



Abstract

Along with the building construction site in Indonesia is growing rapidly, concrete mixer truck much needed to help the process of transporting the cement into the area of the building. Currently, the production of concrete mixers are made with various designs. CAD used to make it easier for engineers to make the design. One of the commonly used design software are Pro Engineer Wildfire 4.0 because has many features like sheetmetal design.

Sheetmetal design is used to create the design of a component made of steel plates with the manufacturing process such as bend, cut, and roll. Authors using research materials from the design of Concrete Mixer Patria CM700 belong to PT United Tractors Pandu Engineering. The steps are done remodeling the units is by way of measuring and making sketches of the original unit, and then drawing with Pro Engineer Wildfire 4.0 uses a top-down method.

Once the design is created, obtained images of 3D modeling that would later be used as the default design for PT United Tractors Pandu Engineering that will be produced. Besides the default design of the Concrete Mixer Patria CM700 can also be made with variations according to the wishes of customers without making the whole design from scratch.

Keywords: Pro Engineer Wildfire 4.0, sheetmetal, remodeling.



Intisari

Seiring konstruksi bangunan di Indonesia semakin pesat, *Concrete Mixer Truck* dibutuhkan untuk membantu proses pengangkutan semen ke area bangunan, saat ini banyak produksi *Concrete Mixer* yang membutuhkan desain yang beragam. Salah satu software CAD yang memiliki banyak fitur adalah *Pro Engineer Wildfire 4*. Fitur-fitur dalam software tersebut sangat membantu dalam pembuatan *concrete mixer*, terutama *sheetmetal design*.

Sheetmetal design digunakan untuk membuat desain dari komponen terbuat dari pelat baja dengan proses manufaktur seperti *bend*, *cut*, dan *roll*. Penulis menggunakan bahan penelitian dari tahap perencanaan *Concrete Mixer Patria CM700* milik PT United Tractors Pandu Engineering. Langkah yang dilakukan adalah mendesain ulang unit dengan cara mengukur dan membuat sketsa unit asli, kemudian menggambar dengan *Pro Engineer Wildfire 4.0* dengan menggunakan metode *top-down*.

Setelah desain diciptakan, diperoleh gambar *3D* pemodelan yang nantinya akan digunakan sebagai desain baku dari PT United Tractors Pandu Engineering untuk diproduksi. Selain sebagai desain baku, *Concrete Mixer Patria CM700* juga dapat diubah dengan variasi menurut keinginan pelanggan tanpa membuat seluruh desain dari awal.

Kata kunci: *Pro Engineer Wildfire 4.0*, *sheetmetal*, *remodeling*.