

ABSTRACT

STEEL WIRE ROD FOR BEARINGS HAVING EXCELLENT DRAWABILITY AND
COIL FORMABILITY AFTER DRAWING

A steel wire rod includes, in terms of mass%, 0.95-1.10% C, 0.10-0.70% Si,
5 0.20-1.20% Mn, 0.90-1.60% Cr, 0-0.25% Mo, 0-25 ppm B, 0-0.020% P, 0-0.020% S,
0-0.0010% O, 0-0.030% N, and 0.010-0.100% Al. In a surface area of the steel wire rod,
the Vickers hardness is HV 300 to HV 420, the area ratio of pearlite is 80% or more, and
the area ratio of pro-eutectoid cementite is 2.0% or less. In an inner area of the steel
wire rod, the area ratio of pearlite is 90% or more, and the area ratio of pro-eutectoid
10 cementite is 5.0% or less. In the steel wire rod, the area ratio of pearlite blocks having
an equivalent circle diameter of more than 40 μm is 0.62% or less, and the difference in
Vickers hardness between the surface area and a center portion is HV 20.0 or less.

FIG. 1