The invention concerns recording and/or playback apparatus with a cooling body for an element to be cooled.

The writing magnet of a magneto-optical recording and playback device can become so hot during operation that it must be cooled.

It is known from JP-A-63164004 that the magnetic core of a read/write magnet is coupled to a cooling body, whose side facing the magneto-optical disc is provided with cooling ribs arranged running in a tangential direction. The cooling body extends in a radial direction from the edge of the disc to about the centre of the disc. Thus JP-A-63164004 discloses the features contained in the first part of claim 1.

However, as there is only very little space available for a cooling body inside a magneto-optical recording and/or playback device, it is the object of the invention to design a cooling body in such a way that it achieves a strong cooling effect despite its small dimensions.

The invention solves this task in that the cooling ribs are arranged on the circumference of concentric circles, the centre of which coincides with the centre of rotation of a disc-type rotary recording medium.

Figure 1 shows a front view of an exemplary embodiment of the invention.

Figure 2 shows a plan view of the exemplary embodiment.

An exemplary embodiment will now be described by means of the Figures 1 and 2.

In Figure 1 the writing magnet M is embedded on one side between the cooling ribs R of the cooling body. However, it can also be located on the other side of the cooling body. The cooling ribs R can be provided on one side or on both sides. Since the disc-type recording medium CD, for example, a magneto-optical disc, rotates above the cooling body in Figure 1, it blows air between the cooling ribs R. The air flowing between the cooling ribs now effects a very good cooling of the writing magnet.

In Figure 2, the cooling ribs R are arranged around the circumference of concentric circles, the centre point z of which coincides with the centre of rotation of the disc. The air stream generated by the magneto-optical disc CD is directed by the cooling ribs along a circular path.

One significant advantage of the invention is that the air stream generated through the rotation of the disc-type recording medium is utilized for the cooling. An additional fan is, therefore, not necessary. Such a fan would require a relatively large amount of space which is, however, not available in a magneto-optical recording and playback device.

The invention is, for example, suitable for magneto-optical recording and playback devices equipped with a writing magnet which is located very close to the surface of the magneto-optical disc, either above or below.

Patent Claims

1. A recording and/or reproduction apparatus with a cooling body for an element to be cooled (M) which is located directly above or below a rotary disc-like recording medium (CD) and provided with cooling ribs (R) running in the direction of rotation of the recording medium (CD), characterised in that the cooling ribs (R) are arranged on the circumference of concentric circles, the centre point (Z) of which coincides with the centre of rotation of a disc-type rotary recording medium (CD).

2. Cooling body according to claim 1, characterised in that the element to be cooled (M) is embedded in the cooling body between the cooling ribs (R).

3. Cooling body according to claim 1 or 2, characterised in that the cooling ribs (R) are arranged on the side of the cooling body facing the recording medium (CD).

4. Cooling body according to claim 1,2 or 3, characterised in that cooling ribs are arranged on both sides of the cooling body.