

Diesel Pile Hammers

Delmag

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DELMAG has been a specialist manufacturer of piling equipment since 1922. The recent product range includes diesel pile hammers with impact weights of 600 kg to 20 tons and several models of drilling rigs. In the year 2000 DELMAG became a part of the ABI Group.

DELMAG Diesel Pile Hammers are single acting free-fall hammers utilizing the principle of impact atomization.

The Diesel Pile Hammer consists of upper and lower cylinder in which the piston is led. The Hammer is equipped with a rope controlled adjustable fuel pump with 4 settings. This serves to regulate the stroke of the piston and therefore the impact energy. This is a particular advantage when soil formations change. Optionally a hydraulically actuated fuel pump with infinite settings is available. The maximum stroke of a piston is up to 3.5m, depending on soil conditions.

Contact ThyssenKrupp Steelcom for technical specifications of DELMAG products.



Delmag Diesel Pile Hammer

Technical Specifications		D6 - 32	D12 - 42	D19 - 42	D25 - 32	D36 - 32	D62 - 22	D100 - 13	D200 - 42
Impact weight (piston)	kg	600	1280	1820	2500	3600	6200	10000	20000
Energy per blow	kJ	19 - 9	46 - 20	66 - 29	90 - 40	123 - 56	224 - 107	360 - 214	682 - 436
Number of blows	min ⁻¹	38 - 52	35 - 52	35 - 52	35 - 52	36 - 53	35 - 50	35 - 45	36 - 45
Suitable for driving piles	kg	300 - 2000	800 - 5000	1100 - 6000	1600 - 7500	2500 - 12000	4 - 30	7 - 100	14 - 250
Consumption	Blows/min								
Diesel Oil	l/h	3,7	4,5	7,5	7,5	11,5	20	30	60
Lubricant	l/h	0,25	0,5	0,5	0,6	1,5	2	2,6	5,8
Tank capacity									
Diesel oil tank	l	19	25	32	67	89	98	155	430
Lube tank	l	5	6,5	9	19	17	31,5	32	80
Max rope diameter for deflector sheave of tripping device	mm	20	20	20	22	38	38	30	36
Weight									
Tripping Device	kg	114	114	114	186	450	400	750	1850
Diesel pile hammer	kg	1620	2735	3840	5670	7990	12250	20720	51800
Max inclined pile driving without / with extension		1:3 / -	1:5 / 1:1	1:5 / 1:1	1:5 / 1:1	1:5 / 1:1	1:2/1:1	1:5/1:2	1:5/1:3
DIMENSIONS									
Length of Diesel pile hammer without extension	mm	4300	4770	5160	5500	5470	5910	7358	8175
Outer diameter of impact block	mm	350	400	440	560	660	710	820	1250
Width of Diesel pile hammer	mm	465	440	480	670	800	800	890	1425
Width of connection of guide jaws	mm	320	320	320	540	640	560	800	1425
Center of hammer pump guard	mm	310	335	345	405	445	490	550	730
Center of hammer to center of threads for guide jaw bolts	mm	245	245	280	235	275	380	350	580
Depth of Diesel pile hammer	mm	590	610	700	780	950	970	1110	1890
Standard distance from center of Diesel pile hammer up to the face of lead	mm	320	340	360	435	500	500	660	1050

DELMAG Diesel Pile Hammers operate on the principle of impact atomization. Three different energies are acting on the pile.

COMPRESSION + IMPACT + COMBUSTION

which are united to an effective cumulative energy. The compression energy will force the impact block with the helmet tightly against the butt of the pile. The next blow will then encounter a preloaded pile. Thus the pile head is protected and the impact energy is effectively transmitted onto the entire pile. On piles sensitive to stress, the risk of cracks will be reduced, since the tension imposed on the pile relaxes in upward direction and is retarded by the pressure of the expanding gases.