the first supporting surface region of the chisel holder bears against the first counterpart supporting surface region of the base part, such that a defined positioning of the chisel holder on the base part is basically predetermined. A spacing is provided between that portion of the body region which bears the fastening shank and the opposite side of the base part in order to provide a so-called repositioning space for the chisel holder which allows the fastening shank to penetrate deeper into the fastening shank receiving opening if wear occurs in the region of the first supporting surface region and/or of the first counterpart supporting surface region.

Even though the first supporting surface region and thus also the first counterpart supporting surface region are approximately orthogonal with respect to a chisel-receiving opening longitudinal axis and consequently also to a chisel longitudinal axis, it is possible during milling operation for transverse loads to arise which lead to considerable torsion and shear loading at the location where the fastening shank adjoins the body region, which loading may in unfavorable situations lead to breaking of the fastening shank even if the fastening shank is formed with a relatively large shank cross-sectional area.

Embodiments~~It is the object~~ of the present invention seek to provide a chisel holder and a chisel holder system having a chisel holder and a base part, in which, with optimized introduction

of force, a lower mechanical loading in particular of the fastening shank can be attained.

According to a first aspect~~, said object is achieved by means of~~ of the present invention, there is provided a chisel holder, comprising a body region having a chisel-receiving opening which is open at least toward a chisel-insertion side of the body region ~~and~~, a fastening shank which extends from a supporting side of the body region and which has a shank longitudinal axis, wherein the body region has, on its supporting side, a first supporting surface region~~.~~, characterized in that

~~Here, it is also provided that~~ the body region, on its supporting side, has a second supporting surface region which is angled in relation to the first supporting surface region, and/or in that the first supporting surface region comprises a first supporting surface and a second supporting surface which is angled in relation to the first supporting surface.

In the chisel holder constructed according to embodiments of the invention, as a result of the support which takes place over a larger area and which has a self-centering effect as a result of the angled configuration, the fastening shank may be~~is~~ relieved of load in its portion adjoining the body region. Alternatively or in addition, in the chisel holder according to embodiments of the invention, as a result of the angled configuration of two supporting surfaces of the first supporting surface region, it is likewise possible to achieve centering of the

chisel holder and consequently a reduction of the transverse forces introduced in the fastening shank. This, too, contributes to a reduced loading of the fastening shank.

In order, in the chisel holder according to embodiments of the invention and with an optimization of the centering characteristic provided therein, to permit easy access to a chisel received in the chisel-receiving opening, it is proposed that the chisel-receiving opening is open toward that supporting side substantially in the region of the first supporting surface region and that the fastening shank extends from the body region substantially in the region of the second supporting surface region.

The centering characteristic of the chisel holder constructed according to embodiments of the invention can be further improved in that the second supporting surface region comprises a first supporting surface and a second supporting surface which is angled in relation to the first supporting surface. In particular if the first supporting surface region also has two supporting surfaces which are angled relative to one another, it is thus the case that, on the chisel holder, a total of four supporting surfaces are provided which are angled relative to one another in pyramid form, in particular so as to result in a funnel-like configuration, which may prevents or at least reduces an introduction of force into the fastening shank and consequently entails a considerable

transition region between the first supporting surface and the second supporting surface of the first supporting surface region and a transition region between the first supporting surface and the second supporting surface of the second supporting surface region lies in the range of 121° to 141°, and is preferably approximately 131°.

Since, for manufacturing reasons, the various supporting surfaces of the chisel holder constructed according to embodiments of the invention are substantially planar, that is to say not curved, it is proposed, in order to permit a direct transition of such supporting surfaces into one another, that at least one supporting surface of the first supporting surface region and the second supporting surface region adjoin one another in a first transition region which extends in a linear and/or straight fashion.

According to a further embodiment of the present invention~~aspect~~ which may be~~is particularly~~ advantageous for manufacturing reasons, it is proposed that the first supporting surface and the second supporting surface of the second supporting surface region adjoin one another in a second transition region which extends in an areal and/or straight fashion. It has been found that, in particular if the chisel holder is manufactured as a forged part, an approximately planar, areal region is formed at the transition region between the two supporting surfaces of the first supporting surface region, which approximately planar, areal region can be machined in a simple manner in terms of

manufacturing to form a second transition region which is areal or extends in straight fashion. It may be provided here in particular that the second transition region comprises a transition surface which is substantially orthogonal with respect to the holder central plane.

To keep the forces which act on the fastening shank transversely with respect to the shank longitudinal axis thereof, and which subject said fastening shank to shear loading in the region adjoining the body region, as low as possible, it is proposed that a longitudinal central axis of the chisel-receiving opening and the shank longitudinal axis are inclined relative to one another at an angle of 10° to 15°, preferably approximately 12.5°. Said angle has proven to be particularly advantageous because it has been found that, during milling operation, the forces acting on a chisel are generally not oriented parallel to the longitudinal axis thereof and are consequently also not oriented in the direction of the longitudinal axis of the chisel-receiving opening, but rather are inclined slightly relative thereto. Said inclination can be allowed for by the angled configuration of the shank longitudinal axis relative to the longitudinal axis of the chisel-receiving opening.

According to a further embodiment of the present invention~~advantageous aspect~~, it is possible for the fastening element loading region to comprise a fastening element loading surface, and for the shank longitudinal axis and a surface normal of the fastening

element loading surface to be inclined relative to one another at an angle of 50° to 65°, preferably approximately 62.5°. As a result of said relatively shallow angled configuration of the surface normal of the fastening element loading surface relative to the shank longitudinal axis, it may be~~is~~ achieved that a force exerted approximately also in the direction of said surface normal on the fastening element loading surface via a fastening element is inclined as little as possible relative to the shank longitudinal axis, that is to say exerts load on said shank to the greatest possible extent in the direction of the longitudinal axis thereof. It is possible in this way, too, for transverse loads in the shank to be reduced, but nevertheless for such an orientation of a fastening element formed for example as a stud bolt to be ensured, by virtue of engagement with the fastening element being generated when the chisel holder is inserted into a base part.

According to a second~~further~~ aspect~~, the object mentioned in the introduction is achieved by means of~~ of the present invention, there is provided a chisel holder system, comprising a chisel holder constructed preferably according to the first aspect of the present invention, and a base part having a first counterpart supporting surface region for supporting the first supporting surface region~~.~~, characterized by

~~Said chisel holder system is characterized by~~ a second counterpart supporting surface region, which is angled relative to the first counterpart supporting surface region,

for supporting the second supporting surface region, and/or in that the first counterpart supporting surface region comprises a first counterpart supporting surface for supporting the first supporting surface of the first supporting surface region and a second counterpart supporting surface, which is angled relative to the first counterpart supporting surface, for supporting the second supporting surface of the first supporting surface region.

By means of said design of the base part on its counterpart supporting side, a configuration complementary to the form of the chisel holder is attained, such that optimum fitting of said two components into one another may be~~is~~ ensured.

In particular, it may be provided for this purpose that the angle of the first supporting surface region relative to the second supporting surface region and the angle of the first counterpart supporting surface region relative to the second counterpart supporting surface region and/or the angle of the first supporting surface relative to the second supporting surface of the first supporting surface region and the angle of the first counterpart supporting surface relative to the second counterpart supporting surface of the first counterpart supporting surface region are complementary to one another.

As in the case of the chisel holder itself, it is also possible in the case of the chisel holder system for a further improved centering action to be attained in that the

second counterpart supporting surface region comprises a first counterpart supporting surface for supporting the first supporting surface of the second supporting surface region and a second counterpart supporting surface, which is angled relative to the first counterpart supporting surface, for supporting the second supporting surface of the second supporting surface region. In this embodiment, too, in order to obtain an optimum fit of the chisel holder into the base part, it may be provided that the angle of the first supporting surface relative to the second supporting surface of the second supporting surface region and the angle of the first counterpart supporting surface relative to the second counterpart supporting surface of the second counterpart supporting surface region are complementary to one another.

According to a further embodiment~~one particularly advantageous aspect~~ of the present invention, it is proposed that the first counterpart supporting surface and the second counterpart supporting surface of at least one counterpart supporting surface region adjoin one another in a depression-like third transition region. Since, as in the case of the various supporting surfaces, it is advantageously also the case that the various counterpart supporting surfaces are in each case provided in a substantially planar, that is to say non-curved configuration, the provision of a depression-like transition region between such counterpart supporting surfaces prevents the occurrence of notch stresses under intense loading.

Embodiments of tThe present invention will be described in detail below with reference to the appended figures, in which:

figure 1 shows a perspective view of a chisel holder in a viewing direction I in figure 2;

figure 2 shows a perspective view of the chisel holder of figure 1 in a viewing direction II in figure 1;

figure 3 shows a view of the chisel holder in a viewing direction III in figure 2;

figure 4 shows a sectional view of the chisel holder sectioned in a holder central plane;

figure 5 shows a view of the chisel holder in a viewing direction V in figure 1;

figure 6 shows a side view of the chisel holder;

figure 7 shows a sectional view of the chisel holder in the region of a fastening shank, sectioned along a line VII-VII in figure 6;

figure 8 shows a sectional view of the chisel holder in the region of a fastening shank, sectioned along a line VIII-VIII in figure 6;

figure 9 shows a perspective view of a chisel holder;

figure 10 shows a view of the chisel holder in figure 9 in a viewing direction X in figure 9;

figure 11 shows a perspective illustration of the chisel and of the chisel holder in the assembled state; and