

Abstract

[Abstract] The tunnel lining surface inspection system capable of measuring the three dimensional shape of the surface of the tunnel lining surface to precisely determine whether cracking has a risk of leading to flaking, by the light section method using the photography means and the slit laser beam projecting means, mounted in the vehicle, while the vehicle is traveling in the tunnel, and the vehicle used in the system are proposed. Image processing is performed to obtain the image used for inspecting the tunnel lining surface, by using the result of the three dimensional shape measurement of one side face of the tunnel lining surface, measured while the photography means/slit laser beam projecting means arrangement means is fixed to the first measurement position, and the result of the three dimensional shape measurement of the other side face of the tunnel lining surface, measured while the photography means/slit laser beam projecting means arrangement means is fixed to the second measurement position.