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(54) **A SPECIFIC UTENSIL FOR THE DISASSEMBLY AND ASSEMBLY OF OLEODYNAMIC AND AIR GASKETS**

WERKZEUG ZUM AUSEINANDER- UND ZUSAMMENBAUEN VON ÖLHYDRAULISCHEN UND PNEUMATISCHEN DICHTUNGEN

OUTIL SPECIFIQUE POUR LE DEMONTAGE ET LE MONTAGE DE JOINTS D'ETANCHEITE OLEODYNAMIQUES ET PNEUMATIQUES

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Description

The present invention concerns a new utensil, specific for the disassembly and assembly of oleodynamic or air gaskets, like those applied onto oleo-hydraulic and pneumatic cylinders.

It is already known that above described gaskets are exactly housed in perimetral cavities performed in the internal and external surface of the cylinders and therefore, when official verifications take place and said gaskets must be taken off, they are usually bared of with chisels, screwdrivers and similar and in nearly all cases said gaskets are put out of action as they get broken or damaged and thus a frequent replacement is requested.

It is the aim of the present invention to solve above mentioned problem by means of a new, specific utensil that makes the disassembly and the assembly of the gaskets immediate and easy, without damaging them and increasing their life.

A utensil for removing O-rings and backup rings from perimetral cavaties of cylinders is known from US-A-481320. The body of this utensil is provided with planes defining a laminar shape at the tip of the body. At the tip of the body two oppositely curved sections are provided which define a prying section that may penetrate between the O-ring respectively the backup ring and the perimetral cavity.

According to the present invention there is provided a utensil as defined by the claim.

The utensil according to the present invention will be described more in detail hereinbelow relating to the enclosed drawings in which a preferred embodiment is shown.

Figure 1 shows an axonometric view of a specific utensil for the disassembly and assembly of oleodynamic and air gaskets.

Figure 2 shows a vertical section of the new utensil according to the present invention.

Figure 3 shows a scheme of the functioning and the way of using the utensil according to the present invention.

Relating to the details shown in the enclosed figures, the utensil according to the present invention shows:

- a cylindric body 1, linked to the handle 2;
- a top tapering obtained with the opposite inclined planes 3 and 4 which transform the cylindric structure of the body 1 into a laminar shape;
- a first curve 5 of about 45°;
- a second curve 6 in a sense opposite to the precedent one, obtained on the top of the tapering, for obtaining a means that may penetrate between the gasket G and the perimetral cavity IP of an oleo-hydraulic or pneumatic cylinder C, so that, once said gasket has been bared of, and due to its elasticity, it may be taken off making it slide along said curve 5.

For the assembly of the gaskets G, the utensil according to the present invention performs above described phases in opposite sense.

Claims

1. A utensil for the disassembly and the assembly of oleodynamic and air gaskets, the utensil comprising:

   - a handle (2);
   - a cylindric body (1), linked to the handle (2);
   - a tapering near the tip of the body remote from the handle, obtained with oppositely inclined planes (3, 4) which transform the cylindric structure of the body (1) into a laminar shape at the tip of the body;
   - a first curve (5) defined by a bent in the tapered body portion over about 45°;
   - a second curve (6) defined by a bent between the first curve (5) and the tip in a sense opposite to the first curve (5), the bent defining the second curve being smaller than the bent defining the first curve (5) and being obtained on the top of the tapering, for obtaining a means that may penetrate between the gasket (G) and the perimetral cavity (IP) of an oleo-hydraulic or pneumatic cylinder (C), so that, once said gasket has been bared of, and due to its elasticity, it may be taken off making it slide along said first curve (5).

Patentansprüche

1. Werkzeug zum Aus- und Einbauen von hydraulischen und pneumatischen Dichtungen, das sich folgendermaßen zusammensetzt:

   - ein Griff (2);
   - ein fest mit dem Griff (2) verbundener zylindrischer Körper (1);
   - eine Verjüngung in der Nähe der vom Griff entfernten Spitze des Körpers, erzielt durch geneigte, einander gegenüberliegende Flächen (3, 4), die der zylindrischen Struktur des Körpers (1) an der Spitze des Körpers eine blattförmige Gestalt geben;
   - eine erste Krümmung (5), die durch eine Neigung von 45° des Abschnitts des verjüngten Körpers definiert ist;
   - eine zweite Krümmung (6), die durch eine Neigung zwischen der ersten Krümmung (5) und der Spitze in der der ersten Krümmung (5) entgegengesetzten Richtung definiert ist, wobei die Neigung, welche die zweite Krümmung definiert, geringer ist als die Neigung, die die

erste Krümmung (5) definiert, und an der Spitze der Verjüngung erzeugt wurde, um ein Mittel zu erhalten, mit dem man zwischen die Dichtung (G) und die Umfangsnut (IP) eines hydraulischen oder pneumatischen Zylinders (C) eindringen kann, derart daß die genannte Dichtung, nachdem sie aufgrund ihrer Biegsamkeit ausgehoben wurde, herausgezogen werden kann, indem man sie die genannte Krümmung (5) entlang gleiten läßt.

Revendications

1. Outil pour le démontage et le montage de garnitures hydrauliques et à air comprenant:

   - un manche (2);
   - un corps cylindrique (1), solidaire du manche (2);
   - un rétrécissement, vers le sommet du corps opposé au manche, obtenu avec des plans inclinés opposés (3, 4) qui transforment la structure cylindrique du corps (1) en une forme laminaire au sommet du corps;
   - un premier cintrage (5) défini par une inclinaison d'environ 45° de la portion du corps rétréci;
   - un second cintrage (6), défini par une inclinaison entre le premier cintrage (5) et le sommet, en sens opposé au premier cintrage (5), l'inclinaison définissant le second cintrage étant inférieure à l'inclinaison définissant le premier cintrage (5) et étant obtenue sur le sommet du rétrécissement, pour former un moyen de pénétration entre la garniture (G) et l'encaissement périmétral (IP) d'un cylindre (C) hydraulique ou pneumatique, de manière à ce que, une fois la dite garniture déchaussée, par son élasticité, elle puisse être extraite en la faisant glisser le long du dit premier cintrage (5).

FIG.1

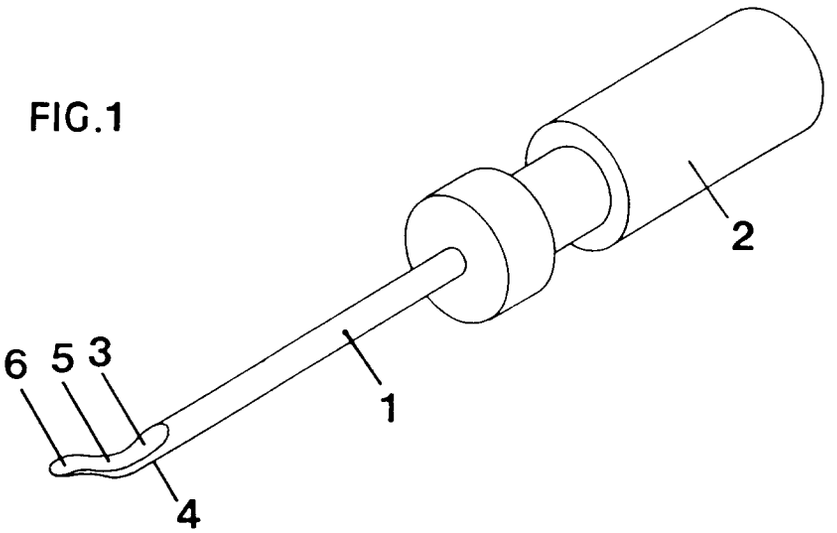
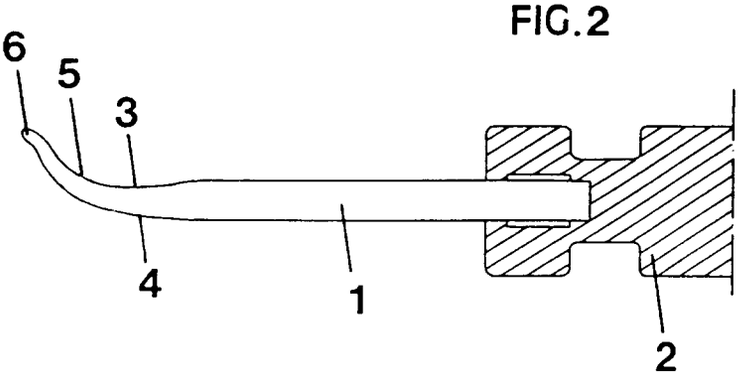


FIG.2



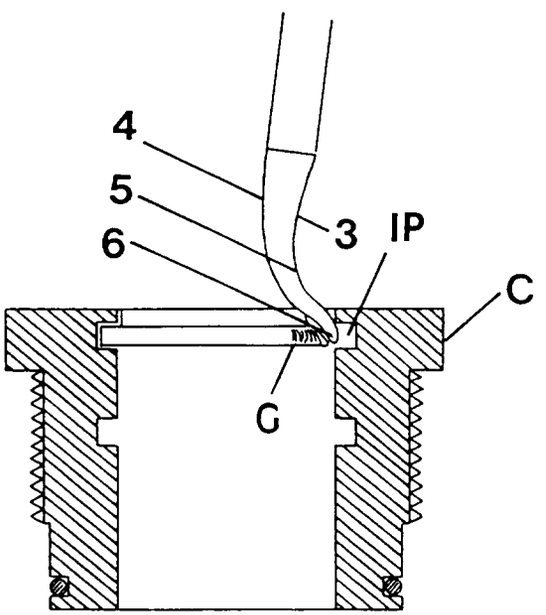


FIG.3