

1. A pneumatic oil lubricator, comprising:
 a pneumatic power source which supplies compressed air;
 an oil reservoir;
 at least an oil outlet unit;
 a pneumatic oil pump comprising a hollow case, an air seat, a vane spindle, a sleeve, at least three gears, a gear ring, a drive shaft, an oil seat, and two end covers, in which
 said hollow case comprising a first end case and a second end case which is oil-scaled and axially connected with said first end case, said first end case having an interior air groove which has an air outlet, said second end case having an oil inlet and an oil outlet;
 said air seat, coaxially disposed in the forward end of said first end case having at least an air inlet passage therein;
 said sleeve, coaxially disposed in said first end case and secured to said air seat having at least an air hole;
 said vane spindle comprises a vane seat, a first end shaft and a second end shaft which are coaxially connected to the two ends of said vane seat respectively, and a plurality of vanes which are longitudinally mounted on the outer periphery of said vane seat; said vane spindle is coaxially disposed in said sleeve and next to said air seat, by means of a pair of bearings which are mounted on said first and second end shafts respectively, one end of said second end shaft forms a gear end portion;
 said gear ring, coaxially disposed in said first end case having an interior gear portion;
 said three gears each having a central hole and being engaged with said interior gear portion of said gear ring and said gear end portion of said second end shaft of said vane spindle;
 said drive shaft comprising a first and a second section wherein said first section being disposed in said first end case and said second section being disposed in said second end case by means of a pair of bearings, said drive shaft having at least three drive pins at one end of said first section for inserting into said three central holes of said gears respectively, said drive shaft further comprising a driving head protruding at said second section which forms a plurality of outer longitudinal oil grooves;
 said oil seat, coaxially disposed in said second end case having a central opening which provides a plurality of longitudinal inner oil grooves such that the innermost diameter of said central opening being slightly larger than the outermost diameter of said driving head, said driving head being disposed in said oil seat;
 said first end cover, secured to the forward end of said first end case having at least an air inlet said second end cover being secured to the free end of said second end case;
 an automatic controlling apparatus which comprises hollow unit sleeve, a piston and a spring, in which said unit sleeve having a first and a second connecting inlet at, the opposite ends respectively, an oil chamber formed in said unit sleeve adjacent to said first connecting inlet, an air chamber formed in said unit sleeve adjacent to said second connecting inlet, a central passage formed between said oil chamber and said air chamber and a connecting outlet transversely formed at an enlarged chamber provided in said central passage;

said piston, coaxially disposed in said central passage having one end located in said oil chamber and the other end being provided with an interior air passage, the central portion of said piston comprising a holding ring located at said enlarged chamber of said central passage;
 said spring being disposed between said holding ring of said piston and one inner side of said central chamber;
 a first hose being connected between said pneumatic power source and said second connecting inlet of said automatic controlling apparatus, a second hose being connected between said connecting outlet of said automatic controlling apparatus and said air inlet of said first end cover of said pneumatic oil pump, a third hose being connected between said oil outlet of said second end case of said pneumatic oil pump and said first connecting inlet of said automatic controlling apparatus, a fourth hose being connected between said oil inlet of said pneumatic oil pump and said oil reservoir, and at least an outlet hose being connected between said oil outlet unit and said third hose by means of a joint; and
 a safety valve being disposed on said third hose between said pneumatic oil pump and said oil outlet unit for controlling the flow in one way only.
 2. A pneumatic oil lubricator as recited in claim 1, wherein said outer surface of said vane seat provides a plurality of longitudinal slots for mounting said corresponding vanes.
 3. A pneumatic oil lubricator as recited in claim 1, wherein the other end of said first section provides a slot and one end of said second section forms a connecting tip which is inserted in said slot for coaxially connecting with said first section.
 4. A pneumatic oil lubricator as recited in claim 1, wherein said unit sleeve of said automatic controlling apparatus comprises two portions which are coaxially screwed together to form a hollow sleeve with a seal therebetween.
 5. A pneumatic oil lubricator as recited in claim 1, wherein said central portion of said piston of said automatic controlling apparatus forms an annular groove for engaging with said holding ring.
 6. A pneumatic oil lubricator as recited in claim 1, wherein an oil inlet unit is provided at one end of said fourth hose, which is inserted into the oil reservoir.
 7. A pneumatic oil lubricator as recited in claims 1 or 6, wherein said oil reservoir is an oil tank.
 8. A pneumatic oil lubricator as recited in claim 1, said pneumatic oil lubricator further comprises a stand which has a base, said base having four wheels attached to its under side which receives said pneumatic oil pump and said automatic controlling apparatus, a handle frame of predetermined height being secured to one side of said base; on said base, three pressing clamps being mounted triangularly to define a central receiving area therebetween for receiving said oil reservoir, each pressing clamp comprising a press board which can be pushed forward or pulled backward by a screwing unit so that the central receiving area can be adjusted to adapt oil reservoirs in different sizes; furthermore, said oil reservoir can be clamped firmly by adjusting said three pressing boards of said pressing clamps to press on the outer periphery of said oil reservoir, at the top of said handle frame, an adjustable support being mounted thereon for holding said oil reservoir, said base further comprising a hose holder at one side which provides a plurality of hose catches to receive said hoses in position for transportation.
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