



**DAWSON**  
CONSTRUCTION PLANT LTD

**NEW**

THE NEXT STEP IN DIGITAL CONTROL

electrical switching

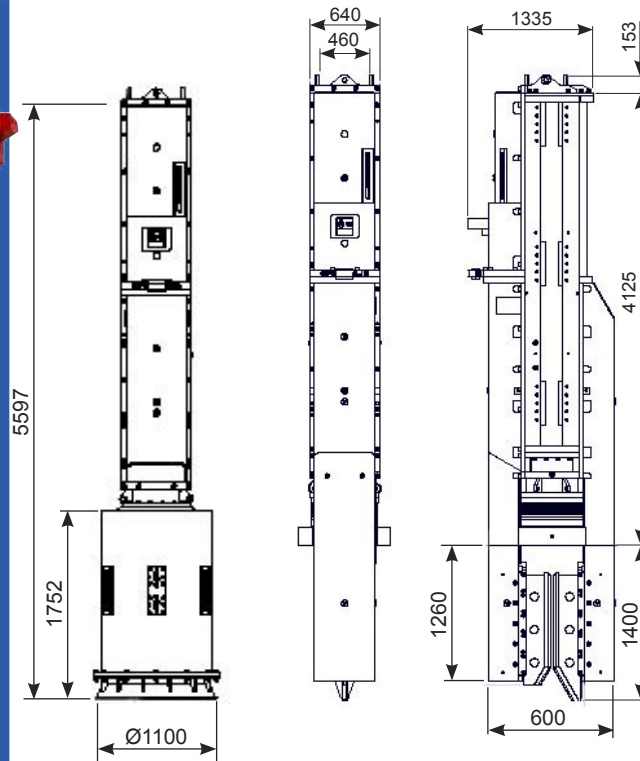
# HPH4500e PILING HAMMER

## NEW DIGITALLY CONTROLLED DROP WEIGHT

- Fast hammer blow rate for rapid pile penetration
- Full energy monitoring on screen
- Full history of hammer performance
- Highly reliable and robust electrical switching
- Intelligent stroke control
- Very few serviceable parts, with on screen fault diagnostics
- Easily maintained by Diesel / Mechanical fitter
- Cushion block irons out peak stresses
- Very efficient energy transfer

## HPH4500 HAMMER

SPECIFICATION	UNITS	HPH4500
RAM WEIGHT	kg	3,500
	lbs	7,840
IMPACT VELOCITY	m/s	5.05
	ft/s	16.60
MAXIMUM ENERGY TRANSFERRED TO PILE	KNm	45.00
	ft.lbs	32,560
MINIMUM ENERGY TRANSFERRED TO PILE	KNm	18.00
	ft lbs	13,280
BLOW RATE	bpm	80-120
LENGTH - LEAD MOUNTED	mm	4,650
	in	183
MINIMUM WIDTH OF BODY	mm	640
	in	25.5
WEIGHT - LEAD MOUNTED	kg	8,500
	lbs	19,000
WEIGHT - FREE HANGING WITH SHEET PILE LEG GUIDES	kg	10,750
	lbs	23,700
WEIGHT - FREE HANGING WITH GUIDE SLEEVE	kg	10,000
	lbs	22,040



UNIVERSAL GUIDE SLEEVE SUITS UP TO Ø914mm (36") PILES

FREE HANGING WITH LEG GUIDES.  
THE BASIC HAMMER CAN BE FITTED WITH LEG GUIDES THAT HAVE FLEXIBLE LEG INSERTS AS SHOWN. DIFFERENT LEG INSERT CAN BE USED TO ADAPT TO DIFFERENT SHEET PILE TYPES. THE HAMMER READILY FITS PAIRS OF MOST 'U' OR 'Z' SHEET PILES WITH DIFFERENT INSERTS. INSERTS CAN ALSO BE SUPPLIED TO PERMIT THE HAMMER TO DRIVE H-PILES.

## POWERPACK

SPECIFICATION	UNITS	DAWSON
DIESEL ENGINE POWER	kW	120
	rpm	2100
HYDRAULIC SYSTEM PRESSURE	bar	250
	psi	3625
OIL FLOW RATE	L/min	230
SIZE - LENGTH x WIDTH x HEIGHT	m	3.3 x 1.34 x 2.26
	in	130 x 53 x 89
WEIGHT	kg	3200
	lbs	7,040
FUEL CAPACITY	litres	300
FUEL CONSUMPTION @ 60%	litres / hour	19.9





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WORLDWIDE  
DEALER  
NETWORK

GLOBAL  
SUPPLY,  
LOCAL  
SUPPORT.

Dawson Construction Plant has developed an industry leading, robust and simple, electronic control system that constantly monitors the drop weight position. This constant monitoring allows the switching timing on the main hydraulic spool to be trended to continually optimise hammer performance throughout varying piling conditions, such as:

- 1 – Hard driving with pile recoiling
- 2 – Soft driving with a running pile
- 3 – Cold hydraulic oil on start up
- 4 – Raking piles



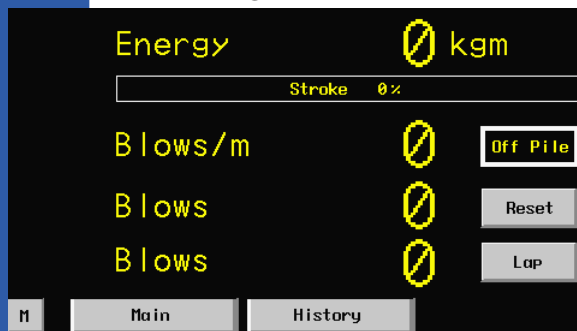
DATA CAN BE  
RECORDED TO A  
LAPTOP



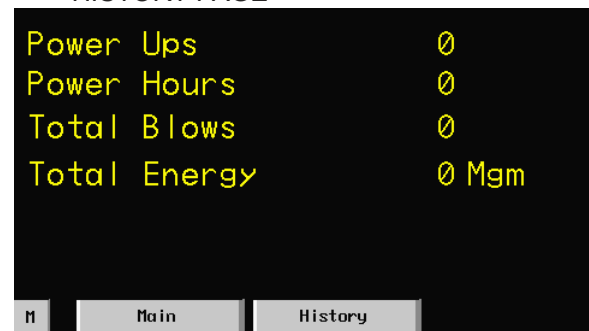
INTERFACE SCREEN MOUNTED ON POWER PACK

With constant drop weight position monitoring, the velocity of the drop weight is also known, therefore energy output can be accurately measured and is displayed to the operator on the powerpack interface screen. This information can be recorded direct to a laptop via a Dawson software interface, and can be saved in standard spreadsheet formats, giving a blow by blow account of every pile driven and a day to day productivity record.

### MAIN PAGE



### HISTORY PAGE



TYPICAL SCREEN SHOTS

The main screen displays bar graphs showing hammer stroke & hydraulic oil temperature.

An Off Pile indicator confirms when the hammer is securely seated on the pile, and allows piling to commence.

There are numerical read outs showing blows per minute, energy per blow and total blows. The lower reading shows blows in LAP cycle. (Measuring blows per increment). The units can be changed from imperial to metric.

The history screen provides information on the total number of start ups / total hours / total blows and total energy through out the life of the hammer.

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