

Fatigue Strength Evaluation Method for the Welded Joint Structure of the Truck Frame by Cumulative Damage

Tsuyoshi YAGI Masataka YAMAMOTO

Yuki KATO Masakazu TAKAGAKI

For the prevention of damage, the explication of the cause of crack initiation and the appropriate fatigue strength evaluation of the truck frame, we discussed the fatigue strength evaluation method for the welded joint structure of the truck frame by advanced numerical analysis and fatigue testing. As a result of the discussion, a fatigue strength evaluation method using the cumulative damage was proposed by making new route-judgment-curved lines using the F calibration factor related to the stress intensity factor. Therefore, we could make the fatigue strength evaluation more appropriately so that fatigue fracture may not be initiated from the route part in the welded joint structure of the truck frame.