A laboratory study to assess the diagnostic value of Widal slide agglutination test (SAT) using antigens from 5 locally prevalent phage-types of S. typhi, was carried out on 85 sera, comprising 45 sera from typhoid fever adult patients with a positive blood culture, and 40 sera from non-typhoid febrile patients. The patients entered into the study were inpatients of the Tropical Disease Ward of the Dr. Soetomo Hospital and outpatients of Gotong Royong and Waluyo Jati Clinics in Surabaya during January 2001 - January 2002. All sera were tested by Mekar Jaya Diagnostika Widal Slide Agglutination Test (SAT) using a mixture of 5 phagetypes of locally prevalent S. typhi as the antigens. To obtain the optimal dilution for the determination of the antibody titre in the sera, a list of the ratio of serum and phosphate buffer saline solution (PBS) was used as recommended by the manufacturer. Incubation was carried out at room temperature for only 5 minutes. The results of the test were read with the naked eye above a 10 Watt neon light. The cut off value of the above mentioned Widal slide agglutination test in adults was assessed as a titre of 1/80 for O and H agglutinin, 1/40 for PA agglutinin and 1/160 for PB agglutinin. The single O agglutinin titre of ≥1/160 or combined O and H agglutinin titres of ≥1/160 or a fourfold increase of the agglutinin titres within 5 – 7 days, were found to be justifiable for the establishment of the diagnosis of the disease using the Widal SAT-MJD. The results of the study revealed that the Widal SAT-MJD is an eligible tool to detect typhoid fever in adults with a diagnostic sensitivity as high as 82.22%, a diagnostic specificity as high as 82.5%, a diagnostic efficiency as high as 82.35%, a diagnostic positive predictive value as high as 84.09% and a negative predictive value of 80.49%. From the practical point of view, the application of this Widal slide agglutination test can be considered as very practicable, as the incubation period is less than 5 minutes and the cost is far from expensive. Based on the data obtained in this study, it can be concluded that the Widal SAT-MJD has a high diagnostic value and is very practicable to be applied as a screening test for the diagnosis of typhoid fever.