# ABSTRAK

PT. Astra International UD Trucks cabang Bekasi merupakan perusahaan yang bergerak dalam bidang jasa, perusahaan menyediakan layanan jasa penjualan, perawatan, pemeriksaan, dan pemeliharaan, dan menyediakan suku cadang khusus UD. Dalam kegiatan operasional perusahaan tentunya melibatkan adanya peran penting pada bagian gudang. Diketahui pada gudang terdapat beberapa kendala yang menghambat berjalannya sistem pendistribusian *spare part*, antara lain kurang tertatanya beberapa *spare part*, serta hanya terdapat satu jalur masuk pada gudang yang akibatnya menghambat jalur keluar/masuk. Tujuan dari penelitian ini yaitu dengan melakukan perancangan tata ulang ruang gudang serta penataan pada jenis barang dengan menggunakan metode *Class-Based Storage*. Penelitian dilakukan dengan melakukan perhitungan frekuensi perpindahan barang, kapasitas tempat penyimpanan, utilitas ruang, jarak perpindahan barang, klasifikasi jenis barang, dan merancang tata letak perbaikan. Hasil dari penelitian pada tata letak awal memiliki utilitas ruang sebesar 10,13% serta jarak perpindahan barang sebesar 183.285 m dalam periode Mei – September 2022. Sehingga pada perancangan tata letak ruang, jenis barang diklasifikasikan dengan kategori kelas frekuensi perpindahan barang kelas A dengan presentase 81,61%, kelas B dengan 15,09%, dan kelas C dengan 3,30%. Dari tata letak usulan perbaikan didapati hasil peningkatan utilitas sebesar 3,51% dengan nilai 13,64% dan penurunan jarak perpindahan sebesar 65.996 m dengan nilai 117.289 m.

**Kata Kunci:** Gudang, Tata Letak, *Class-Based Storage*, Utilitas Ruang Gudang, Jarak Perpindahan Barang.

## *ABSTRACT*

*PT. Astra International UD Trucks in Bekasi is a company engaged in the service sector, in this case the company provides sales, maintenance, inspection and maintenance services, as well as providing spare parts specifically for UD. In the operational activities of the company certainly involves an important role in the warehouse. It is known that in the warehouse there are several obstacles that hinder the running of the spare part distribution system, including the lack of order in some spare parts, and there is only one entry point in the warehouse which consequently hinders the entry/exit of spare parts. The purpose of this research is to redesign the warehouse space and arrange the types of goods using the Class-Based Storage method. The research was carried out by calculating the frequency of goods movement, storage capacity, space utility, distance of goods movement, classification of goods types, and designing repair layouts. The results of the research on the initial layout have a space utility of 10.13% and the distance for moving goods is 183,285 m in the period May - September 2022. So that in the design of the spatial layout, the types of goods are classified by the class category of frequency of movement of class A goods with a percentage of 81 .61%, class B with 15.09%, and class C with 3.30%. From the layout of the proposed improvement, it was found that the utility increased by 3.51% with a value of 13.64% and a decrease in the displacement distance of 65,996 m with a value of 117,289 m.*



***Keywords:*** *Warehouse, Layout, Class-Based Storage, Warehouse Utilities, Transport Distance.*