

DIS, chaired the membership committee for many years and received the Society's Annual Award in 1978.

DIS RESEARCH UPDATE

The objective of Project 25 was to evaluate the potential of a new method for the rapid measurement of fracture toughness for use with ductile iron. This method utilizes a chevron notched bend bar specimen (0.5"x0.5"x2.0") and a hand held "Toughness Tool" to fracture the specimen. Studies previously conducted at the University of Rochester by D. J. Quesnel on high strength steel and aluminum alloys showed that toughness values obtained using this new method correlated well to K1C results obtained using the standard ASTM E-399 method.

DIS initiated Project 25 to investigate the potential of this method for ductile iron and contracted Alternative and Custom Measurements, Inc. to conduct the research. Specimens used in the research were obtained from the same material used in DIS Project 18, "Impact Properties of Ductile Iron by Dynamic Tear Testing". Tests were conducted at three temperatures, -50, 0 and 32 F. on as cast and subcritically annealed specimens.

Preliminary test results indicated that the toughness of ductile iron is too high in relation to the yield strength to satisfy the specimen size criteria for the testing method. As a result tests conducted with the standard sized specimens produced invalid toughness values. ACM determined that for the measurement method to produce valid results the specimen size would have to be increased to the point that it could no longer be fractured by hand. This defeats the initial intent of developing a rapid fracture toughness test for ductile iron. Based on this information, the Research Committee recommended that the project be terminated.



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BASIC DUCTILE IRON PRODUCTION SEMINAR

The next Basic Ductile Iron Production Seminar is scheduled for March 2-3, 1994. It will be held at the Ramada O'Hare in Chicago, Illinois. The seminar is organized to instruct operations people, or others interested in ductile iron castings. It is also recommended as a refresher course for people experienced in ductile production who may have become a bit rusty and not up-to-date on the latest practice. If you are not on the DIS mailing list to receive a registration form, and would like to attend, contact Jack Hall at (216)734-8040.

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