Henan Master Machinery Co., Ltd

Tel:(+86)17737606271 www.mastermachinerys.com

OPERATION MANUAL

Concrete Roller Paver

PERFORMANCE · EFFICIENT ·RELIABLE

Master sincerely thanks you for selecting the Concrete Roller Paver 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 Name	Concrete Roller Paver		
MODEL	FRP219		
Motor Model			
Note			

WARNING

Engine exhaust and some of its constituents and some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals to cause cancer, birth defects and other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks.**
- **Cement and other masonry products.**
- **Arsenic and chromium from chemically treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Always work in a well ventilated area, and work with approved safety equipments, such as dust masks that are specially designed to filter out microscopic particles.

HIGHLIGHTS

Congratulations on your purchase of the **Master CONCRETE PAVER, Model: FRP219** 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.
- **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.

- Unauthorised 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.

1. Features:

a. Ride-on design for easy manoeuvrability on the job.

b. Designed to meet tight paving specifications.

c. Two full length 219mm dia. Metal drive tubes.

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. Strikes off over 7-8000 square feet per hour.

h. Instant forward/reverse screeding action. Strikes off concrete more quickly than conventional methods.

2. MIAN STRUCTURE

Diagram 1

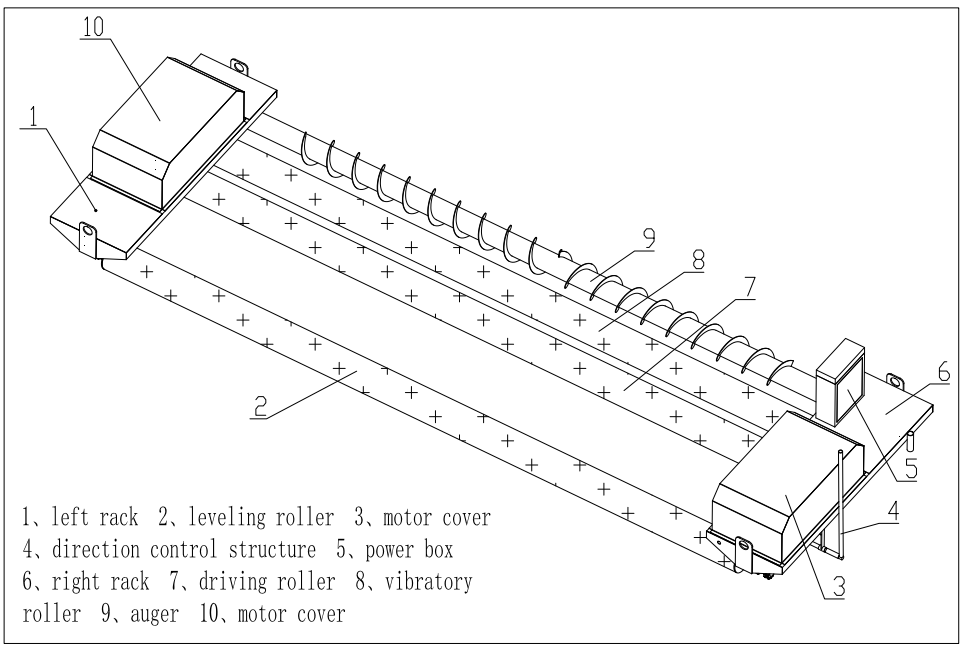
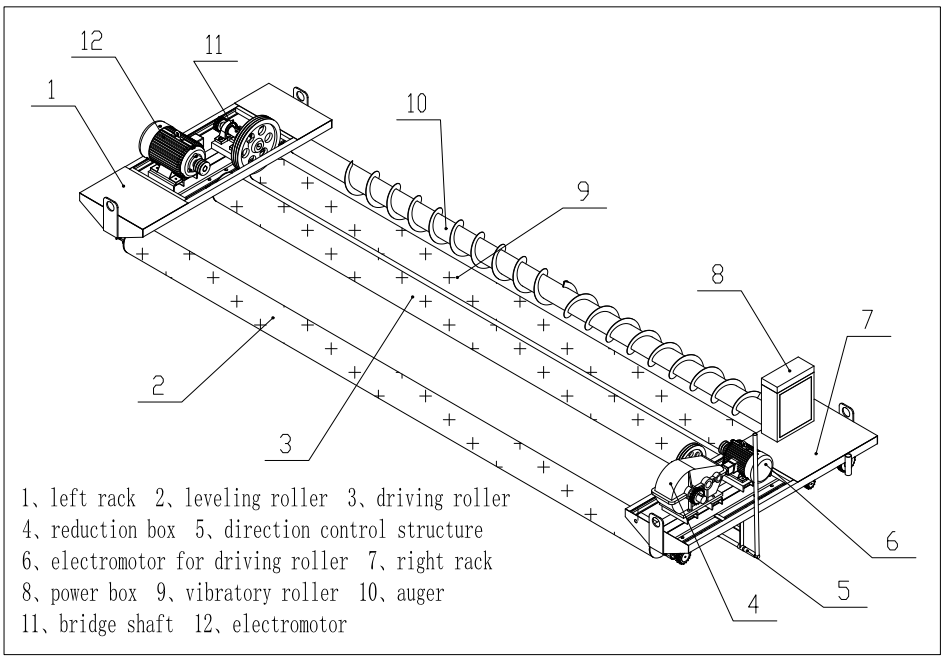


Diagram 2



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.

⇒ Check that all parts and screws are fastened.

⇒ Check the mains wiring and connections to the starter switches and power motors.

⇒ Before connecting the supply voltage, make sure that both the starter levers (inside the control box) are in the **STOP** position.

⇒ Check to make sure that the supply voltage is a 3∅ phase voltage ranging between 380-410 volts AC.

⇒ Make sure that no Power Cable touches any of the rollers when the machine is in motion.

⇒ Check that the power supply earthing is properly connected.

⇒ Check that all moving parts are properly oiled and greased before operation.

⇒ Clean all road blocks around the machine.

OPERATION

The machine is driven by two electrical 3∅ phase motors which power the rotation to the rollers by a reduction gear box. The spreading and levelling system is with the rotating auger and strike tube.

⇒ Once the wiring connections and supply voltages are confirmed, place the machine on the Form Work/Shuttering and push the power button to start the machine.

⇒ In order to get a good finish and levelling, 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.

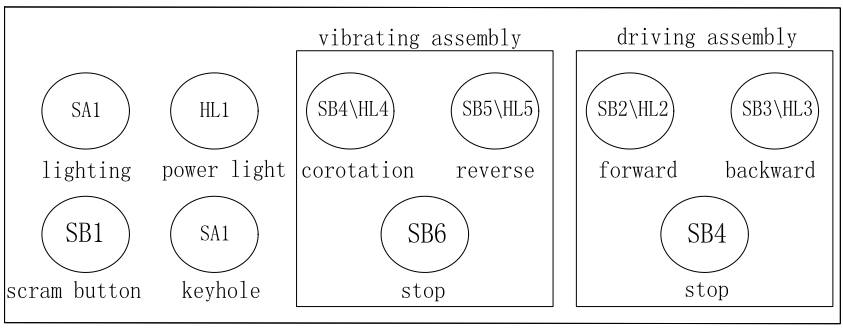
NOTE: Do not try to push the concrete in front of the Strike Tube with machine force, if the concrete height is more than 10mm. This could damage the electric motors and the Strike Tube.

⇒ 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.

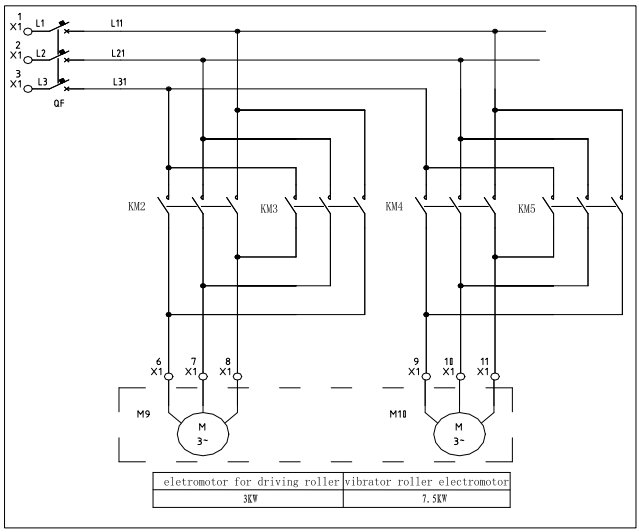
⇒ **This way the machine will move in a straight line on the form work and refrain from machine falling on to the concrete.**

⇒ **Instruction for the operation panel**

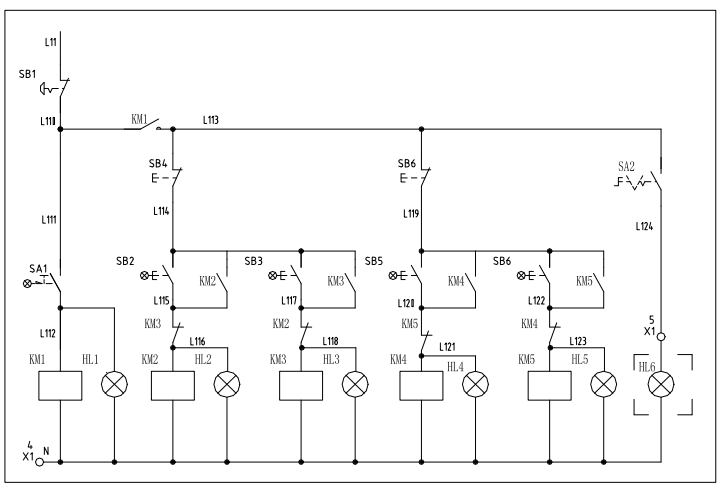


1. Insert the key, push the power button (SA1) to start the machine
2. Push the vibrating system button (SB5). Then push forward button (SB2) to drive the machine forward.
3. Push the vibrating system button (SB4). Then push forward button (SB3) to drive the machine forward.
4. Push the scram button(SB1) when there is problems happen during working
5. Connect light and push power light button (HL1) when need to use the light for night work.
6. When finish work, Push the stop button of the vibrating assembly (SB6), and stop button of driving assembly (SB4) to stop the machine.

Electronic Diagram 1



Electronic Diagram 2



4.MAINTENANCE

⇒ **Never allow any concrete to harden on the Rollers and Auger otherwise it will affect the finishing and levelling 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.**

⇒ **Grease and oil all bearing and chain links regularly.**

⇒ **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.**

⇒ **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.)**

⇒ **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.**

⇒ **Please use transportation to move the machine from one working site to the other.**

5. WORK SPECIFICATIONS

The Master CONCRETE PAVER FRP219 provides all the benefits of labour saving, high productivity and enhanced floor flatness/levelness qualities. In order to maximise 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 FRP219 weighs approximately 1500 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, 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.