

New Ergonomic Guidelines for Forest Machines

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A new ergonomic guideline handbook to the design and assessment of forest machines has just been completed in the Nordic countries. The old guide had for many years helped improve the machine operators' awareness of good design and assisted manufacturers in developing new equipment. However, future forestry work will put new demands on the operator. There is a need to release the planning and assessing the quality aspects of the work task. There is also a need to make communication and decision aids easier to use, as well as improving the design of the operators' work place.

The purpose of this guide is to achieve long-term efficiency of mechanised forestry operations by meeting the demands of the operators on health, safety and well-being. Many of the machine operators still suffer from pain in the neck and shoulder region, partly caused by bad machine design. The ergonomic guidelines will stimulate the development of safe forestry machinery that is easy to use and maintain. This will increase the potential for machine operators to maintain good health and well-being, as well as to earn a high and sustainable income. The aim of the guide is to advise the manufacturer, buyer and user of forestry machinery concerning ergonomic issues. The guidelines are mostly functional regarding the operator workplace, controlling the machine and its tools and maintenance work.

Task forces in the Nordic countries participated in developing the guide. These groups included representatives from forestry enterprises, trade unions, machine owners' associations and manufacturers as well as researchers in forestry and ergonomics. A comprehensive review was carried out covering scientific knowledge and practical experiences in the area, to serve as the basis of the guide. After three years of deliberations and statements, an agreement on the guidelines was reached. In the new guide there is another assessment method, compared to the earlier one, when making the ergonomic profile of the machine. The new method is based on the operator's amount of hours on the machine, work rate and what kind of work he/she is doing. Class A covers year around at high productive work in stand and terrain occurring in the Nordic countries. Class D covers work during a shorter part of the

year or the day and in gentler stand and terrain. Class O (zero) means that the assessed function does not fulfil required standards and legislation, or sets the operator at a high risk of being injured.

Item	Class				
	A	B	C	D	O
Cab access					
Working posture					
Cab					
Visibility					
Operator's seat					
Controls					
Operating					
Information					
Noise					
Vibration					
Cab climate control					
Gases and dust					
Lighting					
Instruction, training					
Maintenance					
Breaks and safety					

The handbook is available in Swedish, English, Finnish and may be soon in Portuguese. If anyone is interested in translating it into any other language (e.g. French, German, Spanish, Russian), please contact: Forestry Research Institute of Sweden, Science Park, 751 83 Uppsala, Sweden. Phone: +46 18 188500, fax: +46 18 188600, e-mail skogforsk@skogforsk.se. Internet: www.skogforsk.se.