7*24-hour service covers the entire product life cycle

Quick response: 15-minute response
Quick arrival: 2-hour arrival (city outlets)
Quick supply: 24-hour supply of common accessories
Quick support: 24-hour technical solutions
Quick solution: 24-hour solution for general faults

Free guidance on product installation and commissioning
Free product technical training
Free on-site routine inspection service
Free product exclusive service
Free product program upgrade
Free product GPS terminal positioning and operation management Free solutions for key and difficult construction

HONG KONG TONG NIU TECHNOLOGY LIMITED

www.tnequipment.com

RM 1002, 10/F, EASEY COMM BUILDING, 253-261 HENNESSY ROAD,
WAN CHAI HONG KONG
sales@tnequipment.com

TONG NIU

Hammers and Accessories

HONG KONG TONG NIU TECHNOLOGY LIMITED

TONG NIU TECHNOLOGY LIMITED

BRIEF INTRODUCTION

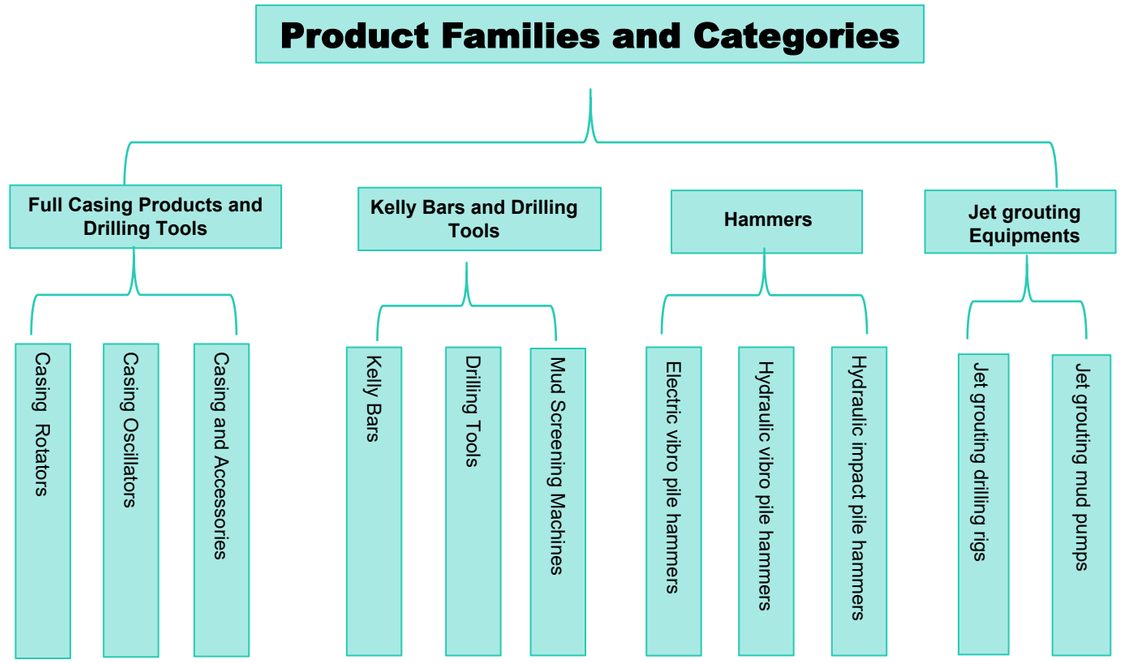
Hong Kong Tongniu Technology Limited, located in Hennessy Road, Wan Chai, Hong Kong， is a high-tech enterprise integrating the design, manufacturing, import and export of professional foundation construction machinery and equipment. TongNiu focuses on overall solutions for foundation construction and provides support for foundation construction methods.

As the provider of complete sets of equipment manufacturing and services for underground foundation construction, the products are mainly : casing oscillator, casing rotators, hydraulic vibro pile hammers, electric-driven vibro pile hammers, hydraulic impact hammers, multi-functional pile frames and other foundation construction products. At the same time, TongNiu provides complete sets for sales services on accessories of rotary drilling rig , full-casing process and hammers, such as drill rods, drilling tools, cutter teeth consumables, casing drivers, steel casings, grab buckets, professional clamps, drilling rig accessories, etc., committed to becoming a leader in ecological services in the foundation construction machinery industry.

TongNiu owns a strong technical force based on a R&D team that has been engaged in basic construction machinery design and construction method for many years. Moreover, with an excellent marketing team and regional channel partners, TongNiu has a sound management plan for product market development and product after-sales service. The sales network and representative offices covers Southeast Asia, the Middle East, Europe, America and Russian-speaking regions.

Over the years, TongNiu has been adhering to the principle of "integrity, professionalism, prompt service, and win-win", insisting on the rule of “being customer-centered”, always putting customers' interests first, and whole heartedly providing the best products and the highest quality services to each of our customers.

TONG NIU MAIN PRODUCTS



TN SERIES HAMMERS

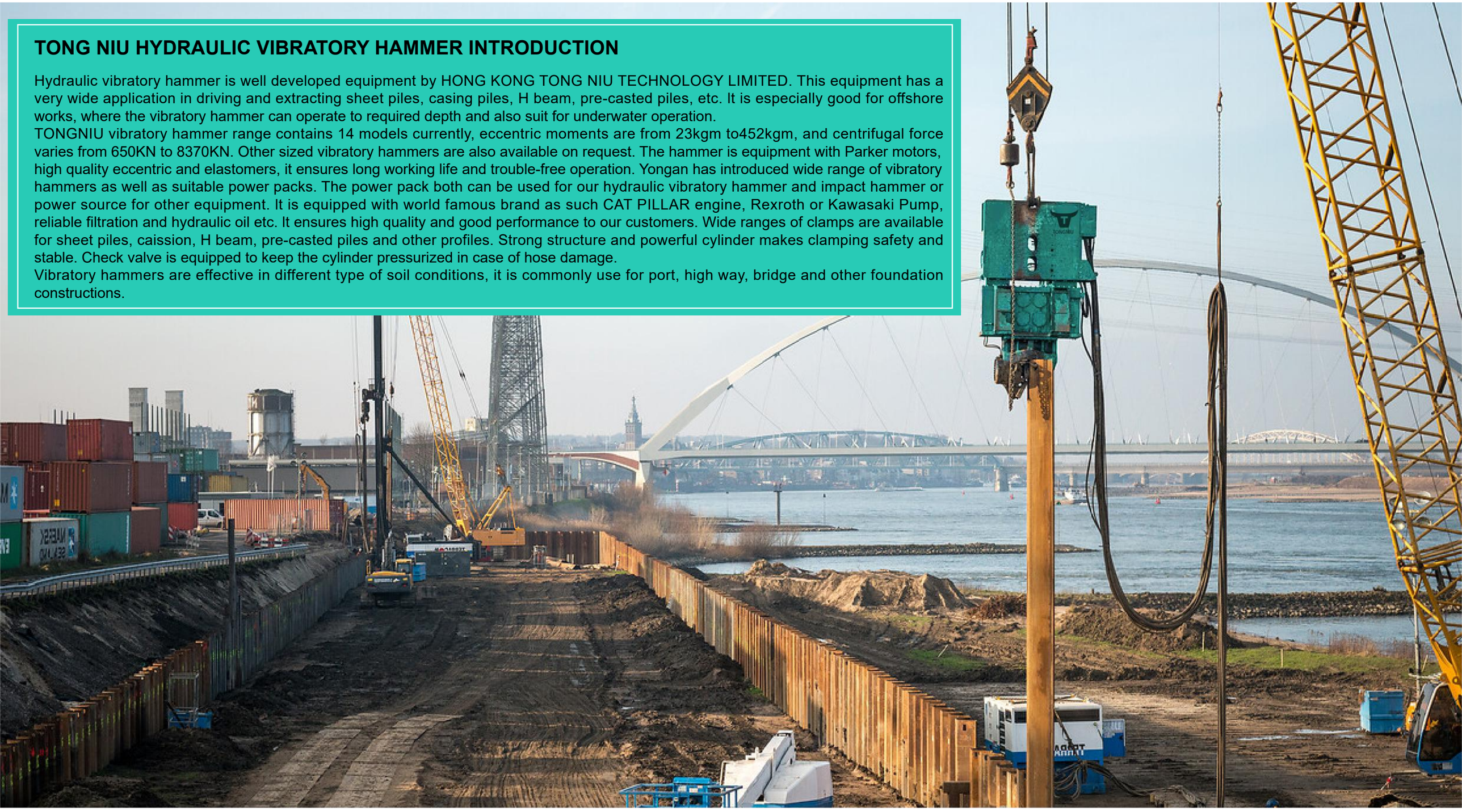
TN SERIES HYDRAULIC VIBRO PILE HAMMER

TONG NIU HYDRAULIC VIBRATORY HAMMER INTRODUCTION

Hydraulic vibratory hammer is well developed equipment by HONG KONG TONG NIU TECHNOLOGY LIMITED. This equipment has a very wide application in driving and extracting sheet piles, casing piles, H beam, pre-casted piles, etc. It is especially good for offshore works, where the vibratory hammer can operate to required depth and also suit for underwater operation.

TONGNIU vibratory hammer range contains 14 models currently, eccentric moments are from 23kgm to452kgm, and centrifugal force varies from 650KN to 8370KN. Other sized vibratory hammers are also available on request. The hammer is equipment with Parker motors, high quality eccentric and elastomers, it ensures long working life and trouble-free operation. Yongan has introduced wide range of vibratory hammers as well as suitable power packs. The power pack both can be used for our hydraulic vibratory hammer and impact hammer or power source for other equipment. It is equipped with world famous brand as such CAT PILLAR engine, Rexroth or Kawasaki Pump, reliable filtration and hydraulic oil etc. It ensures high quality and good performance to our customers. Wide ranges of clamps are available for sheet piles, caission, H beam, pre-casted piles and other profiles. Strong structure and powerful cylinder makes clamping safety and stable. Check valve is equipped to keep the cylinder pressurized in case of hose damage.

Vibratory hammers are effective in different type of soil conditions, it is commonly use for port, high way, bridge and other foundation constructions.



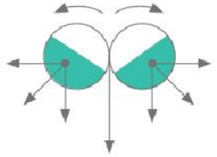
TN SERIES HYDRAULIC VIBRRATION PILE HAMMERS

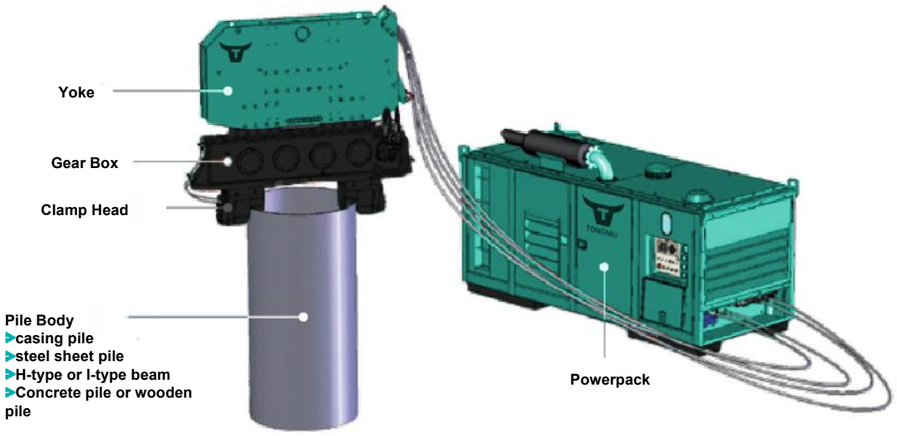
Working Principle of Hydraulic Bibration Pile Hammer

Vibratory piling reduces the cohesion of the soil through vibration

In the gear box, the paired eccentrics rotate at the same angular velocity but in opposite directions, producing unidirectional vertical vibration. The two eccentrics will generate a centrifugal force f_c. The horizontal components f_h are offset at the same time, while the vertical components f_v are added up to form a total centrifugal force F_c.

The yoke is fixed to the upper part of the gear box , thus preventing the transmission of vibration ,thanks to specially designed shock absorbers





Technical Parameters

- Eccentric Moment:M^t(m.kg)

  $M^t=\Sigma(m\times r)$

  r:The distance between its center of gravity and the axis of rotation

  m:The weight of eccentric wheel

- Centrifugal Force:F_c(kN)

  $f_c=m\times r\times\omega^2$(ω:Angular velocity, radian/s)

  Centrifugal force:$F_c=1.118\times M^t\times n^2\times10^{-5}$

  M^t:eccentric moment,m.kg

  n:rotating speed ,r.p.m

  Example: Vibration Pile Hammer, TNYZ-110D

  M^t=32 m.kg, n= 1800 r.p.m

  F_c= $1.118\times32\times1800^2\times10^{-5}$=1159kN

- Vibrating Weight: m_v

  m_v=weight of the gearbox + weight of the clamping head + weight of the element to be driven

- Amplitude:A(mm)

  The vertical displacement of the vibrating elements during one complete

  revolution of the eccentrics.

  Amplitude $A=\frac{2\times M^t}{m_v}$

  A: amplitude, mm

  M^t:eccentric moment

  m_v:momentum, tons

  Exmple:Vibration Pile Hammer, TNYZ-110D

  (M^t=32 m.kg, Weight of vibration box+ Holder=5.5 tons)

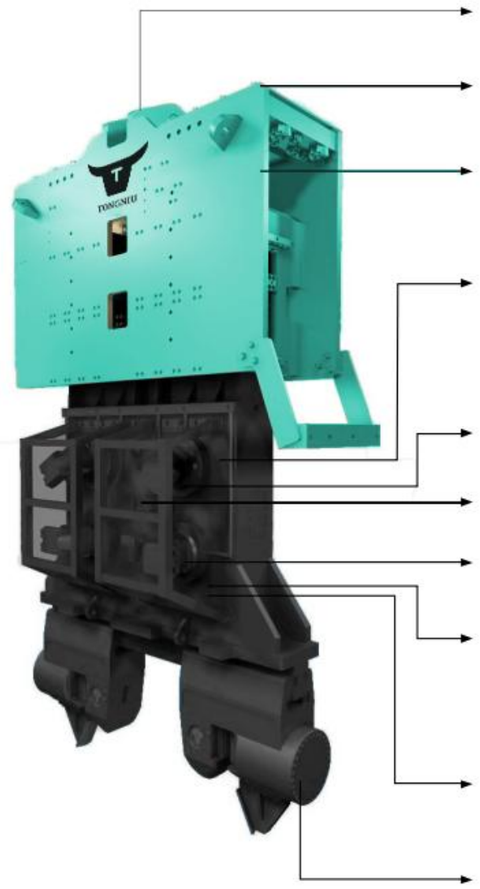
  +Sleeves(diameter 1.4m, length 26m, thickness 15mm, 13.37tons)

  m_v= 5.5t+13.37t=18.97t

  Amplitude $A=\frac{2\times32}{18.97}$=3.37mm

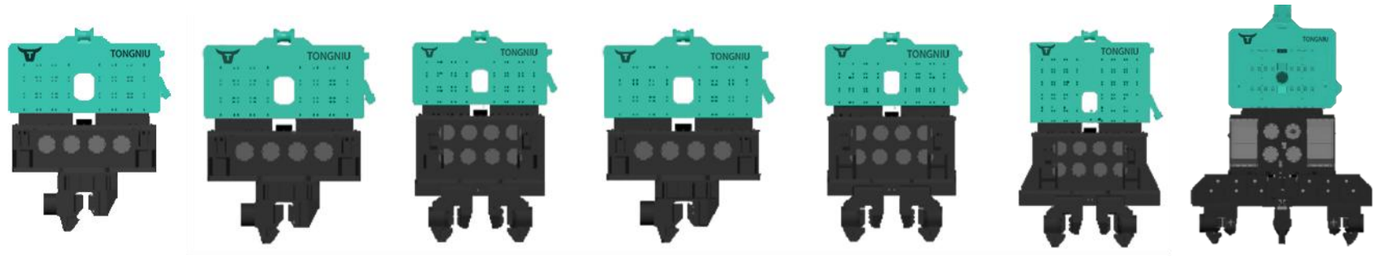
Structure and Feature

Tongniu vibratory hammer has many advantages, such as compact hammer structure, small size of the whole machine, large eccentric torque, capable of generating huge vibration energy, high configuration of the whole machine, international first-line brands adopted by key parts, stable and reliable. The details are as follows:

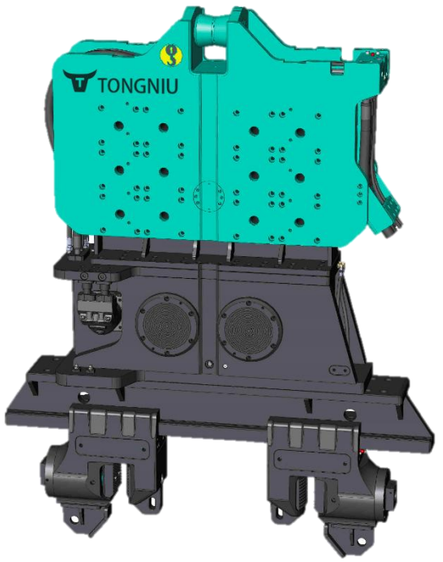


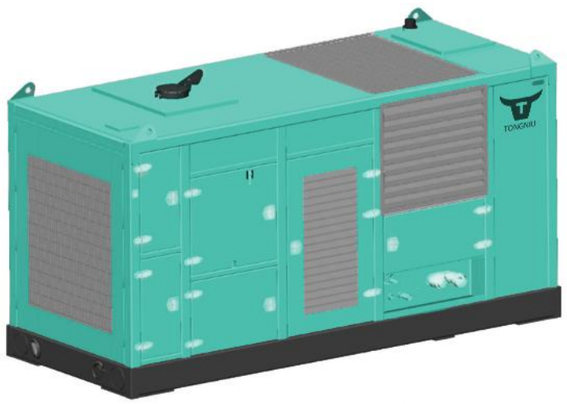
TN SERIES HYDRAULIC VIBRRATION PILE HAMMERS

Technical Specifications



TNYZ Series Hydraulic Vibro Pile Hammer Technical Specifications							
Model	TNYZ-70	TNYZ-110D	TNYZ-130	TNYZ-180	TNYZ-230	TNYZ-300	TNYZ-400
Eccentric moment（Kg·m）	23	32	46	51	85	130	226
Maximum speed（rpm）	1700	1800	1600	1800	1600	1600	1400
Max centrifugal force（kN）	845	1140	1690	1810	2990	3700	4853
Max line pull（kN）	400	600	800/1200	800/1200	1200	2000	2500
Max amplitude（mm）	22	33	28	32	31	37	40
Max oil flow（L/min）	360	480	600	680	900	800	1500
Outline Dimension(without clamp) Length×Width×Height（mm）	2417×685×2015	1950×600×2100	2390×893×2640	2845×530×1880	2350×1130×3800	2650×1135×4270	2650×1280×4280
total Weight（Kg）	5000	5500	7800	7200	13000	16000	18000
Power Pack	400P	500P	600P	700P	1000P	1200P	1400P

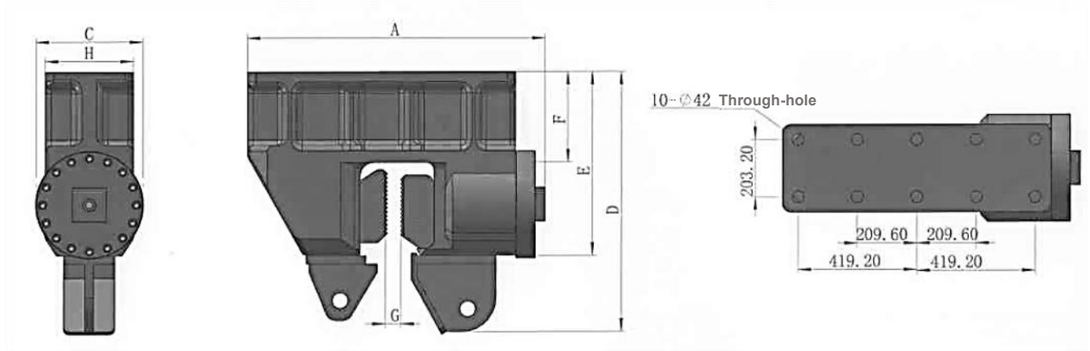




TN Hydraulic power station technical Specifications							
Model	400P	500P	600P	700P	1000P	1200P	1400P
Engine Brand	Cummins C360	Cummins	Cummins QSZ13-C550	CAT C15	CAT C18	Cummins	CAT3512
Maximum power（Kw/HP）	265/360	298/405	403/548	433/590	571/777	895/1200	1075/1462
Maximum speed（rpm）	2200	2100	2100	2100	2100	1800	1800
Work Pressure（Bar）	350	320	320	350	350	320	350
Maximum flow（L）	400	500	630	680	1150	1200	1400
Diesel tank capacity（L）	500	500	600	600	1000	1000	1200
Outline Dimension(without clamp) Length×Width×Height（mm）	3900×1550×2050	3910×1520×2100	4550×1820×2400	4350×1800×2300	4450*1850*2520	6050×2350×2820	6100×2350×2820
Weight（Kg）	5800	6000	8200	7800	9000	16000	20000

Standard Single Clamp

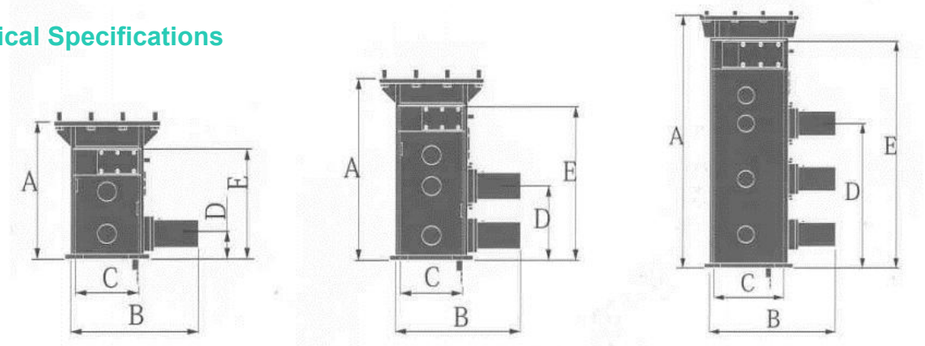
Technical Specifications



Model	TNZL100	TNZL160	TNZL200	TNZL320
Clamping force(kN)	1000	1600	2000	3200
Working pressure (bar)	320	320	320	320
Weight（kg)	950	1050	1300	1550
Size（mm)	1055×920×376	1055×920×376	1105×1030×438	1105×1030×438
A	1055	1055	1105	1105
B	950	950	1000	1000
C	376	376	438	438
D	920	920	1030	1030
E	650	650	760	760
F	320	320	395	395
G	55	55	77	77
H	203.2	203.2	203.2	203.2

Pile Clamp

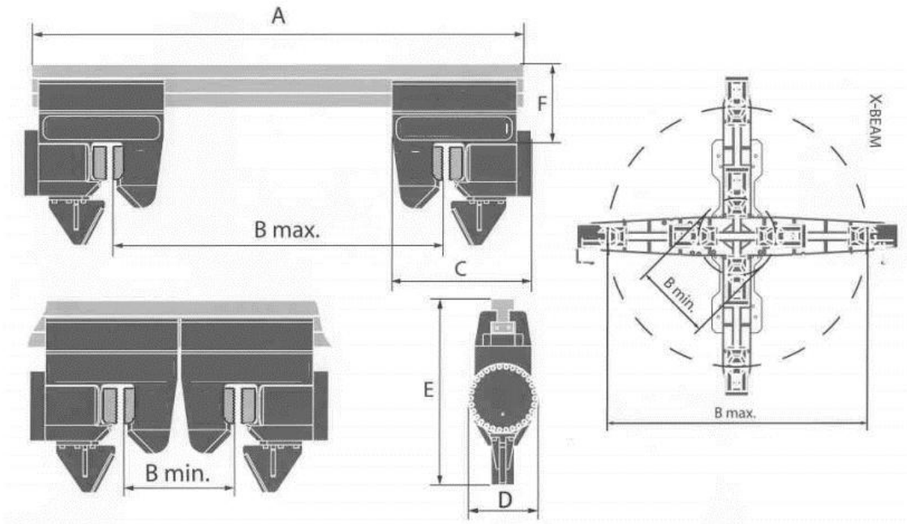
Technical Specifications



Model	Clamping force (kN)	Working pressure (bar)	Weight (kg)	Size（mm)				
				A	B	C	D	E
TNJ66CC	600	300	1240	1130	1045	420	240	629
TNJ120CC	1200	300	1650	1470	1045	420	600	969
TNJ180CC	1800	300	2820	2275	1145	520	1300	1749

Double Clamps and Cross Clamps

Technical Specifications

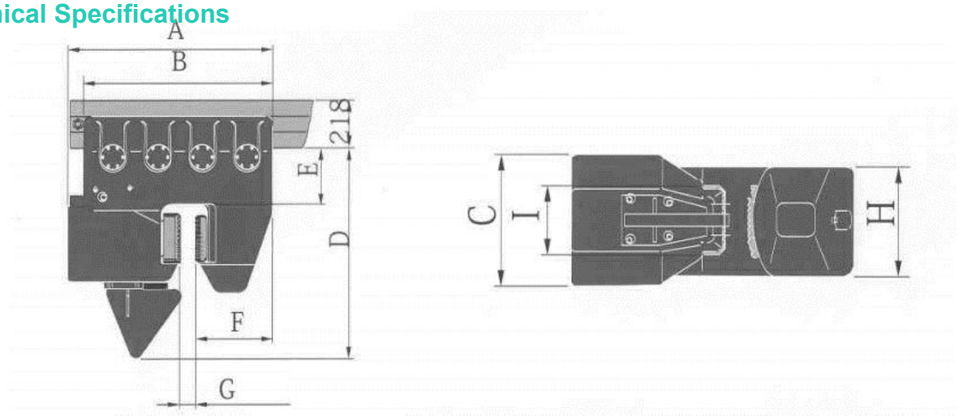


Powerpack	Weight(kg)	A	B min	B max	C	D	E	F
YZJ100DC	1660	1600	450	900	638	380	800	340
	1720	2000	450	1300	638	380	800	340
	1780	2400	450	1700	638	380	800	340
	2280	2700	450	2000	638	380	982	850
	2450	3200	450	2500	638	380	982	850
YZJ160DC	2200	2400	600	1500	840	380	1020	480
	3180	3100	600	2200	840	380	1455	805
	4100	3400	600	2500	840	380	1455	805
YZJ200DC	3400	2400	700	1400	930	440	1055	492
	4380	3100	700	2100	930	440	1490	817
	5310	3400	700	2400	930	440	1490	817
	5300	4000	700	3000	930	440	1590	917
	6790	4500	700	3500	930	440	1750	1077
YZJX-BEAM	9510	4500	1150	3500	930	440	1750	1077

TN SERIES HYDRAULIC VIBRRATION PILE HAMMERS

Caisson Clamps

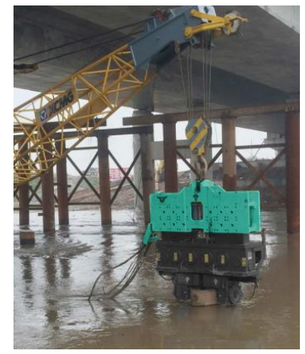
Technical Specifications



Model	Clamping force (kN)	Working pressure (bar)	Weight (kg)	Size (mm)							
				A	B	C	D	E	F	H	I
TNJ80PC	800	320	480	610	440	300	638	138	225	272	135
TNJ125PC	1250	320	666	700	569	340	651	136	272	272	190
TNJ200PC	2000	320	1350	913	840	430	947	251	251	355	220

1 2 3
4 5

1. Limited height piling driving in Hubei Qianshi High Way project
2. Jiang Xi Ganzhou Read estate project
3. Meiao Bridge project
4. Chengdu Real Estate Project
5. Jiashao Bridge extracting φ800mm pipe





CASES OF
TN SERIES HYDRAULIC VIBRRATION PILE HAMMERS





1 2 3
4 5

1. U-shaped steel sheet pile construction for Hong Kong Eu Yan Sang Pharmaceutical Factory
2. Shanghai Pudong PHC prefabricated pipe pile construction
3. Steel Pipe Pile Construction in Guangzhou Nansha Port
4. Construction of Steel Casing Wall Cast-in-place Pile in Nanhai District
5. Cast-in-place pile construction for Shenzhen housing construction project





1 2
3 4 5

1. Hongkong-Macau-Zhuhai Bridge West Island.
2. Tendem Hydraulic vibratory hammer Fuping Bridge
3. Wuhan hannan jetty pipe extracting.
4. Pingtan Haixia oversea bridge
5. Wuhan Dunkou Yangzi river bidge

TNEP SERIES ELECTRICAL DRIVEN VIBRO PILE HAMMER

Hong Kong Tong Niu Technology Limited has Eight series of products with complete intellectual property rights have been developed:TNEP series Resonance Free Variable Frequency and Eccentric Moment Vibro Hammer: TNZP resonation-free frequency modulation electric vibro hammer series; TNKLV packed sand pile/gravel pile vibro hammer series; TNPJ stepless frequency and torque modulation hydraulic vibro hammer series; TNDTH(Down-the Hole) hammer rock drilling machine series; TNJUZ large torque hydraulic auger drilling rig; JU series hydraulic crawler pile frame and TNFZ series of internally supported lifting device.

TNEP SERIES ELECTRICAL DRIVEN VIBRO PILE HAMMER

TNEP Series Resonance Free Variable Frequency and Eccentric Moment Vibro Hammer

The most unique feature of TNEP series hammer with the reasonance-free motor is eccentric moment infinite control. It enables to easily control the eccentric moment setting it from 0 to maximum value. The superiorities of this series have been proved below through comparing with traditional hammer.

(1) Despite frequent stoppage and vibrational impact the electric drive is subjected to low load and therefore does not overheat.. Low torque during the start and end of operation decreases energy consumption.

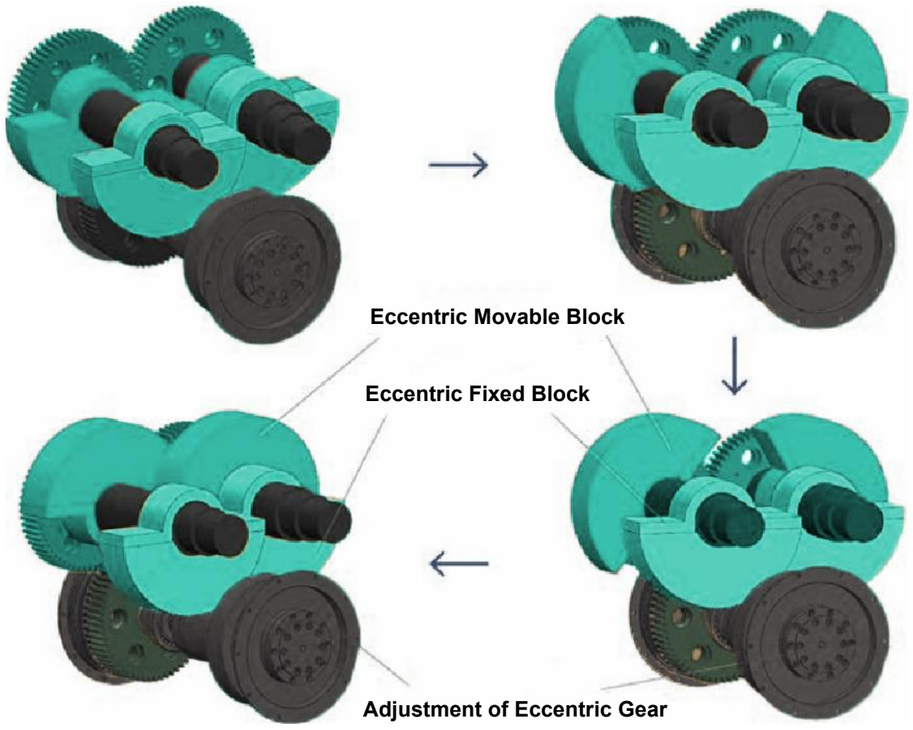
(2) The vibro pile hammer design eliminates vibration and overcome the problem ofresonance at the start and end of operation. This reduces the damage of parts and avoids negative impact on the environment.

(3) The hammer allows to choose the working mode through the eccentric moment infinite control depending on the soil features.

(4) The adoption of horizontal structure for large vibro pile hammer reduce the their center of gravity to improve the stability. This reduce the overall height, equipped with crossbeam style of damping system.

Eccentric Moment at peak mean
Maximum Centrifugal Force

Eccentric Moment 70%



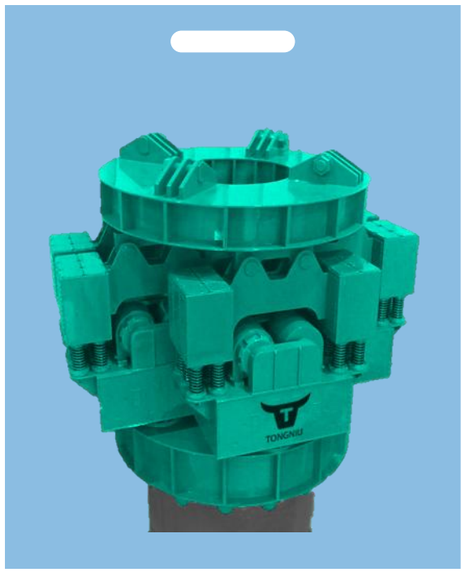
Eccentric Moment “Zero” at the start and end of operation

Eccentric Moment 30%

Classification of Electrical driven vibro pile hammer

Vertical structure

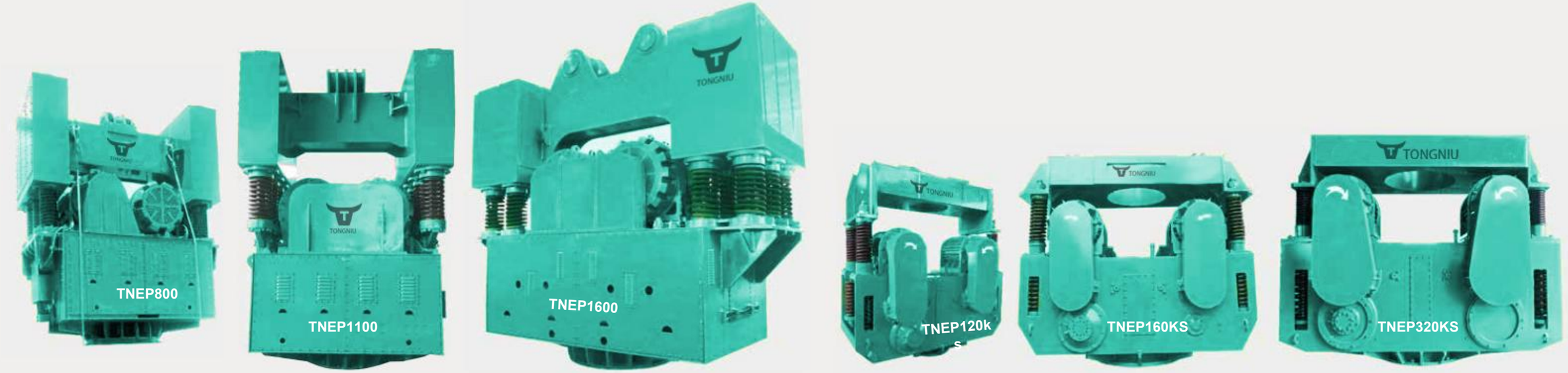
Horizontal structure



Hollow structure

Multiple linked Structure

PHOTOS OF TNEP SERIES ELECTRICAL DRIVEN VIBRO PILE HAMMER



PHOTOS OF TNEP SERIES ELECTRICAL DRIVEN VIBRO PILE HAMMER

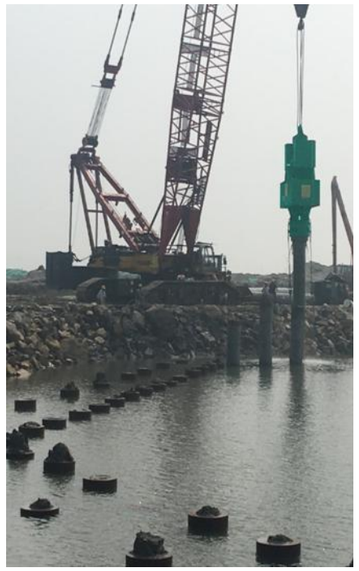
Technical Data for TNEP Series Resonance Free Variable Frequency and Eccentric Moment Vibro hammer

Type / P / Data / Item	TNEP80	TNEP120	TNEP120KS	TNEP160	TNEP160KS		TNEP200	TNEP200A		TNEP240	TNEP240KS		TNEP270	TNEP320	TNEP320KS		TNEZ400A	TNEP360KS	TNEP550	TNEP650		TNEP650S	TNEP800	TNEP1100	TNEP1600	TNEP1300L TNEP650*2	TNEP1600L TNEP800*2	TNEP2000L TNEP1600*2
Motor power (kW)	60	90	45×2	120	60*2		150	150		180	90*2		200	240	120*2		300	135*2	400	500		240*2	600	800	1200	1000	1200	2400
Eccentric Moment (kg*m)	0-36	0-41	0-70	0-70	0-70	0-116	0-77	0-110	0-150	0-150	0-200	0-120	0-180	0-200	0-250	0-220	0-300	0-180	0-240	0-220	0-300	0-240	0-300	0-400	0-480	0-580	480	0-560	0-670	0-1120	0-1160	0-1120	0-2240
Frequency (r/min)	1100	1100	950	1000	1030	800	1100	940	800	820	710	960	780	750	660	810	690	870	750	890	760	750	820	710	750	680	750	750	750	750	680	750	750
Centrifugal Force (kN)	0-480	0-550	0-690	0-770	0-810	0-810	0-1020	0-1020	0-1050	0-1150	0-1150	0-1210	0-1200	0-1250	0-1250	0-1580	0-1570	0-1490	0-1480	0-1910	0-1900	0-1480	0-2210	0-2210	0-2960	0-2940	0-300	0-3450	0-4130	0-6910	0-5580	0-6900	0-13820
No-load Amplitide (mm)	0-8.0	0-8.0	0-7.8	0-9.7	0-6.5	0-10.5	0-10.0	0-11.0	0-14.1	0-11.3	0-14.9	0-6.7	0-10.0	0-14.5	0-18.4	0-12.9	0-17.2	0-7.6	0-10.1	0-12.5	0-16.9	0-10.0	0-14.0	0-18.1	0-15.1	0-18.1	0-13.7	0-15.9	0-17.0	0-17.5	0-12.3	0-11.7	0-13.2
No-load Acceleration (g)	10.9	10.9	7.9	10.8	7.7	7.5	13.5	10.4	10.1	9.3	9.3	6.9	6.8	9.4	9.2	9.4	9.2	8.1	7.6	11.1	10.9	6.9	10.5	10.2	9.5	9.4	8.5	10.0	10.7	11.0	6.4	7.4	8.3
Max .Extraction Force (t)	22	25	40	40	40		40	40		60	60		60	90	90		90	90	90	120		120	180	240	360	240	360	720
Vibration Weight (kg)	4480	5100	9005	7230	10830	11030	7660	10010	10350	13320	13380	17870	17980	13800	14100	17100	17400	23660	23700	17600	17800	23900	21500	22100	30000	30200	35100	35200	39300	64100	89000	95400	169400
Total Weight (kg)	4980	6200	10860	8650	12850	13050	9070	12610	13150	16640	16700	22520	22640	17170	17470	23600	24000	29160	29200	25200	25400	29400	28200	28700	38400	38600	43500	49200	57300	96000	107200 (including clamps)	126400 (including clamp	237000 (including clamp
Length (mm)	1710	1770	2580	1780	2740		1930	2220		2470	3350		2470	2570	3370		2580	3390	2700	3250		4400	3350	3330	5650	4000	4050	5650
Width (mm)	1180	1270	1500	1650	1760		1350	1510		1630	2070		1630	1890	2090		1890	2100	1080	2160		2400	2160	2350	2240	6000	6000	8000
Height (mm)	2530	2750	2580	2820	2650		3520	3810		4310	3190		4360	3760	3200		3360	3230	4710	5250		4900	5340	5450	5360	5950	6050	6100

CASES OF
TNEP SERIES ELECTRICAL DRIVEN VIBRO PILE HAMMER

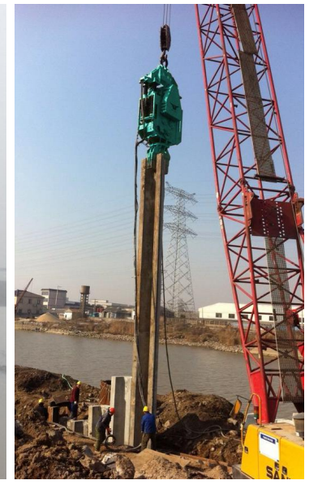




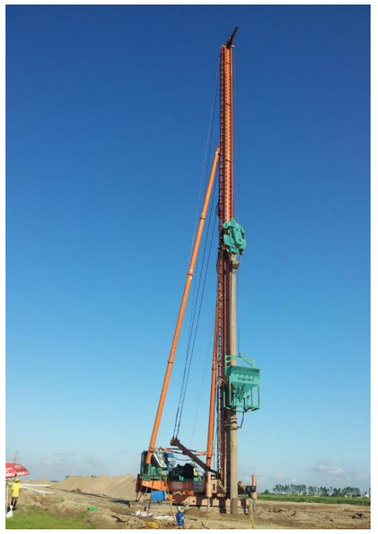


1 2
3 4 5

1. CGN Yangjiang Nanpeng Island Wind Power Project
2. Three Gorges Yangjiang Stable Pile Platform Positioning Project
3. Jiangsu Dafeng Longyuan Offshore Wind Power Project
4. Wuhan Qingshan Yangtze River Bridge Project
5.Zhejiang Zhoushan Yushan Bridge Project





1 2 3
4 5 6

1. Guangdong Nanpeng Island CGN Offshore Wind Power Project
2. China Zhenjiang Prefabricated Pile Project
3. Prefabricated Pile Project for Zhangzhou Factory in China
4. Jiangsu Kunshan Prefabricated Pile Project
5. Shandong Jinan Pre installed Pile Project
6. Inner Mongolia Prefabricated Pile Project

TNZP SERIES ELECTRICAL DRIVEN VIBRO PILE HAMMER

Advantages

TNZP series are self-developed products with the frequency conversion and the resonance-free motor. The superiorities of this series have been proved below through comparing with traditional hammer.

(1) The frequency conversion soft start to slump energy consumption. It makes only twice times power supply than motor power to start up.

(2) The hammer allows to choose the working mode through the frequency conversion depending on the soil features.

(3) The power conversion system, which rapidly convert kinetic energy into electricity giving up heat energy, makes shutdown smoothly and eliminates the problem of resonance that cause the damage of parts and noise pollution.

(4) The shockproof & frequency conversion motors with independent intellectual property rights promote their life cycle.

In a word, this series is a revolutionary technology comparing with traditional hammer.

Technical Specifications

Model	TNZP45	TNZP60	TNZP90	TNZP90KS	TNZP120	TNZP120KS	TNZP150	TNZP150KS	TNZP180
Motor power (kW)	45	60	90	45×2	120	60×2	150	75×2	180
Eccentric Moment (kg*m)	25	37	47	52	71	71	97	150	200
Frequency (r/min)	1150	1100	1050	1000	1000	1000	970	760	750
Centrifugal force (kN)	360	490	570	570	780	780	1000	950	1230
No-load Amplitide (mm)	8.9	9.9	10.3	9.7	13.6	8.3	14	15.5	18
No-lod Acceleration (g)	13.1	13.4	12.8	10.8	15.4	9.3	14.8	10	11.3
Max. Extraction Force (t)	20	20	25	25	40	40	40	40	60
Vibration Weight (kg)	2800	3744	4560	5370	5195	8610	6900	9700	11100
Total Weight (kg)	3820	5190	6160	7190	7162	11780	8800	12870	14300
Length (mm)	1190	1370	1523	2390	1720	3120	1975	3140	2450
Width (mm)	1100	1250	1250	1420	1310	1690	1425	1690	1500
Height (mm)	2094	2395	2652	2060	2640	2540	3061	2250	3440

Model	TNZP180KS	TNZP200	TNZP240	TNZP300	TNZP360KS	TMZP400	TNZP500	TNZP600
Motor power (kW)	90×2	200	240	300	180×2	400	500	300×2
Eccentric Moment (kg*m)	150	250	300	400	350	700	580	560
Frequency (r/min)	860	680	660	620	680	2150	680	750
Centrifugal force (kN)	1220	1270	1430	1690	1770	16.8	2940	3450
No-load Amplitide (mm)	10.7	21.2	21	23.7	24.1	12.6	20.5	19.5
No-load Acceleration (g)	8.9	11	10.2	10.2	12.4	12.6	10.6	12.3
Max .extractionforce (t)	60	60	90	90	72	90	120	140
Vibration Weight (kg)	13990	11800	14300	16900	14500	17900	28300	28725
Total Weight (kg)	18250	15000	19600	23600	19000	24600	35900	32640
Length (mm)	3550	2450	2500	2500	2970	2550	2580	3060
Width (mm)	2000	1500	1830	1890	1790	1940	2241	1910
Height (mm)	2980	3440	3720	4350	2810	4450	5185	6690

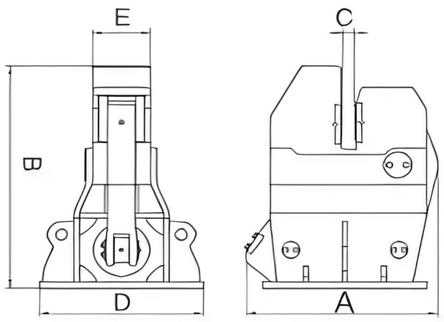
CASES OF
TNZP SERIES ELECTRICAL DRIVEN VIBRO PILE HAMMER

1 2 3
4 5

1. Steel pipe pile construction for offshore wind power projects
2. Precast concrete pipe pile construction for building construction
3. Construction of gravel piles for foundation reinforcement
4. Steel sheet pile construction for water conservancy projects
5.Precast concrete H-type sheet pile hammer construction。

Standard Clamp (Single Chuck) Sheet Pile Clamp

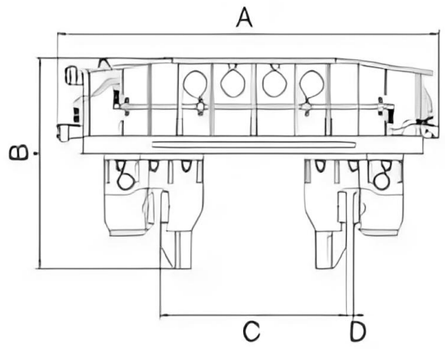
Technical Specifications

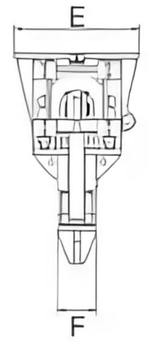


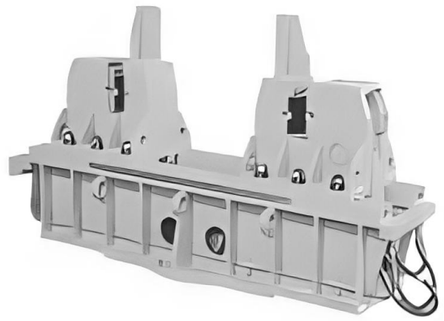
Model	Pressure (Mpa)	Max. clamping force (t)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Vibro Hammer model
TNJG-I	18	58	670	748	890	50	Φ600	200	TNZP45/TNZP60
TNJG-II	18	87	1050	815	1020	50	Φ700	250	TNZP90/TNYZ120/TNZPJ90
YNJG-III	18	171	1750	960	1280	50	Φ800	250	TNZP120/TNZP150/TNZP180/TNEP200/TNEP240
TNJG-IV	27	81	1055	723	445	60	Φ600	350	TNPJ50
TNJG-V	28	160	1625	950	730	50	Φ745	250	TNPJ100
TNJG-VI	32	300	2488	1069	665	80	Φ765	510	TNPJ200

Movable Steel Pipe Clamp(Double Chucks) Pipe Pile Clamp

Technical Specifications



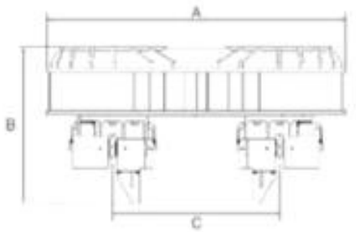


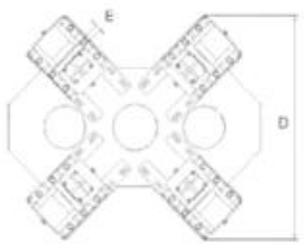


Model	Pressure (Mpa)	Maximum clamping force (t)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Vibro Hammer model
TNJG2-I	18	140	2900	2450	1263	Φ500-Φ1200	40	Φ800	250	TNZP90/TNEP120/TNZPJ90
TNJG2-II	18	180	3000	2450	1263	Φ600-Φ1200	40	Φ800	250	TNZP120/TNZP150/TNZP180/TNEP200/TNEP240
YNJG2-III	18	180	3150	2860	1263	Φ600-Φ1600	40	Φ800	250	YNZP90/TNYZ120/TNZPJ90/TNZP120/TNZP180/TNEP200/TNEP240
TNJG2-IV	18	180	3300	3260	1263	Φ600-Φ2000	40	Φ800	250	TNZP120/TNZP150/TNZP180/TNEP200/TNEP240
TNJG2-V	18	180	3500	3770	1263	Φ600-Φ2500	40	Φ800	250	TNZP120/TNZP150/TNZP180/TNEP200/TNEP240
TNJG2-VI	18	340	5900	3450	1616	Φ700-Φ1800	50	Φ1300	300	TNZP200/TNZP240/TNZP300/TNZP400/TNEP270/TNEP00/TNEP400/TNEP550
TNJG2-VII	18	340	6500	4020	1616	Φ700-Φ3000	50	Φ1300	300	TNZP200/TNZP240/TNZP300/TNZP400/TNEP270/TNEP00/TNEP400/TNEP550
TNJG2-VIII	18	470	10484	3400	2415	Φ1050-Φ2000	50	Φ1360	356	TNZP300/TNZP400/TNZP500/TNZP600/TNEP400/TNEP550/TNEP650/TNEP800
TNJG2-IX	32	600	12500	4030	2225	Φ1000-Φ3000	80	Φ1400	510	TNZP500/TNZP600/TNEP650/TNEP800/TNZPJ480/TNEP1100
TNJG2-X	20	600	16700	4700	2280	Φ1100-Φ3000	65.5	Φ1400	356	TNZP500/TNZP600/TNEP650/TNEP800/TNZPJ480/TNEP1100
NJG2-XI	28	320	6285	3195	1700	Φ1032-Φ2032	50	/	300	TNPJ200

Jumbo Pipe Pile Clamp (Four Chucks)

Technical Specifications

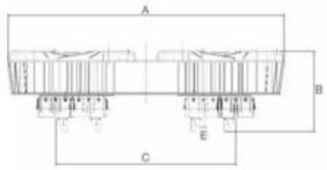


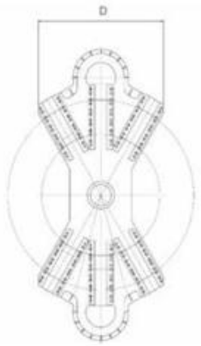


Model	Pressure (Mpa)	Max. clamping Force (t)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Vibro Hammer model
TNJG4-I	18	680	12275	2980.5	1610	Φ1500-Φ2000	3320	80	TNEP800/TNEP1100
TNJG4-II	26.5	960	24106	3400	2055	Φ1700-Φ3200	4000	80	TNEP1300L/TNEP1600L

Jumbo Pipe Pile Clamp (Six CAhucks)

Technical Specifications





Model	Pressure (Mpa)	Max. clamping Force (t)	Weight (Kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Vibro Hammer model
TNJG6-I	32	1440	36152	6168	2450	Φ1800-Φ3700	3540	80	TNEP800*3/TNEP1100*2/ TNEP1600*2
TNJG6-II	32	1820	41200	8432	2450	Φ3500-Φ5500	3700	80	TNEP800*4

Special Clamp

Technical Specifications

PHC prefabricated pipe pile clamp

U-shaped concrete prefabricated sheet pile clamp

Special sheet pile clamp (cutomization)

Fix pipe pile clamp

PHC prefabricated pipe pile clamp

Model	Pressure (Mpa)	Maximum clamping force (t)	Weight (Kg)	Diameter of PHC pile that can be clamped (mm)	Vibro Hammer model
TNJP-I	20	430	2400	Φ300-Φ400	TNZP120/TNZP150/TNZP180/TNZP240/ TNEP160/TNEP200/TNEP240/TNEP320
TNJP-II	20	430	2800	Φ500-Φ600	
YNJP-III	24	510	4200	Φ700-Φ800	TNEP320/TNEP400/TNEP550/TNEP650
TNJP-IV	25	130	7700	Φ1000-Φ1200	TNEP650/TNEP800/TNEP1100

U-shaped concrete prefabricated sheet pile clamp

Model	Pressure (Mpa)	Maximum clamping force (t)	Weight (Kg)	Thickness of sheet pile that can be clamped (mm)	Vibro Hammer model
TNJU-I	18	180	2700	Φ180-Φ360	TNZP120/TNZP150/TNZP180/TNEP160/TNEP200/TNEP240

Fix pipe pile clamp

Model	Pressure (Mpa)	Maximum clamping force (KN)	Weight (Kg)	steel pipe diameter that can be clamped (mm)	Vibro Hammer model
TNJGG-I	21	171	2043	Φ448-Φ630	TNZP120/TNZP150/TNZP180/TNZP200 /TNZP240/TNZP300/TNYZ200/TNYZ240/TNYZ270/TNYZ320/TNYZ400
TNJGG-II	18	120	1326		TNZP90/TNZP120/TNEP120/TNEP160

Hammer construction method supporting accessories　Fixture(or Clamping)

HYDRAULIC IMPACT HAMMER

Tongniu Hydraulic Impact Hammer has 21 models from TNYC-3 to TNYC-110, impact energy vary from 24 KNm to 1360 KNm, TNYC-110 is the largest impact hammer in China for now, but other sizes are also can be supplied according to customer's requiment.

Tongniu Hydraulic Impact hammer is widely applicable for most types of piling and foundation works. Various pipe material, size and shape such as concrete pile, steel sheet pile, H beam, casing pile and shapes like round, square, octagonal,etc..

Tongniu impact hammer can be used for fixed leader or crane suspened, the mounting type can be customized according to customer's base machine. Our machine also can be used to extract piles or modified with adoptable accessories to do rapid impaction works, etc..

The impact hammer can be operated with an exisiting power source pack to suit for different models of hydraulic impact hammer.

All electrical and hydraulic system can be managed by control panel and remote control box, the closed loop type of hydraulic system adjusts speed and oil pressure. It is very reliable and environmental friendly. High efficiency and safety are our concern.

Tongniu will always focus on finding best solution for our customers.

TNYC SERIES HYDRAULIC IMPACT PILE HAMMER

Description of Hydraulic Impact Pile Hammer

TNYC series hydraulic impact pile hammers are generally applied for piling and compaction operations, and are widely used in pile foundation construction sites. They are suitable for pile foundation operations such as steel sheet piles, steel pipe piles, I-beam piles, and prefabricated piles. When working, they can be equipped with various fixed and mobile multifunctional pile frames, or they can be directly hoisted by cranes, and are flexible to replace. Compared with traditional diesel impact hammers,

Tongniu impact hammer can used for fixed leader or crane suspened, the mounting type can be customized according to customer's base machine. Our machine also can be used to extract piles or modified with adoptable accessories to do rapid impaction works, etc..

The impact hammer can be operated with an existing power source or work with Tongniu power pack. We have wide selection of power pack to suit for different models of hydraulic impact hammer.

All electrical and hydraulic system can be managed by control panel and remote control box, the closed loop type of hydraulic system adjusts speed and oil pressure. It is very reliable and environmental friendly. High efficiency and safety are our concern. Tongniu will always focus on finding best solution for our customers.

TNYC series hydraulic impact pile hammers have the following advantages:

① Low noise, no exhaust gas, economic and environmental protection;

② Easy to operate and high degree of automation;

③ Adapt to a variety of pile types;

④ Wide range of applications and high striking efficiency, they are widely used in various construction sites, such as buildings, bridges, docks, transportation, railways, marine engineering, etc.

LONG-TERM RELIABILITY

Tongniu hydraulic pile hammers are designed and manufactured for long life service with minimal downtime. Precise workmanship is adopted to electric and hydraulic system including hoses, cables, couplings and other related parts, thus the whole system is reliable.
All Tongniu hammer choose only qualified consumable parts to assure the long life time of the parts. Thus customer can save the cost from consumable parts.

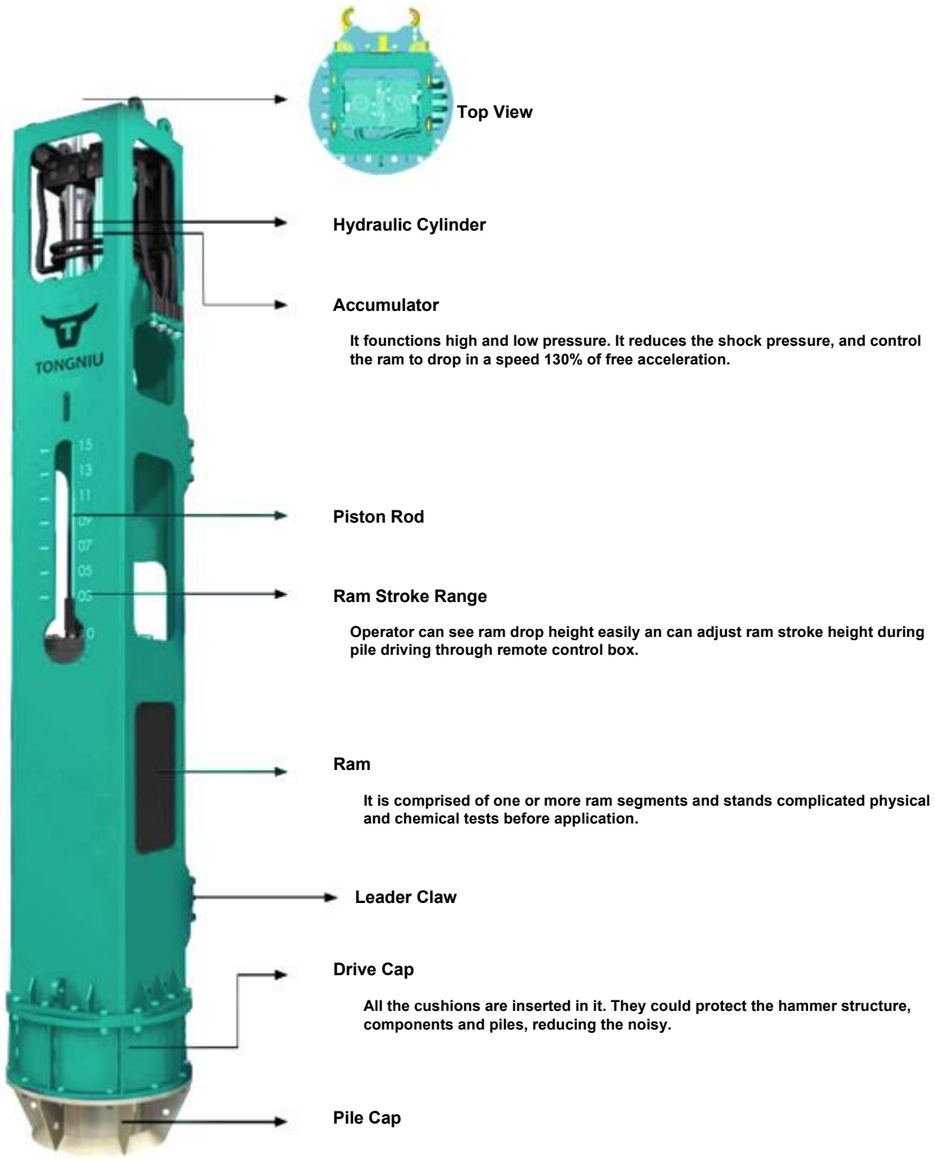
HIGH PERFORMANCE POWER PACK

Tongniu Hydraulic Impact Hammer use Volve or Cat engine, after being equipped with the Italian brand powerful pump, and adopting the simple hydraulic and electrical system, the power pack thus could performed high quality as a whole.

At present, the full range of models are from TNYC3 to TNYC50, and the hammer core mass ranges from 3t to 50t. Larger hydraulic impact pile hammers could also be provided by the company.

Working Principle and Structure

TNYC series hydraulic impact hammers are impact pile hammers, meaning that the impact hammer core is lifted to a predetermined height by a hydraulic device and then quickly released. The impact hammer core strikes the pile body in a free-fall manner, and the purpose of pile sinking is achieved through repeated hammering.



TNYC SERIES HYDRAULIC IMPACT PILE HAMMER

Technical Specifications

Single hydraulic cylinder lifting

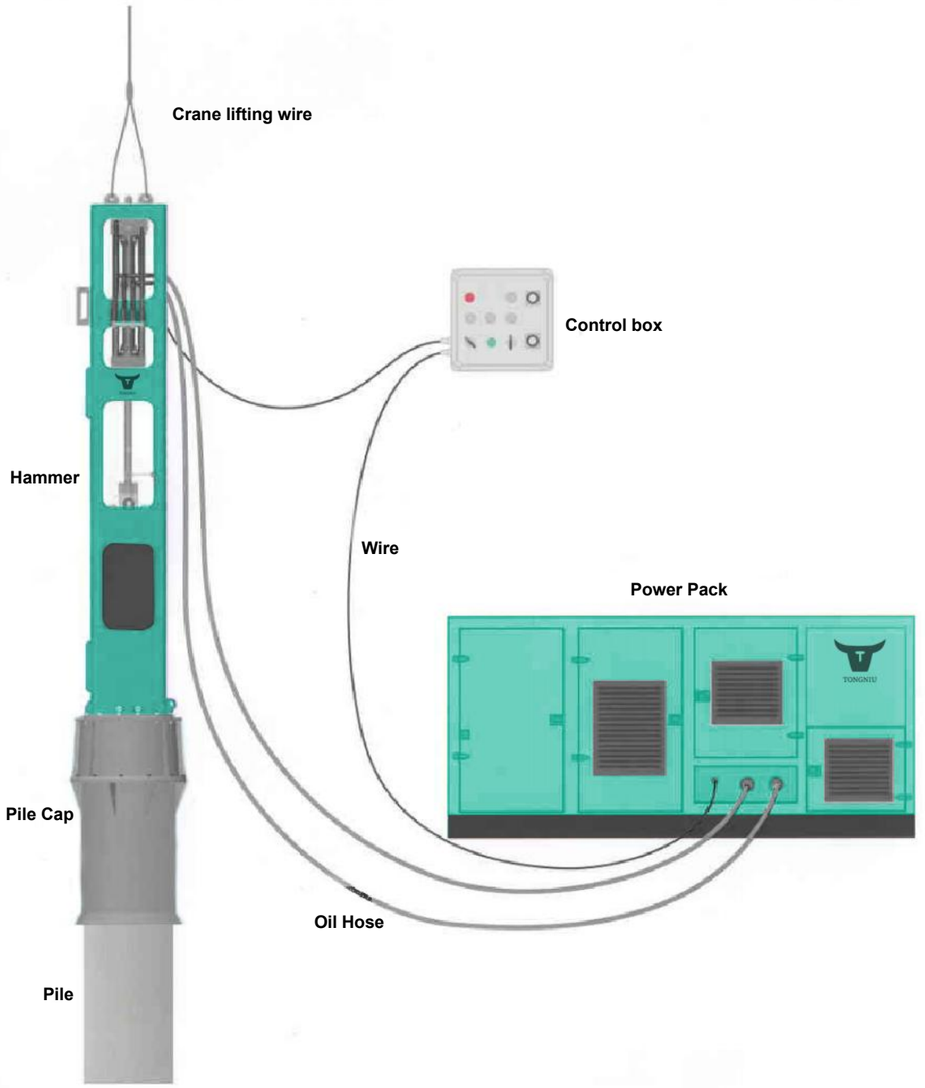
Double hydraulic cylinder lifting

TNYC Series Hydraulic impact pile hammer technical Specifications															
Model	TNYC3	TNYC5	TNYC8	TNYC11	TNYC15	TNYC17	TNYC21	TNYC25	TNYC30	TNYC35	TNYC40	TNYC50	TNYC60	TNYC80	TNYC110
Max. Impact Energy（kNm）	24	60	120	165	225	255	315	375	450	525	680	850	1020	1360	1870
Working Stroke（mm）	800	1200	1500	1500	1500	1500	1500	1500	1500	1500	1500	1700	1700	1700	1700
Impact Frequency（n/min）	50/100	40/100	38/90	38/90	35/90	35/90	30/90	28/85	25/70	25/70	22/68	22/60	20/50	22/55	20/55
RAM Weight（Kg）	3000	5000	8000	11000	15000	17000	21000	25000	30000	35000	40000	50000	60000	80000	110000
Outline Dimension (without clamp) Length×Width×Height(mm)	4020×900×1060	5150×900×1060	6140×976×1190	6790×976×1190	7250×1090×1290	7160×1106×1306	7530×1340×1450	7990×1340×1450	7900×1460×1900	8500×1460×1900	8560×1674×1860	9635×1674×1860	9750×1782×1962	10100×2106×2246	11000×2200×2300
Weight（Kg）	5800	8500	12000	16000	22000	24000	31000	36000	41000	47000	53000	65600	77000	108000	137000
Lifting method	Single hydraulic cylinder lifting						Double Single hydraulic cylinder lifting								
Pile cap Length×Width×Height(mm)	895×895×895	895×895×745	920×920×800	976×976×1010	1260×1200×1050	1260×1260×1050	1500×1500×1080	Custom made upon request							
Pile cap Weight（Kg）	1100	1100	1250	1380	2100	2100	2350	Custom made upon request							
Power Pack	120P	180P	300P	360P	400P	600P	600P	600P	800P	800P	800P	1200P	1200P	1400P	1400P

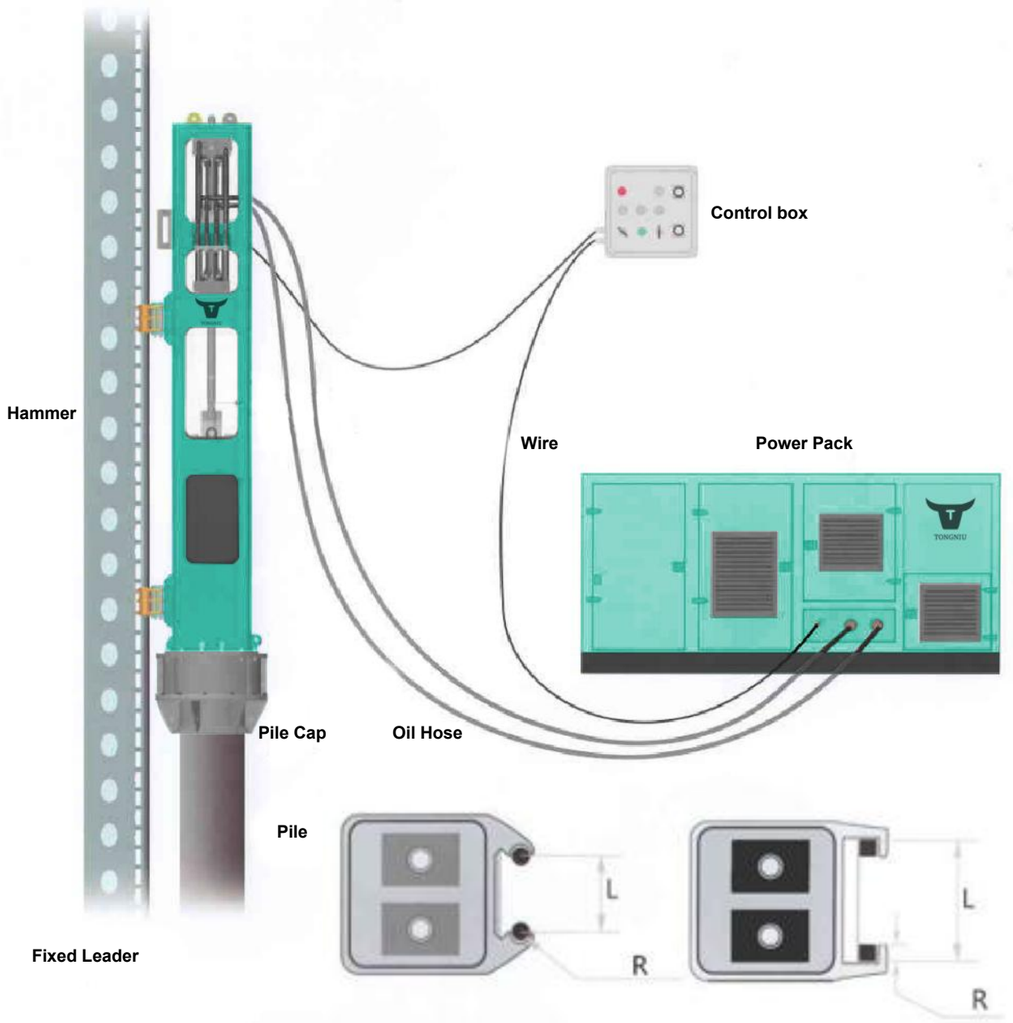
TNYZ Series Hydraulic Vibro Pile Hammer Technical Specifications									
Model	120P	200P	300P	360P	400P	600P	800P	1200P	1400P
Engine Brand	Cummins C120	Cummins C180	Cummins C260	QSM11-400	QSM11-400	CAT C15	CAT C18	Cat C15×2	CAT C18×2
Work Pressure（Bar）	210	240	240	240	260	260	260	320	280
Maximum flow（L）	140	200	260	380	520	760	1040	1500	1600
Diesel tank capacity（L）	400	800	1200	1400	1400	2000	2000	4350	4200
Hydraulic oil tank capacity（L）	260	400	450	500	500	600	600	1000	1000
Outline Dimension(without clamp) Length×Width×Height（mm）	2800×1450×1950	2800×1450×1950	3150×1550×2859	4080×1710×2860	4080×1710×2860	4370×1830×2400	4450×1850×2520	6050×2350×2820	4380×2920×2060
Weight（Kg）	3000	3500	5000	6000	6000	8000	8500	15000	16900

TNYC SERIES HYDRAULIC IMPACT PILE HAMMER

Crane Suspended

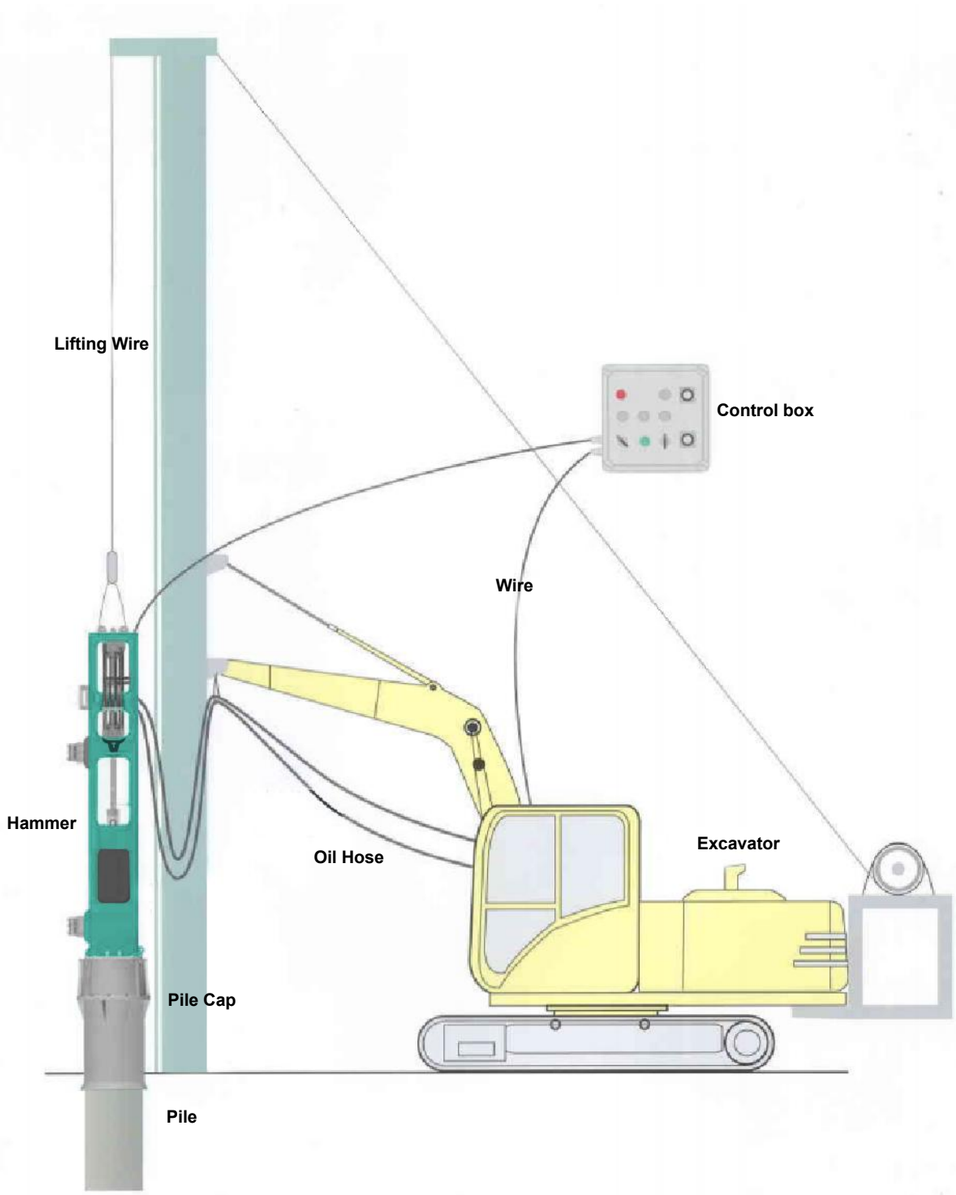


Fixed Leader Type

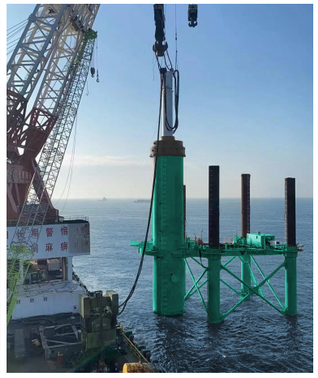


TNYC SERIES HYDRAULIC IMPACT PILE HAMMER

Excavaor Type



CASES OF TNYC SERIES HYDRAULIC IMPACT PILE HAMMER




1	2	3
4	5	
6	7	

1. Jing hang canal Sanbao Draining project
2. Rudong Windmill Project
3. Hengqin Zhuhai：400mm dia concrete pile，27m length
4. Oil exploration platform Nigeria
5. Songhuajiang Mulan Bridge,Haerbin
6. Pingtan Fujian brdge：700mm steel pipe，15m length
7. Nanning Guangxi airport project