

Title (en)
GRAVURE PRINTING UNIT HAVING HIGH OPERATING SAFETY

Title (de)
TIEFDRUCKEINHEIT MIT HOHER BETRIEBSSICHERHEIT

Title (fr)
UNITÉ D'IMPRESSION PAR ROTOGRAVURE AYANT UNE SÉCURITÉ DE FONCTIONNEMENT ÉLEVÉE

Publication
EP 3741563 A1 20201125 (EN)

Application
EP 20174881 A 20200515

Priority
IT 201900007046 A 20190521

Abstract (en)
A printing unit (1) for gravure printing a sheet - or reel-like material (74), comprising an impression roller (10) comprising an impression roller body (11) and an impression roller sleeve (30) fitted, or capable of being fitted, onto said impression roller body (11), said impression roller body (11) defining an impression roller rotation axis (12) and an impression roller body side surface (13); said impression roller sleeve (30) having a tubular shape defining an outer sleeve side surface (31) and an inner sleeve side surface (33), said impression roller sleeve (30) comprising an outer layer (32) made of an elastomeric material delimited by said outer sleeve side surface (31); a checking apparatus (80) for measuring the electrical insulation resistance of said impression roller sleeve (30) between said inner sleeve side surface (33) and said outer sleeve side surface (31), said checking apparatus (80) being permanently associated with said printing unit (1), and comprising: an electrical contact element (81); a movement device (82) for moving said electrical contact element (81) between a measuring position, in which the electrical contact element (81) is in contact with the outer sleeve side surface (31), and a rest position, in which said electrical contact element (81) is not in contact with, and spaced apart from, the outer sleeve side surface (31); an electrical circuit (90) connected to said electrical contact element (81) and capable of being connected to said inner sleeve side surface (33), when said sleeve (30) is fitted onto said impression roller body (13), so that when the electrical contact element (81) is in contact with the outer sleeve side surface (31), said electrical circuit (90) is closed through said impression roller sleeve (30) between said inner sleeve side surface (33) and said outer sleeve side surface (31); said electrical circuit (90) being configured to provide a measured electrical insulation resistance value of the sleeve (30) between said inner sleeve side surface (33) and said outer sleeve side surface (31).

IPC 8 full level
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CPC (source: EP)
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Citation (search report)

- [IY] US 2017275115 A1 20170928 - DETTKE HUBERTUS [DE], et al
- [Y] EP 3231610 A1 20171018 - ACE DI BARBUI DAVIDE & FIGLI S R L [IT]
- [A] EP 2231404 A1 20100929 - ILLINOIS TOOL WORKS [US]
- [A] US 6166550 A 20001226 - ABRAMSOHN DENNIS A [US], et al
- [A] EP 0850759 A1 19980701 - SHINKO KK [JP]
- [A] DE 1923226 A1 19701119 - FRITSCH DR ING KLAUS

Cited by
JP2021041680A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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