

## ABSTRACT

*Buses have long been one of the means of public transportation used in Indonesia and are very popularly used. Bus is a vehicle that is made from the body of the vehicle by the Head of Body, one of the Carroseries that is reliable in making the body for the bus, namely Laksana Karoseri. Many Otobus Company (PO) partners have collaborated for body manufacture, and repairs for their bus bodies at Laksana Karoseri. Laksana Karoseri has also long collaborated with chassis-making partners in Indonesia such as Mercedes - Benz, Scania, Hino, and so on. One of the chassis that is in great demand by the Otobus Company (PO) is the chassis from the Mercedes – Benz OC500RF – 2542 brand with an engine coded OM 457, one of the reasons many Otobus Companies (PO) choose this chassis is the advantages and toughness of the chassis made by Mercedes. - Benz., for example bus bodies with the XHD (Xtra High Deck), SHD (Super High Deck) and Double Decker types, where each type of body has a number of passengers and vehicle weight. different. In one type of chassis using the engine used on the chassis, as an explanation the Mercedes - Benz OC500RF - 2542 chassis uses an engine with the code OM 457. The toughness of the chassis and engine from Mercedes - Benz is one of the reasons the Otobus Company (PO) uses Mercedes – Benz OC500RF – 2542. Because it can use various types of bus bodies, many Otobus Companies (POs) are also upgrading from the previous body type. However, because the engine which was produced in early 2015 is already fairly old because it has been more than 5 years, the increased weight because it uses a larger bus body type and an old engine often overheats because the engine performance is too heavy, one of the systems Coolant for the engine is to utilize air flow to cool the engine, the product of the use of this air flow is the air intake grille cover.*

**Keywords: Bus, Air Flow, Cover Grill Air Intake, Double Decker, Engine, Overheat**