

Title (en)  
Apparatus for extracting residual packages or empty tubes from a creel

Title (de)  
Vorrichtung zum Austragen von Restspulen oder Leerhülsen an einem Spulengatter

Title (fr)  
Dispositif d'extraction de bobines restantes ou de tubes vides d'un ratelier

Publication  
**EP 1215316 B1 20070509 (DE)**

Application  
**EP 00811177 A 20001212**

Priority  
EP 00811177 A 20001212

Abstract (en)  
[origin: EP1215316A1] The extraction unit (12), to remove partially-wound bobbins and empty bobbin sleeves from a creel, has at least one powered conveyor roller (13) which, in the extraction position, has a friction contact with the outer side of the bobbin or sleeve (3) and carry them clear of their spindles (6). The mechanism to extract partially-wound bobbins and empty bobbin sleeves from a creel, acts with bobbin spindles moved into a horizontal plane. The conveyor unit is placed under the horizontal bobbin/sleeve, as at least one conveyor roller, with its rotary axis across the spindle. The extraction unit has a ramp in front of the roller, in relation to the direction of spindle movement, to lift the bobbin/sleeve. The ramp is a component part of a roller table (22), with an opening (21) for the roller to pass through partially and act on the bobbin/sleeve surface. The table is sprung vertically, to lie against bobbins/sleeves of different diameters. The extraction unit is moved from its working position into an inactive rest position, outside the movement range of the spindles. The creel is a V-type with two V-shaped bobbin carriers, each with a number of bobbin carrier tubes on continuous chains moved from a working position at the outer side of the creel to a doffing position at the inner side of the creel. The spindles are on a number of creel levels. An extraction unit is at the inner side of the creel, for each bobbin carrier, which moves from the working position at the peak of the V-creel parallel to the bisection of the V-shape into a rest position against the open side of the V-creel. The bobbin/sleeve extraction unit is moved on a vertical carrier to the required creel level. The carrier is on a chassis which can be driven over the uppermost creel level at a carrier from the extraction position into the rest position. A curtain, at least at the extraction position, is between neighboring extraction units to deflect the removed bobbin/sleeve downwards, and a curtain also protects the extraction units from the ejected bobbins/sleeves. A catch trough under the extraction units takes the falling bobbins/sleeves, to be carried away by a conveyor belt. The extraction unit is tensed against the spindle movement in the extraction position, so that an emergency switch is tripped if there is a collision between a bobbin or sleeve and the extraction unit. A sensor is in front of the extraction unit, in the movement zone of the spindles, to generate a signal on detecting a full bobbin or a bobbin sleeve with residual wound yarn.

IPC 8 full level  
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