

## Design of 2 Axis Loader and Conveyor Leaf Spring on Induction Heating Furnace Unit PT. XYZ

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<b>Abstract</b>	<p>The process of heating the furnace is heating the leaf spring material with an oven (induction heating furnace) at a temperature of 800-900<sup>o</sup>Å,Å°C for a certain time. The output from the induction heating furnace is further processed with yobimage (straightening which aims to keep the leaf spring material in the shape it demands after being processed by the taper) on a straightening machine. The process from one unit to another requires tools to move materials automatically. The appropriate tool is a combination loader and conveyor because it has the ability to move with narrow spacing and is in accordance with the shape of the output and input of the machine. The purpose of this study was to obtain design drawings and analyze factors (construction strength, tool dimensions and machine component calculations) in loader and conveyor design. The research process uses the Verein Deutsche Ingenieure 2222 (VDI 2222) method, designs are made in the form of 3D and 2D images using the help of Solidwork software. The research carried out resulted in a loader and conveyor unit design that was serves to move the leaf spring material from the induction heating furnace machine to the straightening machine according to the company's wishes. It is hoped that the results of the design can be realized and developed according to the needs of the company. Keywords: Leaf spring, VDI 2222, loader and conveyor.</p>
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