

On Barges

Dredging Ships

Loading Ships



Setting a New Standard for Hydraulic Dredging for Amazing Production.

The Hydraulic Excavators on Barges Engineered for
Large-Scale Ocean Civil-Engineering Projects

*Here are Impressive
Advantages:*

Big Digging Force

High Maneuverability

Smooth, Speedy Movements

Great Economy, and Rugged Construction



Dredging Ships



EX3500

Hydraulic Excavators Mounted on Barges for Efficient Harbor Dredging and Maintenance. A Productive Substitute for Conventional Cable-Operated Dredges.

Big Digging Forces

The Hitachi dredging ship yields big digging forces from the ample-powered engine and sophisticated hydraulic system making efficient use of engine output. The result is productive digging into sea-floor deposits, from sand/soil to soft rocks. Assortments of buckets are available depending on types of sea-floor sediment and jobs.



The bucket can dig in various sea-bottom deposits, from sand/soil to crushed stones. Available for powerful dredging, sea-floor leveling, and rock uplifting.



The ripper bucket allows direct digging in soft rocks with high efficiency.



The one-point ripper can efficiently break sea-bottom bedrock.



The clamshell grab allows easy positioning, and grabbing of sea bottom deposits, especially through a limited opening of excavation.



EX1100



EX800H

Agile Front Movements

Agile front movements, and combined operations are clear advantages of the Hitachi hydraulic excavator. The boom moves up swiftly, and the upperstructure turns smoothly for higher dredging efficiency and productivity.



Easy Sea-Bottom Finishing

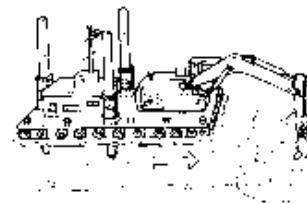
Good maneuverability and combined operations enhance ease-of-positioning and precision sea-bottom finishing. This helps increase job efficiency.

2-Lever Control

All operations can be done by 2-lever control through the advanced hydraulic system. This gives easy, comfortable operation with less fatigue.

Simple Job-to-Job Travel

With the spud and front attachment raised, the dredger can move to a next dredging position. No need for cumbersome pre-work preparation to shorten a job schedule.



Compact Barge

Despite its big dredging capacity, the hydraulic excavator needs a compact barge that can move around even in shallow water and confined sites, facilitate dumping onto a truck on the pier, and evacuate into a small harbor in the case of heavy weather.



Simple Maintenance

The hydraulic excavator on barge can easily be maintained. No need for cable replacement, of course. Lubricating the front attachment is also easy, using a grease gun with hose reel. Key portions, susceptible to corrosion, are protected with seawater-resistant paint.



EX800H

Loading Ships



EX3600

The Giant Hydraulic Excavators Aboard Hopper Pontoons Yield High Production in Large-Scale Land Reclamation Projects.

Effective Scooping-up

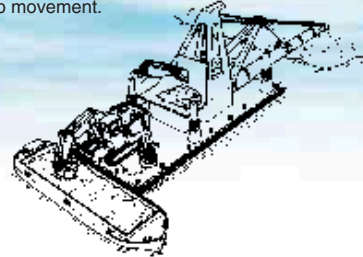
Thanks to good maneuverability and combined operations of the Hitachi hydraulic excavator, the bucket can efficiently scoop up the load in the hopper bottom, with less residue.



EX3600

High Job Efficiency

The front attachment agilely moves for efficient loading of sea-bottom deposits with a short cycle time. The excavator undercarriage is self-propelled for quick job-to-job movement.



EX1100



EX1900

Easy Control

With the hydraulic control levers, inching and loading can easily be done, with less damage to the pontoon hull.



EX3500

Versatile Hydraulic Excavator

The hydraulic excavator on barge is truly versatile. It digs in and loads sea-floor deposits. No need for cumbersome pre-work preparation to shorten a job schedule.



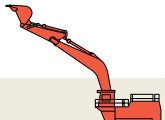
EX2500

Low-Cost Hopper Barge

A combination of the versatile hydraulic excavator and a low-cost barge saves total construction costs.



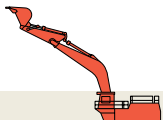
EX1100



Dredging Ship Specifications

	ZAXIS450H	ZAXIS650H	ZAXIS850H	EX1200-5C	EX1900-5	EX2500-5	EX3600-5	EX5500-5
	7.0m (22'12") H-Boom 3.4m (11'2") H-Arm	7.6m (24'11") H-Boom 3.4m (11'2") H-Arm	8.2m (26'11") H-Boom 3.6m (11'10") H-Arm	9.1m (29'10") Boom 3.4m (11'2") Arm	8.3m (27'3") Boom 3.6m (11'10") Arm	9.0m (29'6") Boom 4.2m (13'9") Arm	9.6m (31'6") Boom 4.5m (14'9") Arm	10.6m (34'9") Boom 5.3m (17'5") Arm
Bucket capacity (PCSA heaped) m ³ (yd ³)	1.9 (2.5)	2.8 (3.7)	3.4 (4.4)	5.0 (6.5)	12.0 (15.7)	15.0 (19.6)	22.0 (28.8)	29.0 (38.0)
Upperstructure weight kg (lb)	29 700 (65 500)	35 100 (77 400)	45 900 (101 200)	67 600 (149 000)	132 000 (291 000)	157 000 (346 100)	229 000 (504 900)	331 000 (729 700)
Engine	—	—	—	—	—	—	—	—
Engine model	ISUZU AA-6WG1TQA	ISUZU BB-6WG1X	ISUZU BB-6WG1X	HITACHI S6R-Y2TAA-2	HITACHI S12A2-Y1TAA-1	CUMMINS QSK45-C	HITACHI S16R-Y1TAA1	CUMMINS QSK45-C
Rated engine output kW/min ⁻¹	235 / 1 800	295 / 1 800	338 / 1 800	482 / 1 650	720 / 1 800	971 / 1 800	1 400 / 1 600	2 x 971 / 1 800
PS/min ⁻¹	320 / 1 800	400 / 1 800	460 / 1 800	655 / 1 650	979 / 1 800	1 320 / 1 800	1 900 / 1 600	2 x 1 320 / 1 800
Piston displacement L (cc)	15.681 (15 681)	15.681 (15 681)	15.681 (15 681)	24.5 (24 500)	33.9 (33 900)	45.0 (45 000)	65.4 (65 400)	2 x 45.0 (45 000)
Fuel tank capacity L (US gal, Imp gal)	650 (172, 143)	740 (196, 163)	901 (238, 198)	1 400 (370, 308)	3 085 (815, 679)	3 600 (951, 792)	7 200 (1 902, 1 584)	10 400 (2 748, 2 288)
Hydraulic system	—	—	—	—	—	—	—	—
Hydraulic pump type	2 variable displacement axial piston pumps	2 variable displacement axial piston pumps	2 variable displacement axial piston pumps	3 variable displacement axial piston pumps	6 variable displacement axial piston pumps	6 variable displacement axial piston pumps	8 variable displacement axial piston pumps	12 variable displacement axial piston pumps
Main relief valve set. MPa (kgf/cm ² , psi)	30.9 (315, 4 480)	30.9 (315, 4 480)	31.9 (325, 4 620)	31.4 (320, 4 550)	29.4 (300, 4 266)	29.4 (300, 4 266)	29.4 (300, 4 266)	29.4 (300, 4 266)
Max. digging reach mm (ft in)	12 050 (39'6")	12 600 (41'4")	13 830 (45'5")	15 340 (50'4")	15 250 (50'0")	17 050 (55'11")	18 190 (59'8")	20 900 (68'7")
Max. digging depth mm (ft in)	8 580 (28'2")	9 260 (30'5")	9 830 (32'3")	10 550 (34'7")	9 470 (31'1")	10 250 (33'8")	10 340 (33'11")	11 090 (36'5")
Max. dumping height mm (ft in)	10 100 (33'2")	7 300 (23'11")	7 410 (24'4")	7 790 (25'7")	7 770 (25'6")	8 680 (28'6")	9 590 (31'6")	10 910 (36'5")
Max. digging forces (Bucket) kN (kgf, lbf)	269 (27 400, 60 400)	306 (31 200, 68 800)	342 (34 900, 76 900)	475 (48 400, 106 700)	671 (68 400, 150 800)	832 (84 800, 187 000)	1 050 (107 000, 235 900)	1 370 (140 000, 308 600)
Max. digging forces (Arm) kN (kgf, lbf)	202 (20 600, 45 400)	250 (25 500, 56 200)	274 (28 000, 61 700)	411 (41 900, 92 400)	620 (63 200, 139 300)	762 (77 800, 171 500)	951 (97 000, 213 800)	1 240 (126 000, 277 800)
Ship dimensions (L x W) m (ft in)	20 x 10 (65'7" x 32'10")	25 x 11 (82'0" x 36'1")	26 x 11 (85'4" x 36'1")	30 x 12 (98'5" x 39'4")	35 x 14 (114'10" x 45'11")	43 x 15 (141'1" x 49'3")	55 x 18 (180'5" x 59'1")	63 x 20 (206'8" x 65'7")

Note: 1. Other specifications than listed are available.
2. Without undercarriage.
3. From deck.



Loading Ship Specifications

	ZAXIS450H	ZAXIS650H	ZAXIS850H	EX1200-5C	EX1900-5	EX2500-5	EX3600-5	EX5500-5
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Bucket capacity (w/o teeth)(PCSA heaped) m ³ (yd ³)	2.3 (3.0)	3.4 (4.5)	4.1 (5.4)	6.0 (7.9)	14.0 (18.3)	18.0 (23.5)	25.0 (32.7)	33.0 (43.1)
Operating weight kg (lb)	43 800 (96 600)	57 600 (127 000)	75 900 (167 300)	108 000 (238 100)	186 500 (411 200)	239 000 (526 900)	348 000 (767 200)	518,000 (1 142 000)
Engine	—	—	—	—	—	—	—	—
Engine model	ISUZU AA-6WG1TQA	ISUZU BB-6WG1X	ISUZU BB-6WG1X	HITACHI S6R-Y2TAA-2	HITACHI S12A2-Y1TAA-1	CUMMINS QSK45-C	HITACHI S16R-Y1TAA1	CUMMINS QSK45-C
Rated engine output kW/min ⁻¹	235 / 1 800	295 / 1 800	338 / 1 800	482 / 1 650	720 / 1 800	971 / 1 800	1 400 / 1 600	2 x 971 / 1 800
PS/rpm	320 / 1 800	400 / 1 800	460 / 1 800	655 / 1 650	979 / 1 800	1 320 / 1 800	1 900 / 1 600	2 x 1 320 / 1 800
Piston displacement L (cc)	15.681 (15 681)	15.681 (15 681)	15.681 (15 681)	24.5 (24 500)	33.9 (33 900)	45.0 (45 000)	65.4 (65 400)	2 x 45.0 (45 000)
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Hydraulic system	—	—	—	—	—	—	—	—
Hydraulic pump type	2 variable displacement axial piston pumps	2 variable displacement axial piston pumps	2 variable displacement axial piston pumps	3 variable displacement axial piston pumps	6 variable displacement axial piston pumps	6 variable displacement axial piston pumps	8 variable displacement axial piston pumps	12 variable displacement axial piston pumps
Main relief valve set. MPa (kgf/cm ² , psi)	30.9 (315, 4 480)	30.9 (315, 4 480)	31.9 (325, 4 620)	31.4 (320, 4 550)	29.4 (300, 4 266)	29.4 (300, 4 266)	29.4 (300, 4 266)	29.4 (300, 4 266)
Swing speed min ⁻¹ (rpm)	9.0 (9.0)	7.0 (7.0)	8.2 (8.2)	5.8 (5.8)	4.7 (4.7)	3.8 (3.8)	3.2 (3.2)	3.3 (3.3)
Travel speeds High/low km/h	5.5 / 3.4	5.0 / 3.5	4.3 / 3.1	3.6 / 2.5	2.8 / 2.1	2.3 / 1.6	2.2 / 1.7	2.3 / 1.6
Max. digging reach mm (ft in)	12 050 (39'6")	12 600 (41'4")	13 830 (45' 5")	15 340 (50'4")	15 250 (50'0")	17 050 (55'11")	18 190 (59'8")	20 900 (68'7")
Max. digging depth mm (ft in)	7 890 (25'11")	8 340 (27'4")	8 860 (29'1")	9 340 (30'8")	8 180 (26'0")	8 570 (28'1")	8 580 (28'2")	9 000 (29'6")
Max. dumping height mm (ft in)	7 540 (24'9")	7 290 (23'11")	8 270 (27'2")	8 920 (29'3")	9 060 (29'9")	5 070 (16'8")	11 590 (38'0")	13 000 (42'8")

Note: 1. Other specifications than listed are available.
2. With undercarriage.
3. On deck. Excluding track shoe lug.

Comparative information based on our current Japan domestic model.
These specifications are subject to change without notice.
Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features.

Hitachi Construction Machinery Co., Ltd.

Head Office: 5-1 Koraku 2-chome, Bunkyo-ku,
Tokyo 112-8563, Japan

Telephone: (03)3830-8050

Facsimile: (03)3830-8202

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