

Title (en)  
STEEL FOR MECHANICAL STRUCTURES

Title (de)  
STAHL FÜR MECHANISCHE STRUKTUREN

Title (fr)  
ACIER PUR STRUCTURES MÉCANIQUES

Publication  
**EP 3480333 A1 20190508 (EN)**

Application  
**EP 17824224 A 20170704**

Priority  
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Abstract (en)  
A steel for machine structural use is provided which is excellent in machinability, rusting characteristics, and hot ductility. The steel for machine structural use according to the present embodiment has a chemical composition which consists of, in mass%, C: 0.30 to 0.80%, Si: 0.01 to 0.80%, Mn: 0.20 to 2.00%, P: 0.030% or less, S: 0.010 to 0.100%, Pb: 0.010 to 0.100%, Al: 0.010 to 0.050%, N: 0.015% or less and O: 0.0005 to 0.0030%, with the balance being Fe and impurities, the chemical composition satisfying Formula (1). The total number of specific inclusions included in the steel which are any of MnS inclusions, Pb inclusions and composite inclusions containing MnS and Pb and which have an equivalent circular diameter of 5  $\mu$ m or more is 40 per mm<sup>2</sup> or more. Mn / S  $\geq$  8.0 Where, a content (mass%) of a corresponding element is substituted for each symbol of an element in Formula (1).

IPC 8 full level  
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