

instruction sheet

NF EN 13525/IN1
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Instruction sheet for the consolidation
of the standard NF EN 13525 dated May 2005
and its amendment A1

Forestry machinery

Wood chippers

Safety

Machines forestières — Déchiqueteuses — Sécurité

Forstmaschinen — Buschholzhacker — Sicherheit

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1 Modifications to Clause 1 (Scope)

Delete the 2nd paragraph and replace with the following text:

“This document applies to chippers, used when stationary, which are manually loaded with wood through a horizontal or near horizontal infeed chute and where the infeed action is performed by the chipping components acting as infeed components or by separate integrated infeed components such as rollers or chain conveyors integral to the infeed chute. The included wood chippers may be powered either by an external power take-off, hydraulics etc. or by an integral power source such as an internal combustion engine.”.

Replace the 4th indent of the 3^d paragraph with the following text:

- “any machines where the infeed chute is fitted with an extension table or the integrated chain conveyor is protruding beyond the outermost lower edge of the infeed chute;”.

Add at the end of the 3^d paragraph the following new indents:

- “any machines where the infeed chute is fitted with a belt type conveyor;
- mechanical discharge systems.”.

2 Modifications to Clause 3 (Terms and definitions)

Delete definition 3.6 and replace with the following text:

“3.6

integrated chain conveyor

transporting system integral to the infeed chute using chain(s), which presents wood to the infeed components or to the chipping components”.

Add the following new definition:

“3.13

mechanical discharge system

system that transports the chips away from the chipping mechanism (e.g. a belt conveyor or an auger)”.

3 Modifications to Clause 4 (Safety requirements and/or measures)

4.2.4.3.5

Add at the end of the sentence the following text:

“Where the machine is equipped with an integrated chain conveyor the time taken for the infeed action to stop shall be less than two thirds of the minimum time for wood to travel from the nearest position of the infeed stop control to the reference plane.”.



4.3.3 Hazards related to infeed components and chipping components

4.3.3.1

Rename the subclause title of 4.3.3.1 as follows:

“4.3.3.1 Infeed chutes”.

4.3.3.1.1

In the 2nd paragraph move the following sentence under the two existing indents so that it becomes the third indent of the 2nd paragraph:

- “the distance between the outermost lower and upper edges measured in parallel with the reference plane shall be not more than 400 mm”.

The following sentence shall be considered as 3rd paragraph:

“For infeed chutes designed as in Figure 7 it shall not be possible for the infeed chutes to be used in positions lower than 1 000 mm.”.

In the last paragraph, add “from the outermost edge of the chute to the ground” after “1 000 mm” to read “...lower than 1 000 mm from the outermost edge of the chute to the ground.”.

4.3.3.1.3

In the first sentence, replace “see Figure 8” with “see Figure 9”.

4.3.3.2

Add a new subclause 4.3.3.2 with the following text:

“4.3.3.2 Infeed chain conveyors

See Annex C.”.

Renumber and rename the previous subclause 4.3.3.2 as follows:

“4.3.3.3 Chipping components”

4.4.3 Hot surfaces

Replace “5.2” in the last sentence of the first paragraph with “5.4” to read:

“This requirement shall be tested according to 5.4.”.

4.5.1

In the 1st paragraph, move the following sentence under the two existing indents so that it becomes the third indent:

“for infeed chutes on type B machines the values of EN 811:1996, Table 1.”.



4 Modifications to 5.4 (Hot surfaces)

5.4.2 Test method

Add “by” between “temperature” and “difference” in the third sentence of the 1st paragraph to read:

“Temperatures shall be determined by correcting the observed temperature by difference between the specified ambient and the test ambient temperature.”.

5.4.3 Test acceptance

In the first sentence, replace respectively the references to “4.4.3.3”, “4.4.3.2” and “4.4.3.1” with the references to “5.4.2”, “5.4.1” and “4.4.3” to read as follows:

“When tested in accordance with 5.4.2, using the test equipment given in 5.4.1 the tip or conical surface of cone A or B shall not make contact with the hot surface or the exhaust system as described in 4.4.3.”.

5 Modifications to 6.1 (Instruction handbook)

Add at the end of the 2nd paragraph the following three additional indents:

x) warning not to add the aggressivity of the tooth of the chain conveyor by modifying them beyond their original contour;

y) for wood chippers with integrated feed chain conveyor stop the engine or the power transmission to the machine before clearing blockages;

z) shearing and entanglement hazards associated with the gaps between the tooth of the chain and the floor of the infeed chute.”.

6 Modifications to 6.3 (Warnings)

Add at the end of 6.3 the following new paragraph:

“In addition, on wood chippers with integrated feed chain conveyor the following warning shall appear:

— stop the engine or the power transmission to the machine before clearing blockages.”

7 Modifications to B.4.2

Add “or” between “asphalt” and “concrete” in the 1st sentence to read as follows:

“Each machine under test shall be standing or supported on a hard reflecting surface, e.g. asphalt or concrete...”.

8 Modifications to Annex C

Add the following new Annex C:



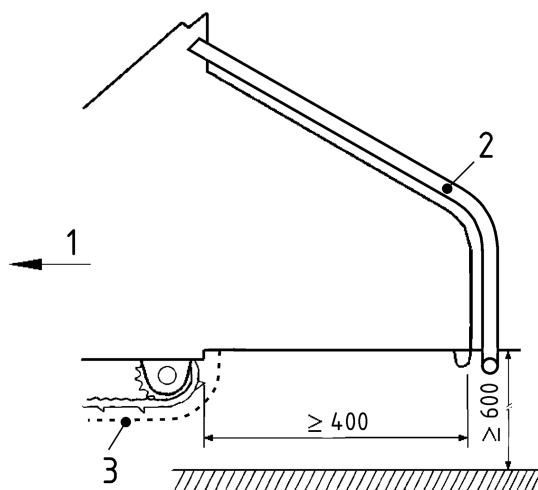
“Annex C (normative)”

Machines with integrated feed chain conveyor

When a type A machine is fitted with an infeed mechanism made of a chain conveyor and a top roller the following requirements shall be met.

To reduce the potential for unintentional contact with the running chain conveyor the distance from the outermost lower edge of the infeed chute to the first tooth of the chain conveyor shall be at least 400 mm (see Figure C.1).

Dimensions in millimetres



Key

- 1 direction of infeed
- 2 infeed stop control
- 3 guard

Figure C.1 — Distance from the outermost lower edge of the infeed chute to the first tooth of the chain conveyor

To reduce the risk of operator being drawn-in by the entanglement of his clothing each tooth profile (a-b and b-c) of the chain conveyor shall meet the following requirements (see Figures C.2 and C.3):

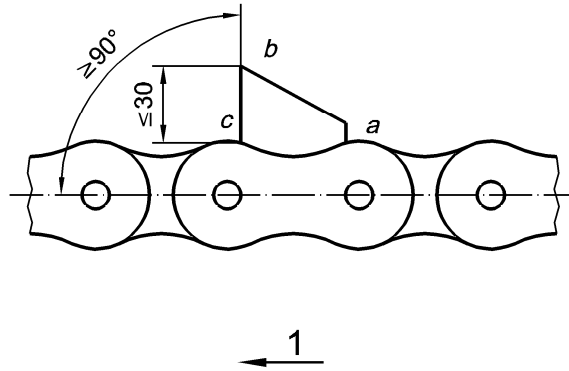
- the profile of the rear side of the tooth shall be continuous and sloping downwards;
- the angle between the front side of the tooth and the horizontal in the infeed direction shall be $\geq 90^\circ$;
- the angle between each side of the tooth and the horizontal shall be $\leq 90^\circ$;
- the maximum height of each tooth shall be ≤ 30 mm.

NOTE 1 Some examples of unacceptable tooth profiles are given in Figures C.4 and C.5.

NOTE 2 The requirements for the rear profile of the tooth are under study.

Protection against access to the driving mechanism of the conveyor shall be ensured by side and front guards which extend at least to the lower plane of the conveyor.

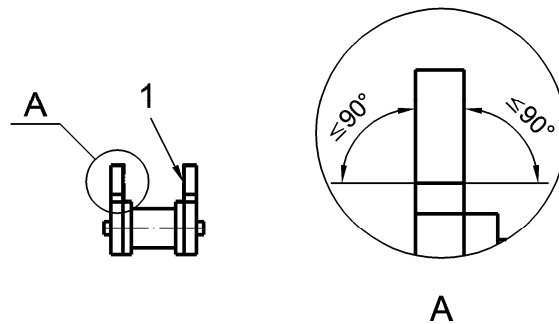
Dimensions in millimetres



Key

1 direction of infeed

Figure C.2 — Side view of an acceptable chain tooth profile

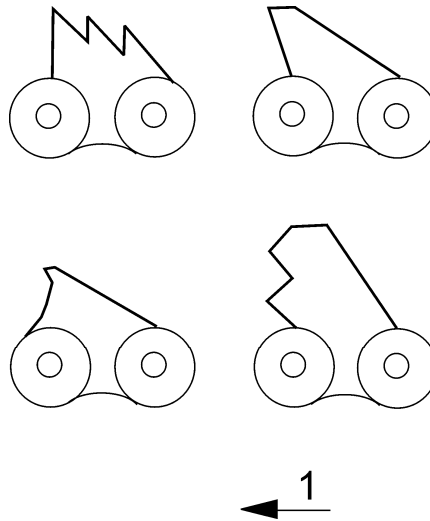


Key

1 tooth

A detail

Figure C.3 — Front view of an acceptable chain tooth profile



Key

1 direction of infeed

Figure C.4 — Side view of unacceptable tooth profiles

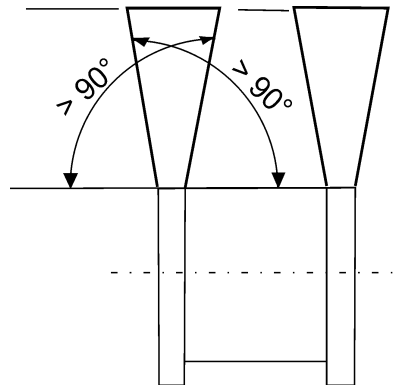


Figure C.5 — Front view of an unacceptable chain tooth profile”.

6 Modifications to Annex ZA

Delete “1.3.4,” in the 2nd paragraph to read as follows:

“...(except Essential Requirement(s) 1.5.10 and 1.5.11)...”.