

ABSTRACT

AUSTENITIC STAINLESS STEEL

An objective of the present invention is to provide an austenitic stainless steel that is excellent in polythionic acid SCC resistance and also excellent in creep ductility. An austenitic stainless steel according to the present invention includes a chemical composition consisting of, in mass%, C: 0.030% or less, Si: 0.10 to 1.00%, Mn: 0.20 to 2.00%, P: 0.040% or less, S: 0.010% or less, Cr: 16.0 to 25.0%, Ni: 10.0 to 30.0%, Mo: 0.1 to 5.0%, Nb: 0.20 to 1.00%, N: 0.050 to 0.300%, sol.Al: 0.0005 to 0.100%, and B: 0.0010 to 0.0080%, with the balance being Fe and impurities, and satisfying Formula (1):

$$B + 0.004 - 0.9C + 0.017Mo^2 \geq 0 \quad (1)$$

where symbols of elements in Formula (1) are to be substituted by contents of corresponding elements (mass%).