ABSTRACT

The present invention provides a holographic storage optical system and a beam calibrating method thereof. The optical path system includes a storage medium, a recording unit, an imaging unit and a servo unit. The recording unit comprises a movable Fourier lens, by which the positions and irradiation angles of a signal light spot and a reference light spot are adjusted. The servo unit comprises a calibration lens for adjusting the positions of a servo light spot in the horizontal and vertical directions so that the servo light spot is located at an optimal position relative to signal light beam and reference light beam. The beam calibrating method comprises (1) before recording a data hologram, burning a calibration hologram at a calibration holographic positioning mark on an optical track of a storage medium; (2) before reproducing the data hologram, using the calibration hologram to optimize the signal-to-noise ratio of the hologram reproduced by adjusting the calibration lens and the Fourier lens.

[FIG. 1]