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Sedimentation Tank of Wastewater Treatment Plant
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Abstract

This thesis is having as its objectivity to make out design on development of sediment sweeping machine of the sedimentation tank in the Waste Water Treatment System, in order to obtain properly functioning equipment in compatiation with the sedimentation tank of the waste water treatment process; and with less construction costs.

The sediment sweeping machine is designed and developed, to bettering it from the former types in use within the country; by this sediment sweeping machine to comprise 4 main parts : (1) the sediment sweeping arm, (2) the bridging work, (3) the bearing work, and (4) the power transmission work.

The Sediment sweeping Arm is divided into 2 main parts : (1) The major Sweeper Blade set, and (2) the Minor Sweeper Blade set; Each set composes of the blades, and the blade sweeping arm, which work together on principle of counter weight to determine its maximum sweeping capacity.

The Bridge Work for the sediment sweeping machine composes of: (1) Bridge Framing; (2) Walk way, and (3) Hand railing; It' function are to bear of the whole amount of load weight as occurring on the bridge, and to hold platform for pinioning the sweeping arm, The Bride work rotates around itself within the inner circumference of the Sediment Sump.

The Bearing Platform functions as the pinion point for the turning motion of the sweeping arm, and also as the supports for the sweeping arm.

Power Transmission Set is installed at a point on the circumference border of the Sedimentation Sump, and the electricity is transmitted to the power transmission set by way of passing through the bearing through the bearing platform.

Outcome of testing as done on this locally designed contraption, is showing its capability for using with the Sediment Sump of the Waste Water Treatment System, and with lower costs about seven hundred thousand baht of production, of course, than those of existing sediment sweepers in use in general in this Country.