

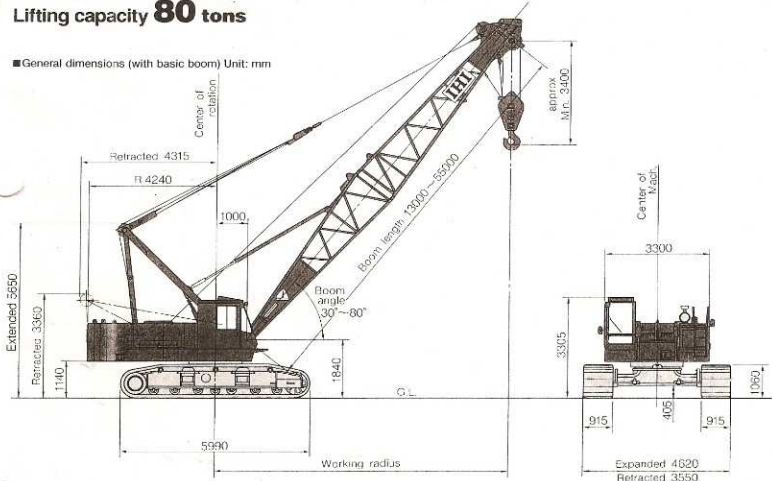
IHI

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 retracted with a trailer.

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

■ Specifications

Performance	
Swing speed	3.0 rpm
Travel speed	1.5 km/h
Gradeability	40% (22°)
Operation system	
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
Engine	
Model	Hino EP100T
Type	4 cycle, water cooled Direct injection diesel
Cylinder bore stroke	6-120mm×130mm
Total displacement	8.82l
Rated output	230PS/2100rpm
Max. torque	71kg·m/1400rpm
Rated fuel consumption rate	172g/PS·h
Fuel tank capacity	350l

NOTE: Spends change with load level.

Courtesy of Crane.Market

Crane

■ Specifications

Maximum lifting load x working radius	80 ton 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)
Boom hoisting and lowering	*60m/min
Rope speed	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	23.0 tons
Crane total weight (with 13m boom and 80 ton hook block)	78.8 tons (Basic Boom)
Average ground bearing pressure	0.76 kg/cm ²

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 x F (29) IWRC, preformed, regular Z lay.
E 6 x F (28) IWRC, preformed, regular Z lay.

■ Rated lifting loads (With 20% of breaking load, however, the safety factor must be 1.5)

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	1.4

1. The weight of the sling, hook and auxiliary fitting devices are considered a part of the load.

Main hook	10 ton hook block	1,100 kg
Main hook	50 ton hook block	730 kg
Main hook	80 ton hook block	600 kg
Jib hook	10 ton hook block	400 kg
Jib hook	50 ton hook block	2,100 kg
Jib hook	80 ton hook block	2,500 kg

2. 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	600 kg
13.0m jib boom	1,700 kg
13.0m jib boom	2,100 kg
15.0m jib boom	2,500 kg

3. Recommended hoist cable parts:

For loads upto: Use:	For loads upto: Use:
10 tons—1-part line	50 tons—5-part line
25 tons—2-part line	60 tons—6-part line
30 tons—3-part line	90 tons—7-part line
40 tons—4-part line	80 tons—8-part line

4. 1.0m jib boom can be attached to 13.0m to 32.0m main boom. While the jib is attached, available lifting capacity is, 500 kg less of the rated lifting capacity of main boom.

5. 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.

6. 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	5.5
30° jib offset	10	3.0	4.5	5.5

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