

## **Abstract**

This research was carried out on two type cylinder head of Yamaha motor cycle. The differences of the two of cylinder heads are on year made, and power that resulted which is Yamaha V-75 with year made is 1975 and Yamaha Alfa year made 1989. The two type of this brand become subject of this study to find out physical and mechanical characteristics of cylinder head material.

Tests in this study include hardness value testing and microstructure observations. Hardness value on Alfa's cylinder head is higher than cylinder head of V-75. The value is 125,28 kg/mm<sup>2</sup> for Alfa and 91,88 kg/mm<sup>2</sup> for V-75. Through microstructure observation shows that the two type of cylinder head using Aluminium blended with major material Si and added element Cu.