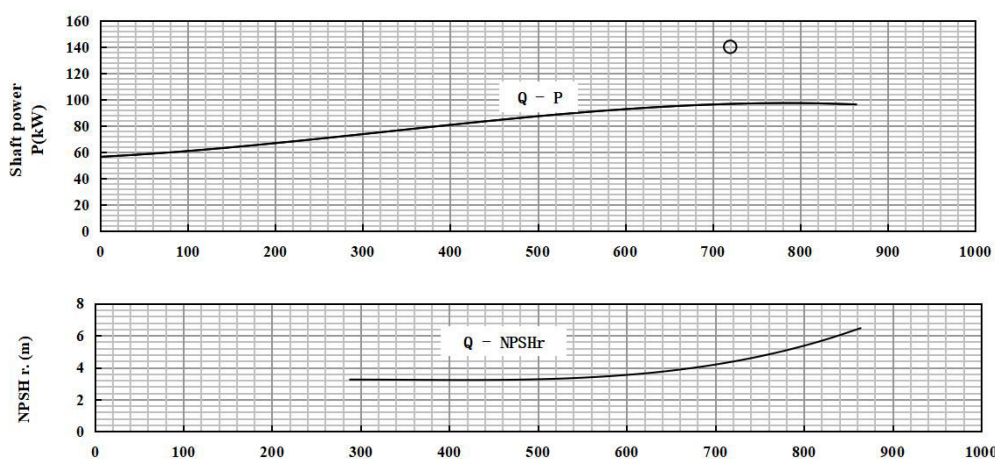
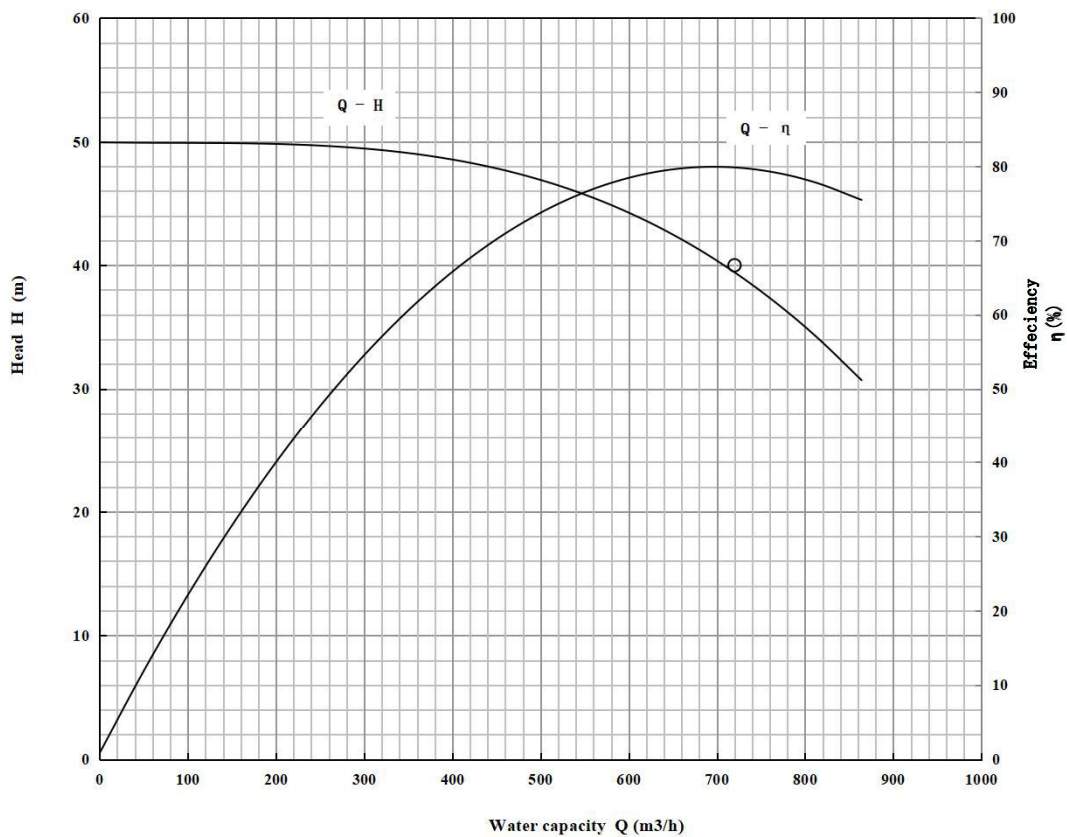


PERFORMANCE CURVE

Date: _____

Type	: horizontal single stage double suction pump	Model	: 12SH-9B
Capacity Q	: 720 m ³ /h	Head H	: 40 m
NPSHr	: 4.4 m	Efficiency η	: 80 %
Speed n	: 1490 rpm	Power N	: 140 kW/diesel engine



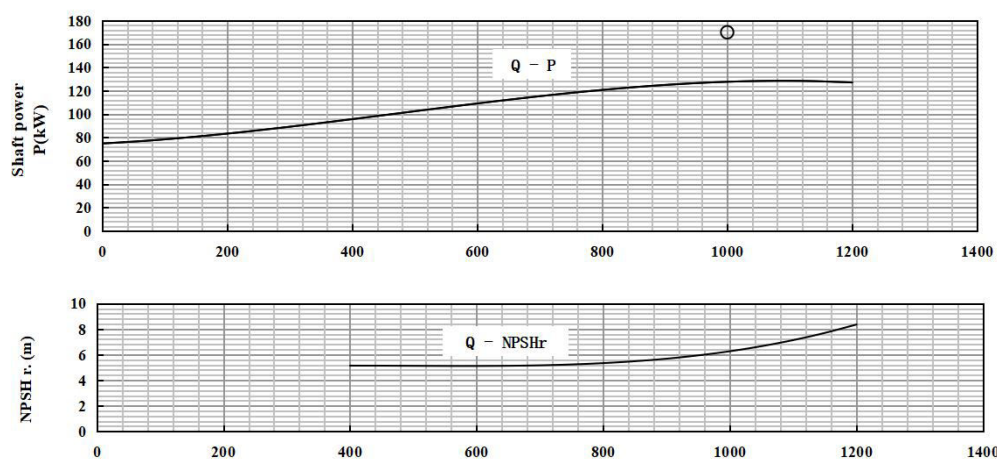
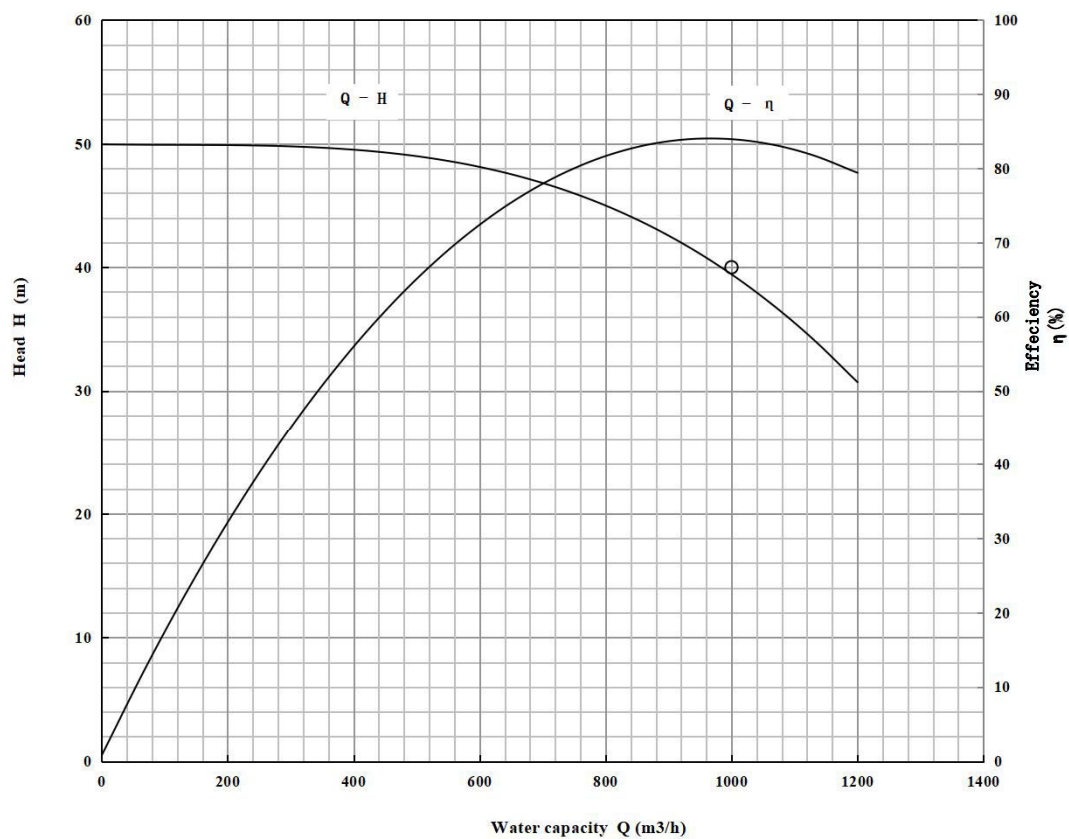
Technical Parameters

Equipment Name: Horizontal single-stage double-suction diesel split case pump			
Equipment model: 12SH-9B			
Device data			
1	Conveying medium: muddy water	2	Medium density: $\leq 1050 \text{ kg/m}^3$
3	Medium temperature: -40°C to $+40^\circ\text{C}$		
4	Medium characteristics: ☐ Corrosive ☐ Abrasive ☐ Flammable ☐ Other ()		
5	Pump structure: ☐ Vertical ☒ Horizontal ☒ Single stage ☐ Multi -stage ☐ Single suction ☒ Double suction ☐ Self-priming		
6	Transmission mode: ☐ Direct connection ☒ Elastic coupling ☐ Belt ☐ Gearbox ☐ Other ()		
7	Pump body support method: ☒ foot ☐ center line ☐ bracket ☐ suspension (vertical)		
8	Shaft seal type: ☒ Packing seal ☐ Mechanical seal	9	Impeller type : ☐ Open ☒ Closed
10	Seal flushing: ☒ Self flushing ☐ External flushing	11	Bearing cooling: ☒ Air cooling ☐ Water cooling ☐ Air cooling
12	Bearing type: ☐ sliding ☒ rolling	13	Bearing lubrication: ☒ Grease ☐ Oil bath ☐ Water lubrication
14	Drive mode: ☐ Electric motor ☒ Diesel engine	15	Pump direction: Viewed from the drive end ☒ Clockwise ☐ Counterclockwise
16	Rated flow rate: 720 m ³ /h	17	Rated head: 40 m
18	Rated speed: 1490 r/min	19	Efficiency: 80%
20	Water inlet diameter: 300	21	Water outlet diameter: 200
22	Pump body material: cast iron	23	Impeller material: cast iron
24	Pump shaft material: 45#	25	Base material: carbon steel
26	Diesel engine power: 140 kW		

PERFORMANCE CURVE

Date: _____

Type	: horizontal single stage double suction pump	Model	: 14Sh-13 A
Capacity Q	: 1000 m ³ /h	Head H	: 40 m
NPSHr	: 6.3 m	Efficiency η	: 84 %
Speed n	: 1500 rpm	Power N	: 170 kW/diesel engine



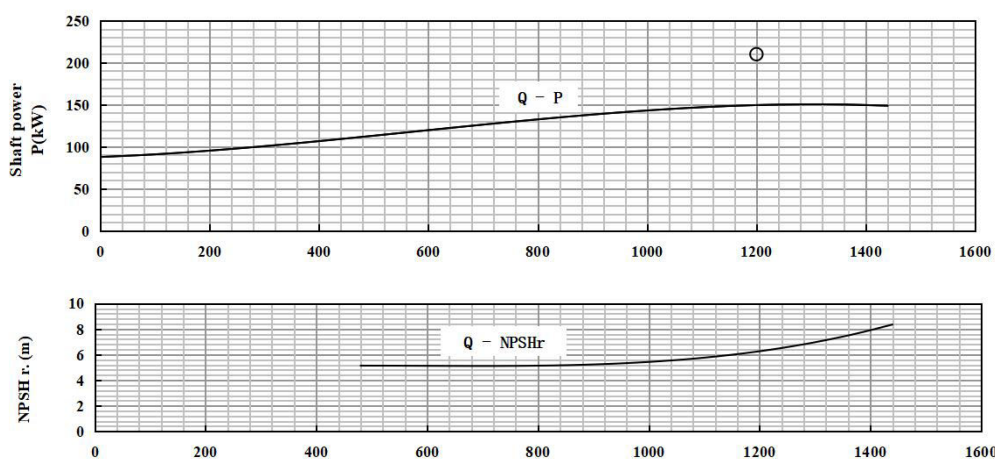
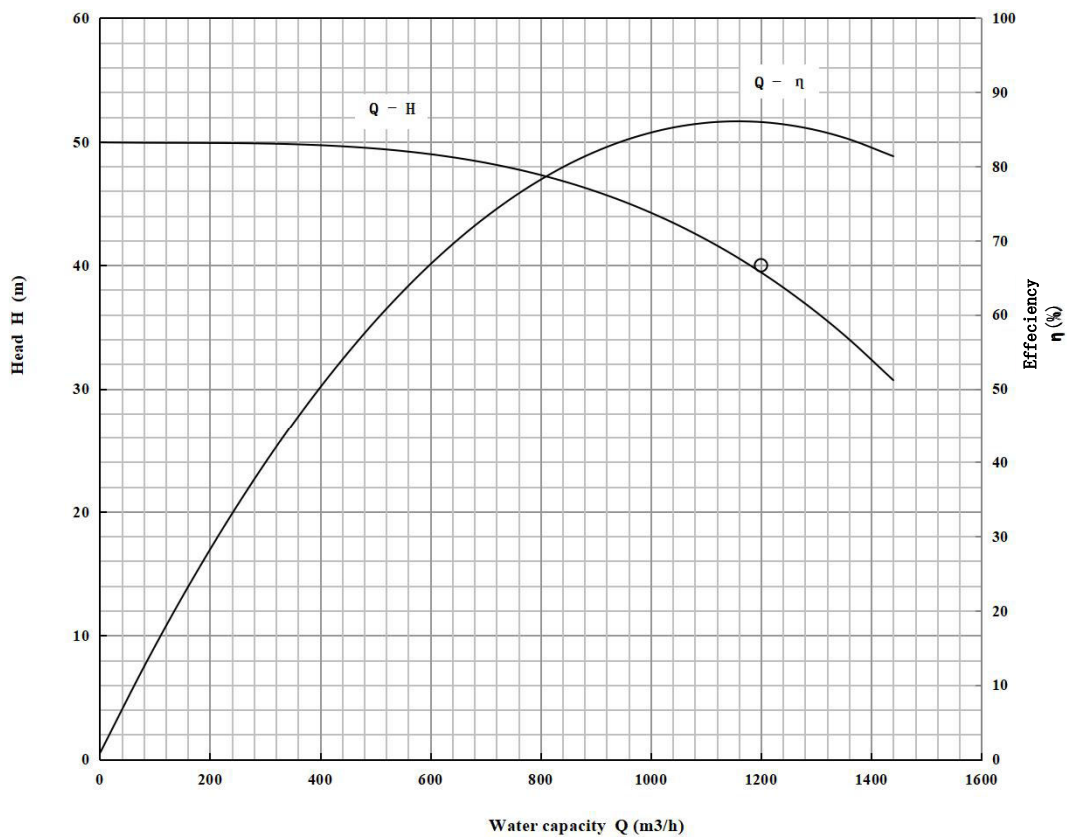
Technical Parameters

Equipment Name: Horizontal single-stage double-suction diesel split case pump			
Equipment model: 14Sh-13 A			
Device data			
1	Conveying medium: muddy water	2	Medium density: $\leq 1050 \text{ kg/m}^3$
3	Medium temperature: -40°C to +40°C		
4	Medium characteristics: ☐ Corrosive ☐ Abrasive ☐ Flammable ☐ Other ()		
5	Pump structure: ☐ Vertical ☒ Horizontal ☒ Single stage ☐ Multi -stage ☐ Single suction ☒ Double suction ☐ Self-priming		
6	Transmission mode: ☐ Direct connection ☒ Elastic coupling ☐ Belt ☐ Gearbox ☐ Other ()		
7	Pump body support method: ☒ foot ☐ center line ☐ bracket ☐ suspension (vertical)		
8	Shaft seal type: ☒ Packing seal ☐ Mechanical seal	9	Impeller type : ☐ Open ☒ Closed
10	Seal flushing: ☒ Self flushing ☐ External flushing	11	Bearing cooling: ☒ Air cooling ☐ Water cooling ☐ Air cooling
12	Bearing type: ☐ sliding ☒ rolling	13	Bearing lubrication: ☒ Grease ☐ Oil bath ☐ Water lubrication
14	Drive mode: ☐ Electric motor ☒ Diesel engine	15	Pump direction: Viewed from the drive end ☒ Clockwise ☐ Counterclockwise
16	Rated flow rate: 1000 m ³ /h	17	Rated head: 40 m
18	Rated speed: 1500 r/min	19	Efficiency: 84%
20	Water inlet diameter: 300	21	Water outlet diameter: 200
22	Pump body material: cast iron	23	Impeller material: cast iron
24	Pump shaft material: 45#	25	Base material: carbon steel
26	Diesel engine power: 170 kW		

PERFORMANCE CURVE

Date: _____

Type	: #REF!	Model	: 14Sh-13 OA
Capacity Q	: 1200 m ³ /h	Head H	: 40 m
NPSHr	: 6.3 m	Efficiency η	: 86 %
Speed n	: 1500 rpm	Power N	: 210 kW/diesel engine



Technical Parameters

Equipment Name: Horizontal single-stage double-suction diesel split case pump			
Equipment model: 14Sh-13 OA			
Device data			
1	Conveying medium: muddy water	2	Medium density: $\leq 1050 \text{ kg/m}^3$
3	Medium temperature: -40°C to +40°C		
4	Medium characteristics: ☐ Corrosive ☐ Abrasive ☐ Flammable ☐ Other ()		
5	Pump structure: ☐ Vertical ☒ Horizontal ☒ Single stage ☐ Multi -stage ☐ Single suction ☒ Double suction ☐ Self-priming		
6	Transmission mode: ☐ Direct connection ☒ Elastic coupling ☐ Belt ☐ Gearbox ☐ Other ()		
7	Pump body support method: ☒ foot ☐ center line ☐ bracket ☐ suspension (vertical)		
8	Shaft seal type: ☒ Packing seal ☐ Mechanical seal	9	Impeller type : ☐ Open ☒ Closed
10	Seal flushing: ☒ Self flushing ☐ External flushing	11	Bearing cooling: ☒ Air cooling ☐ Water cooling ☐ Air cooling
12	Bearing type: ☐ sliding ☒ rolling	13	Bearing lubrication: ☒ Grease ☐ Oil bath ☐ Water lubrication
14	Drive mode: ☐ Electric motor ☒ Diesel engine	15	Pump direction: Viewed from the drive end ☒ Clockwise ☐ Counterclockwise
16	Rated flow rate: 1200 m ³ /h	17	Rated head: 40 m
18	Rated speed: 1500 r/min	19	Efficiency: 86%
20	Water inlet diameter: 300	21	Water outlet diameter: 200
22	Pump body material: cast iron	23	Impeller material: cast iron
24	Pump shaft material: 45#	25	Base material: carbon steel
26	Diesel engine power: 210 kW		



MACHINERY DIRECTIVE ATTESTATION OF CONFORMITY

Technical file of the company mentioned below has been inspected and audit has been completed successfully.

2006/42/EC Machinery Directive Annex VIII has been taken as references for these processes.

Company Name : **Zhengzhou Zhongpump Technology Co., Ltd.**

Company Address : Unit 1, Building 6, Zhongwu Science Park, Mazhai Town, Zhengzhou city, Henan, China

Manufacturer Name : **Shandong Hairui Zhonglian Fluid Technology Co., Ltd.**

Manufacturer Address : Xishou, Yinma Village, Baita Town, Zibo city, Shandong, China

Related Directives and Annex : **2006/42/EC Machinery Directive/Annex VIII**

Related Standards : **EN ISO 12100:2010, EN 60204-1:2018, EN 809:1998+A1:2009/AC:2010**

Product Name : **Pumps**

Report No and Date : TCF-OY20230620-MD

Product Brand/Model/Type : HRZL-ISW150-125-315, HRZL-D/MD280*3, HRZL-DA1-100-5, HRZL-1. ¼ GL*5, HRZL-D800G50*6, HRZL-10sh-6, HRZL-OS150-605, HRZL-350SN-60, HRZL-ISL100-160-252, HRZL-ZW/ZX100Z-100-20, HRZL-250ZJW-510, HRZL-350-ZJQ2106-36, HRZL-150ZTL200-30, HRZL-QJ200QT80-198, HRZL-QW40-15-4, HRZL-QW1360-80-30, HRZL-CZX350-20, HRZL-CZSW125-100-250, HRZL-C12SH-9, HRZL-C/D155-30*5, HRZL-C/DM200-60*10, HRZL-C/CYC200-150, HRZL-C/2JW300-650, HRZL-C/HW300-8, HRZL-TC/ZX500-15, HRZL-TC/ISW100-65-200, HRZL-12SH-19, HRZL-D450-60*2, HRZL-DM400-85*3, HRZL-250-2JW-600, HRZL-400HW-10, HRZL-250-2JW-600, HRZL-650HW-7, HRZL-350 ZLB-100, HRZL-150LYC200-150, HRZL-600QHB-70, HRZL-IH80-65-160, HRZL-CD/IS100-80-125, HRZL-CD150HW-5, HRZL-350LG, HRZL-100DBL*5

Certificate Number : **M.2023.206.C87037**

Initial Assessment Date : 29.06.2023

Registration Date : 30.06.2023

Reissue Date/No : -

Expiry Date : **29.06.2028**

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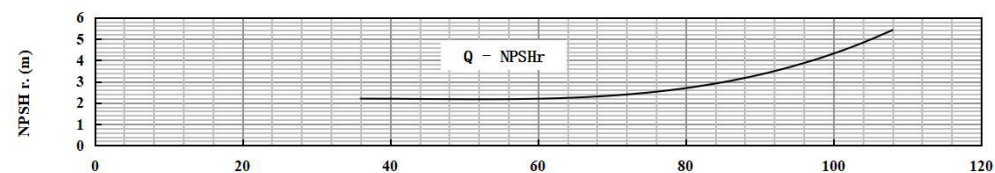
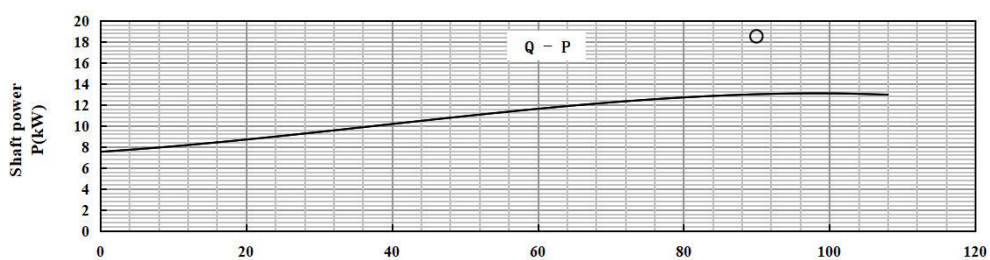
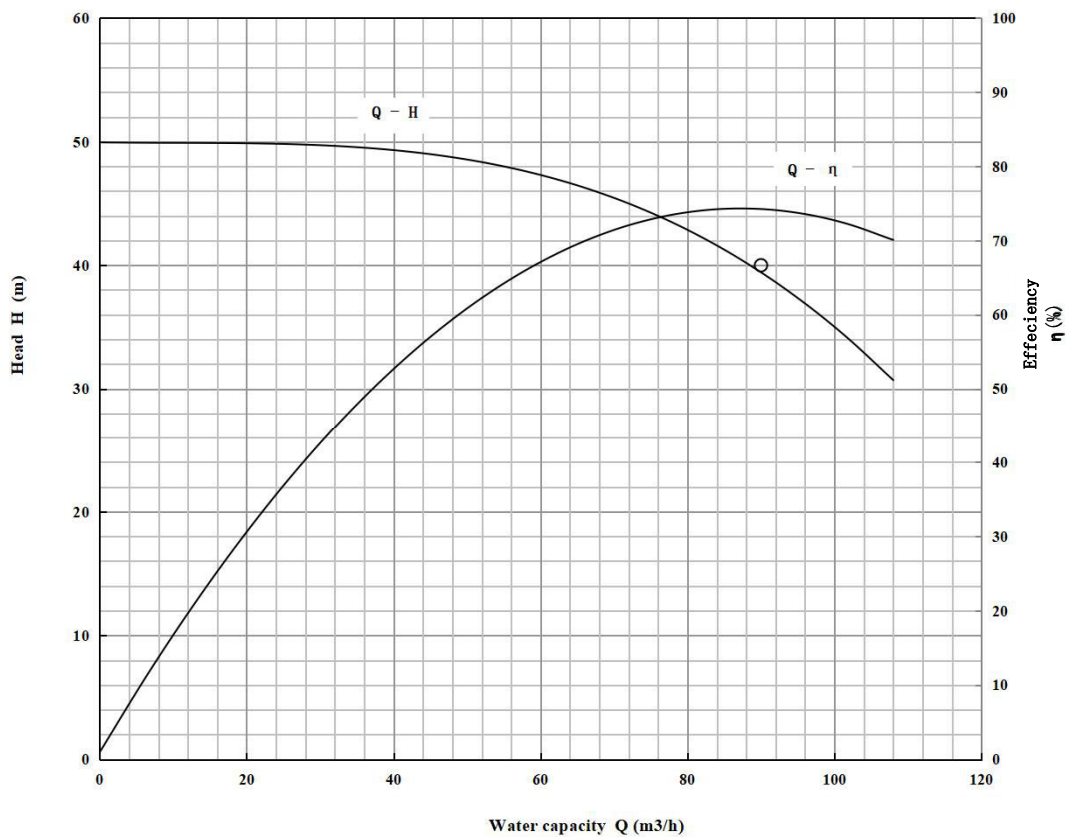




PERFORMANCE CURVE

Date: _____

Type	: Horizontal centrifugal pump	Model	: IS100-65-200B
Capacity Q	: 90 m ³ /h	Head H	: 40 m
NPSHr	: 3.35 m	Efficiency η	: 74.5 %
Speed n	: 3000 rpm	Power N	: 18.5 kW/diesel engine



Technical Parameters			
Equipment name: Horizontal single-stage single-suction diesel centrifugal pump			
Equipment model: IS100-65-200B			
Device data			
1	Conveying medium: muddy water	2	Medium density: ≤1050 kg/ m³
3	Medium temperature: -40℃ to +40℃		
4	Medium characteristics: ☐ Corrosive ☐ Abrasive ☐ Flammable ☐ Other ()		
5	Pump structure: ☐ Vertical ☒ Horizontal ☒ Single stage ☐ Multi-stage ☒ Single suction ☐ Double suction ☐ Self-priming		
6	Transmission mode: ☐ Direct connection ☒ Elastic coupling ☐ Belt ☐ Gearbox ☐ Other ()		
7	Pump body support method: ☒ foot ☐ center line ☐ bracket ☐ suspension (vertical)		
8	Shaft seal type: ☒ Packing seal ☐ Mechanical seal	9	Impeller type : ☐ Open ☒ Closed
10	Seal flushing: ☒ Self flushing ☐ External flushing	11	Bearing cooling: ☒ Air cooling ☐ Water cooling ☐ Air cooling
12	Bearing type: ☐ sliding ☒ rolling	13	Bearing lubrication: ☐ Grease ☒ Oil bath ☐ Water lubrication
14	Drive mode: ☐ Electric motor ☒ Diesel engine	15	Pump direction: Viewed from the drive end ☒ Clockwise ☐ Counterclockwise
16	Rated flow rate: 90 M3/h	17	Rated head: 40 m
18	Rated speed: 3000 r/min	19	Efficiency: 74.5%
20	Water inlet diameter: DN100	21	Water outlet diameter: DN80
22	Pump body material: cast iron	23	Impeller material: cast iron
24	Pump shaft material: 45#	25	Base material: carbon steel
26	Diesel engine power: 18.5 kW		