

Shearing Machine Safety Guide

(For employers and employees)



This safety guide is an English translation of the Japanese safety guide based on Japanese laws and regulations.
Please comply with the laws and regulations in your country if you are the outside of Japan.



Fourth edition
January 2019

1. Preface

This safety guide provides employers and employees with important safety information they should know when they take safeguarding measures for AMADA shearing machines.

Safety information for using a shearing machine is also available in the operator's manual of the machine and the warning labels affixed to the machine. Before you use the machine, fully understand all of these pieces of safety information.

The safety guide introduces safeguarding measures that can be retrofitted to your shearing machine. Fully recognize hazards associated with machine installation, worksheet and blade setup, machine operation, inspection, cleaning and maintenance, and other tasks. On your own responsibility as employer, take safeguarding measures to suit the environment of your shop and the method of using your machine. Also conduct safety and health education for your workers.

The Industrial Safety and Health Act states that employers must take machine safeguarding measures.

(See "Responsibilities of employer" on the next page.)

Several examples of safeguarding are introduced here. Safeguarding devices recommended by AMADA are offered as options. Please study and adopt them.

For machine safeguarding procedures, etc., refer to "Guidelines for the Comprehensive Safety Standards of Machinery" published by the Ministry of Health, Labour and Welfare (LSB Notification No. 0731001, revised on July 31, 2007).

To see the guidelines, go to the website of the Japan Advanced Information Center of Safety and Health (<https://www.jaish.gr.jp>), click the "Laws, Regulations and Notifications" button, enter "No. 0731001", and find the LSB Notification No. 0731001.

When you work within the operating range of the moving parts of the machine, be sure to turn off and lock out the electric power, compressed air and hydraulic power, remove the key from the keyswitch, and keep it with you.

While working, notify all workers on the work site that work is ongoing with a tag indicating it.

When you retrofit safeguarding devices to your already installed machine, you may have to modify the machine and its controls. When you study what safeguarding devices to adopt, please contact AMADA.

2. Responsibilities of employer

The Industrial Safety and Health Act (hereinafter referred to as Act) and Ordinance on Industrial Safety and Health (hereinafter referred to as Ordinance) mainly impose the following duties on employers who have their employees use machines, in order to reduce industrial accidents.

(1) Notifying of plans

- Notify the Labour Standards Office of plans.

Regarding “power-driven shearing machines”, no obligation of “Notifying of plans” is stated in the current laws and regulations. If you are instructed from the competent Labor Standards Office, follow the instruction.

- Notify the competent government office of a specified facility and apply to the competent government office for permission to use the specified facility.

If the specified facility falls under the provisions of the Noise Control Act, the Vibration Control Act and the environmental conservation ordinance of the competent local government, notify the competent environmental conservation contact office of the specified facility.

Since the notification duties, control values, etc., vary from region to region, check the details at the competent environmental conservation contact office.

(2) Investigating hazardousness and harmfulness

Investigate the hazardousness and harmfulness of tasks and duties (or assess the risks of tasks and duties). Take necessary measures to prevent hazards to workers or prevent the health disorders of workers. (Article 28-2 of Act)

For data concerning residual risks peculiar to specific machines and required to perform risk assessment, contact AMADA.

(3) Preventing hazards

Take necessary safety measures to prevent possible hazards caused by the shearing machine. (Article 20 of Act)

When there is a risk that the stroke end of the machine may endanger workers, take safety measures to prevent hazards. (Article 108-2 of Ordinance)

Take measures to prevent the body parts of workers from entering the hazardous area. (Article 131 of Ordinance)

(4) Conducting safety and health education

Conduct safety and health education to workers who operate the machine for the first time. (Article 35 of Ordinance)

Provide special education to workers who change or adjust blades and adjust, attach or detach the finger protector. (Article 36 of Ordinance and Article 3 of Rules on Special Safety and Health Education)

(5) Inspecting before start of day's work

Inspect the machine before the start of the day's work. (Article 136 of Ordinance)

Try to find equipment failures and faults as soon as possible. If a problem is found, repair it or take any other necessary measure to prevent an accident. (Article 137 of Ordinance)

(6) Conducting periodic voluntary inspection

Conduct periodic voluntary inspection once or more per year. (Article 15 of Order and Article 135 of Ordinance)

Repair any problems found by the inspection, and file the inspection results and repair records for three years. (Article 135-2 of Ordinance)

3. Introduction of safeguarding measures

(1) Finger protector

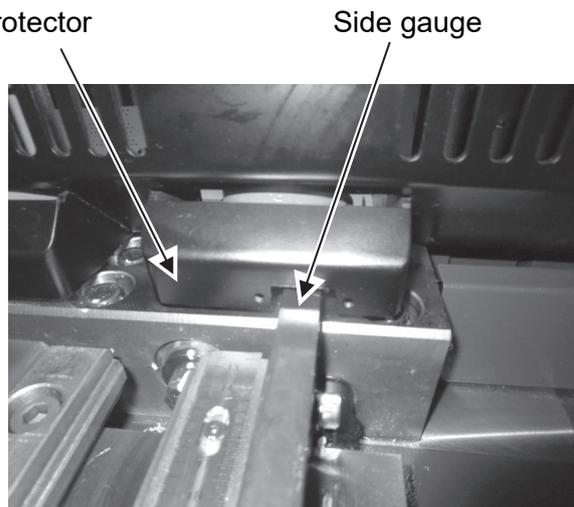
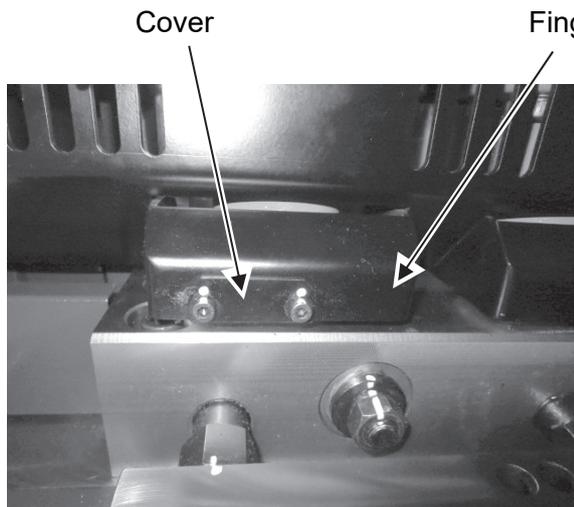
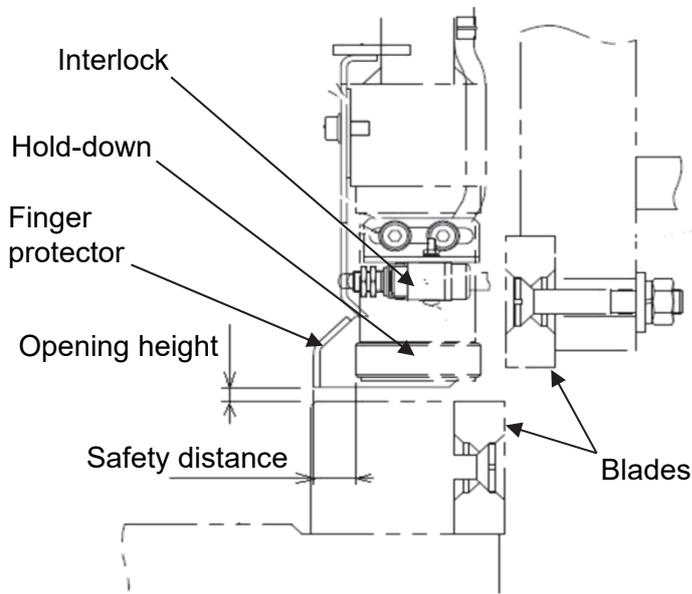
(Attached as standard. Check for breakage or excessive opening height.)

The finger protector guards the point of operation between the upper and lower blades and prevents the operator from reaching below the hold-downs and to the blades.

The finger protector prevents the hazards of getting the fingers cut by the blades or crushed by the hold-downs.

The maximum opening height of the finger protector is determined from the maximum thickness of worksheets to cut. The finger protector is installed at the safety distance that suits this maximum opening height. Do not increase its opening height.

An interlock can be installed to prevent the cutting of worksheets with the finger protector removed.

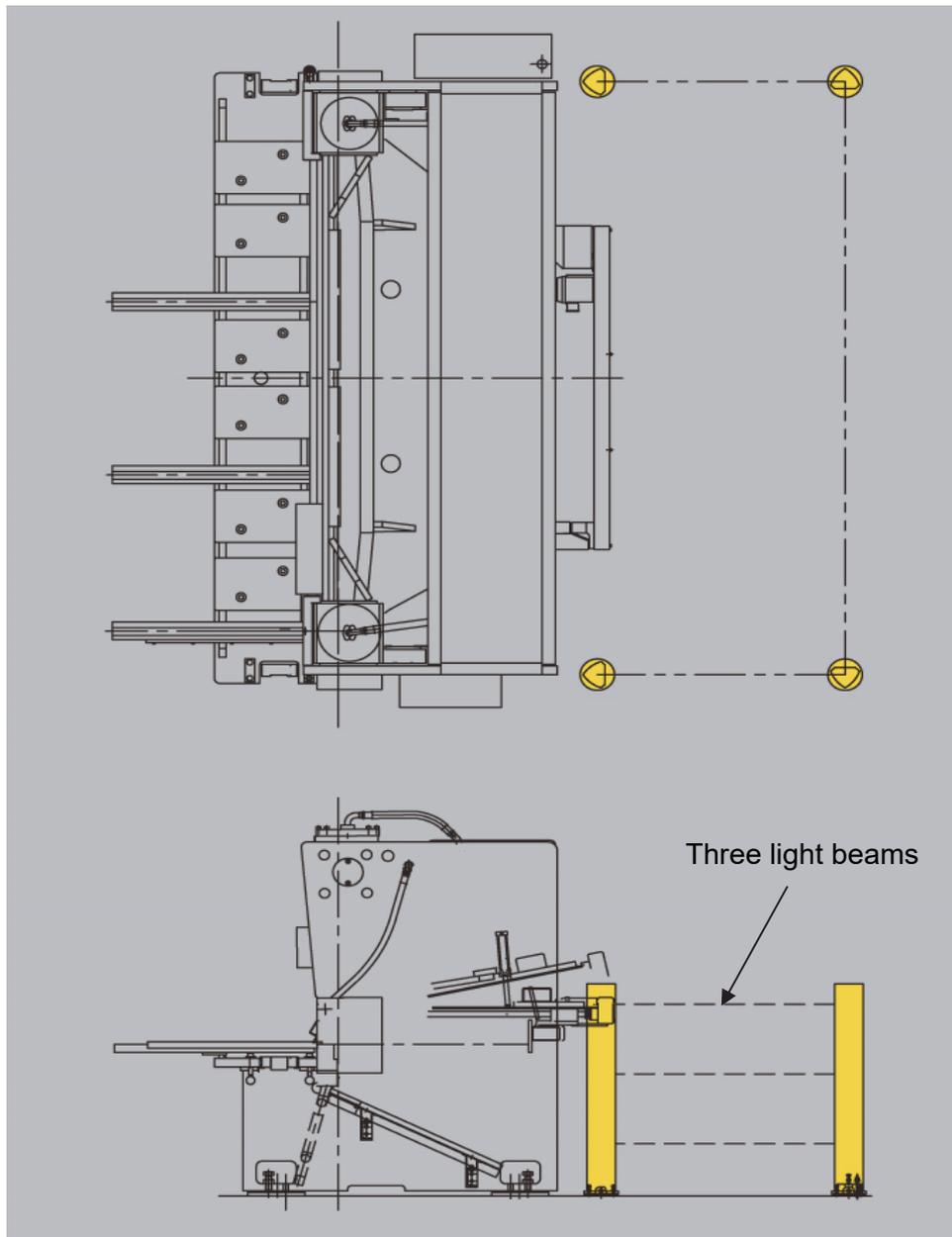


(2) Rear light-curtain system

The rear light-curtain system prevents entry from the rear of the machine and reduces the hazards of getting hit by the ram or backgauge and getting pinched in the backgauge.

As soon as its light beams are obstructed by a part or parts of the body, the light curtain stops the ram or backgauge from moving.

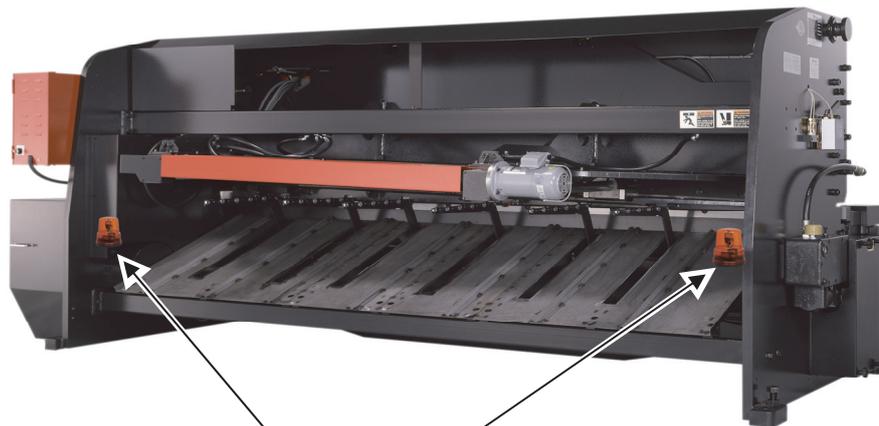
The rear light curtain is especially effective in protecting operators other than the main and auxiliary operators.



(3) Revolving warning lights

The movement of the backgauge is indicated by light and sound.

The revolving warning lights alert other operators by light and sound to the movement of the backgauge and reduce the hazard of getting their body pinched between the backgauge and connecting shaft.



Revolving warning lights

(4) Rear-view mirror



The rear-view mirror is used by the shearing machine operator to check the situation at the rear of the machine and the access of other operators to the rear of the machine.

It reduces the hazards of the other operators getting hit by the ram or backgauge and getting pinched in the backgauge.

(5) Additional EMERGENCY STOP buttons



The EMERGENCY STOP buttons for working at the rear of the machine.

If the machine does not have EMERGENCY STOP buttons at its rear, it is recommended to install EMERGENCY STOP buttons at the left and right rear sides as shown left.

EMERGENCY STOP buttons installed at left and right rear sides

(6) Two-hand control device



A stand-type control device with two-hand control push buttons.

The two-hand control device allows the operator to work at a distance from the point of operation between the upper and lower blades. It helps to reduce the hazard of the getting the hands pinched between the upper and lower blades.

Request for provision of accident information

On April 15, 2014, the Labour Standards Bureau of the Ministry of Health, Labour and Welfare issued the LSB Notification No. 0415-1 "Procedure for Promoting Provision of Disaster Information, etc., from Machine Users to Machine Manufacturers, etc."

The notification obligates machine manufacturers to clearly state contact points, contact methods and accident information and other contact items in instruction manuals, etc., and machine users to furnish information to machine manufacturers and to take measures for preventing the recurrence of accidents, etc., in coordination with machine manufacturers.

Following the notification, AMADA intends to collect accident information from our customers and use it to prevent the recurrence of similar accidents with our machines and to promote greater safety in the design and manufacturing stages of our machines. We kindly ask for your cooperation.

(1) Contact point

Report accident information, etc., by telephone or otherwise to our sales office service center in your area.

(2) Information to be provided

Furnish to us accident information concerning the contact items described in the following accident report.

Accident report

| | |
|--|---|
| Date reported: | ● Overview of accident |
| Classification of accident: 1. Occurrence or likelihood of injury or fatal accident 2. Occurrence or likelihood of fire accident | Date and time of accident occurrence: [Injury or fatal accident] |
| ● Customer | Victim: 1. Operator 2. Other than operator () |
| Company name (department name): | Sex (age): 1. Male 2. Female () years old |
| Name (position): | Accident situation (body part and degree of injury): |
| Address: | [Fire accident] Ignition source and ignited material (if determinable): Burnt range: |
| Telephone number: | Work and process leading to accident: |
| Fax number: | |
| E-mail address: | Usage of protective equipment: |
| ● Amada machine used (Information stamped on serial number plate) | |
| Model: | Comment from customer: |
| Manufacture number: | |
| Manufacture date: | |



AMADA hopes that this safety guide book will help you to provide a safe workplace for your workers.

If you have something to know about the safeguarding of shearing machines or need more information or proposals, contact AMADA.

AMADA CO.,LTD.
200, Ishida, Isehara-shi, Kanagawa 259-1196, Japan
0463-96-1111
<http://www.amada.co.jp/>