The present study is aimed to compare the selected physiological parameters among the different weight categories of boxers (light, medium and heavy). 36 subjects were recruited from Indian male sportspersons belonging to boxing national camps that were held at the Netaji Subhas, National Institute of Sports, Patiala, Punjab, during the period of study. The obtained F ratios for peak power of three weight categories is statistically non-significant, as the calculated F values (0.094) are less than the table value. There are significant differences in anaerobic power index between light and heavy weight categories (p<0.05). There are significant differences in grip strength between light and heavy weight categories (p<0.05). The obtained F ratios for recovery heart rate (bpm) of three weight categories is statistically non-significant, as the calculated F values (1.138) is less than the table value. Keeping in view of the demand of various sports in physical and physiological attributes, the middle-weight category of boxers need to improve their anaerobic power.