

Finite Element analysis on the stress behavior of Steel Spring and Metal Matrix composite based leaf spring

Photos



Fig. 2.1: EN45 Steel Leaf Spring



Fig.3.1: Composite Leaf Spring

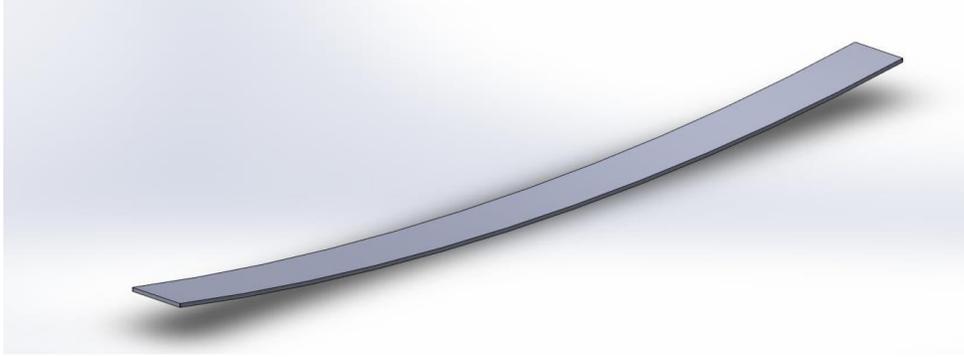
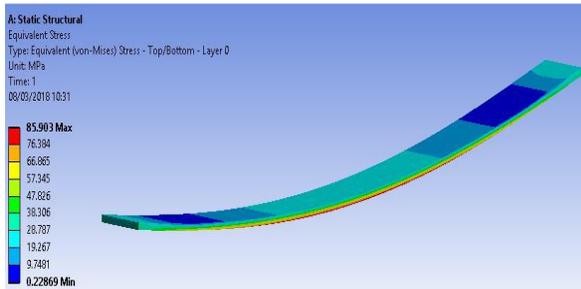
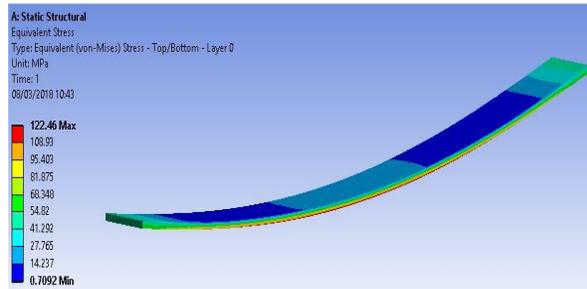


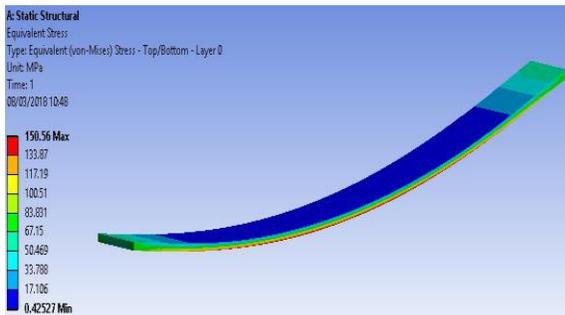
Fig. 4.1. Geometrical Model of Leaf Spring



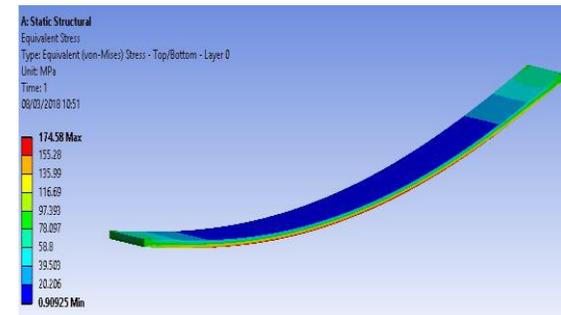
(a) Stress at the load of 1000



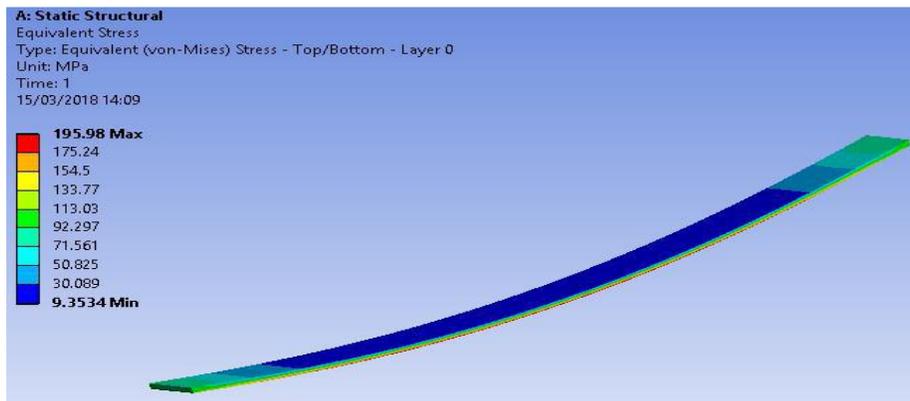
(b) Stress at the load of 2000 N



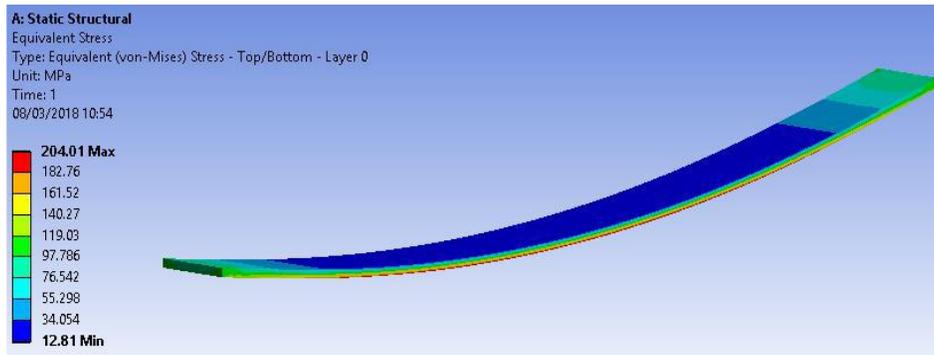
(c) Stress at the load of 3000 N



(d) Stress at the load of 4000 N

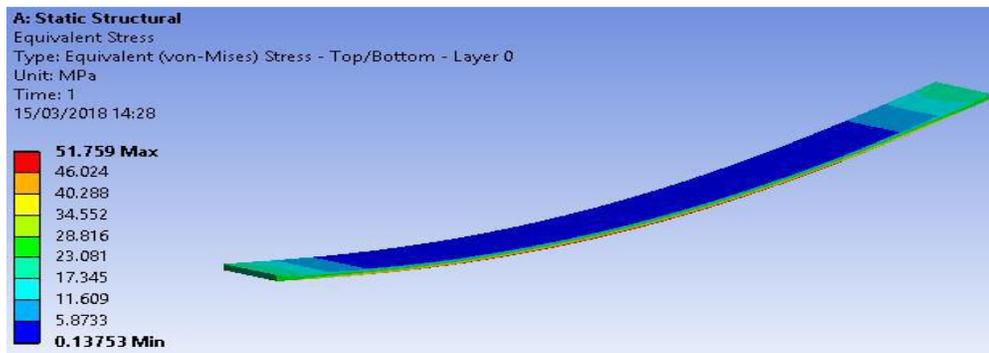


(e) Stress at the load of 5000 N

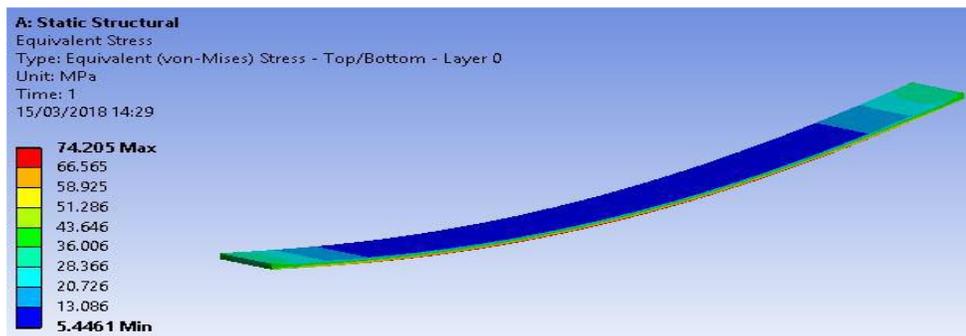


(f) Stress at the load of 5400 N

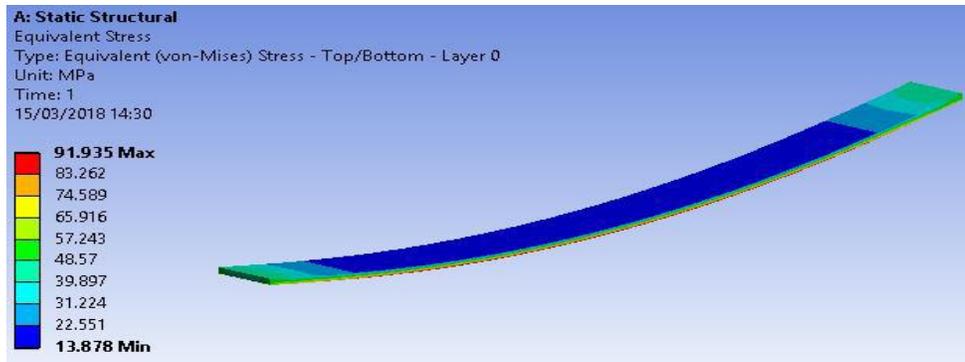
Fig.4.3. Stresses in Steel Spring at Different Applied Loads



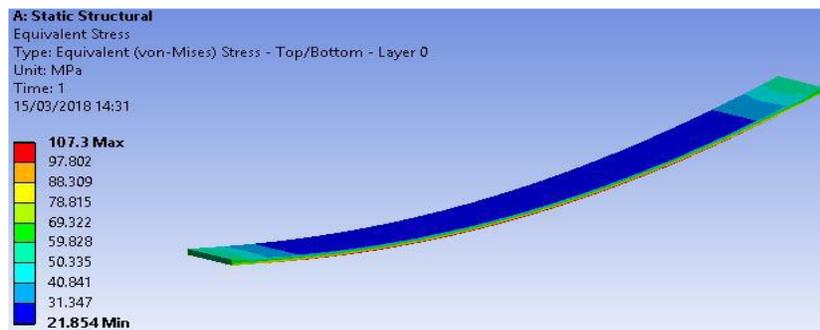
(a) Stress at the load of 1000 N



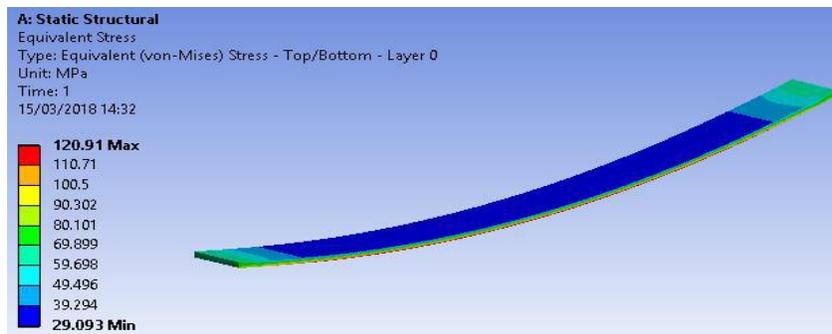
(b) Stress at the load of 2000 N



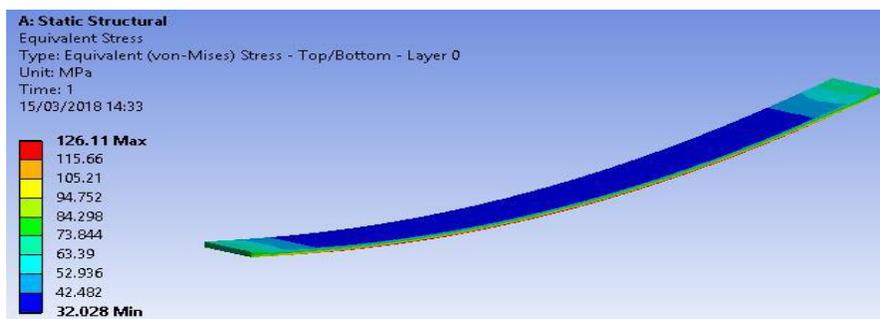
(c) Stress at the load of 3000 N



(d) Stress at the load of 4000 N



(e) Stress at the load of 5000 N



(f) Stress at load at 5400 N

Fig. 4.4.: Stresses at Different Loads During Static Analysis of Composite Leaf Spring

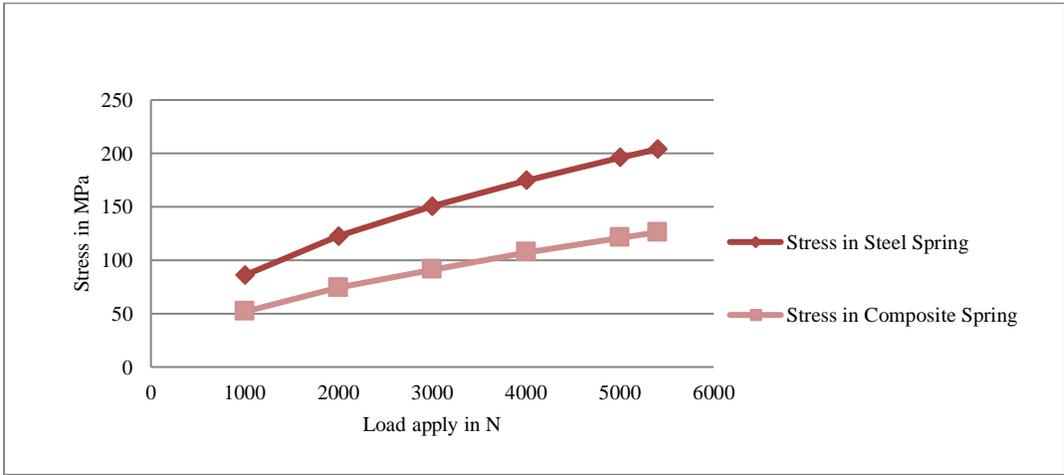


Fig.5.1: Stress Comparison of Both Springs (FEA)