Tensile strength

Tensile strength can be estimated by multiplying Brinell Hardness Number (BHN) by 500

When a designer knows the tensile strength of a certain metal, he is able to determine how large the cross section of that material will be needed to carry a given load.

The tensile test provides a direct measurement of the metal 's strength; it is also possible to make an indirect measurement of strength using the hardness test.

For carbon steels, there is a direct relationship between tensile strength and hardness.
If the hardness increases, the tensile strength increases also, and vice versa.