

MINISTRY OF TECHNOLOGY
NATIONAL ENGINEERING LABORATORY

ON THE BRITTLE-DUCTILE TRANSITION PRESSURE

by

R. J. Dower, B.Sc.
(Materials Group: Plasticity Division)

S U M M A R Y

A theory for the change from brittle to ductile fracture behaviour with increasing superimposed hydrostatic pressure is proposed, and is extended to account for the effect of temperature on the transition. The theory agrees well with empirical relationships developed previously by other workers, and shows that an effect due to grain size is to be expected.