PT. Karung Emas is a company engaged in the production of sacks that cannot be separated from issues related to the effectiveness of the machinery / equipment. In the sack production process is divided into two processes, namely the processes innerbag and process outerbag. Equipment or machinery used in the production process is the extruder outerbag, circularweaving loom, printing and sewing. Total Productive Maintenance (TPM) is a principle of management to improve production efficiency for companies using the machine effectively. Improver handling and maintenance of the machine will lead to losses so that the measurement using the Overall Equipment Effectiveness (OEE) followed by measurement of OEE six big losses, breakdown losses, set-up and adjustment losses, reduced speed losses, idling and minor stoppages, rework scrap losses and yield losses. With a Cause and Effect Diagram can be analyzed real problem that the main cause of the high losses that resulted in low labor circularweaving machine loom. Processing results on a machine loom circularweaving known that the OEE for the period January 2015 - May 2015 ranged from 42.96% to 80.83%. This condition indicates that the engine's ability circularweaving loom in the use of machinery / equipment has not reached the ideal condition (≥85%). As for affecting the value of OEE and a top priority for the company is a factor eliminated idling and minor stoppages amounted to 38.98% and the breakdown of 00:09% loss.

**Keyword**: Total Productive Maintenance (TPM), Overall Equipment Effectiveness (OEE), OEE Six Big Losses, Cause and Effect Diagram