

T73S03 Session 45 Homework

Mentor Guide Questions

- [1.62] Describe the different microstructural regions in a ferritic weldment and state their relevance in calculating local reference stresses
- [1.63] State what tests can be used to confirm whether residual welding stresses are significant, (a) from R5 V4/5 A4; (b) from R5 V7.
- [1.64] State the main features in a creep-fatigue crack growth assessment which are specific to a dissimilar metal joint.
- [1.65] State the main features in a creep-fatigue crack growth assessment which are specific to a graded transition joint
- [1.66] State the two alternative procedures for assessing the remaining ligament life based on rupture data and under steady creep conditions.
- [1.67] State the procedure for assessing the remaining ligament life when cyclic loading is significant and/or under combined secondary and primary loading.
- [1.68] State the procedures and sources of materials data for assessing the remaining ligament life for, (a) a similar metal weldment, (b) a dissimilar metal weldment, (c) a graded transition joint.