

عنوان مقاله:

Effect of Shot Peening on Surface Integrity Parameters and Behaviors of Molybdenum-Thermal Spray Coating using HVOF Method

محل انتشار:

اولین کنفرانس بین المللی دستاوردهای نوین پژوهشی در مکانیک، مکاترونیک و بیومکانیک (سال: 1395)

تعداد صفحات اصل مقاله: 14

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خلاصه مقاله:

We have investigated the influence of post-shot peening on Mo-coating as compared to substrate steel 16MnCr5 (according to ZFN-413 A). Shot peening of carburized steel discs with and without Mo-coating was performed by using Shot size S230, Almen intensity 0.42mm'A' and exposure time 96 sec. Tribological properties were analyzed, using pin-on-disc tribometer apparatus, under dry sliding conditions at different specific applied loads, sliding velocities and distance. Typical standardized methods were used for studying of surface integrity parameters (micro-hardness, topography and surface roughness). Surface morphology of the Mo-coating specimens with and without Shot Peening before and after wear was evaluated by Scanning Electron Microscopy. The results showed that shot peening after Mo-coating has considerable effect on improving wear resistance and because of having low friction coefficient has showed better wear behavior and tribological properties over that of the un-peened Mo-coating.

کلمات کلیدی:

Shot peening, Surface Integrity Parameters, Tribology, Molybdenum-Thermal Spray Coating, Almen Saturation Curve

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