ABSTRAK

PT. Apac Inti Corpora merupakan perusahaan manufaktur yang bergerak di bidang tekstil, mulai dari proses pemintalan serat kapas menjadi benang (*Spinning*), penenunan (*Weaving*) benang menjadi kain polos serta denim. Berlokasi di Jl. Raya Soekarno-Hatta Km.32, Desa Harjosari, Bawen, Semarang, jawa Tengah.Penelitian ini dilakukan di unit Weaving I Toyoda proses *loom* (penenunan) benang menjadi kain, dengan produksi kain C1037, penelitian ini dilakukan pada bulan April 2019 yang dimana menghasilkan *downtime* yang lebih besar dari 3% pada mesin tenun *Air jet loom.* Dimana hal ini perlu dilakukan Analisa terhadap factor yang mempengaruhi *downtime* mesin *Air Jet Loom* ini.

Dari permaslahan tersebut dilakukanlah perhitungan *Overall Equipment Effectiveness (OEE)* agar dapat dilakukan analisa mengenai factor terbesar penyebab kerugian terjadinya downtime.OEE sendiri merupakan hasil pengalian dari *Availability Rate*(90%), *Performance Rate*(95%) dan *Quality Rate*(99%). Setelah dilakukannya perhituungan OEE mesin-mesin yang nilai standarnya kurang dari 85% diinputkan untuk perhitungan *six big losses* guna mengetahui losses tertinggi yang mengakibatkan rendahnya nilai *Overall Equipment Effectiveness* tersebut. Kemudian dari nilai *losses* tertinggi dilakukan Analisa *Fishbone* Diagram (diagram sebab akibat) untuk mengetahui *factor* kerusakannya dan dapat meminimalisir hal yang sama terulang kedepannya. Hasil dari penelitian yang telah dilakukan dari kesembilan mesin yang memproduksi kain C1037 terdapat enam mesin yang nilai OEE-nya masih dibawah 85% yaitu mesin 509 (76,997%), mesin 610 (82,872%), mesin 709 (81,778%), mesin 606 (84,677%), mesin 508 (84,959%), dan mesin 706 (84,561%). Dari nilai ini dilakukan perhitungan *six big losses* yang menghasilkan nilai *losses* terbesar adalah *breakdown losses* dengan nilai 8,04%. Setelah dilakukan Analisa *fishbone* diagram dapat diketahui factor penyebab breakdown losses antara lain dari Mesin, Lingkungan, Bahan Baku dan Manusia. Serta dapat diberikan usulan untuk mencegah *breakdown losses* dengan rajin mengecek bagian/komponen mesin, perekaman data kerusakan dibuat langsung input dalam *soft file*, rajin melakukan pembersihan di area produksi dll.

Kata Kunci : PT. Apac Inti Corpora, *Air Jet Loom*, Produktivitas, *Overall Equipment Effectiveness, Six Big Losses*, Diagram Ishikawa

ABSTRACT

Pt. Apac Inti Corpora is a manufacturing company engaged in textile, ranging from spinning process of cotton fiber to yarn (Spinning), Weaving yarn into plain cloth and denim. Located on Jl.Raya Soekarno-Hatta Km. 32, Harjosari Village, Bawen, Semarang, Central Java. This research was conducted in the unit of Weaving I Toyoda loom process (weaving) yarn into cloth, with the production of C1037 fabrics, the study was conducted in April 2019 which Resulting in downtime greater than 3% on Air jet loom loom.This needs to be done analysis of factors that affect the downtime of this Air Jet Loom machine.From the situation, the Overall Equipment Effectiveness (OEE) is done to analyze the biggest factors causing loss of downtime. OEE itself is the result of the connection of the Availability Rate (90%), Performance Rate (95%) and Quality Rate (99%).After the action of the OEE, the machines whose standard values were less than 85% were inputted for the calculation of six big losses to find out the highest losses that resulted in the lower Overall Equipment Effectiveness value.Then from the highest value of losses performed Fishbone analysis Diagram (causal diagram) to figure out the damage factor and can minimize the same thing repeated in the future. The results of the research that has been done from the nine machines that produce fabric C1037 there are six machines whose OEE value is still below 85% IE engine 509 (76.997%), engine 610 (82.872%), machinery 709 (81.778%), machinery 606 (84.677%), Engine 508 (84.959%) and Engine 706 (84,561%).From this value the calculation of six big losses that resulted in the biggest losses is the breakdown losses with a value of 8.04%. After analysis of the Fishbone diagram can be known factors causing the breakdown of losses such as machinery, environment, raw materials and humans.As well as can be given proposals to prevent breakdown losses by diligently checking the parts/components of the machine, recording data damage made directly input in a soft file, diligent doing cleaning in the production area etc.

Keywords: PT. Apac Inti Corpora, Air Jet Loom, productivity, Overall Equipment Effectiveness, Six Big Losses, Ishikawa Diagram