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OPERATION MANUAL



Concrete Vibrator Paver

PERFORMANCE · EFFICIENT · RELIABLE



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Master sincerely thanks you for selecting the Plate Compactor Machine. For your Safety and proper operation, before you start to operate or carry out any maintenance on this equipment, YOU MUST READ and STUDY this manual carefully. Be sure to always keep it ready for reference.

Produced By Henan Master Machinery Co.,Ltd

Dear Customer,

Thanks for choosing Master machine.

To ensure the safety and proper use of the machine, please read the instruction book carefully before use. Also, please fill this card and save it for warranty use.

Buyer Name	Purchase
	Time
Tel	Contact
	Person
Address	
Product	Concrete Vibrator Paver
Name	
MODEL	FVP219
Motor Model	
Note	



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HIGHLIGHTS

Congratulations on your purchase of the Master CONCRETE VIBRTOR PAVER, Model: FVP 219 which has been designed with latest technology of knead vibration and heavy excitation force. With proper care taken and timely services carried out, the equipment (if used within the given specifications) will give you years of excellent performance.

RULES FOR SAFE OPERATION

Failure to follow instructions in this booklet may lead to serious injury or even death! This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

General Safety:

- **DO NOT** operate or service this equipment before reading this entire booklet
- This equipment should not be operated by persons below 18 years of age.
- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices.
- **NEVER** operate this equipment when not feeling well due to fatigue, illness or taking medicine.
- **NEVER** operate this equipment under the influence of drugs or alcohol.



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- **NEVER** use accessories or attachments not recommended by Venus Equipments and Tools.
- Manufacturer does not assume responsibility for any accident due to equipment modifications.
- ALWAYS check the machine for loosened threads or bolts before starting.
- **NEVER** touch the high tension parts like motors, switches etc. All electric supply to the equipment must be disconnected before servicing of the machine.
- Use proper heavy lifting techniques with a lifting capacity of at least two ton.
- Check to make sure that the operating area is clear before starting the motors/engine.
- ALWAYS keep clear of rotating or moving parts while operating this equipment.
- **NEVER** leave the machine unattended while running.
- Unauthorized equipment modification will void all warranties.
- **NEVER** lubricate components or attempt service on a running machine.
- Keep the machine in proper running condition.
- Make sure that there is no build up of concrete, grease, oil or debris on the machine.
- Fix damage to the machine immediately and always replace broken/defective parts.



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1. Features:

- a. Combined the concrete roller paver with concrete row, has features of both of them.
- b. Designed with self-driving design, can be operated by one worker with high working
- c. Concrete vibrators removes the water and air in the concrete to reinforce the concrete, and two roller tubes and one auger meet tight paving specification.
- d. Plastic coated paint finish for longer life, professional looks and easy clean up.
- e. Ideal for handling low slump concrete.
- f. Produces a floor with excellent surface aggregate consolidation, resulting in a harder, longer wearing surface finish.
- g. Instant forward/reverse screed action. Strikes off concrete more quickly than conventional methods.



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2. MIAN STRUCTURE

Diagram 1

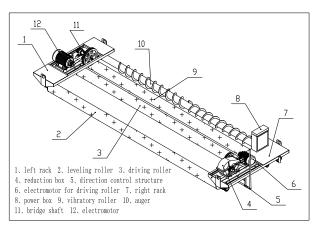
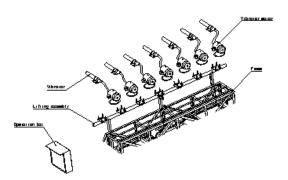


Diagram 2





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3. MACHINE START-UP & OPERATION

START-UP

The following steps are intended as a basic guide to machine start-up and operation. Following these procedures will help preserve and maintain the safety and life of the operator and this machine.

- \Rightarrow Check that all parts and screws are fastened.
- \Rightarrow Check the mains wiring and connections to the starter switches and power motors.
- \Rightarrow Before connecting the supply voltage, make sure that both the starter levers (inside the control box) are in the **STOP** position.
- \Rightarrow Check to make sure that the supply voltage is a 3 \varnothing phase voltage ranging between 380-410 volts AC.
- \Rightarrow Make sure that no Power Cable touches any of the rollers when the machine is in motion.
- \Rightarrow Check that the power supply earthing is properly connected.
- \Rightarrow Check that all moving parts are properly oiled and greased before operation.
- \Rightarrow Clean all road blocks around the machine.

OPERATION

The machine is driven by two electrical $3\emptyset$ phase motors which power the rotation to the rollers by a reduction gear box. Please be noted that all buttons have English instruction.

Vibrators lifting and falling:

- \Rightarrow Turn on the key switch, and then turn on the vibrators falling button.
- \Rightarrow After all vibrators insert concrete, turn off the vibrators stop button.



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- \Rightarrow Press vibrators start button, and then turn on the switch on each vibrator motor.
- \Rightarrow Beat vibrators so that they could be on work.
- \Rightarrow Turn off all switches of each concrete vibrators motor.
- \Rightarrow Turn on vibrators lifting button, when the arms is lifted, turn off the vibrators stop button.

Rollers forward and backward:

- \Rightarrow Turn on the roller forward button, they will go ahead.
- \Rightarrow Turn on the roller backward, they will go back.
- \Rightarrow Turn off the roller stop button, they will stop working.

Auger Working:

- \Rightarrow Turn on the auger reverse button, the auger rotate reversely.
- \Rightarrow Turn on the auger clockwise/coratation button, the auger will rotate clockwise.
- \Rightarrow Turn off the auger stop, it will stop working.

In order to get a good finish and leveling, pour concrete in suitable quantity so as to pile up the concrete by about 10mm higher that the level of the form work/Shuttering. Excess concrete must be spread this level.

NOTE: Do not try to push the concrete in front of the Strike Tube with machine force, if the concrete height is more than 10mm. This could damage the electric motors and the Strike Tube.

 \Rightarrow Speed Adjustment System: a) when the machine is moving in the forward direction and the operator end is moving faster than the other end, then push the handle in the forward direction to straighten the machine. b) when the machine is moving in the forward direction and the operator end is moving slower than the other end, then push the handle in the reverse direction to straighten the machine.



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 \Rightarrow This way the machine will move in a straight line on the form work and refrain from machine falling on to the concrete.

4.MAINTENANCE

- \Rightarrow Never allow any concrete to harden on the Rollers and Auger otherwise it will affect the finishing and leveling the next time the machine is put in operation.
- ⇒ Immediately after use, wash any concrete off the machine. Be careful not to spray water on the electric motors while they are still hot.
- \Rightarrow Grease and oil all bearing and chain links regularly.
- \Rightarrow Change oil (No. 46/40) in gear reduction box, on chain after every 100hrs. Check grease in all bearing once a week.
- ⇒ Check V-belts, chains and all screws fastened every day before use.
- \Rightarrow Check all wiring connections and wire condition every day before using the machine. (No loose connections or electrical sparking must be observed.) Check power supply every day. (If power generator is used, see that the output power from the generator is as per the motor specifications.)



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- \Rightarrow If the machine has to lie down for a longer period, then please place the machine on a level ground. Put even support under the rollers so that they do not get deformed.
- \Rightarrow Please use transportation to move the machine from one working site to the other.

5. FORM WORK SPECIFICATIONS

The Master CONCRETE PAVER FVP219 provides all the benefits of labour saving, high productivity and enhanced floor flatness/levelness qualities. In order to maximize these benefits, care must be taken to ensure a successful application. In adequate substrate and form support can lead to form failure causing unnecessary job delays and expenses while contributing to poor floor flatness and floor levelness ratings. The intent of these specifications is to establish minimum guidelines to help the contractor choose the most economical and effective form work/support system to fit any job site needs.

It is recommended that at least a day prior to the concrete pour, a dry run be accomplished to test the load capacity of the forms and substrate. Proper job planning is essential to be successful application.

The FVP219 weighs approximately 1000-2000 kgs. Any paver support (forms, rails, rail supports and substrate) must withstand "point load" at a 2:1 safety factor.

SUBGRADE/DECK FORMS:

Subgrade must be sound enough to support slab edge forms and bracing as well as the load imposed by the paver and its supports. Potential deflection, as in the case with metal and plywood decks,



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should be considered when determining brace and support spacing. Soil subgrades must be well compacted and must be able to support bearing pressures greater than or equal to those imposed by the paver support and the slab forming. For proper bearing supports, shims should be used to adequately distribute loads where grade is not level and is soft. Use standard AC concrete form pressures when calculating lateral loads on slab edge forms.

SCREED RAILS AND SUPPORT:

Screed rails and supports, independent of slab edge forming are a preferred method. Due to strength, deflection and traction considerations, 3.5" x 3.5" x 875(3/16") wall structural steel tubing with adjustable supports spaced will be the perfect choice. Standard deflection with 3/16" wall thickness for the above configuration is 1/6" in 4 ft. Refer a standard material charts for other configurations.

STEEL FORMS:

Paving forms with 90^{0} lip-edges at bottom with stake pockets is preferred. If soft or unlevelled subgrade is encountered, a 2xbearing pad and /or shims should be used under the steel forms for additional bearing support. Depending on slab thickness and subgrade, forms may require diagonal bracing.

These specifications are provided as a service to illustrate the application of **Master CONCRETE Paver** only and are not intended to be fully directive or cover all engineering details. **Master** will not be responsible for the improper application of its products.