Papua and West Papua Provinces have a very large potential of sago. Approximately 994,000 hectares, mostly natural sago forest was existed in these areas. Sago starch has long been important source of nutrition throughout Papua. Product of sago palm is not only starch as source of carbohydrate for foodstuff, but also for basic material of industries such as paper, plywood, hardboard, and food industries. Traditional sago processing have been done by local people was very labourish and inefficient. The effort to increase sago starch production could be carry out by introducing mechanical sago processing equipment. The objective of this research was to modify cylinder type of sago rasper powered by internal combustion engine. The result was variant-1 of mechanical sago rasper. In general, most component of variant-1 almost the same with former prototype except the size of cylinder’s teeth. Variant-1 has bigger cylinder’s teeth than former prototype one. The performance of variant-1 are (1) effective rasper capacity 418 kg per hour, (2) percentage of starch yield was 38.23%, and (3) starch losses in hampas is 4%.