

## **ABSTRACT**

*At the PT. XYZ found the problem that there is accumulation of spilled tea powder when tea powder is processed in the vibrex, shifter, theewan, and druck roll machine, as well as tea would be inserted into the tub or handling between machines. Spills that exist in the sorting process consists of several kinds of tea, but usually returned in the tub with the worst quality so there is a downgrade in terms of quality which will affect the selling price. So, repairing existing carrier spills is needed so it will not affect material loss continuously in terms of materials as well as financially. It is caused by factors that are causing the problems so the machine can not be repaired anymore because of their limitations. So this problem can be solved by developing carrier spills by using reverse engineering and redesign methodology. With the improvements in the carrier spills will help to reduce the material loss tea powder in the sorting process. Carrier spills developed by adding features that can separate the quality of the tea spilled powder suitable size. The carrier spills proposed has three sieves each of it has a mesh hole size has been adjusted and the final tray using a manual swivel mechanism using a crank. Thus, before the material handling is moved, it must first sift powdered tea spilled in order to separate the appropriate classification, then transport spills to put in a tea powder's tub that has been classified. Types of tea powder from spills are BOP SP, BOP, BOP F, and Dust.*

*Keywords— Material Handling Equipment, Reverse Engineering, Redesign Methodology, Product Development, Tea Powder Sieving*