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BA ME(71) Applicant: **Papaveri, Valter****60020 Camerata Picena Ancona (IT)**(72) Inventor: **Papaveri, Valter****60020 Camerata Picena Ancona (IT)**(54) **Centrifugal impeller pump low temperature to pour fuel liquids in general**

(57) -This Document is a summary regarding the invention, the design and realization of the pump impeller centrifugal model WMK0406.

Before starting the project we did market research and found that the request of users was to have a reliable product with regard to safety

And the functionality, to be used for fuel and decant liquids in general. -This Product is designed specifically for use in the petrochemical industry but its features allows it to be used in industry and agriculture.

This machine has been designed for heavy work and during the use of exercise keeps its temperature at a low speed (40 ° c) thanks to the research of the materials used, in the case of fuels virtually neutralizes the risk of fire, improving the safety of personnel maneuvers and increases the duration of use of the plants making them safer. -Thanks To the study of an innovative impeller and special desing this machine has a capacity of maximum

capacity of about 3900 liters per minute, with a prevalence of up to 8.2 bar.

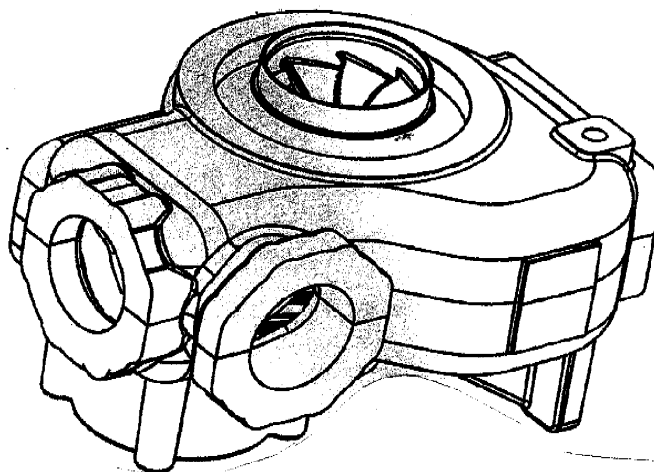
The pump body in compact monoblock makes the machine very robust, the suction inlet is 6 "and is placed axially and discharge is radial upwards as well as safety output bypass.

This machine uses a gearbox input power, it must be supported by an input power with appropriate 70KW electric motor or hydraulic motor with sufficient power (90 hp).

-This Pump requires little maintenance, just check the oil level gearbox before each use and every six months to inspect inside, especially itself the pump is used In agriculture (this should be done By technical staff).

The pump Centrifuge WMK0406 comes with specific user manual and maintenance and

FIG. 3

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Description

[0001] The invention relates to the design and realization of a centrifugal pump Impeller to be used for fuel and decant liquids in general. 5

[0002] For use in industry and agriculture.

[0003] This machine has been designed for heavy work and during the use of exercise keeps its temperature at low revs thanks to the research of the materials used then, in the case of fuels virtually neutralizes the risk of fire, improving the safety and durability. 10

[0004] Thanks to an innovative rotor blades and special design, this machine has a flow capacity of about 3900 liters per minute, with a prevalence of up to 8.2 bar.

[0005] The body pump in compact monoblock makes the machine very robust the suction Inlet is placed axially and discharge is radial upward as well as safety output bypass. 15

[0006] This machine uses a gearbox input power

[0007] It must be supported by an input power with appropriate electric motor or hydraulic motor with sufficient power. 20

Claims

1. **Claim: material:** the first claim of this invention is to use for the construction of an **Innovative material** for these applications, that provides strength, solidity and lightness, but above all it allows to maintain during use a low temperature (C°), also subjected to strenuous efforts for a long period, ensuring safety against fire in case of use in the petrochemical industry. 25 30 35
2. **Claim: turbine impeller:** thanks to an **impeller innovative** and special design inclination shape of the blades allows to have a very high flow capacity. The kind of **Innovative material used** ensures long service life against wear. 40
3. **Claim: bypass:** bypass positioned high up to 90 C° with respect to the outlet is **an innovation** that provides safety anti cavitation effect, this bypass also controls the risk that the pressure inside the system does not reach levels too high. 45

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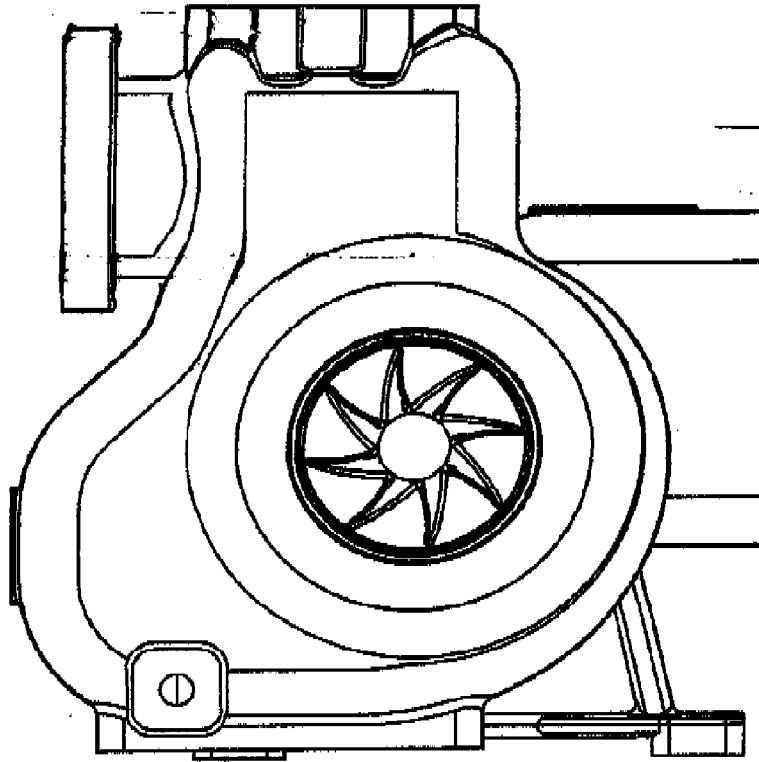


FIG. 2

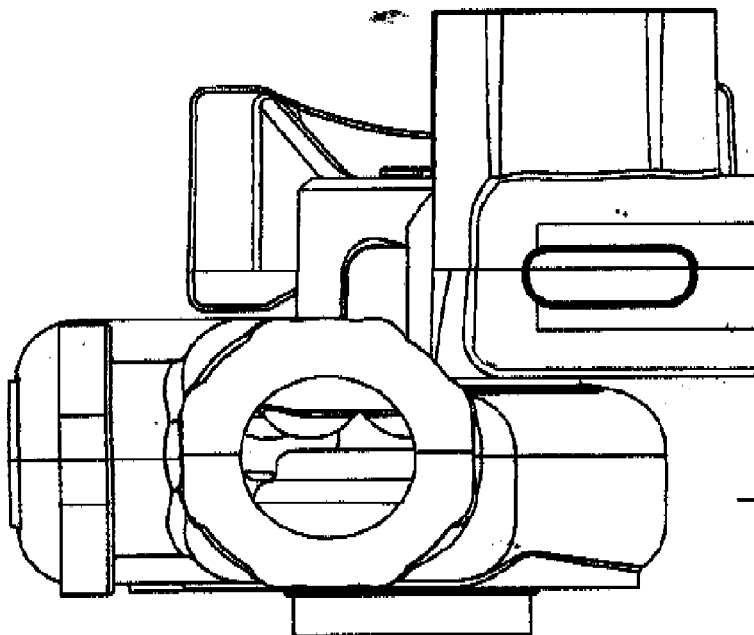
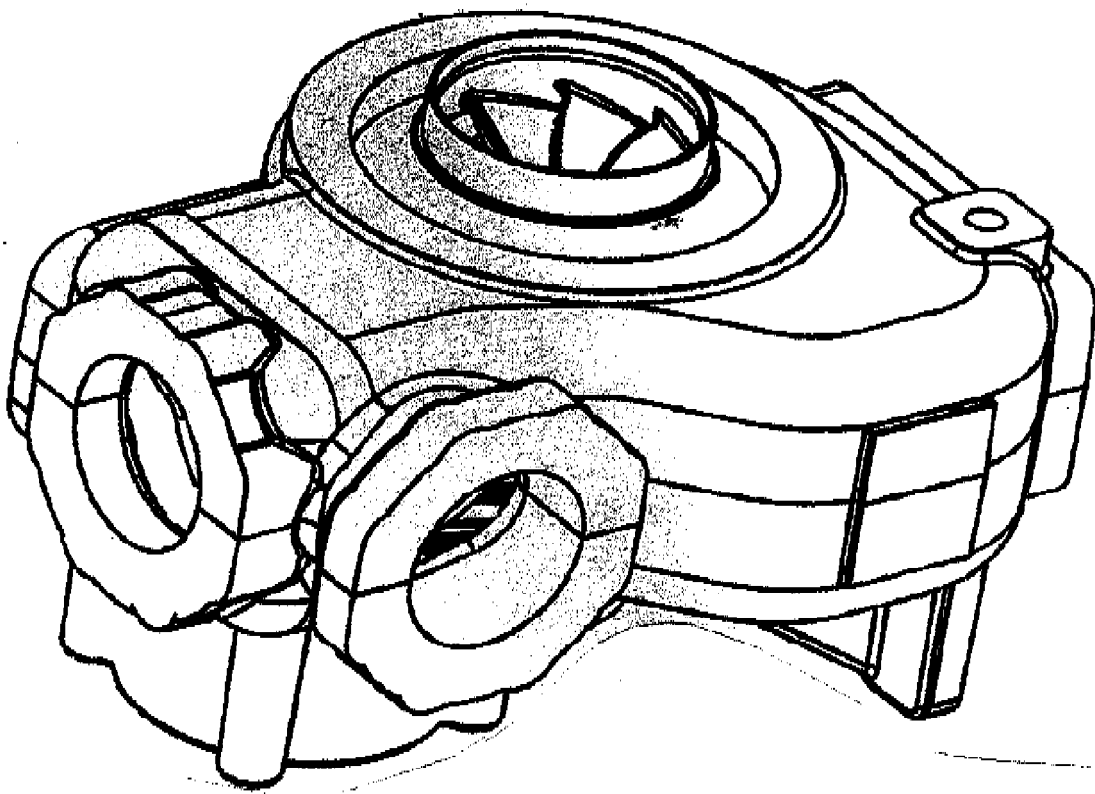


Fig. 1

FIG. 3





EUROPEAN SEARCH REPORT

Application Number
EP 14 00 2795

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CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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