

SBM

MINING AND CONSTRUCTION MACHINERY



The [jaw crusher](#) manufactured by Shanghai Shibang Machinery Co. Ltd. is mainly used for the secondary crushing of ores and bulk materials. It is a kind of rock crusher, also called [rock crusher](#), swing jaw crusher.

It can be used to produce the aggregate for subgrade, railway ballast and construction sand and stone. The jaw crusher is divided into the coarse jaw crusher and the fine jaw crusher, i.e. PE series and PEX series.



A jaw or toggle crusher consists of a set of vertical jaws, one jaw being fixed and the other being moved back and forth relative to it by a cam or pitman mechanism. The jaws are farther apart at the top than at the bottom, forming a tapered chute so that the material is crushed progressively smaller and smaller as it travels downward until it is small enough to escape from the bottom opening. The movement of the jaw can be quite small, since complete crushing is not performed in one stroke.

Jaw Crusher structure Overview

Compound pendulum series jaw crusher mainly by the fixed body, in turn, insurance devices, such as adjusting device several components.

1, the fixed body: fixed jaw crusher of the main components of the rack, the rack manufacturing process there are two types: Carbon Steel Casting in the rack and in the welding of carbon steel plate rack yes. Welding rack rack in the original cast has also increased on the basis of a number of ribs, and through strict quality control and specific technical requirements, and to use the same casting rack effects. In order to prevent the serious wear wall rack in the crushing chamber on the right side with boards, and can easily be replaced.

2, in rotation: the mobile jaw, eccentric shaft, bearings, pulleys, and other component parts, is jaw crusher transmission and affordability of the main part.

A, moving from the fixed jaw plate stent and activities such as components, and E broken jaw stent using the dynamic Steel # 35, and after quenching and tempering.

B, a jaw broken by the eccentric shaft 45 # steel car system, and after quenching and tempering.

C, a double row bearings to the heart spherical roller bearings, has fine-tuned the ability to

accept large, durable characteristics.

D, a jaw plate and fixed two hours to raise the crushing effect of the surface of a tooth optimization, materials used ZGMn13 has high hardness, wear resistance, the use of the characteristics of good results.

3, adjusting device: The device is used to adjust the size of nesting population size, control the E-breakers expected size. I crusher plant adjustment bodies in two forms: Wedge-to long-pads and mandrel, adjusted convenient and flexible, able to achieve a level adjustment.

Working principle:

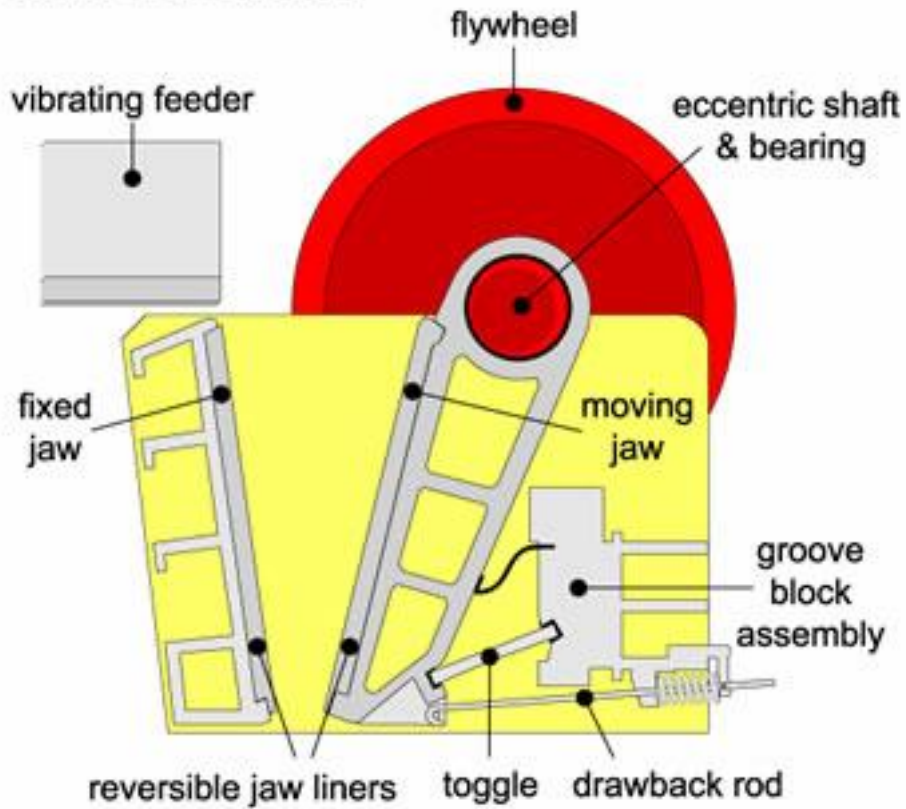
The motor drives the belt pulley and the belt pulley drives the eccentric shaft to rotate, and make the moving jar approach and leave the fixed jaw periodically, to crush, rub and grind the materials repeatedly, thus to make the material slower and slower and gradually fall down and finally discharge from the discharge opening.

THE WEARING PARTS

The crushing plates made of highly wear-resistant austenitic manganese steel casting are constructed in such a way that they can easily be turned after having loosen the clamping parts. The easily-replaceable side wedges are made of wear-resistant sheet steel or steel casting. Lower side wedge, upper side wedge, crushing plate, wedge and assembly screws.



JAW CRUSHER



Jaw Crusher Specification:

Model	Feed inlet	Max inlet	Capacity	Electric	Overall size	Weight
	size(mm)	size(mm)	(t/h)	power(kw)	LxWxH(mm)	(t)
PE150×250	150×250	125	1-5	5.5	875×758×850	0.81
PE250×400	400×250	210	5-20	15	1450×1315×1296	2.8
PE400×600	600×400	340	16-65	30	1565×1732×1586	6.5
PE500×750	750×500	425	45-100	55	1890×1916×1870	10.1
PE600×900	900×600	500	50-120	55	2305×1840×2298	15.5
PE750×1060	1060×750	630	52-180	110	2450×2472×2840	28
PE900×1200	900×1200	750	140-260	110	3335×3182×3025	54.5
PEX250×1000	1000×250	210	16-52	30-37	1530×1992×1380	6.5
PEX250×1200	1200×250	210	20-60	37	2192×1900×1430	7.7

Note: This specification is just reference, any changes are subject to the Jaw Crusher products.

Jaw Crushers Operation and Maintenance

The prepare working before crusher start-up

- (1) Check-up the lubricating of axletree; knee plate and adjust the contract of knee plate's mat, it has enough lube between knee plate and knee plate mat or not.
- (2) Adjust all fasteners firmly.
- (3) Adjust grooved pulley's center position is all right. The right position is the smallest vibration of this machine.
- (4) Adjust transmission strap installed all right, if you find some damnification of strap, you must replace in time. You must rub-up with duster cloth when strap and grooved pulley miry.
- (5) Adjust defend setting is all right, if you find insecurity, eliminate as soon as possible.
- (6) Ensure crusher chamber hasn't any material and other impurity.
- (7) Ensure mats are installed all right and compact material mouth to work.

Start-up the crusher

- (1) You can start-up after checking up machine and transmission parts are all right.
- (2) This machine must start-up under no burthen.
- (3) You must stop if you find abnormality. Must check up and eliminate abnormality, after all that start-up the crusher.

Use of the breaker

- (1) Begin to throw the material after running well.
- (2) The broken supplies are joined in broken evenly, avoid the side and feed in raw material or piled and feed in raw material in check, in order to prevent unilateral overload, load sudden change or block.

In case of normal job, the temperature change of bearing should not exceed 30 degrees Centigrade; maximum temperature can't exceed 70 degrees Centigrade. Should park immediately when exceeds 70 degrees Centigrade, find out the reason and get rid of it.

- (3) Should stop feeding in raw material at first before parking, after the broken supplies in broken are all discharged, can shut off the motor.
- (4) In the brokenness when caused by that supplies are blocked in broken and part, should shut off the motor immediately, can start the breaker again after removing the supplies.
- (5) If one end of the fixed jaw plate and movable plate is worn-out, user can replace one end by the other.
- (6) The breaker is used some time later, should fasten all fasteners again.

Lubricate

- (1) To guarantee normal operation of machine and lengthen service life, should the fixed note oil be lubricated.
- (2) It should be 50%-70% of the volume to put into the lubricating grease in the pedestal, change once every 3-6 months. Use position, such as one, etc. Of rolling that clean petrol or kerosene wash the roller bearing carefully while change the lubricating grease, should open to put the oil-hole pedestal when washing.
- (3) This machine adopts the lubricating grease and should be decided according to conditions, such as area, climate where the machine use, ect., Can generally adopt calcium base, sodium base or calcium sodium base lubricating grease. When the lubricating grease is drier, can use after mediating with rare oil and lubricating grease.
- (4) Knee and knee cushion take while assembling or overhaul only, office add the right amount lubricating grease to joint it.

6. Common Trouble and Trouble Shooting

Trouble	Main Reason	Trouble Shooting
After the violent broken sound, move the jaw and stop swinging, the flywheel.	Enter supplies that can't be broken or other reason to make the thrust plate destroy in broken.	Draw back the pull rod nut, take down the pull rod spring, will move the jaw to hang up, change the new.
The broke board shakes, produce and strike sound.	1. The set bolt of broken board becomes flexible. 2. The set bolt of broken board ruptures.	1. Fastening the set bolt of broken board, it should be changed that elasticity of the spring is insufficient such as defending becoming flexible.
The flywheel is turned round, stop brokenly, the thrust plate is deviated from propping up seats.	Pull rod spring or the pull rod rupture.	Change the damage one.
Thrust plate prop up flat produce or bump into or other abnormal sounds.	1. Pull rod spring or the pull rod rupture. 2. The thrust plate supports the seat is worn or torn or relaxed. 3. The elbow very beginning of the thrust plate is worn or torn seriously. 4. Produce material mouth adjust whom device adjust even, cause the thrust plate about straining and inconsistent.	1. Tighten the spring or change the spring. 2. Change the thrust plate and prop up seats. 3. Change thrust plate is it produce material mouth change the device to revitalize.
The flywheel becomes flexible	1. The key is cooperated with and too loose, the key and keyway are worn or torn.	1. Tighten key, open keyway change key, lock axle end device urgent again.
The grain size of the broken products increases	Low department wears and tears the jaw board seriously.	Is it arrange material mouth regulate device, is it arrange material mouth to narrow, if not in vogue to adjust, can change new jaw board upper and lower exchange.
Broken stops up, the electric current of the main electrical machinery is higher than the electric current running well	1. Big stone enter broken, but can't broke to is it stop up to lead to the fact. 2. Breaker following belt machine break down, arrange material mouth stop up. 3. Enter supplies of viscosity and other incidentals and stop up and arrange the material mouth. 4. The amount of material fed is too big.	1. After shutting down, fasten live in big stone with steel wire rope, is it produce the breaker to hang with crane heavy stone. 2. Stopping feeding the material, get rid of the trouble of the belt machine, no breaker will stop as much as possible at this moment. 3. Stopping feeding the material, dredge out the material mouth, no breaker will stop as much as possible at this moment. 4. Adjust the rotational speed of the slow feeder, reduce the amount of material feed.
The temperature of the bearing is too high	1. The lubricating grease is insufficient.	1. Join right amount of the lubricating grease.

	2. The lubricating grease is dirty and corrupt.	2. Change the lubricating grease after washing.
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