

BSP SL20da (1.5Ton) & SL30da (2.5Ton) Double Acting Hydraulic Piling Hammers

Introduction

Designed for driving sheet piles and small bearing piles of concrete, steel or timber. The SL range is available with legs and inserts for use freely suspended or with backguides for operating from a piling mast.

The SL20da and SL30da hammers are sized for driving single sheet piles and can pass between upstanding piles.

Using a unique BSP double-acting cylinder the ram is accelerated on its downward path to achieve higher impact energy. The energy is developed from a short stroke leading to a high blow rate and greater pile productivity compared to an equivalent single-acting hammer.

The low hook weight, and relatively small hydraulic power required to operate, make these hammers an economical option for the construction of pile walls, coffer dams and temporary earthworks.

The hammers are not limited to sheet piles but can be fitted out too drive bearing piles of pre-stressed concrete, steel or timber with ultimate load bearing up to 1800kN depending on site conditions.

BSP can provide a suitable power pack built around a Perkins 1004-40T engine, weighing 2300kg gross, which develops up to 71Kw @ 1800rpm. Alternatively if the carrier is a hydraulic base with suitable open-circuit power-take-off the hammer can be easily plumbed in to this.

Control

The hammers are adjusted using a single variable flow control. The control box can be remote from the power pack or mounted on board.



Features/Benefits

- Drives all single sheet piles
- High impact to weight ratio
- Can be suspended from small capacity cranes
- Simple operation



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Technical Data

Hammers	SL20da		SL30da	
Dropweight mass	1,500kg	3,300lb	2,500kg	5,500lb
Maximum energy	20kJ	15,000ft.lb	30kJ	22,000ft.lb
Blow rate @ maximum energy	84		84	
Equivalent SA stroke	0.1m to 1.35m	4" to 53"	0.1m to 1.25m	4" to 49"
Hydraulic supply	130 L/min	35 US Gal/min	130 L/min	35 US Gal/min
Hydraulic pressure	160bar	2300psi	220bar	3200psi
Hammer length (with legs)	3.575m	140"	4.575	180"
Hammer width	0.915m	36"	0.915m	36"
Hammer weight	4,100kg	9,000lb	5,400kg	11,900lb

Power Pack	Hydro Pack 70 (for hammer range SL20, SL30 & CX40)
Engine Type	Perkins 1004-40T
Engine Output	71kW
Max. Oil Flow	175 L/min
Max. Pressure	250 bar
Fuel Tank Capacity	260 Litres
Hyd. Oil Tank Capacity	345 Litres
Length	2.5m
Width	1.1m
Height	2.15m
Weight Dry	1900kg
Weight Full	2300kg

Noise Data	Sound Power Level Lwa (at source)	Sound Pressure Level Lpa (4m R)	Sound Pressure Level Lpa (15m R)
Hammer SL20/SL30 (Driving sheet piles crane suspended)	125 dB(A)	105 dB(A)	93 dB(A)
Hydro Pack 70	106 dB(A)	86 dB(A)	73 dB(A)

NB. Noise emissions will vary depending on type of pile being installed i.e. panel of sheet piles or single bearing pile, method of installation, site location and ambient noise.

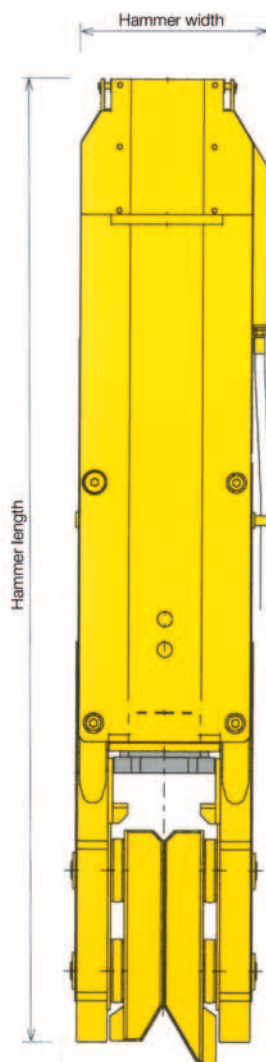
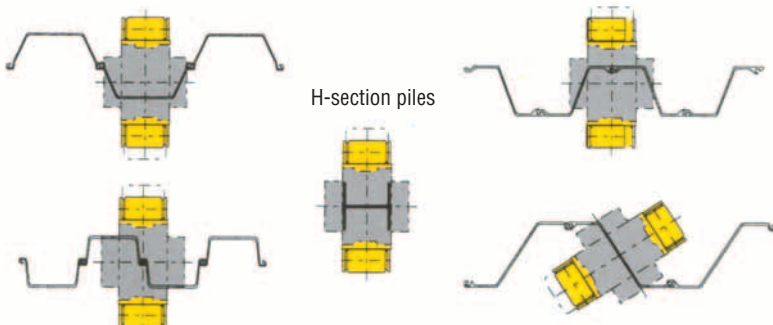
Cyclical operations will result in an overall reduction of noise (leq).

To calculate the noise level at further distances, reduce the noise level by 6dB(A) each time the distance is doubled.

U-section piles singly or in pairs

Z-section piles singly or in pairs

H-section piles



Standard hammer
for sheet piles



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