

ICE MODEL 416L VIBRATORY PILE/DRIVER EXTRACTOR

SPECIFICATIONS

VIBRATOR:

Eccentric moment	2,000 in-lbs (2,304 kg-cm)
Centrifugal force	66.5 tons (592 kN)
Frequency	400-1530 vpm
Amplitude	3/4" (19 mm)
Pile clamping force	See below
Line pull for extraction	40 tons (356 kN)
Hydraulic hose length	100' (30 m)
Suspended weight*	9,900 (4,490 kg)
Length	95" (2,413 mm)
Width	17" (424 mm)
Throat width	14" (356 mm)
Height	72" (1,829 mm)
Height with clamp*	101" (2,565 mm)

* Weight and height include Model 126 Universal clamp.
Weight includes one half of hydraulic hoses.

POWER UNIT:

Engine	CAT 3208 T
Max. power	250 HP (187 kW)
Operating speed	2800 rpm
Max. drive pressure	5,000 psi (345 bar)
Drive flow	85 gpm (321 lpm)
Clamp pressure	4,300 psi (300 bar)
Clamp flow	5.2 gpm (20 lpm)
Weight*	8,900 lbs (4,041 kg)
Length	108" (2,743 mm)
Width	60" (1,525 mm)
Height	68" (1,727 mm)

* Weight includes one half of hydraulic hoses

HYDRAULIC CLAMPS:	Model 126 Universal clamp	Model 127 Z-Pile clamp	Model 80 Caisson clamp	Model 75 Concrete clamp	Model 50 Timber clamp
Clamping force	125 tons (1,112 kN)	127 tons (1,230 kN)	2x80 tons (2x710 kN)	75 tons (665 kN)	25 tons (222 kN)
Weight	2,000 lbs (910 kg)	3,000 lbs (1,360 kg)	3,700 lbs (1,680 kg)	5,400 lbs (2,450 kg)	6,000 lbs (2,722 kg)
Length	52 1/2"(1,333 mm)	50 3/8"(1,280 mm)	110"(2,795 mm)	72"(1,830 mm)	41"(1,041 mm)
Width	12"(305 mm)	17"(432 mm)	13 1/2"(343 mm)	26"(660 mm)	29"(737 mm)
Height	37"(940 mm)	34 3/4"(883 mm)	25 5/8"(650 mm)	72"(1,828 mm)	69"(1,753 mm)

ICE MODEL 416L VIBRATORY DRIVER/EXTRACTOR

for piling and caisson work

The Model 416L is a hydraulically-powered vibratory pile driver/extractor designed for maximum production and low operating and maintenance costs. The simple rugged design, created by field-experienced foundation construction engineers, minimizes field downtime and speeds repairs should trouble occur.

VIBRATOR

Eccentric weights in vibration case are driven by hydraulic motors mounted on case. Weights and motors are gear connected to maintain synchronization in all driving conditions. Eccentric shafts are mounted in specially-designed cylindrical roller bearings. Covers protect the hydraulic motors from damage. Vibration suppressor has 16 rubber elastomers to minimize transmission of vibration to crane boom. Maximum line pull for extraction is 40 tons (356 kN). Non-vibrating weight of 3,200lbs (1,450 kg) assists driving. Splash system lubricates gears and bearings. 10 micron vibrator filter protects motors. Frequency variable from 400 - 1530 vibrations per minute. Vibrator may be used underwater. Bolt pattern on bottom of vibration case accepts hydraulic clamps for all types of piling.

POWER UNIT

Caterpillar 3208 T diesel engine provides 250 HP (187 kW) at 2800 rpm. Unit protected by heavy-duty sheet metal enclosure. Front screen protects hydraulic oil cooler and engine radiator from damage and vandalism. Single-point lifting eye is provided. An optional sound reduction package is available. Combination fuel tank and subbase holds 110 gal (415 l) of fuel.

Hydraulic system is open loop with separate pumps for vibrator motors and hydraulic clamp. Hydraulic reservoir capacity of 270 gal (660 l). 10 micron full-flow return filter with bypass protection. Maximum pressure is 5,000 psi (345 bar).

Power units controls and gauges and condensed operating instructions located on control panel at side of power unit. Trouble-shooting panel included. Large tool compartment located below control panel.

REMOTE-CONTROL PENDANT

Vibrator functions controlled by hand-held pendant with 50'(15 m) cord. Controls to start and stop vibration and to close and open hydraulic clamp. Light indicates adequate clamping pressure to begin vibration.

CLAMPS

Hydraulic clamps are available for most types and sizes of piling including sheet piles, beams, pipe or tubes, timber, and concrete piles. Clamp extensions, 90° turning plates, and lead guides are also available.



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