

ABSTRACT

The object of the present invention is to provide a zoom lens in which a lens group located in the vicinity of an aperture stop includes two subgroups and one of the subgroups is shifted so that an image is shifted. Thus, an increase in the size of lens groups including a shift lens group can be prevented. In addition, the sensitivity with respect to the axis tilt can be reduced while maintaining a sufficient distance between the two subgroups without increasing the size of the lens groups. Accordingly, a sufficient performance can be provided.

A zoom lens 3 includes at least three lens groups, that is, a negative lens group G2 having a negative refractive power, a shift lens group G3, and a positive lens group G4 having a positive refractive power arranged in this order from an object side. When the lens position is moved from a wide-angle setting to a telephoto setting, at least the negative lens group and the positive lens group move so that a distance between the negative lens group and the shift lens group is decreased and a distance between the shift lens group and the positive lens group is changed. The shift lens group includes at least two subgroups L31 and L32, an aperture stop S is disposed between the two subgroups, and an image is capable of being shifted by shifting one of

the subgroups L32 in a direction substantially perpendicular to an optical axis. The following conditional expression (1) is satisfied:

$$D_s/f_t > 0.1 \quad (1)$$

where D_s denotes a distance along the optical axis extending from the lens surface that is the closest to the image among the lens surfaces of the subgroup located on the object side to the lens surface that is the closest to the object among the lens surfaces of the subgroup located on the image side, and f_t denotes the focal length of the entire lens system in the telephoto setting.