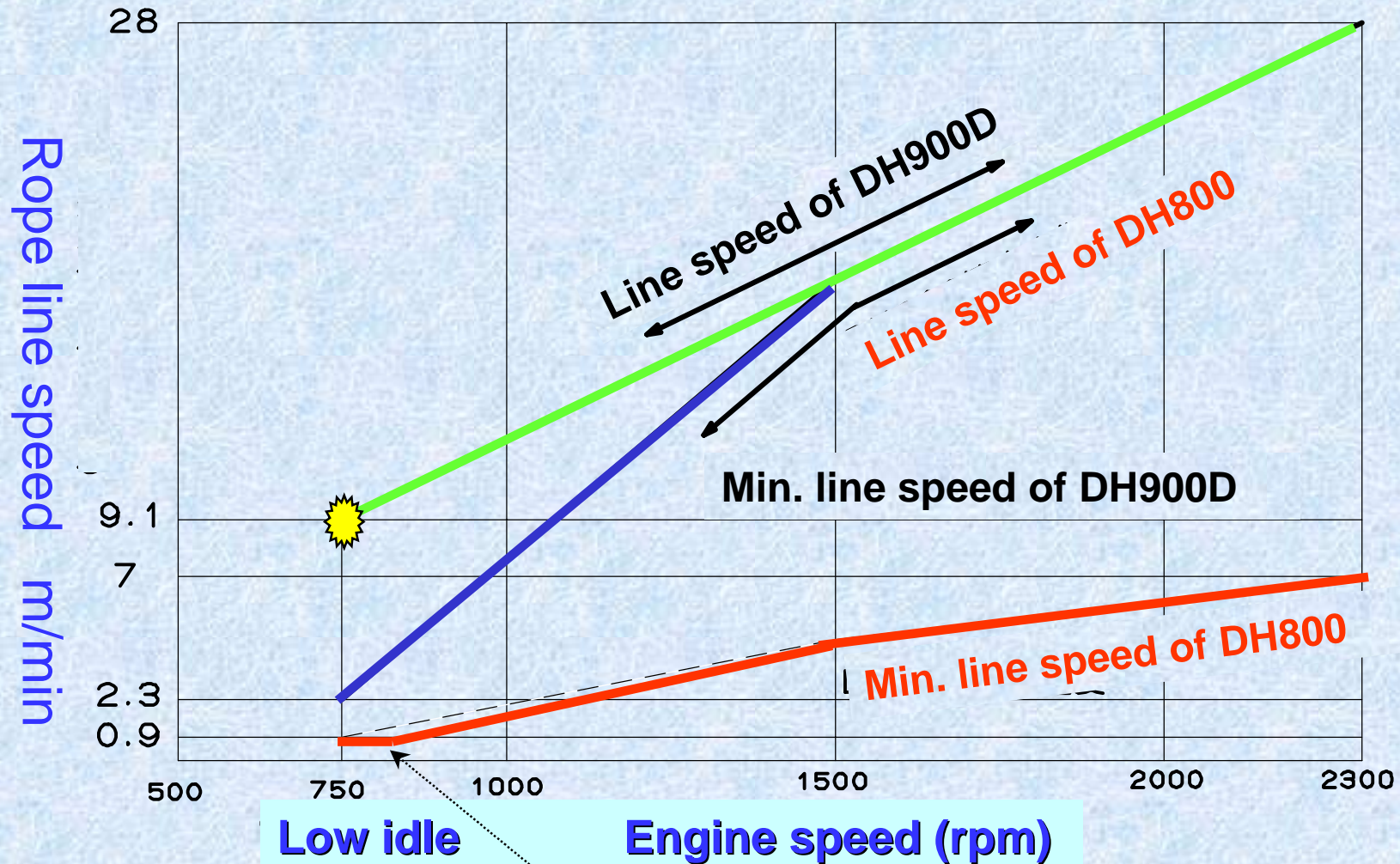


	NISSHA		Kobelco	Sumitomo
DH700D	<b>DH800</b>	DH900D	7080 <sub>-2</sub>	SC800 <sub>-2</sub>
Φ 26	<b>Φ 28</b>	Φ 26	Φ 26	Φ 26
20-layer 36m	<b>20-layer 36m</b>	20-layer 36m	22-layer 36m	22-layer 36m
10t	<b>12t</b>	10t	10t	10t
22.2t	<b>25.4t</b>	22.2t	20t	20t

### ③ Pump regulation related to engine speed



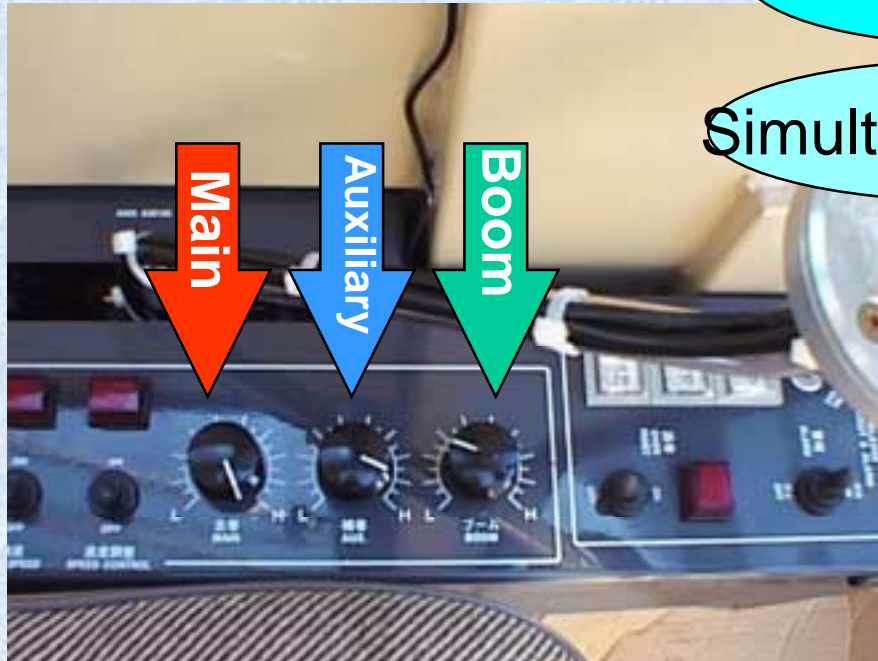
## ④ Ultra slow speed control (Inching)



Ultra slow speed: 4cm/s

# ⑤ Facile operation

## “Simultaneous lifting & horizontal carrying”



Winding speed controller

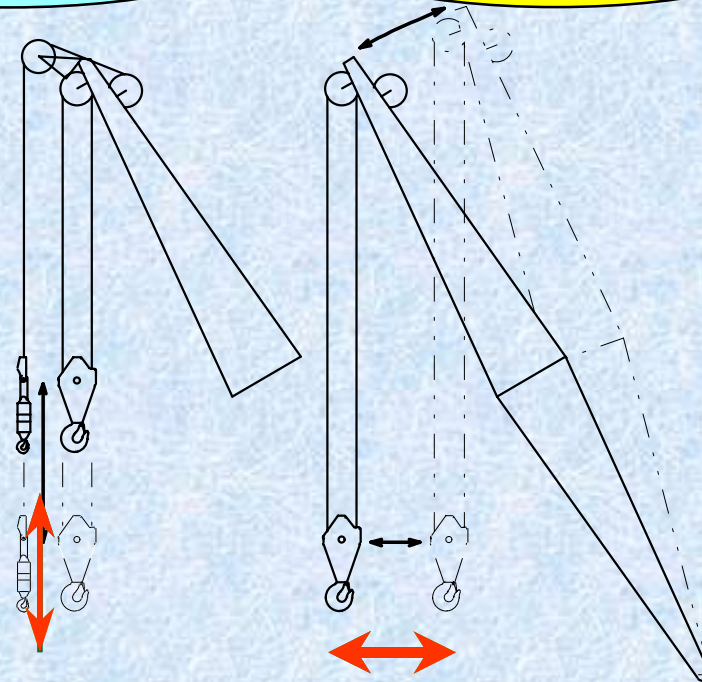
No speed control required for simultaneous winding with main (4-part) and Aux. (single)

Main / aux.hooks

Main hook/boom

Simultaneous lifting

Horizontal carry



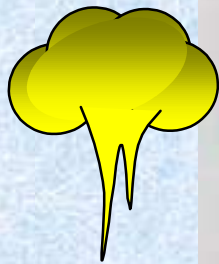
# ⑥ *Reliable yet light brake-pedal treading*

## *Single lever control*

**Power controlled lowering mode**



**No brake pedal treading required  
Able to wind/rewind with pedal treaded**



**Free fall mode**



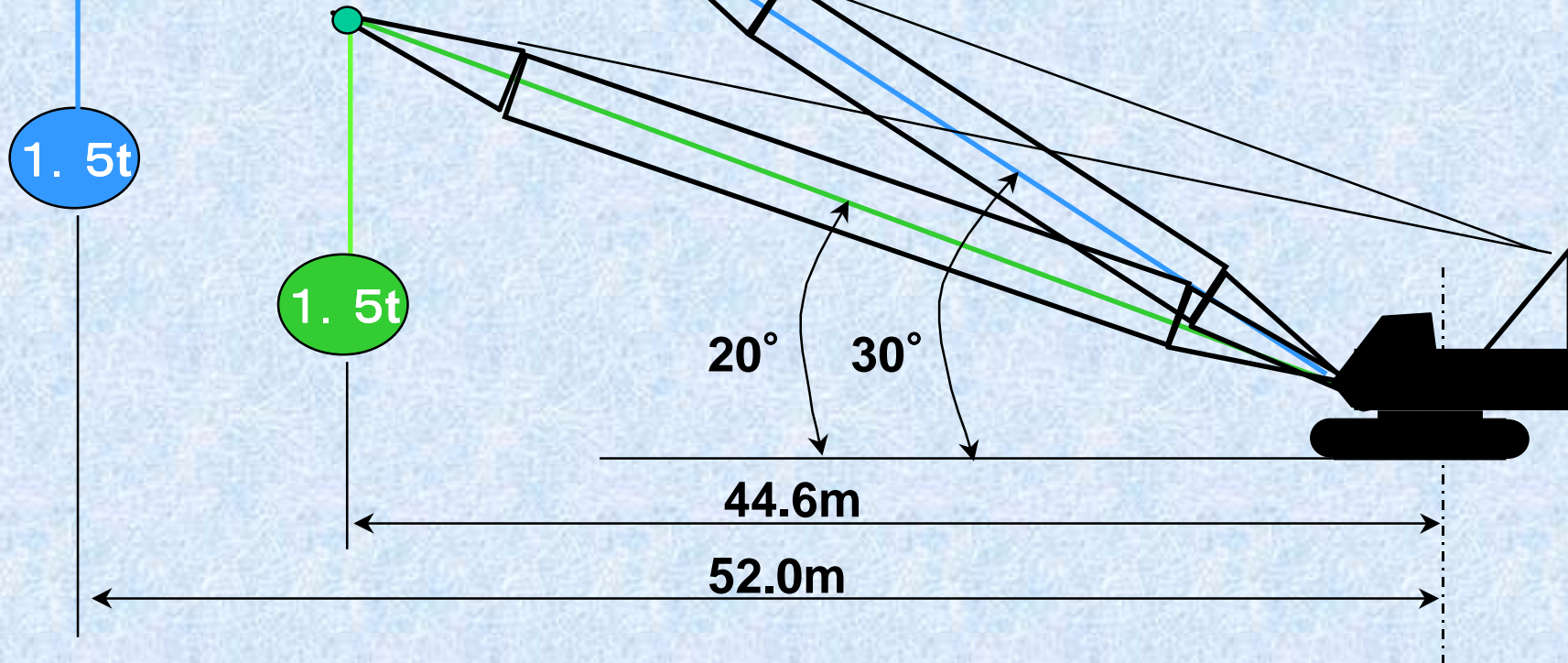
**Planetary reduction gear**

**Free fall : Controlled by treading brake pedal  
Able to wind with pedal treaded**

## ⑦ Long reach operation

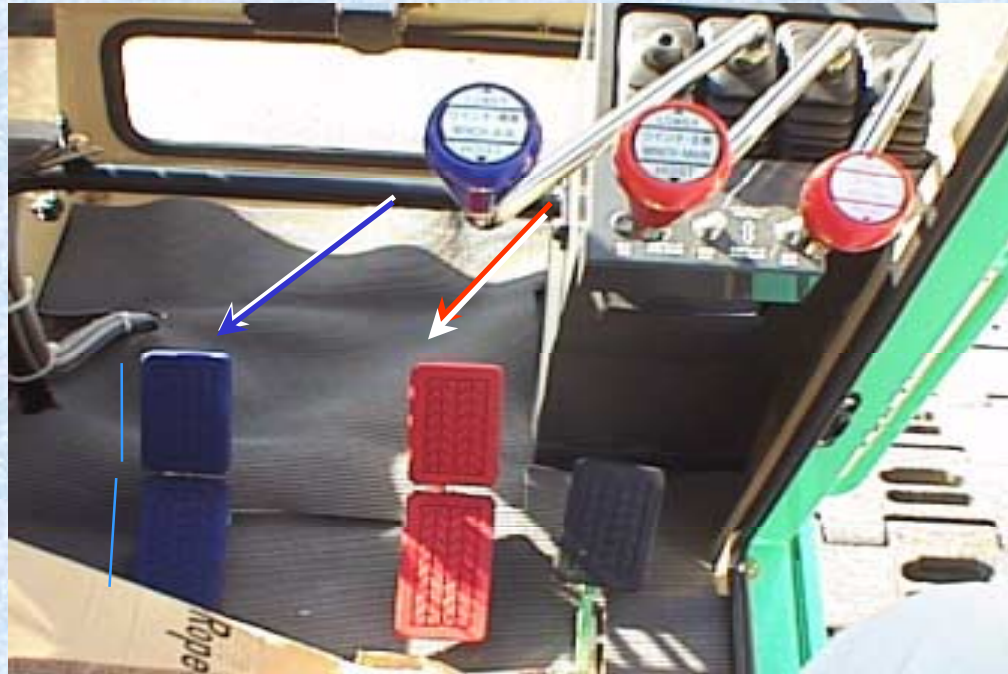
Main boom: Max. **44.6m** ..... Lifting capacity:  
1.5ton

Main + fly jib: Max. **52m** ..... Lifting  
capacity: 1.5ton



## ⑧ *Relative coloring on Pedal and Grip*

Patent applied



- *At a sudden incident, by a color is the most effective in instantaneous reaction.*
- *Even if an operator who is not used to operate the machine, little mis-handling occurs.*
- *Adjustable control lever position assures the most suitable driving position*

## **⑨ Comfortable operation environment with safety**

### **1. Free fall interlock mechanism**

***Prevention of unexpected drop of suspended load.***

### **2. Gate lock device**

***Alarming when leaving operator room with pedal unlocked.***

### **3. Buffer mechanism provided to boom lowering**

***Absorbing a shock when stopping boom lowering function***

***which causes swaying of suspended load.***

### **4. Free fall indicating lamp**

## ⑩ *Minimum overall width for facile transportation*

(With crawlers dismantled)

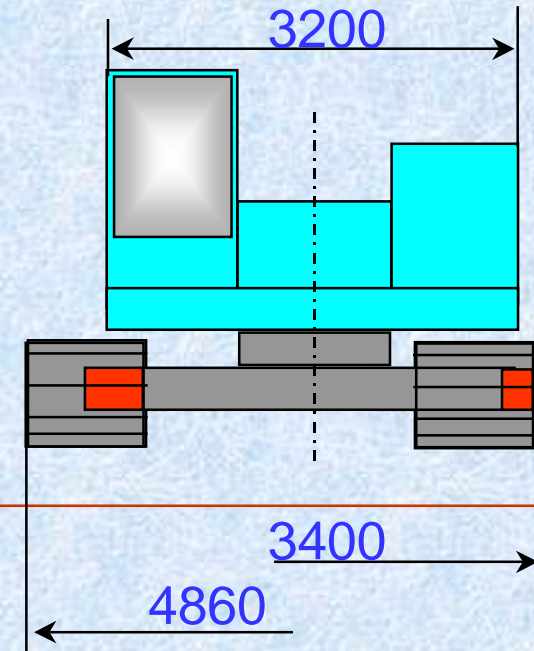
**Minimum overall width in transportation : 3200mm**

NISSHA			Kobelco	Sumitomo
DH700D	DH800	DH900D	7080	SC800
<b>3200</b>	<b>3200</b>	<b>3200</b>	3400	3400

**Minimum overall width in operation : 3400mm**

NISSHA			Kobelco	Sumitomo
DH700D	DH800	DH900D	7080	SC800
<b>3400</b>	<b>3400</b>	<b>3500</b>	3500	<b>3490</b>

# ⑪ Track frame folding mechanism in crawler retraction & expansion

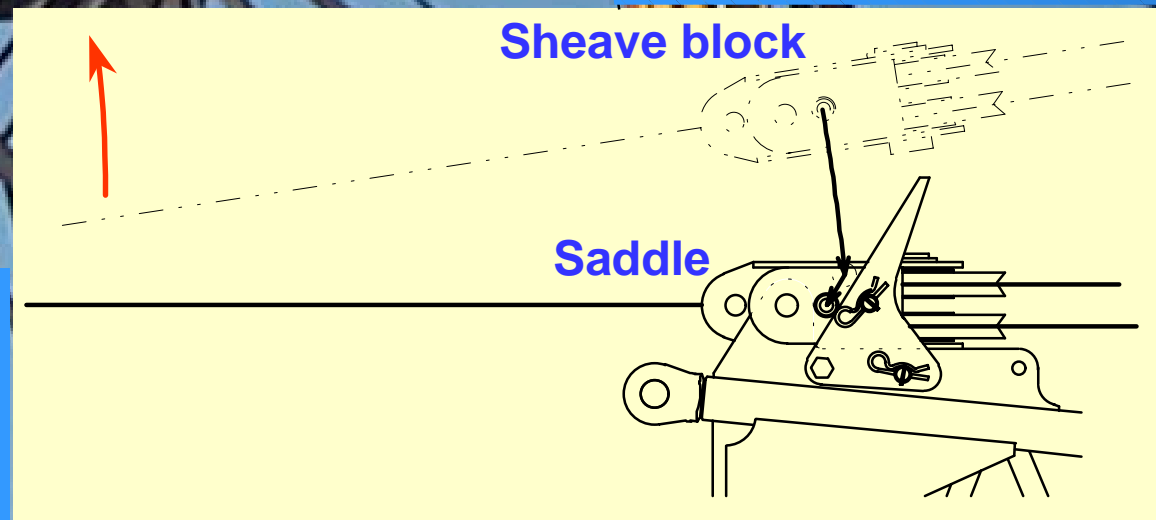


**■ Folding type axle**  
(Patent applied)

## ⑫ Track frame folding mechanism in crawler retraction & expansion

Easy storing of sheave block to the saddle of boom shoulder.

Sheave block is guided and stored on the position when lowering boom.



## **⑬ Clean & Quiet**



**Diesel engine**

***Clean exhaust  
gas emission !***

**Low sound level**

**100 dB**

**LwA acoustic power level  
at the radius of 16m  
(67 ~ 69 dB)**

## ⑭ Comparison table

(m)	NISSHA			Kobelco	Sumitomo
	DH700D	DH800	DH900D	7080	SC800
Load(t × m)	70t × 4m	80t × 4m	90t × 4m	80t × 4m	80t × 4m
25mboom	18.8t × 10m	24.1t × 10m	24.9t × 10m	23.3t × 10m	21.6t × 10m
Basic boom	10	13	13	12.2	12.2
Max. Boom length	46	58	55	57.9	57.9
Boom+jib	-	49+22	46+16	51.8+21.3	48.8+22.9
Engine power	250PS	250PS	250PS	250PS	250PS
Operating weight(t)	68.9	81.9	83.9	84.8	84.1
Base machine(t)	29.5	30.7	31.5	?	31.8
Shoe width	800	860	860	900	810
Tumbler center	4900	5300	5100	5345	5375
Rear end radius	4100	4400	4400	4400	4390