

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 A1 20020619 (DE)

Application

EP 00811177 A 20001212

Priority

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Abstract (en)

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.

Abstract (de)

Die Leerhülsen (3) oder Restspulen werden über ein Fördermittel (13), vorzugsweise über eine Förderwalze in reibschlüssigem Kontakt von den Spindeln (6) wegtransportiert. Die Austragvorrichtung (12) kann dabei vorzugsweise von der Austragposition in eine Ruheposition verschoben werden, in der sie ausserhalb des Bewegungsbereichs der Spindeln (6) angeordnet ist. <IMAGE>

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D02H 1/00

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CPC (source: EP)

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Citation (search report)

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- [A] US 3460689 A 19690812 - FURST STEFAN
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