



Комплексное задание 1 уровня

Задание 1.2 «Перевод профессионального текста» (10 баллов)

Задача № 1. Выполнить письменный перевод текста, включающего профессиональную лексику, с иностранного языка на русский при помощи словаря.

STEEL

The most important metal in industry is iron and its alloy — steel. Steel is an alloy of iron and carbon. It is strong and stiff, but corrodes easily through rusting, although stainless and other special steels resist corrosion. The amount of carbon in steel influences its properties considerably. Steels of low carbon content (mild steels) are quite ductile and are used in the manufacture of sheet iron, wire, and pipes. Medium-carbon steels containing from 0.2 to 0.4 per cent carbon are tougher and stronger and are used as structural steels. Both mild and medium-carbon steels are suitable for forging and welding. High-carbon steels contain from 0.4 to 1.5 per cent carbon, are hard and brittle and are used in cutting tools, surgical instruments, razor blades and springs. Tool steel, also called silver steel, contains about 1 per cent carbon and is strengthened and toughened by quenching and tempering.

The inclusion of other elements affects the properties of the steel. Manganese gives extra strength and toughness. Steel containing 4 per cent silicon is used for transformer cores or electromagnets because it has large grains acting like small magnets. The addition of chromium gives extra strength and corrosion resistance, so we can get rust-proof steels. Heating in the presence of carbon or nitrogen-rich materials is used to form a hard surface on steel (case-hardening).

Задача № 2 Письменно ответить на вопросы по тексту на русском языке.

Questions to the text

1. How does the amount of carbon in steel influence its properties?
2. How can we get rust-proof steels?