

## Sand Washing Machine

Welcome to use the product from Shanghai Zenith.

Please read carefully and become familiar with the contents of this statement before using the sand washing machine.



### 1. Use of the machine-Sand Washing Machine

2SXL-920 is especially used in washing, classification and dehydration for gravel and quartz sand and so on.

The configuration is airproof, the batardeau hoarding is adjustable, to make sure the machine high- efficiency and durable. It is available to be used in grit company, construction building site, water and electricity station, concrete dam building site, glass manufacturing, foundry, oil well development site and such so on.

### 2. Technical parameter-Sand Washing Machine

Model: 2SXL-920

Screw number: 2

Screw diameter: 920mm

Flume length: 7585mm

Capacity: 200t/h

Max. Input size: 10mm

Electromotor power: 11 KW\*2

Screw rotate speed: 21r/min

Water rate: 20-160t/h

Weight: 11.5kg

Exterior dimension: 8420\*3970\*3960 mm (L\*W\*H)

### 3. Working principle and Structure -Sand Washing Machine

3.1 The whole machine is mainly compositive by batardeau hoarding, rind, screw entity, reducer, and electromotor.

It also has function that washing, classification and dehydration.

3.2 Sand washing machine inclines the arrangement according to 15°, lower part the water trough becomes the sedimentation pond by the trilateral batardeau hoarding. The spiral forehead submerges in the sedimentation pond, spiral actuates continuous rotation by the electric motor after the reduction gear, has the sedimentation pond base perforated plate to give into the clear water.

3.3 The sand and crushed stone enters the sedimentation pond to the feed box, in rotating under the spiral leaf blade function, it causes the sand and crushed stone tumbling and mutually grinds, simultaneously destroys a package of duplicate gravel except the cover sand and crushed stone surface on impurity the water vapor level, favor the dehydration

3.4 By porous panels formed by the flow of water currents, the small proportion of foreign matter will be brought to the surface spill weir plates complete cleansing. Major land surface than the particles in the surface bends plates side by creating upward spiral leaves will advance beyond the length of the water below a horizontal line suitable length away from surface water drains into another side sedimentation tanks.

3.5 Materials classification will not meet the standards required by small particles spill weir, the old achieved. A control method is adjusted overflow weir height and adjustment screw rotational speed.

#### 4. Installation and debugging

We produce the machine and sell it for whole set. Once the buyer receive the machine,

It would be better that make the inspection and check the amount to confirm the problem during the transportation.

The technician should be familiar with the configuration, performance and technology request and make the installation techniques regulations be appropriate the machine.

There should be enough hoist equipment in the plant. The steel rope should be hang on the lateral of the machine (can not be hanged on other position). A 120\*120mm legs are needed to underpin during parietal plate in order to prevent distortion.

It should be cagey when install the machine, it can not be haul on the ground.

4. 4 The bracket of sand washer should be installed on the concrete reinforcing steel basis. The height, depth and area should be calculated according to the local soil condition. The installation flat should be level and have enough space for equipment's transportation and maintenance.

4. 5 Preparative work

4.5.1 Check and make sure that there are no other materials in the helix chamber of sand washer and helix can rotate smoothly in the chamber.

4.5.2 Check and make sure that the oil surface of the deceleration machine reach 2/3 level. If the oil is not enough, please add oil to the 2/3 point of oil mark. The oil for the deceleration machine is GB 5903-86 68# that suits industrial gear oil, and replace it each six months.

4.5.3 Check and make sure that there is adequate grease in the bearing. (EL-3# lithium grease)

4.5.4 Check and make sure the fix parts are fastened and the water pipe is expedited.

4.6 No-loading try operation should comply with the principle of fist point-move, then continual move. Do the no-loading operation after checking there is no abnormal sound inside. The continual operation should last no less than 2 hours.

- 4.6.1 No-loading operation requires that the machine work smoothly. Each spare part should work flexible and no friction occur.
- 4.6.2 Rotation should be reliable and smoothly, make sure no abnormal noise, collision and vibration occur.
- 4.6.3 The temperature of Gear deceleration and bearing should be steadily and the temperature rise should be no more than 30 centigrade, the maximum should be no more than 60 centigrade.
- 4.6.4 No oil-leaking occur in the gear deceleration and helix bearing.
- 4.6.5 No water-leaking in the case.
- 4.7 Do the loading operation after no-loading operation is normal. The try- operation should last no less than 4hours on the condition of on-loading.
- 4.8 After operation on load, you should check all of the screw and the connective parts and adjust if it is possible.

## 5. The operation and maintenance of the machine

- 5.1 The worker should acquaint with the operation of the machine.
- 5.2 The worker should be familiar with the machine and be able to deal with some wrong.
- 5.3 Before startup the machine you should finish some work as follows:
  - 5.3.1 Inspect the note carefully and dispose the problem that was last shift.
  - 5.3.2 Examine all of the fixed parts, if they are not hard up please get rid of the matters.
  - 5.3.3 Check that if the worker put the oil to the reducer and the bearing seasonal.
  - 5.3.4 Check the temperature of the reducer and if there is abnormal noise when operation.
  - 5.3.5 That stops the machine when there is material in it and continues to feed the machine after it stopped are forbidden.
  - 5.3.6 You should remove the material in the machine and the work place when out-duty.
- 5.4 This machine should startup under unload and you must stop it when there are no material in the machine.
- 5.5 If there are abnormal matters when operation you should stop the machine and find the reasons dispose the matters.

You should consult this book and combine the general the matter to draw the operation and the maintenance of the machine.

## 6. The faults to take care

- 6.1 The electrical machine should connect with the ground. The wire should insulated and put into the snake pipe.
- 6.2 When you check the machine you should cut the electrical source.
- 6.3 Don't feed the wrong material to the machine or it can destroy the machine.
- 6.4 It is forbidden to adjust, clean, check and other work when operation.

## 7. Some faults and the ways to remove them

Fault	The reason	The way to remove it
The machine can't startup	1.the motor is broken	change the motor
	2.the volt is low	change the power supply
	3.the belt is lubricious	fasten the belt
	4.the reducer is broken	check and mend the reducer
The abnormal noise	1.the bearing is broken	change the bearing
	2.the reducer is broken	check and mend the reducer
	3.helix entity rub the crust	check and mend
The temperature of the reduce is abnormal	1.the oil is polluted	clean and change the oil
	2.the oil is short	put oil to 2/3 of oil ruler
	3.the bearing is broken	change the bearing
The temperature of the bearing is too high	1.lubricate is small or much	check and adjust it
	2.lubricate is polluted	clean bearing and change lubricate
	3.the bearing is broken	change the bearing