

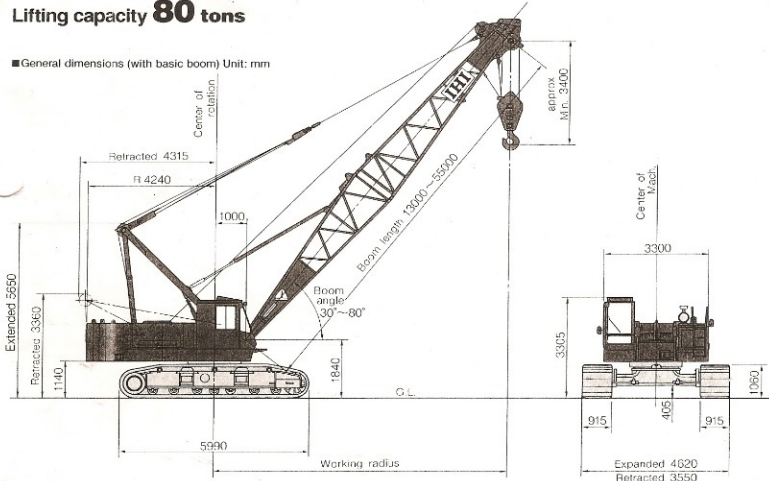
IHI

# DCH800

## Fully Hydraulic Crawler—Spanner Crane

Lifting capacity **80 tons**

■ General dimensions (with basic boom) Unit: mm



### The world is our stage. IHI Technology—on land or sea.

DCH800: a muscular crawler crane, the kind of machine that can be equipped with the proper attachments and used at nearly any foundation or digging job at most construction sites. This hard-worker does equally well on land or water—excellent for the heavy construction needed for harbors, for example.

The superstructure is equipped with a lattice boom that uses an independently arranged two-drum-on-a-single-shaft (DOUBLE WING) system with a maximum lifting capacity of 80 tons and a drum winding speed of 70 meters per minute. And the big diesel puts out 230ps, maximum, at 2,100rpm.

Operations are 100% hydraulic, to take full advantage of the power of this machine. Further, hydraulic spanner crawlers are used to provide the safe stability operators want when working. And its turning radius is a mere 4.24 meters, a definite improvement.

The crawler frame itself is a compact as possible, and can be transported with a trailer.

Heavy equipment benefits from the application of IHI technology: Witness the multi-purpose, multi-use, fully hydraulic DCH800 crawler crane.

### ■ Specifications

<b>Performance</b>	
Swing speed	3.0 rpm
Travel speed	1.5 km/h
Gradeability	40% (22°)
<b>Operation system</b>	
Power source	Hydraulic
Transmission system	Hydraulic
Drum type	Independent two drum on single shaft (DOUBLE WING)
Swing system	Swing bearing
Hydraulic pump	Variable displacement axial plunger pump × 3 Gear pump × 1
<b>Engine</b>	
Model	Hino EP100T
Type	4 cycle, water cooled Direct injection diesel
Cylinder bore stroke	6-120mm × 130 mm
Total displacement	8.82 l
Rated output	230 PS/2100 rpm
Max. torque	71 kg·m/1400 rpm
Rated fuel consumption rate	172 g/PS·h
Fuel tank capacity	350 l

NOTE: Spends change with load level.

# Crane

## Specifications

Maximum lifting load x working radius	80 tons x 3.7m	
Basic boom length	13.0m	
Max. boom length	55.0m	
Max. length of boom + fly jib	62.0m (46.0m + 16.0m)	
Rope speed	60 m/min	
	Load hoisting and lowering	High speed 70m/min, Low speed 35m/min
	Jib load hoisting and lowering	High speed 70m/min, Low speed 35m/min
Part lines	Boom hoisting	12-part lines
	80 ton hook	8-part lines
	10 ton hook	1-part line
Counterweight	23.0tons	
Crane total weight (with 13m boom and 80 ton hook block)	78.8tons (Basic Boom)	
Average ground bearing pressure	0.76kg/cm <sup>2</sup>	

NOTE: Speeds change with load level.

## Wire rope

Place of use	Rope diameter (mm)	Guaranteed strength (t)	Rope type
Main hoisting	φ26	49.9	C
Boom hoisting	φ20	30.0	C
Boom suspension	φ40	120.0	C
Aux hoisting	φ26	49.9	C
Jib boom suspension	φ28	59.3	E
Jib strut suspension	φ28	59.3	E

NOTE: Rope type  
 C ..... 6×F1 (29) IWRC, galvanized, regular Z lay.  
 E ..... 6×F1 (28) IWRC, galvanized, regular Z lay.

## Rated lifting loads (Within 20% of tapping load, however stability factor over 1.15)

Working Radius (m)	Boom length (m)															
	13.0	16.0	19.0	22.0	25.0	28.0	31.0	34.0	37.0	40.0	43.0	46.0	49.0	52.0	55.0	
3.7	80.0															
4.0	75.0															
4.5	70.5	64.0														
5.0	58.8	58.6	56.0													
5.5	50.3	50.2	50.1	50.0												
6.0	43.9	43.8	43.7	43.6	43.5											
7.0	35.0	34.8	34.7	34.6	34.5	34.4	34.3									
8.0	28.9	28.8	28.7	28.6	28.5	28.4	28.3	28.2	28.1							
9.0	24.6	24.5	24.4	24.3	24.2	24.1	24.0	23.9	23.8	23.7	23.5					
10.0	21.4	21.3	21.2	21.1	21.0	20.9	20.8	20.7	20.6	20.5	20.4	19.0	17.2			
12.0	16.8	16.7	16.6	16.5	16.4	16.3	16.2	16.1	16.0	15.9	15.8	15.7	14.9	12.7		
14.0		13.6	13.5	13.4	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.5	10.7	9.6	
16.0			11.4	11.3	11.2	11.1	11.0	10.9	10.8	10.7	10.6	10.5	10.4	9.5	8.3	
18.0				9.6	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.8	8.7	8.5	7.3	
20.0				8.3	8.2	8.1	8.0	7.9	7.8	7.7	7.6	7.5	7.4	7.3	6.4	
22.0					7.2	7.1	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.3	5.5	
24.0						6.3	6.2	6.1	6.0	5.9	5.8	5.7	5.6	5.5	4.8	
26.0							5.5	5.4	5.3	5.2	5.1	5.0	4.9	4.8	4.2	
28.0								4.8	4.7	4.6	4.5	4.4	4.3	4.2	3.6	
30.0								4.3	4.2	4.1	4.0	3.9	3.8	3.7	3.2	
32.0									3.8	3.7	3.6	3.5	3.4	3.3	2.6	
34.0										3.3	3.2	3.1	3.0	2.9	2.2	
36.0											2.8	2.7	2.6	2.5	1.8	
38.0												2.5	2.4	2.3	2.1	1.4

- The weight of the sling, hook and auxiliary flying devices are considered a part of the load.  
 Main hook 80 ton hook block 1,100kg  
 Main hook 50 ton hook block 700kg  
 Main hook 30 ton hook block 600kg  
 Jib hook 10 ton hook block 400kg
- The following weights must be subtracted from the rated load when lifting by the main hook while the jib hook is attached:  
 1.0m jib boom ..... 600kg  
 13.0m jib boom ..... 1,700kg  
 13.0m jib boom ..... 2,100kg  
 15.0m jib boom ..... 2,500kg

- Recommended hoist cable parts:  
 For loads upto: Use:  
 30 tons—1-part line 50 tons—5-part line  
 25 tons—2-part line 60 tons—6-part line  
 20 tons—3-part line 80 tons—7-part line  
 40 tons—4-part line 80 tons—8-part line
- 1.0m jib boom can be attached to 13.0m to 32.0m main boom. While the jib is attached, available lifting capacity is 900kg less of the rated lifting capacity of main boom.
- The total weight of the main hook and the jib hook must be subtracted from the rated load when lifting with the jib hook while the main hook is attached.

- The allowable load when lifting by a jib at a radius from the center of rotation of the machine is the same load that may be lifted by the main boom with the hook lowered to that radius, but is not to exceed the following:

Jib length	1m	10m	13m	15m
15° jib offset	10	3.0	4.5	3.5
30° jib offset	10	3.0	4.5	3.0

- The angle formed by the extended center line of the main boom and the outer line of the jib should not exceed 30° when a load is lifted.