

## I

*(Resolutions, recommendations and opinions)*

## OPINIONS

## COMMISSION

## COMMISSION OPINION

of 27 May 2008

**in application of Article 7 of Directive 98/37/EC of the European Parliament and of the Council as regards a prohibition measure adopted by Finland in respect of a forestry harvester bearing the trademark HARVERI MD-2007-144**

**(Text with EEA relevance)**

(2008/C 131/01)

### 1. The notification by the Finnish authorities

Article 2(1) of Directive 98/37/EC on the approximation of the laws of the Member States relating to machinery states that Member States shall take all appropriate measures to ensure that machinery covered by the Directive may be placed on the market and put into service only if it does not endanger the health and safety of persons and, where appropriate, domestic animals or property, when properly installed and maintained and used for its intended purpose.

Article 7(1) of the Directive provides that where a Member State ascertains that machinery bearing the CE marking used in accordance with its intended purpose is liable to endanger the safety of persons, and, where appropriate, domestic animals or property, it shall take all appropriate measures to withdraw such machinery from the market, to prohibit the placing on the market, putting into service or use thereof, or to restrict free movement thereof. The Member State shall immediately inform the Commission of any such measure, indicating the reason for its decision.

On 5 November 2007, the Finnish authorities notified to the European Commission a measure prohibiting the placing on the market of a forestry harvester bearing the trademark HARVERI manufactured by Oy RCM Harvester Ltd, Aakkulantie 46, FI-36220 Kangasala.

Pursuant to Article 7(2) of the Directive, the Commission is required, after consulting the parties concerned, to declare whether it finds such a measure justified or not. If the measure is found justified, the Commission shall inform the Member States so that they can take all appropriate measures with

respect to the machinery concerned, in accordance with their obligations under Article 2(1).

### 2. The reasons given by the Finnish authorities

The HARVERI forestry harvester concerned by the measure taken by the Finnish authorities is a small harvester for forestry thinning work. The machine has a self-propelled all-terrain chassis fitted at the front with an articulated arm on which a cutting device is mounted. The functions of the machine are to fell trees, to lop off the branches, to cut the tree trunk into logs, to load the logs into a rack mounted on top of the chassis, to transport the logs and to unload them to the ground by tipping the rack to one side. All the functions of the machine are controlled by a pedestrian operator by means of a remote radio control system.

The reason given by the Finnish authorities for the prohibition measure is the non-conformity of the machinery with the following essential health and safety requirements of Annex I to Directive 98/37/EC.

#### 1.1.2. Principles of safety integration

The manufacturer has not shown that the principles of safety integration, in accordance with the given order of priority, have been applied in the design and construction of the machine.

#### 1.3.1. Stability

Insufficient measures have been taken to ensure that the operator is not at risk of being crushed by the machine if the machine rolls over during use on rough and oblique surfaces.

1.3.2. and 3.4.2. *Risk of break up during operation* and 1.3.3. *Risks due to falling or ejected objects*

Insufficient structural measures have been taken to prevent the risk of the operator from being injured by falling trees and from being hit by ejected objects, such as fragments of the chain saw, in case of break up during operation.

3.2.1. *Driving position*

Insufficient measures have been taken to ensure that the operator does not control the machine from positions other than those foreseen by the manufacturer's instructions in order to gain adequate visibility.

### 3. The comments of the manufacturer

On 26 November 2007, the Commission wrote to the manufacturer asking him to communicate his observations regarding the measure taken by the Finnish authorities.

The manufacturer replied by letter dated 14 December 2007 including a written submission and copies of two statements made in support of an appeal to the Finnish Supreme Administrative Court against the prohibition measure. On 29 January 2008, a meeting was held between representatives of the manufacturer and the services of the Commission.

The manufacturer stated that the principles of safety integration set out in Section 1.1.2 of Annex I to Directive had been correctly applied during the design and construction of the machinery.

Concerning the stability of the machine, the manufacturer stated that the machine was equipped with a suspension system enabling the chassis to remain in a stable position on uneven ground and that maximum travel speed of the machine was limited by design to 3,7 km/h.

Concerning to the risk due to ejected objects and the risk due to break up during operation, the manufacturer pointed out that these risks were prevented by means of a protective housing surrounding the cutting device. The cutting device fitted to the HARVERI forestry harvester and its protective housing constituted a sub-assembly that was identical to that fitted to many other types of forestry harvester and that practical experience had shown to be safe and reliable.

Concerning the driving position, the manufacturer stated that precise indications were given in the instructions on the safe use of the machine and on the operator training required.

The manufacturer informed the Commission that a new version of the forestry harvester was under development, fitted with a

device to prevent operation of the machine if the remote controls were located closer to the chassis than a given distance. However, the manufacturer stated that the technical means necessary to achieve this objective had not been available when the HARVERI forestry harvester was first designed and placed on the market.

### 4. The Commission's observations

With respect to the non-conformities cited by the Finnish authorities, the Commission makes the following observations.

1.1.2. *Principles of safety integration*

Section 1.1.2 paragraph (a) of Annex I to Directive 98/37/EC indicates that the aim of measures taken by the manufacturer of machinery must be to eliminate any risk of accident throughout the foreseeable lifetime of the machinery, even where risks of accident arise from foreseeable abnormal situations. Paragraph (b) of the same Section states that measures to reduce risks and protective measures shall be given priority over information to users on residual risks and training requirements. Paragraph (c) of the same Section requires that, when designing and constructing machinery and when drafting the instructions, the manufacturer must envisage not only the normal use of the machinery but also uses which could reasonably be expected. The machinery must be designed to prevent abnormal use if such use would engender a risk.

The Commission considers that the conformity with these requirements must be appreciated in light of the measures adopted to comply with the particular essential health and safety requirements mentioned below.

1.3.1. *Stability*

Section 1.3.1 of Annex I requires that machinery, components and fittings thereof must be so designed and constructed that they are stable enough, under the foreseen operating conditions (if necessary taking climatic conditions into account) for use without risk of overturning, falling or unexpected movement.

In this respect, the Commission observes that the chassis and suspension system of the HARVERI forestry harvester are designed to maintain the stability of the machine during travel and operation on uneven ground. The Commission considers that the Finnish authorities have not demonstrated the non-conformity of the HARVERI forestry harvester with this requirement. However, despite the measures taken by the manufacturer, there remains a risk of the machine tipping or rolling over on extreme slopes.

### 1.3.2. and 3.4.2. Risk of break up during operation

Section 1.3.2 of Annex I, on the risk of break up during operation, requires that the various parts of machinery and their linkages must be able to withstand the stresses to which they are subject when used as foreseen by the manufacturer. Where a risk of rupture or disintegration remains, despite the measures taken, the moving parts must be mounted and positioned in such a way that, in case of rupture, their fragments will be contained. Section 3.4.2 of Annex I, on the risk of break-up during operation for mobile machinery, requires that parts of machinery rotating at high speed which, despite the measures taken, may break up or disintegrate, must be mounted and guarded in such a way that, in case of breakage, their fragments will be contained or, if that is not possible, cannot be projected towards the driving and/or operation positions.

In this respect, the Commission observes that in order to prevent risks due to the break up of the chain saw during operation, the cutting means of the HARVERI forestry harvester are surrounded by a protective housing to the extent that is compatible with the function of the machine. The Commission considers that the Finnish authorities have not demonstrated the non-conformity of the machine with these requirements. However, despite the measures taken by the manufacturer, there remains a risk due to break up during operation.

### 1.3.3. Risks due to falling or ejected objects and 3.2.1. Driving position

Section 1.3.3 of Annex I requires that precautions must be taken to prevent risks from falling or ejected objects (e.g. work pieces, tools, cuttings, fragments, waste, etc.). Section 3.2.1 of Annex I requires, in particular, that visibility from the driving position must be such that the driver can in complete safety for himself and the exposed persons, operate the machinery and its tools in their intended conditions of use.

In this respect, the Commission observes that, during operation of the HARVERI forestry harvester, there remains a risk due to the ejection of fragments in case of break-up of the chain saw, since the cutting means cannot be entirely enclosed. The manufacturer's instructions indicate that the speed of the chain saw is 35 m/s during cutting operations and higher if the saw is not in contact with the tree, and that the kinetic energy of a fragment of chain which has broken up is as high as that of a bullet from a pistol. The instructions indicate that there is a risk of serious or fatal injury in the operating zone situated in an angle of 60° either side of the centre line of the cutting means.

The Commission observes that there is also a risk due to falling objects. The manufacturer's instructions indicate that, during felling operations, there is a risk of the tree falling in an unintended direction due to its weight or angle, to the effects of wind, snow or other trees, to a failure of one of the components of the machine or to an error by the operator. The Commission

observes that the operator is also exposed to a risk of being hit by falling logs, in particular when they are unloaded to the ground by tipping the rack on top of the chassis.

The Commission further observes that there is a risk of the operator being crushed if the machine tips or rolls over on extreme slopes.

The manufacturer's instructions indicate that the operator shall stand in a safe driving zone when using the remote controls. The driving zone is situated about 2 metres away from the rear of the machine and about 4 metres away from the side of the machine. Furthermore, the instructions warn the operator never to stand in the operating zone in front of the harvester or in the sawing line of the chain saw when felling trees or when cutting logs.

The Commission considers that it can reasonably be expected that, despite these instructions and warnings, the operator may leave the safe driving zone and stand in an unsafe position in order to gain a better view of the cutting means during felling and cutting operations or of the trajectory of the machine during travel. In this respect, the Commission notes that an advertising brochure for the HARVERI forestry harvester, communicated by the Finnish authorities, includes three photographs of the machine in use showing the operator standing close to the machine outside the safe driving zone indicated in the instructions. The Commission observes that the HARVERI forestry harvester is not designed and constructed to prevent such abnormal use, as required by Section 1.1.2(c) of Annex I, since the remote controls can be used to operate the machine from any position around the machine.

The Commission recalls that, according to preliminary observation 2 to Annex I, taking into account the state of the art, it may not be possible to meet the objectives set by the essential health and safety requirements laid down in the Directive. In this case, the machinery must as far as possible be designed and constructed with the purpose of approaching those objectives.

The Commission notes that the harmonised standard applicable to forestry harvesters, EN 14861:2004, requires such machines to be fitted with a cab, a falling object protective structure, a roll-over protective structure and an operator protective structure to protect the operator against risks due to tipping or rolling over and risks due to falling or ejected objects. While this standard was adopted after the HARVERI forestry harvester was first designed and placed on the market, while its application remains voluntary and while it does not include specifications for remote controlled machines, the Commission considers that it gives an indication of the state of the art to be taken into account by manufacturers of forestry harvesters and that alternative solutions for complying with the essential health and safety requirements of Annex I should provide a level of protection at least equivalent to that set by the relevant harmonised standard.

The Commission further observes that, even if the technical means to prevent use of the remote controls from unsafe positions were not available when the *HARVERI* forestry harvester was first designed and placed on the market, the manufacturer must take developments in the state of the art into account for the machinery he subsequently places on the market, in order to approach the objectives stated in the essential health and safety requirements.

#### 5. The Commission's opinion

In light of the documentation available and the comments of the parties concerned, the Commission considers that the Finnish authorities have established the non-conformity of *HARVERI* forestry harvester with the essential health and safety requirements 1.3.3 and 3.2.1, in conjunction with the preliminary observation 2 and the essential health and safety require-

ment 1.1.2 of Annex I to Directive 98/37/EC, and that these non-conformities give rise to a risk of serious or fatal injury to operators.

Consequently, having followed the required procedure, the Commission is of the opinion that the measure taken by the Finnish authorities is justified.

Done at Brussels, 27 May 2008.

*For the Commission*  
Günter VERHEUGEN  
*Vice-President*