

Hydraulic Cone Crusher





Overview

HPC series cone crusher with high-efficiency and hydraulic pressure is widely used in mining, cement factory, sand& stone industry. It is used for secondary and fine crush of all kinds of rocks, whose pressure strength resistance is under 350Mpa, such as iron ores, nonferrous metal ores, basalt, granite, limestone, sandstone, cobble etc.

Application

HPC series hydraulic cone crusher designed by our company is a new type of cone crusher with international advanced level which brings in Germanic technology. Our hydraulic cone crusher greatly increases the production capacity, crushing efficiency and is suitable for replacing spring cone crusher and common hydraulic cone crusher in the mining and construction industry. HPC series hydraulic cone crusher and is the most ideal equipment for large-scale stone factory and mining crusher.



Main Features & Benefits

HPC series of highly efficient hydraulic cone crusher has a better performance compared with spring cone crusher and ordinary hydraulic cone crusher, you can learn main features and benefits about this series cone crusher as follow.



1. The crusher can provide customers larger capacity, better product , and easy operation.

2. Various crushing cavity.

It only need change fixed cone lining board and movable cone lining board, the type of crushing cavity can be changed from standard coarse cavity to short head fine cavity, which can meet various kinds of requirements.

3. High crushing ratio and production efficiency.

Connection of higher turning speed and stroke makes rated power and passing capacity improved greatly and crushing ratio and capacity increased.

4. Thin oil lubrication makes the life longer.

Unique design of thin oil lubrication system prolongs life time of the crusher, high performance and not touchable labyrinth airproof part block off dust and remove common disorders like mixture of oil and water in spring cone crusher.

5. Between-layer pressuring crushing and better finished product shape.

The crusher adopts between-layer pressuring crushing principle and suitable turning speed, not the traditional single particle crushing principle. The special crushing cavity can make the crusher crush materials selectively, thus the proportion of fine product and product of cubic shape is increased distinctly and product of lump size is decreased by a large extent.

6. Easy maintenance and operation.

All parts of HPC series of cone crusher can be assembled, disassembled and repaired from the top and side part, including the fixed cone and movable cone. If change, no need to disassemble the crusher body and fasten the bolts. Hydraulic motor makes the performance of crusher better.

7. Less spare part consumption and low peration cost.

Advanced crushing principle and technical data, reliable operation and low operation cost. All parts of the crusher have anti-wearing protection, which can make the life time of spare parts increased by 30% and the maintenance cost decreased to the lowest. The crusher avoids the disadvantages of impact crusher like low average crushing ratio, large energy consumption, fast abrasion of blow bar, impact plate and lining board.

8. Hydraulic protection and hydraulic cavity clearing, high automatization and less stopping production and repairing time.

Discharge opening is adjusted by hydraulic device and overload protection makes performance of the crusher increased by a large extent, maintenance and operation are easier, repairing time is shorter, the bidirectional metal releasing hydraulic vat makes slab pass through crushing cavity, the crusher can discharges material automatically when the hydraulic device works under the condition of iron passing and instantaneous overloading, thus there is no trouble of stopping the crusher to discharge material by hand.





Operation & Maintenance

1. When you are sure that everything is in the right way, turn hydraulic cone crusher on as required.

When oil temperature, oil pressure and the cooling water pressure achieve the rated value, run the lubricate pump 3-5 minutes, then run the hydraulic crusher and begin feeding.

2. Stop hydraulic cone crusher as required.

When room temperature below 0 °C, discharge water in the machine.

3. Check the following items before put cone crusher into gear

- ◆ Move the newly-assembled machine around with 2 or 3 circles before operate it for the first time, in case of accident.
- ◆ Operate the machine without any materials.
- ◆ Check and prepare the width of discharge.
- ◆ Check all the electric linkage systems and sound signals.
- ◆ Make sure that the oil level and temperature are desirable. If the oil temperature is below 20 °C, heat the oil up with heater.

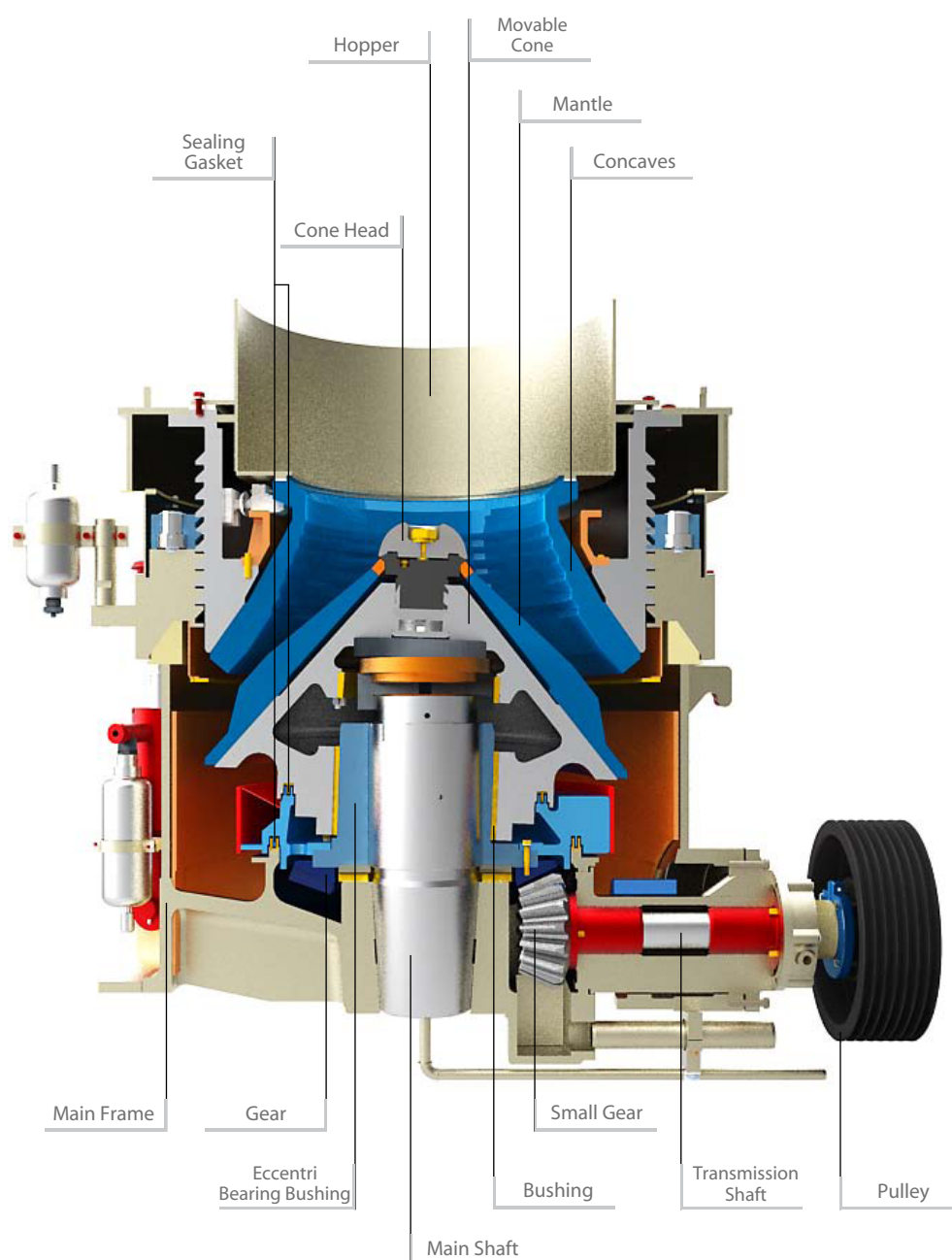
4. Check during operation

- ◆ Feed at a even speed. The size of raw materials must be desirable and smaller than 20% with of the feeder.
- ◆ Those undesirable materials are forbidden.
- ◆ Check the oil mass and temperature in the lubricate system and make sure oil temperature below 60 °C.
- ◆ Make sure the water-proof system has enough water.
- ◆ Keep the water cooling system smooth and with enough hot water.
- ◆ The adjusting ring can only work when lock tightly.
- ◆ Examine the size of the final product of and keep them desirable.
- ◆ Pay attention to wear pattern of plate and fasting situation of each part and change the parts in time.



Main Structure

Hydraulic Cone Crusher is made up of movable cone, fixed cone, transmission agent, lubricating system, hydraulic system, base, principal axis, eccentric bowl liner and hopper.



Technical Data

| Model | Cavity (coarse/fine) | Discharge setting min (mm) | Feed opening (mm) | Capacity (t/h) | Power (kw) | Weight (t) | movable cone diameter(mm) |
|---------|-------------------------|----------------------------------|-------------------------|-------------------|---------------|---------------|------------------------------|
| HPC-160 | C | 13 | 150 | 120-240 | 160 | 13 | 950 |
| | F | 6 | 76 | 55-180 | | | |
| HPC-220 | C | 13 | 225 | 150-430 | 220 | 18 | 1160 |
| | F | 6 | 86 | 90-260 | | | |
| HPC-315 | C | 13 | 290 | 190-610 | 315 | 26 | 1400 |
| | F | 6 | 100 | 108-320 | | | |
| HPC-400 | C | 13 | 320 | 230-700 | 400 | 33 | 1500 |
| | F | 6 | 110 | 145-430 | | | |

Note: This specification is just reference, any changes are subject to the hydraulic cone crusher products.

Crusher Capacities

| Closed Setting | | | | | | | | | | |
|----------------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Size | Tone/ Hour | 13mm | 16mm | 19mm | 22mm | 25mm | 32mm | 38mm | 45mm | 51mm |
| HPC160 | T/H | 120-150 | 140-180 | 150-190 | 160-200 | 170-220 | 190-235 | 210-250 | | |
| HPC220 | T/H | 150-185 | 180-220 | 200-240 | 220-260 | 230-280 | 250-320 | 300-380 | 350-430 | |
| HPC315 | T/H | 185-230 | 225-280 | 255-320 | 275-345 | 295-370 | 325-430 | 360-490 | 410-560 | 465-610 |
| HPC400 | T/H | 230-290 | 280-340 | 320-390 | 345-420 | 365-465 | 405-535 | 445-545 | 510-620 | 580-700 |

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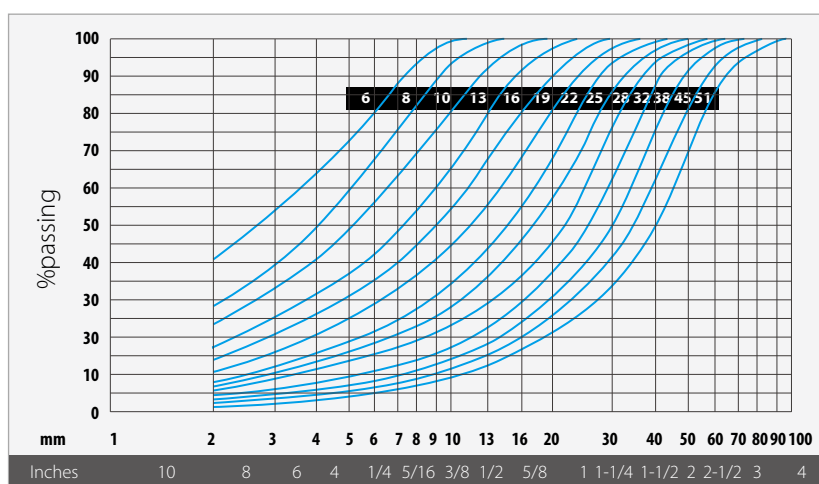


Working Principle

The crushing principle of HPC is finished between fixed cone plate and movable cone plate. The motor drives the horizontal axis of the crusher through triangle belt and pulley, the horizontal axis drive the eccentric shaft bush to rotate through gear transmission. The eccentric shaft drives the main shaft to make the movable cone plate swing at a regulated track from time to time, the materials are crushed due to constant pressed and crooked in the crushing cavity. The finished products are discharged from the discharging opening.



Indicative Product Gradation



◆ The gradation and capacities shown are dependent on the feed gradation, the crushing chamber, the material density, the material cleanliness, its moisture and its crushability.



Service

Since the establishment, Shanghai Shibang Machinery Co., Ltd has regarded "All is for clients" as its service goal and has provided high-quality, high-taste, high-efficient and all-around-way service for its clients.



Service Promise: from the design process to delivery, we do every step carefully to satisfy clients to the best.

1. Pre-sale Services

Act as a good adviser and assistant of clients; enable them to get rich and generous returns on their investments.

- ◆ Select equipment model
- ◆ Design and manufacture products according to clients' special requirement
- ◆ Train technical personnel for clients

2. Services During The Sale

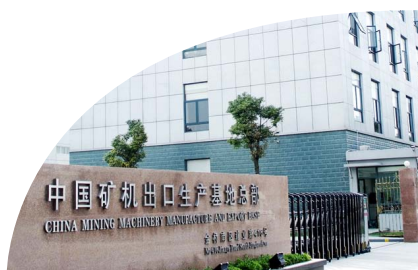
Respect clients; devote ourselves to improving the total value of clients.

- ◆ Pre-check and accept products ahead of delivery
- ◆ Help clients to draft solving plans

3. After-sale Services

Provide considerate services to minimize clients' worries.

- ◆ Assist clients to prepare for the first construction scheme
- ◆ Install and debug the equipment
- ◆ Train the first-line operators on site
- ◆ Examine the equipment regularly
- ◆ Provide maintenance for big items
- ◆ Provide technical exchanging
- ◆ Provide perfect service
- ◆ Distribute the guarantee fittings door-to-door
- ◆ Take initiative to eliminate the troubles rapidly at site





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Any change of technical data shall not be advised additionally.