TIGER STONE BRICK PAVING MACHINE

The Tiger Stone is an innovative machine that mechanizes the laying of brick pavements so that brick masons and the laborers supplying them work more ergonomically and productively to build brick pavements more quickly with less expense.

Brick pavement is a continuous sheet of bricks laid on a compacted earth, sand, or concrete base. Masons have always placed brick pavements working on their knees or bending over from the waist, carefully placing individual bricks one by one. Laborers supply masons by placing bricks one by one beside them. The masons move on their knees or bent over, from side to side and along the pavement as they lay the bricks. It is a hard, slow stoop labor that kills the body and the soul.

The Tiger Stone machine dramatically changes the process by elevating the brick laying to a naturally convenient height from which the laid brick slide by gravity down to their final position. Instead of working on their knees or bending over from the waist, masons stand and move from side to side in a comfortable position and place bricks by hand at waist level. Instead of scurrying around on the ground or bent over along the roadway, the masons are transported along as they work. Instead of laborers supplying masons with bricks by hand, the bricks are delivered by a small front end loader as needed, to a horizontal tray in front of the masons in a handy position for them to grasp and place bricks. Bricks are placed in the pattern and pavement width desired on a downward sloping six meter wide steel grate. The Tiger Stone machine moves slowly along the pavement length at the rate at which the bricks are being laid. As the machine moves along, the placed bricks simply slide down by gravity onto the horizontal pavement base to form the finished pavement. The masons and the brick laying process move along continuously as the machine moves along.

The machine's sloping steel grate has adjustable edge guides that allow the machine to place any width up to its six meters. The machine is moved along the roadway by an electric crawler on each side, guided automatically by a sensor that follows curbs or a guideline. Other than its crawlers, the machine has no moving parts. It is simply operated and has low maintenance. A roof is available as an attachment, so pavements can be laid in all weather conditions.

Placing the bricks requires little skill. It is claimed that any person can work with the Tiger Stone machine within five minutes. With two masons, the machine can place 300 sq m = 1,000 sq ft per day versus 75 to 100 sq m per day for conventional brick pavement laying. The most common brick pavement pattern is a herringbone pattern, but other patterns are also common. Edge bricks are laid along with the rest of the pavement. Brick material and patterns across and along the pavement can vary and can be changed at any time, such as for intersections, warnings, pedestrian crossing lanes, continuous bicycle lanes, or edge changes.

The machine is quiet and environmentally benign, and it does not disturb the neighborhood in which it operates. The machine is easily transported from site to site on its trailer behind a light vehicle, such as a pickup truck. Tiger Stone was invented by Henk van Kuijk, owner of Vanku BV of Gilze-Rijen, Netherlands, a company that focuses on development of special machines. Tiger Stone is produced and marketed by Vanku BV of Rijen, Netherlands.

Conventional

Tiger Stone


GIANT