

BRUCE[®]
PIILING EQUIPMENT

**FOUNDATION &
CONSTRUCTION MACHINERY**



**HYDRAULIC IMPACT
PILE HAMMER**



SHINSEGAE POWERQUIP





HYDRAULIC IMPACT

BRUCE PILE HAMMER

Makes Success Pile Driving Solution !!

INTRODUCTION

BRUCE Hydraulic Pile Hammer is widely applicable and selectable in most case of pile driving condition. Full model lined up and most wide selectable BRUCE model among world reputable manufacturers.

- Energy ranging from 2.4 ton.m (24 kJ, 24 kNm) to 89.3 ton.m (876 kJ, 876 kNm) and other large size can be supplied.
- Various pile material, size and shape such as concrete pile, steel casing pile, H-Beam pile, sheet pile and round shape, octagonal shape, square shape can be driven by BRUCE hammers.
- A variety of hammer mounting type is suitable and provided such as fixed leader type for piling rig, crane suspended type, U-Type leads and mounting type can be matched to customer own base machine and other types as well.
- Not only BRUCE hammer is suitable for driving capability onshore condition and also it goes perfectly well with offshore pile driving job like under water pile driving up to 5 meters as optional.
- Wide modification and adoptable accessories for most kind of pile driving condition such as rapid speed of Dynamic Compaction works, Sheet Pile driving and other ideal application is provided.
- Hammer operation can be on with an existing power source or by separate BRUCE power pack.

OUTSTANDING FEATURES OF BRUCE HYDRAULIC HAMMER

WIDE RANGE OF PILE DRIVING APPLICATION

Not only onshore and offshore pile driving conditions are covered and also batter piles and under water piling up to 5 meters are applicable optionally. The dynamic compaction application and sheet pile driving are another our pile driving job we mainly focus on.

HIGHER ENERGY EFFICIENCY

BRUCE hammer transfers a high impact energy to the piles with a effective design of hammer body. Compensation of energy drop efficiency to cylinder during ram drop is managed by an accumulator back charging system that can pursuit a minimal energy loss.

RELIABILITY OF ELECTRICAL AND HYDRAULIC SYSTEM

All electrical and hydraulic system can be managed by control panel electronically and automatically. The closed loop type of hydraulic system adjusts speed and oil pressure.

Bio-degradable hydraulic oil creates low engine emission to protect the earth contamination.

VARIOUS HAMMER MOUNTING TYPE

The user may have a wide selection of mounting type on the BRUCE Hammer made up with Fixed Leader Type (Round and Square Type), Crane Suspended Type, Offshore Leader Type, U-Type Leads and others can be adaptable on the user's demand.



SGH-4719 MAX. ENERGY
89.3ton.m



SGH-4519 MAX. ENERGY
85.5 ton.m



SGH-4015 MAX. ENERGY
60 ton.m



SGH-1619 MAX. ENERGY
30.4 ton.m

LOW COST OF CONSUMABLE PARTS

The consumable parts for BRUCE hammer are designed to keep your job going when the going gets tough. It provides practical solutions and help keep your most difficult job on schedule.

SIMPLICITY IN DESIGN

The adoption of simple design allows users to gain easy maintenance and quick troubleshooting. The user-friendly remote control is designed to use more conveniently.

HOSE BRACKET FOR EASY CABLE INSTALLATION

The hydraulic hoses from power pack can be mounted on the hose bracket installed on the top of the hammer so that hoses and electrical cables can stay firmly to go for a intended pile driving job.

VERSATILITY OF PILE DRIVING METHOD

BRUCE hammer can be driven all types of piling method such as concrete pile (round shape, square shape and octagonal shape), steel casing pile, H-Beam, sheet pile driving in the most common driving.

VISIBLE RAM HEIGHT MOVEMENT

Ram drop height indicator on the side of the hammer is standard equipped with height marking so that operator can see ram drop height easily during pile driving and can adjust ram height stroke during pile driving through remote control box provided.

HIGH BLOW RATE & PRECISE RAM STROKE

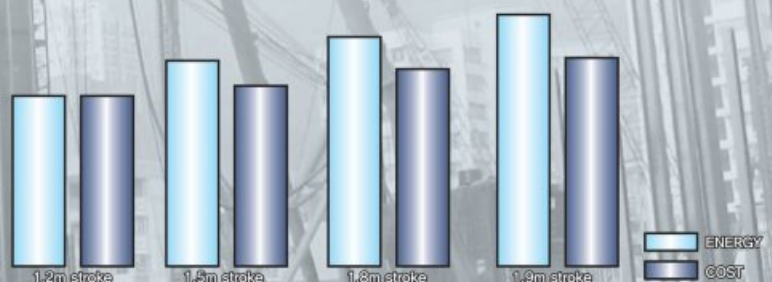
High blow rate of BRUCE hammer will help you finish your scheduled pile driving job possibly as you planned.

User-friendly designed Remote Control Box can be compatible with any BRUCE Power Pack and it manages any malfunctions in operations.

Accurate Ram Stroke is adjusted by a Remote Control Box thus suspended crane type or piling rig type is safe in case of soft pile driving.

BASE MOUNT BRUCE HAMMER w/o POWER PACK

BRUCE HAMMER can be mounted on Excavator or Pile Driving Rig using base machine power without power pack. PLEASE CONSULT US !!



SPECIFICATION

Bruce Hammer Series	SGH	0212	0312	0315	0412	0512	0712	0715	0912	1015	1015	1212	1215	1312	1315	1412	1415
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◆ Model Name Meaning : ex) SGH-3012 **30**: Ram Weight, **12**: 1.2m Stroke

OPERATING DATA

Bruce Hammer Series	SGH	0212	0312	0315	0412	0512	0712	0715	0912	1012	1015	1212	1215	1312	1315	1412	1415
Ram Weight	(ton)	2	3	3	4	5	7	7	9	10	10	12	12	13	13	14	14
	(lbs)	4409	6614	6614	8819	11023	15432	15432	19842	22046	22046	26455	26455	28659	28659	30865	30865
Minimum Stroke	(mm)	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
	(inch)	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87
Maximum Stroke	(mm)	1200	1200	1500	1200	1200	1200	1500	1200	1200	1500	1200	1500	1200	1500	1200	1500
	(ft)	3.94	3.94	4.92	3.94	3.94	3.94	4.92	3.94	3.94	4.92	3.94	4.92	3.94	4.92	3.94	4.92
Max. Potential Energy	(ton.m)	2.4	3.6	4.5	4.8	6.0	8.4	10.5	10.8	12.0	15.0	14.4	18	15.6	19.5	16.8	21.0
	(lb.ft)	17359	26038	32549	34718	43397	60756	75946	78116	86794	108514	104153	130194	112835	141045	121511	151893
	(KJ)	24	35.3	44	47.1	59	83	103	106	118	147	141	177	153	191	165	206
Blow Rate at Max. stroke	(bpm)	40	40	36	40	40	40	38	38	38	35	38	38	35	35	36	35
Operating Pressure	(bar)	230	230	230	230	230	230	230	250	250	250	250	250	250	250	250	250
	(psi)	3337	3337	3337	3337	3337	3337	3337	3627	3627	3627	3627	3627	3627	3627	3627	3627
Required Flow Rate	(lpm)	100	100	100	123	190	190	230	260	260	296	320	370	320	370	320	370
	(gpm)	26	26	26	33	50	50	61	69	69	78	85	98	85	98	85	98

DIMENSIONS

Overall Length (L) *1 w/o Pile Cap	(mm)	4675	5060	5660	5440	5482	5712	6312	5810	5910	6510	7000	7600	6380	6727	6595	7195
	(ft)	15.3	16.6	18.6	17.9	18.0	18.7	20.7	19.1	19.4	21.4	23.0	25.0	20.9	22.1	21.6	23.6
Overall Width (W) w/o Pile Cap	(mm)	908	1195	1195	1195	1307	1307	1307	1250	1250	1250	1250	1250	1470	1470	1470	1470
	(ft)	3.0	3.9	3.9	3.9	4.3	4.3	4.3	4.1	4.1	4.1	4.1	4.1	4.8	4.8	4.8	4.8
Overall Height (H) w/o Pile Cap	(mm)	1016	1016	1016	1016	1125	1157	1157	1280	1280	1280	1280	1280	1610	1610	1610	1610
	(ft)	3.3	3.3	3.3	3.3	3.7	3.8	3.8	4.2	4.2	4.2	4.2	4.2	5.3	5.3	5.3	5.3

FIXED LEADER GUIDE & LEADS

Leader Guide (Round Type)	(mm)	330 x Φ 70							600 x Φ 101.6							
Leader Guide (Square Type)	(mm)	\square 80 x 400			\square 100 x 600 x 600							\square 120 x 720				
U Type Leads	(inch)	27	27	27	33	33	33	50	50	50	50	50	57	57	57	57

*1. The overall length of hammer is not included the length of pile skirt or pile cap.

*2. Others shape or dimension can be modified upon request, Long Pile Skirt Type and Offshore Leader Type for crane suspended are available.

WEIGHTS

Weight with Drive Cap	(kg)	4300	5600	5700	7000	9500	12500	13000	18500	17000	19000	21000	21500	22000	22500	23500	24000
	(lbs)	9480	12346	12566	15432	20944	27558	28660	40786	37479	41888	46297	47399	48502	49604	51809	52911
Suitable Power Pack Series		PQ -150	PQ -150	PQ -150	PQ -150	PQ -200	PQ -200	PQ -250	PQ -250	PQ -250	PQ -250	PQ -250	PQ -300	PQ -250	PQ -300	PQ -250	PQ -300

- The dimensions and weights are referred to fixed leader type or short skirt type for model range from SGH-0212 to SGH-3015.
- The dimensions and weights are referred to long skirt type for model range from SGH-3512 to SGH-8015
- The others ram weight and energy required can be supplied upon request.
- We reserve the right to make modifications of spec without prior notice.

1612	1615	1618	1619	1812	1815	2012	2015	2315	2512	2515	2815	3012	3013	3015	3512	3515
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1612	1615	1618	1619	1812	1815	2012	2015	2315	2512	2515	2815	3012	3013	3015	3512	3515
16	16	16	16	18	18	20	20	20	25	25	28	30	30	30	35	35
35274	35274	35274	35274	39683	39683	44092	44092	44092	55116	55116	61729	66139	66139	66139	77162	77162
200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87
1200	1500	1800	1900	1200	1500	1200	1500	1500	1200	1500	1500	1200	1300	1500	1200	1500
3.94	4.92	5.90	6.53	3.94	4.92	3.94	4.92	4.92	3.94	4.92	4.92	3.94	4.27	4.92	3.94	4.92
19.2	24.0	28.8	30.4	21.6	27.0	24.0	30.0	34.5	30.0	37.5	42	36	39	45	42.0	52.5
138979	173592	208116	219883	156232	195291	173592	216990	249538	216990	271237	303786	260387	282087	325484	303786	379732
188	236	283	298	212	265	236	294	338	294	368	412	353	383	441	412	515
32	30	28	26	30	28	30	28	28	26	26	26	26	26	26	26	26
250	250	250	250	250	270	270	270	270	270	270	270	270	270	270	270	270
3627	3627	3627	3627	3627	3917	3917	3917	3917	3917	3917	3917	3917	3917	3917	3917	3917
350	410	480	480	410	480	410	480	480	600	650	650	600	600	650	640	800
93	108	127	127	108	127	108	127	127	160	172	172	160	160	172	169	211

7500	8100	8700	8900	7950	8550	8400	9000	11783	8803	9403	11180	8820	9020	9420	10500	11100
24.6	26.6	28.5	29.2	26.1	28.1	27.6	29.5	38.7	28.9	30.9	36.7	28.9	30.0	30.9	34.50	36.42
1470	1470	1470	1470	1470	1470	1470	1470	2160	1975	1975	2740	2230	2230	2230	2080	2080
4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	7.1	6.5	6.5	8.99	7.3	7.3	7.3	6.82	6.82
1610	1610	1610	1610	1610	1610	1610	1610	2220	1785	1785	2453	2160	2160	2160	2180	2180
5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	7.3	5.9	5.9	8.05	7.1	7.1	7.1	7.15	7.15

600 x Ø101.6	On Request		
□ 120 x 720	On Request		
57	76	81	On Request

30500	31000	31500	32000	33500	34000	37000	38000	44000	48000	50000	52500	56500	57000	58000	69000	70000
67241	68343	69446	70548	73855	74957	81571	83776	97003	105822	110231	115743	124561	125664	127860	152119	154324
PQ -300	PQ -400	PQ -500	PQ -500	PQ -400	PQ -500	PQ -400	PQ -500	PQ -500	PQ -500	PQ -600	PQ -600	PQ -500	PQ -500	PQ -600	PQ -600	PQ -700

SPECIFICATION

Bruce Hammer Series	SGH	4012	4015	4019	4212	4215	4512	4515	4519	4712	4715	4719	5015	5715	6015	7015	8015
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◆ Model Name Meaning : ex) SGH-3012 30: Ram Weight, 12 : 1.2m Stroke

OPERATING DATA

Bruce Hammer Series	SGH	4012	4015	4019	4212	4215	4512	4515	4519	4712	4715	4719	5015	5715	6015	7015	8015
Ram Weight	(ton)	40	40	40	42	42	45	45	45	47	47	47	50	57	60	70	80
	(lbs)	88185	88185	88185	92594	92594	99208	99208	99208	103617	103617	103617	110231	125664	132277	154324	176370
Minimum Stroke	(mm)	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
	(inch)	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87	7.87
Maximum Stroke	(mm)	1200	1500	1900	1200	1500	1200	1500	1900	1200	1500	1900	1500	1500	1500	1500	1500
	(ft)	3.94	4.92	6.23	3.94	4.92	3.94	4.92	6.23	3.94	4.92	6.23	4.92	4.92	4.92	4.92	4.92
Max. Potential Energy	(ton.m)	48	60	76.0	50.4	63	54	67.5	85.5	56.4	70.5	89.3	75.0	85.5	90	105	120
	(lb.ft)	347244	434055	549707	364543	455678	390649	488277	618529	408012	509926	646019	542474	618420	650969	759464	867958
	(KJ)	470	588	745	494	618	529	662	838	553	691	875	736	839	883	1030	1178
Blow Rate at Max. stroke	(bpm)	26	26	24	26	26	26	26	24	26	26	24	26	26	24	24	24
Operating Pressure	(bar)	270	270	270	270	270	270	270	270	270	270	270	270	270	250	250	250
	(psi)	3917	3917	3917	3917	3917	3917	3917	3917	3917	3917	3917	3917	3917	3556	3556	3556
Required Flow Rate	(lpm)	683	854	1000	683	854	830	1040	1230	830	1040	1230	1040	1250	1250	1975	1975
	(gpm)	206	211	264	211	248	219	275	325	219	275	325	275	330	330	522	522

DIMENSIONS

Overall Length (L)	(mm)	11100	11700	12673	12000	12600	11460	12060	12860	11590	12190	12990	12000	12000	13390	16955	17500
	(ft)	36.42	38.4	41.6	39.37	41.34	37.6	39.6	42.19	38.0	40.0	42.6	39.4	39.37	43.9	55.6	57.4
Overall Width (W)	(mm)	2080	2080	2080	2080	2080	2870	2870	2870	2870	2870	2870	2310	2870	2870	2870	2870
	(ft)	6.82	6.82	6.82	6.82	6.82	9.4	9.4	9.4	9.4	9.4	9.4	7.6	9.4	9.4	9.4	9.4
Overall Height (H)	(mm)	2180	2180	2180	2180	2180	2760	2760	2760	2760	2760	2760	2310	2760	2760	2760	2760
	(ft)	7.15	7.15	7.15	7.15	7.15	9.1	9.1	9.1	9.1	9.1	9.1	7.6	9.1	9.1	9.1	9.1

FIXED LEADER GUIDE & LEADS

Leader Guide (Round Type)	(mm)	On Request
Leader Guide (Square Type)	(mm)	On Request
U Type Leads	(inch)	On Request

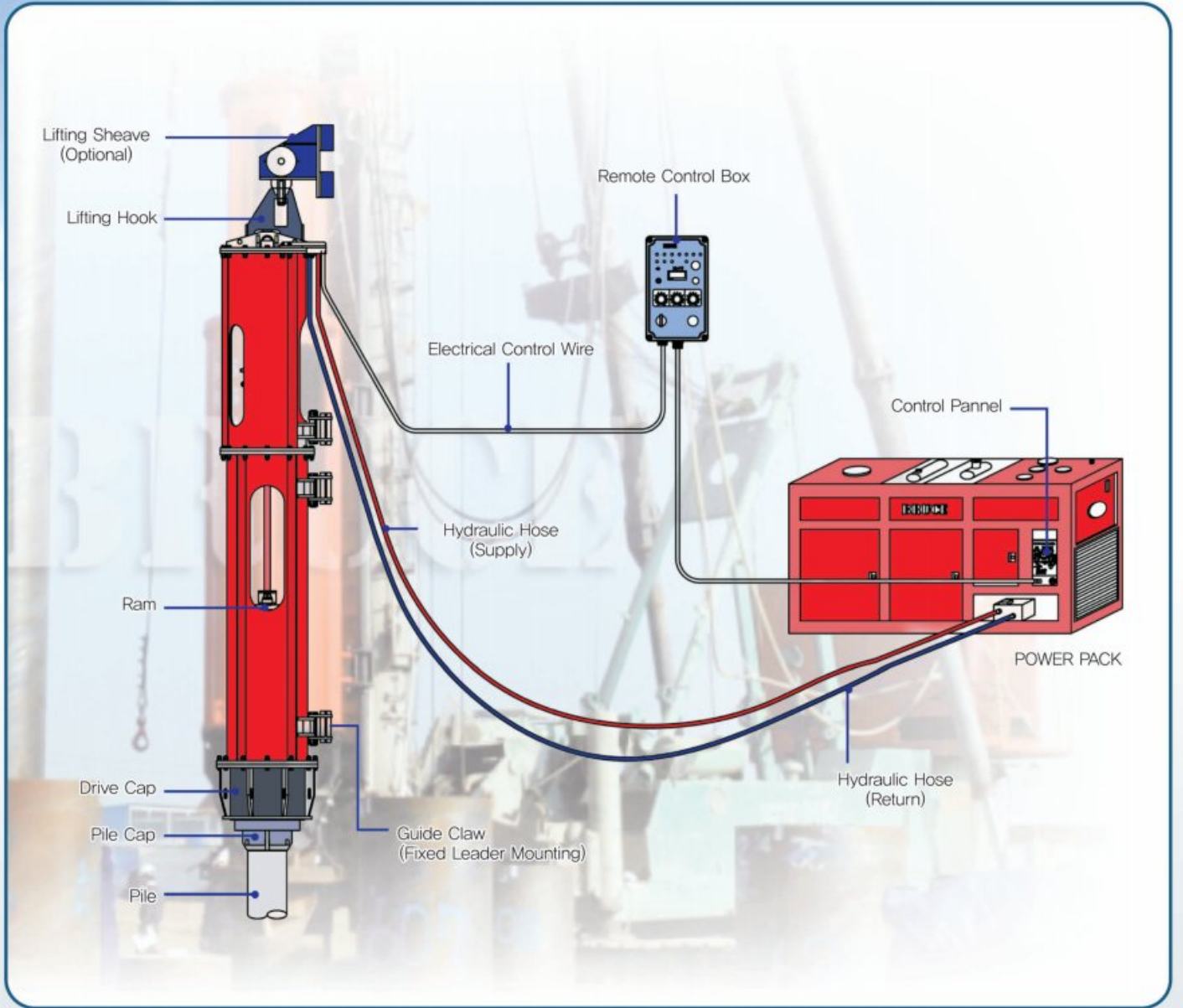
- Other shape or dimension can be modified upon request. Crane Suspended type and Long Pile Skirt are available. ilable.
- Note : The Overall Length of Hammer is included the length of pile skirt.

WEIGHTS

Weight with Drive Cap	(kg)	66000	67000	76000	67000	68000	81000	82000	83000	83000	84000	85000	92000	100000	110000	130000	140000
	(lbs)	145497	147702	167551	147710	149914	178574	180779	182984	182984	185188	187393	202825	220462	242509	286601	317466
Drive Cap Weight	(kg)	10000	10000	10000	10000	10000	12000	12000	12000	12000	12000	12000	12000	15000	20000	20000	20000
	(lbs)	22045	22045	22045	22045	22045	26454	26454	21694	21694	26456	26456	26456	33069	44093	44093	44093
Suitable Power Pack Series		PQ -600	PQ -700	PQ -1000	PQ -700	PQ -700	PQ -700	PQ -800	PQ -1000	PQ -800	PQ -800	PQ -1000	PQ -1000	PQ -1200	PQ -1200	PQ -1500	PQ -1500

- Other ram weights can be provided depend on request
- We reserve the right to make modifications without further notice.

BASIC STRUCTURE-FIXED LEADER MOUNTING TYPE



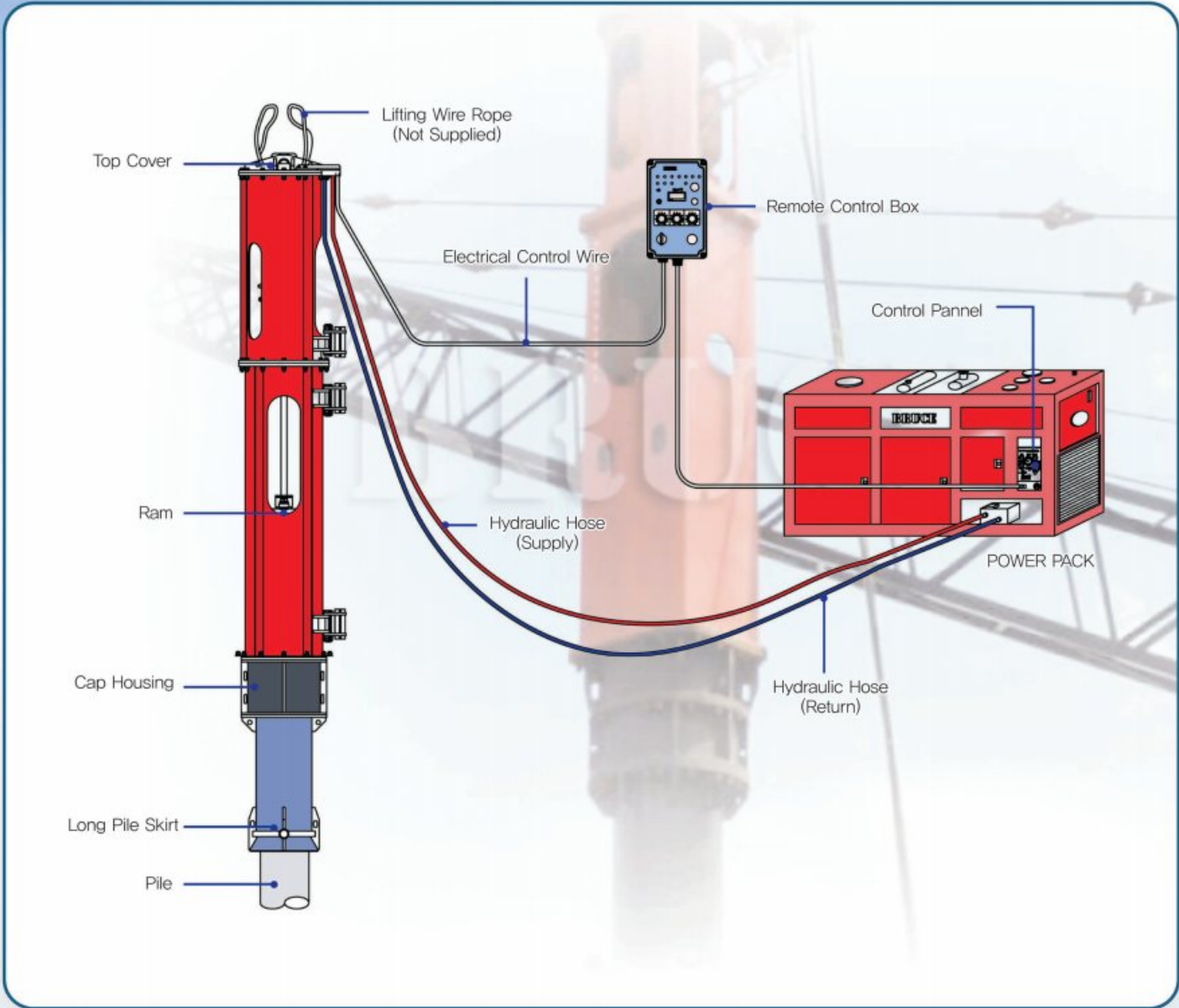
The Lifting Sheave and Lifting Hook is available for Fixed Leader Mounting Optionally.

GENERAL BRUCE HAMMER STRUCTURE-CRANE SUSPENDED TYPE

**SHOWN SGH-4719
LONG SKIRT TYPE**

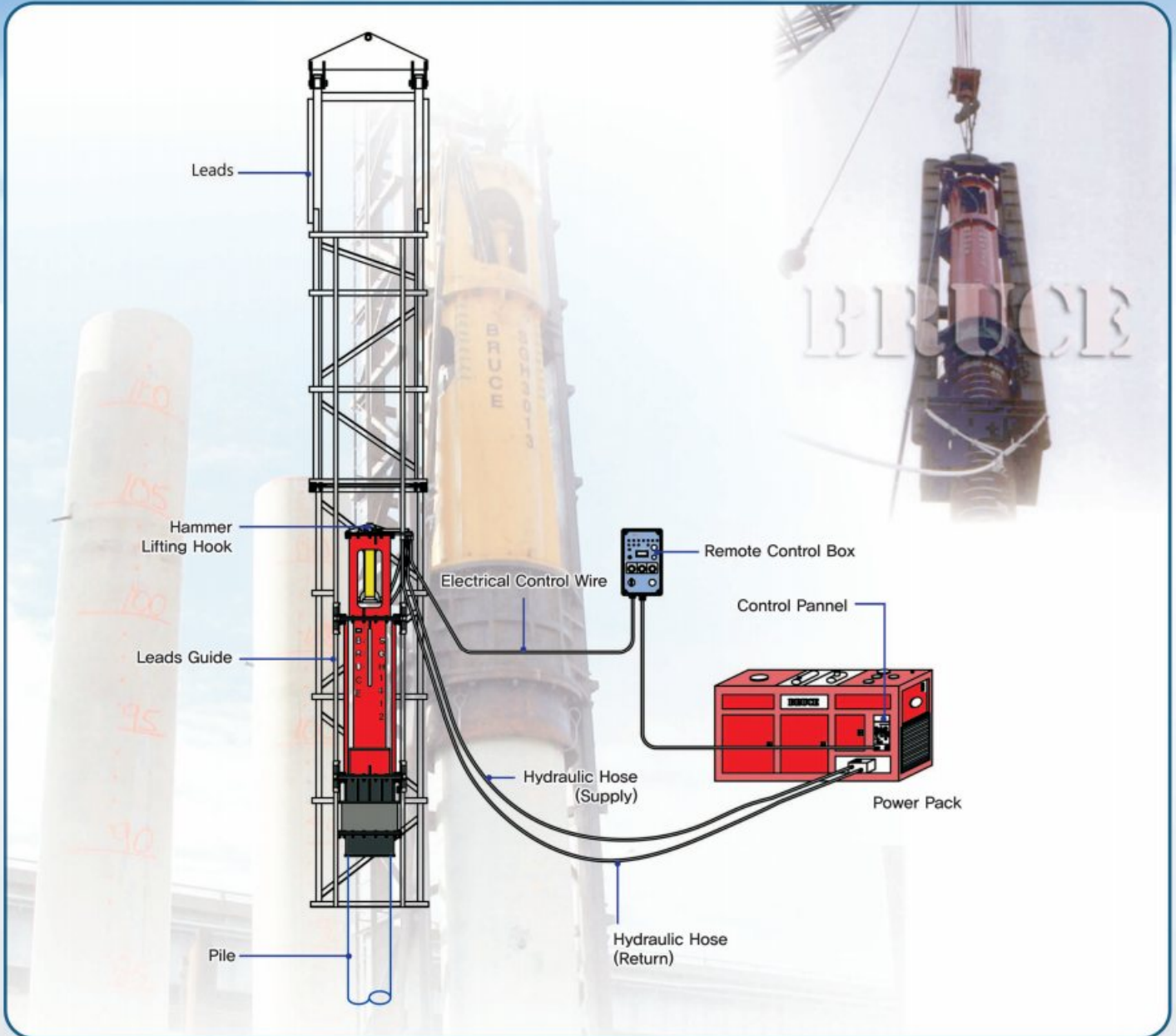


BASIC STRUCTURE-CRANE SUSPENDED TYPE BY LONG PILE SKIRT



Hammers working with crane suspended type.

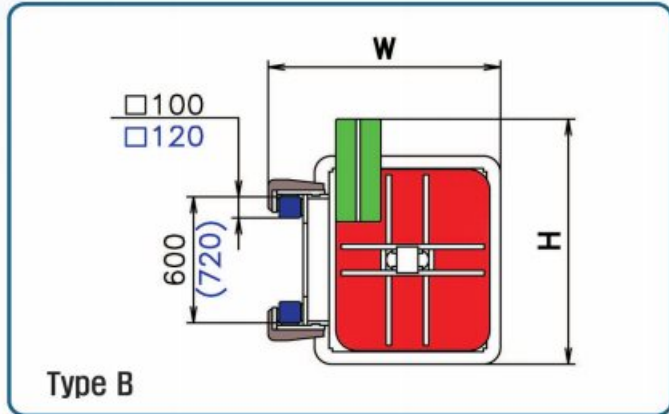
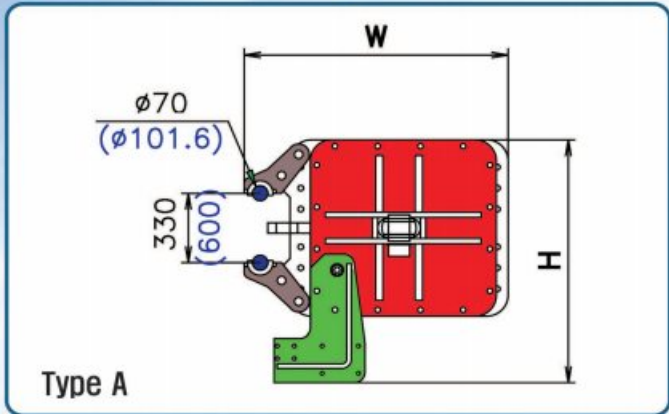
BASIC STRUCTURE - U TYPE LEADS



Offshore leader type is also available.

HAMMER MOUNTING TYPE & DIMENSION

Fixed Leader Type



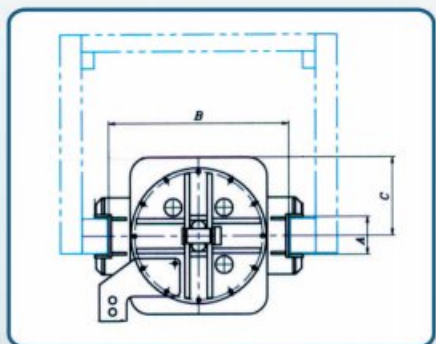
TYPE	GUIDE SHAPE	DIMENSION(mm)
TYPE "A"	ROUND	φ 70 X 330
		φ 101.6 X 600
TYPE "B"	SQUARE	□ 60 X 500
		□ 80 X 400
		□ 80 X 600
		□ 90 X 515
		□ 100 X 600
		□ 120 X 720

- Other dimension and type can be modified.
- Long pile skirt & Offshore Leader for crane suspended are Optional.

U Type Leads

BRUCE Model	U Type Leads Size (inch)	Hammer Dimension (inch)		
		A	B	C
SGH-0212	8 X 27	9	26	32.7
SGH-0312	8 X 27	9	26	32.7
SGH-0412	8 X 27	9	26	32.7
SGH-0512	8 X 33	9	32	40.2
SGH-0712	8 X 33	9	32	40.2
SGH-1012	10 X 50	11	49	56.9
SGH-1212	10 X 50	11	49	56.9
SGH-1412	11 X 57	12	56	64.2
SGH-1612	11 X 57	12	56	64.2
SGH-1812	11 X 57	12	56	64.2
SGH-2012	11 X 57	12	56	64.2
SGH-2015	11 X 57	12	56	64.2
SGH-3012	16 X 81	17	80	85.8
SGH-3013	16 X 81	17	80	85.8
SGH-4212	16 X 81	17	80	85.8

- The Hammer dimension of "A" can be changed upon request.
- Other dimension and type can be modified.



BRUCE HYDRAULIC POWER PACK

The power pack has been designed and built to optimize the hydraulic pressure for a constant stability of the job performance on high efficiency of operation with the BRUCE hammer.

A sound proofed frame style of internal layout enables to obtain an easy access to a quick maintenance.

High cooling capacity of hydraulic system provides a stable hydraulic high efficiency and no overheat problem and auxiliary control powered by fixed displacement pumps in the closed loop type of engine room.



TURBOCHARGED DIESEL ENGINE

BRUCE hammer is powered by Cummins or Doosan diesel engine creates greater productivity by higher horse power and torque ratings.



QUALITY HYDRAULIC PUMP

After being qualified as a powerful pump, the proven Rexroth or Doosan pumps are being selected to obtain a appropriate job performance.



HIGH COOLING CAPACITY

The overheat occurring in the Engine is greatly protected by enhanced air or turbo charged cooling system and large airflow amount.

UNIQUE CONCEPT OF DESIGN

BRUCE power pack is uniquely designed and built to provide a easy access to it for a quick checking the parts and convenient maintenance.

RELIABLE FILTERING UTILIZED

Every filters equipped in the Engine can guarantee a long lasting efficiencies against contaminated oils and a large amounts of dust

SIMPLE HYDRAULIC & ELECTRIC

Simplifying the hydraulic and electrical systems assure that no technical glitch occurrence for its others.



ELECTRIC REMOTE CONTROL SYSTEM

With BRUCE hammer remote control system, User can control piling and failure check in piling rig cabin or long distance of piling area. Abnormalities in each function are monitored on LEDs with a highly bright signal so that electrical diagnosis and Remedy can be done quickly.



MAIN FUNCTION HAMMER OPERATION

- Dwell control for adjusting ram staying time on pile
- Digital blow counter recorder
- Stroke control for adjusting impact energy value
- Flow control for adjusting ram speed – optional
- Operatable in both manual and automatic mode
- Automatic cut-off circuit breaker to prevent electric power abnormality or short circuit
- Engine start and stop
- Emergency stop button and functioning

ABNORMALITY CHECKING ON LEDS

- Coolant temperature
- Checking abnormality of engine oil
- Short-circuit or disconnection of wiring on hammer and solenoid valve wire
- Hydraulic main relief valve checking
- Power supply status on/off on Led Sensor function and status
- Battery charge

HYDRAULIC IMPACT PILE HAMMER CONTROL SYSTEM POWER PACK

POWER PACK CONTROL PANEL

SIMPLE DESIGN OF CONTROL PANEL

With user friendly simplicity design concept and equipped useful & conveniency functions in the control panel is provided easy electrical operational system and hydraulic system.

- * Electronic engine control unit
- * Electronic engine governor
- * Battery recharge & coolant temperature indicate
- * Engine start & stop
- * Main electric supply on/off switch
- * Engine oil pressure indicate
- * Circuit breaker can be protected from short-circuit or fault on electric system
- * Engine speed lever enables change the engine speed
- * LED lamp for MAIN POWER
- * Main hydraulic pressure indication gauge
- * Engine speed indicate
- * Fuel gauge
- * Emergency stop button
- * Engine temperature indicate



SPECIFICATION

HYDRAULIC POWER PACK

Power Pack Series	PQ-150	PQ-200	PQ-250	PQ-300	PQ-400	PQ-450	PQ-500	PQ-600	PQ-700	PQ-800	PQ-1000	PQ-1200	PQ-1500	
Engine Type	Cummins / Doosan													
Engine Power	(PS)	105@ 1800rpm	154@ 1800rpm	230@ 1800rpm	290@ 1800rpm	360@ 1800rpm	425@ 1800rpm	475@ 1800rpm	525@ 1800rpm	700@ 1800rpm	750@ 1800rpm	900@ 11800rpm	1100@ 1800rpm	1500@ 1800rpm
	(kW)	78@ 1800rpm	115@ 1800rpm	172@ 1800rpm	216@ 1800rpm	269@ 1800rpm	317@ 1800rpm	354@ 1800rpm	392@ 1800rpm	520@ 1800rpm	560@ 1800rpm	662@ 11800rpm	895@ 1800rpm	1119@ 1800rpm
Setting Pressure	(bar)	280	280	280	280	280	280	280	280	280	280	280	280	280
	(psi)	4061	4061	4061	4061	4061	4061	4061	4061	4061	4061	4061	4061	4061
Rated Flow Rate	(lpm)	150	195	325	400	500	600	650	690	930	1000	1400	1600	2000
	(gpm)	40	52	86	106	132	159	172	182	250	264	370	352	528
Hydraulic Oil Tank Capacity	(liter)	300	350	600	700	800	800	1000	1000	1200	1500	2400	2800	3200
	(gal)	79	93	159	185	211	211	264	264	317	396	634	616	704
Fuel Tank Capacity	(liter)	200	300	500	500	500	500	700	800	800	800	960	1700	2200
	(gal)	53	79	132	132	132	132	185	211	211	211	254	374	484

- The DOOSAN Engine is as the standard and the CUMMINS Engine is as an optional.
- Engine RPM can be changed according to the capacity of hydraulic pumps.

DIMENSIONS

Overall Length	(mm)	2300	2500	2900	3300	3300	3300	4000	4000	4000	4000	5000	5000	8000
	(ft)	7.55	8.20	9.51	10.83	10.83	10.83	13.1	13.1	13.1	13.1	16.4	16.4	26.3
Overall Width	(mm)	1200	1300	1600	1600	1600	1600	1700	1700	2000	2200	2200	4000	4500
	(ft)	3.94	4.27	5.25	5.25	5.25	5.25	5.58	5.58	6.70	7.22	7.22	13.1	14.8
Overall Height	(mm)	1800	1850	2100	2100	2100	2100	2100	2200	2200	2200	2250	2300	2300
	(ft)	5.91	6.07	6.89	6.89	6.89	6.89	6.89	7.22	7.22	7.22	7.38	7.6	7.6

WEIGHT

Dry	(kg)	3500	3500	3800	4800	5000	5200	5800	6800	7000	7000	10000	12000	14000
	(lbs)	7716	7716	8378	10582	11023	11464	12787	14991	14991	15432	15432	22046	26456
Operating	(kg)	4000	4000	4400	5800	6000	6200	6800	7800	8000	8000	12000	15000	19000
	(lbs)	8819	8819	9700	12787	13228	13669	14991	17196	17637	17637	26456	33069	41888
Suitable Bruce Hammer Series		0212		0715/1012	1315/1415	1615	2012	1618/1619	2512/2515	3512/3515	4515	4019	5715	7015
		0312	0512/0712	1212/1215	1612		1812	1812/1815	3012/3015	4212/4215	4715	4519	6015	8015
		0412		1312/1412				2012/2015				4719		

- Other power pack can be applied up on request.
- We reserve the right to make modifications without prior notice.



BRUCE SGH-3013 working at bridge foundation site at Panama City, Florida, USA driving concrete pile (O.D 60" x I.D 45" x 120 feet long)



BRUCE SGH-1618 & 1619 at Hong Kong driving H-beam piles (305mmx 305mm, 223kg/m, 48m long)

IMPACT ENERGY MONITOR SYSTEM (IEA SYSTEM) – OPTIONAL



IEA system
Impact Energy Analyzer 2.0



IEA S/N : IEA-0006
Project name : USA
Hammer model : SGH 2011
Hammer S/N : 0706252015
Ram wt. : 44.09 lb/1.3
Max. stroke : 4.92 ft
Location : USA
Contractor : AMERICAN BRIDGE
Operator : AMERICAN BRIDGE
Pile No. : A300004
Pile size : 30 INHJ
Pile length : 100 FT
Pile type : Round
Pile material: Concrete

IEA S/N : IEA-### ### ## ## ## ## ## ## ##
Project name : ##### ## ## ## ## ## ## ## ##
Hammer model : ##### ## ## ## ## ## ## ## ##
Hammer S,N : ##### ## ## ## ## ## ## ## ##
Ram Weight : #####ton ## ## ## ## ## ## ## ##
Max. stroke : ##### m ## ## ## ## ## ## ## ##
Location : ##### Piling start depth : ## ## m
Contractor : ##### Piling date : ##/##/####
Operator : ##### Piling start time : ##:##:##
Pile No. : ##### Piling end time : ##:##:##

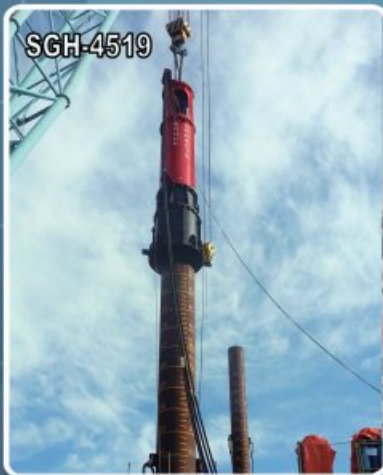
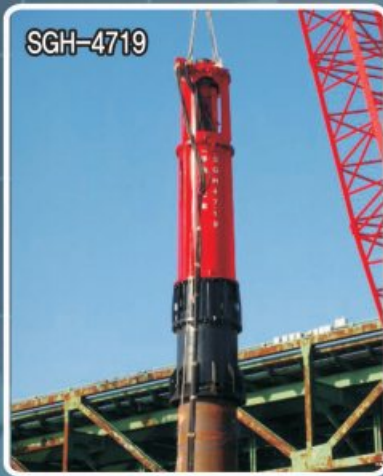
A - Penetration depth(ft)
B - Blows per step
C - Cumulative blows
D - Blow-rate (bpm)
E - Energy per step (lb/1.3.ft)
F - Stroke height (ft)

	A	B	C	D	E	F
01.00	1	1	0.0	09.05	1.07	
02.00	2	3	36.3	62.73	1.51	
03.00	1	4	42.2	72.21	1.74	
04.00	2	6	30.3	69.92	1.69	
05.00	2	8	25.0	76.68	1.85	
06.00	1	9	19.5	79.67	1.92	
Piling start depth : 00.00 ft						

Using energy monitoring system, impact energy and blow rate can be monitored and controlled according to soil conditions and piles. The measured blow rate and energy can be printed on-site or stored in data logger, which enables data transfer to PC. Therefore further analysis of piling procedure can be done.

BRUCE Pile Hammer Equipment

New Standard of Construction and Pile Driving Works for worldwide success



SGH-4719, SGH-4519, SGH-4015

47 ton Offsho

Max Energy : 89.3ton.m
47ton Ram Weight
1.9m Stroke
Dia. 72inch Steel Caing Pile

BRUCE Pile Hammer Equipment
New Standard of Construction and Pile Driving Works for worldwide success



re Pile Driving

SGH-3013, SGH-3515

Max Energy : 39ton.m
30ton Ram Weight
1.3m Stroke
Dia. 60inch Prestressed Concrete Pile

BRUCE Pile Hammer Equipment

New Standard of Construction and Pile Driving Works for worldwide success



SGH-2815, SGH-3015

Max Energy : 45ton.m
30ton Ram Weight
1.5m Stroke
Dia. 2.5m Steel Caing Pile

30 ton Offsho

BRUCE Pile Hammer Equipment

New Standard of Construction and Pile Driving Works for worldwide success



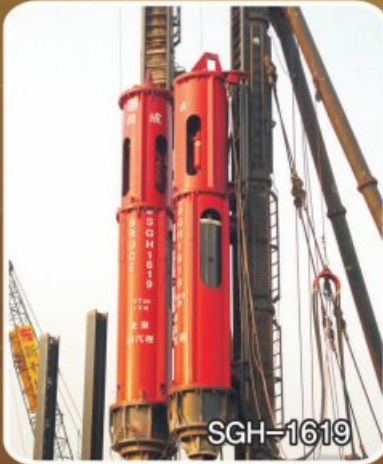
re Pile Driving

SGH-1815, 2015, 2315

23 / 20ton Ram Weight
1.5m Stroke
Dia 36inch Prestressed Concrete Pile
120feet long

BRUCE Pile Hammer Equipment

New Standard of Construction and Pile Driving Works for worldwide success



SGH-1412, 1415, 1618, 1619

SGH-1619 with highest stroke
SGH-1412, SGH-1415 working in U-type
Power Pack PQ-300/PQ-500

BRUCE Pile Hammer Equipment

New Standard of Construction and Pile Driving Works for worldwide success



SGH-1815

SGH-1315, 1412, 1415

SGH-1315 working in Fixed-Leader type
SGH-1415 working in batter pile driving
Power Pack PQ-300

BRUCE Pile Hammer Equipment

New Standard of Construction and Pile Driving Works for worldwide success



SGH-0712, 1012, 1015, 1212 30 ton Offsho

SGH-0512, SGH-1012 working in Fixed Leader type
SGH-0712, SGH-1212 working in Crane suspended type
Power Pack PQ-250

BRUCE Pile Hammer Equipment

New Standard of Construction and Pile Driving Works for worldwide success



SGH-0512



SGH-0412



SGH-0512



SGH-0512



SGH-0412



SGH-0312



SGH-0315



SGH-0312



SGH-0512



SGH-0312

re Pile Driving **SGH-0312, 0315, 0412, 0512**

SGH-0412 Working in Fixted Leade type, Pile Driver mounted
SGH-0312 Working in Fixted Leade type, Excavator mounted
Power Pack PQ-150

BRUCE™
PILING EQUIPMENT

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Representative



dr. digger