4) Dry

5) "Tavot" grease

6) Commercial vaseline

7) "Avtol" lubricating oil No. 10.

8) kg

9) kg/mm^2

We see from the test results presented that the application of the surface-active ~~kjr~~ lubricants caused no fall in tensile strength as compared with that of dry samples.

If certain authors assert (referring to the incorrect view that a state of hydrostatic compression exists when measuring hardness and microhardness by static methods) that hardness cannot change under the influence of surface-active substances, then in any case from their point of view the tensile strength cannot depend on any such influence. As we see, the results of our experiments refute the existence of any effects attributable to surface-active media for the test methods employed and the materials tested.

Conclusions

1. We have shown that the "impression" hardness of the materials studied, as measured by the Brinell and Rockwell methods, is independent of the medium.

2. The microhardness of the materials tested in the PMT-2 and PMT-3 hardness testers is also independent of the surrounding medium.

3. The tensile strength of low-carbon steel undergoes no modification on lubricating the samples with surface-active substances.