

# **HONDA AUSTRALIA MOTORCYCLE AND POWER EQUIPMENT PTY LTD**

**1954-1956 Hume Highway  
Campbellfield  
VIC. 3061**

**July 2004**

## **OCCUPATIONAL HEALTH AND SAFETY**

### **RISK ASSESSMENT REPORT - CULTIVATORS/ TILLERS -**

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## **WARNING**

**DO NOT OPERATE OR WORK ON THIS MACHINE  
UNLESS YOU HAVE READ & UNDERSTOOD  
THE INSTRUCTIONS & WARNINGS IN THE  
OPERATION & MAINTENANCE MANUALS.  
FAILURE TO FOLLOW INSTRUCTIONS &  
WARNINGS COULD RESULT IN DAMAGE  
TO THE MACHINE, INJURY OR DEATH**

## PLANT SAFETY REVIEW – RISK ASSESSMENT PROGRAMME

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**REPORT FOR:** HONDA AUSTRALIA MOTORCYCLE AND POWER  
EQUIPMENT PTY LTD

**DATE ASSESSED:** JULY 2004

**PLANT ASSESSED:** HONDA CULTIVATORS/ TILLERS  
MODELS FG 100, FR750, FR800, F220, F501, FG500

**PREPARED BY:** ROGER LIM, MIEAust, CPEng, MSIA

**CONFERRED WITH:** BRUCE BUTT, NATIONAL SERVICE MANAGER

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Update/Reviewed by:

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(Name)

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(Date)

.....

(Edition No.)

**Plant:** Honda Tillers/ cultivators .....

**Model:** FG 100, FR750, FR800, F220, F501, FG500.....

**Serial No:** .....

**Attachments  
To Plant:** .....

**Customer Name:** .....

**Customer Address:** .....

**Customer Contact Person:** .....

**Information and  
Instructions Provided:** Instruction Manual No.....

Plant Safety Risk Assessment Report No.....

**Customer  
Acknowledgement:** .....

(Signed and Dated)

.....  
(Name & Position)

**Honda Representative:** .....

(Signed & Dated)

.....  
(Name & Position)

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**Appendices**

1. Risk Assessment Priority Matrix
2. Risk Assessment Worksheets

## 1.0 PREAMBLE

The National Standard for Plant 1994 has been adopted as the national model where all State regulations relating to plant safety are developed.

These regulations specify some specific duties for designers, manufacturers, importers, suppliers, employers and self-employed persons in relation to risk management processes involving hazard identification, risk assessment and the application of appropriate risk controls for plant.

These regulations require the designers and manufacturers to identify the hazards, assess the risks and control the risks, as far as is practicable and provide the relevant information about the plant to the importer/supplier and employer.

The employer must also carry out the hazard identification, risk assessment and risk control for the use of the plant in the work environment. These assessments must be carried out for all existing plant as soon as is practicable and for all new or modified plant before use.

## 2.0 SCOPE

As designer, manufacturer and supplier of plant in Australia, Honda is providing this information, regarding hazard identification, risk assessment and make appropriate recommendations where required on risk controls. Since the portable plant can be used in different environments, it is necessary that this risk assessment be reviewed by the employer/user at the site to ensure that the risk control is appropriate so as to minimise the risk of injury.

The information provided in this document is sourced from the manuals provided by Honda (the designer/manufacturer/importer/supplier), and from the experience of technical personnel from Honda and industry consultants.

Whilst the information is not exhaustive in every possible risk, Honda believes that they provide practical guidance to safe operation of plant, provided that the plant is used in accordance with the designers/manufacturer's recommendation for which the plant is designed and manufactured. A comprehensive Owner's Manual is also provided by Honda and should be read with this risk assessment before use of the plant.

Honda clients should review these assessments and ensure that the relevant risk controls recommended are in place for the different models and add or modify the risks where appropriate for the different environment where the plant is used.

### 3.0 METHODOLOGY

The different models of the tillers/ cultivators have been reviewed and assessed in accordance with the requirements of the National Standard for Plant and the relevant State plant regulations.

A generic assessment has been developed for the tillers/ cultivators of the capacity similar to those listed in the scope of this report that have similar functions and productive capacity and the procedures carried out for these machines do not result in any person being subject to a different risk than if the procedures were carried out for each individual machines.

The elements of risk assessments are:

- frequency of exposure
- likelihood of hazard causing injury
- severity of injury

from a designer/manufacturer's (including importer/supplier's) point of view, it is often difficult to determine the frequency of exposure to the potential hazards because of their limited control in the final use of the machines and the types of environment they are going to be used in.

The probability or likelihood of hazard causing injury will depend on the adequacy of the risk controls such as the integrity of the safeguards provided. Therefore a machine with identified hazards that are not appropriately guarded will increase the likelihood of injury and therefore the level of risks in the use (including maintenance) of the machine.

A **risk assessment priority matrix** is therefore used in determining the risk rating for each of the identified potential hazards.

### 4.0 RISK ASSESSMENT WORKSHEETS

- The risk assessment worksheets attached in Appendix 2 lists the potential hazards (including the sources of potential hazards) and risk controls that must be observed when operating or maintaining these machines.
- Make sure you fully understand these points before you start work and observe them to work safely. Read and understand the **Owner's Manual and risk assessments**.
- **The user should re-evaluate the site condition because the working environment may influence the risks associated with the use of the plant.**

- Manufacturer's manual specify that only qualified persons should operate, maintain and repair the machine. The term "qualified person" is intended to be consistent with the definition of a 'competent person' as defined in the National Standard for Plant as meaning a person who has acquired through training, qualification, or experience, or a combination of these, the knowledge and skills enabling that person to perform the task.
- Ensure the plant is used in accordance to the manufacturer's recommendations and what it is designed for.

## 5.0 REFERENCES

### 5.1 Plant Safety Legislation

- The National Standard for Plant and the following States and Territories proclaimed regulations relating to 'Plant Safety'
- Victoria - Occupational Health & Safety (Plant) Regulations 1995.
- Queensland - Workplace Health and Safety Act and Regulations 1995 and Plant Advisory Standard.
- South Australia - Occupational Health, Safety and Welfare Regulations 1995.
- Western Australia - Occupational Safety and Health Regulations 1996.
- Northern Territories - Work Health (OHS) Regulations 1996.
- New South Wales – Occupational Health and Safety Regulations 2001.
- Tasmania - Workplace Health and Safety Regulations 1998.
- OH&S (Commonwealth Employment) (National Standards) Regulations 1996.

### 5.2 Safety Standards

- AS4024.1 Safeguarding of Machinery, Part 1: General Principles
- AS1270 Hearing Protection Devices
- AS1337 Eye Protection for Industrial Applications
- AS2210 Occupational Protective Footwear

**APPENDIX 1**

**RISK ASSESSMENT PRIORITY MATRIX**

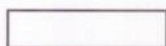
**APPENDIX 2**

**RISK ASSESSMENT WORKSHEETS**

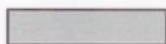
TILLERS/ CULTIVATORS

## RISK ASSESSMENT PRIORITY MATRIX

PROBABILITY	SEVERITY			
	Catastrophic (4)	Critical (3)	Marginal (2)	Negligible (1)
Frequent (A)	High (4A)	High (3A)	High (2A)	Medium (1A)
Probable (B)	High (4B)	High (3B)	Medium (2B)	Low (1B)
Occasional (C)	High (4C)	High (3C)	Medium (2C)	Low (1C)
Remote (D)	High (4D)	Medium (3D)	Low (2D)	Low (1D)
Improbable (E)	Medium (4E)	Low (3E)	Low (2E)	Low (1E)

**CODE**

Highest Risk:



Medium Risk:



Lowest Risk:

**PROBABILITY**

The probability of a hazard actually occurring within the life of the plant can fall within one of the following categories -

**Single Event**

<b>Frequent (A)</b>	Likely to occur frequently.
<b>Probable (B)</b>	Likely to occur several times.
<b>Occasional (C)</b>	Likely to occur sometime.
<b>Remote (D)</b>	Unlikely but possible.
<b>Improbable (E)</b>	So unlikely it can be assumed occurrence may not be experienced.

**Multiple Events**

Continuously experienced  
Likely to occur frequently.  
Likely to occur several time.  
Unlikely but can reasonably be expected to occur.  
Very unlikely but possible.

**SEVERITY**

Severity categories provide a qualitative measure of the credible 'worst case' impact of a hazard.

<b>Catastrophe (4)</b>	Deaths, system loss, or severe environmental damage.
<b>Critical (3)</b>	Severe injury, several occupational illness, major system or environmental damage.
<b>Marginal (2)</b>	Minor injury, minor occupational illness, minor system or environmental damage.
<b>Negligible(1)</b>	Less than minor injury, occupational illness, or less than minor system or environmental damage.

Plant: Tillers/ cultivators

Assessor/s: R. Lim					Date: July 2004
POTENTIAL HAZARDS (including sources of potential hazards)	Probability	Severity	Risk Rating (1)	RISK CONTROL MEASURES TO ELIMINATE / REDUCE RISKS AS FAR AS PRACTICABLE	Residual Risk (2)
<b><u>TRANSPORTATION</u></b> 1. Falling or run-away machine from unsecured or poorly secured machine during transport.	C	2	Medium	<ul style="list-style-type: none"> <li>• Ensure engine and fuel is switched off.</li> <li>• Ensure machine and attachments are tied down securely.</li> <li>• Apply chocks if necessary.</li> <li>• Ensure fuel in the tank is empty or minimal amount.</li> <li>• Ensure any liquids are prevented from spillage.</li> </ul>	Low (2D)
2. Manual handling from lifting the machine.	D	3	Medium	Use suitably designed and secured ramps if practicable. Observe manual handling technique and use two persons to lift the machine whenever practicable.	Low (3E)
<b><u>FILLING FUEL</u></b> 3. Fire and health hazard from fumes.	D	3	Medium	Ensure fuel filling is carried out in a well ventilated space, away from ignition sources. Engine must be switched off and cooled. Be aware of hot exhaust system.	Low (3E)
<b><u>STARTING THE PLANT</u></b> 4. Cutting by rotating tynes, inhalation of fumes and run-away machine.	D	3	Medium	<ul style="list-style-type: none"> <li>• Ensure machine is on stable ground and clear of obstructions.</li> <li>• Ensure adequate ventilation.</li> <li>• Ensure guards are in place.</li> <li>• Ensure gears and rotating tynes are in neutral.</li> </ul>	Low (3E)

Note: (1) Refer to Risk Matrix  
(2) Residual Risk following implementation of Risk Control measures

**Plant: Tillers/ Cultivators**

Assessor/s: R. Lim

Date: July 2004

POTENTIAL HAZARDS (including sources of potential hazards)	Probability	Severity	Risk Rating (1)	RISK CONTROL MEASURES TO ELIMINATE / REDUCE RISKS AS FAR AS PRACTICABLE	Residual Risk (2)
<b><u>SAFE OPERATION</u></b>  5. Cutting by rotating tynes, impact by flying debris. Nip points from pulley drive.	C	3	High	<ul style="list-style-type: none"> <li>• Ensure all guards, fixtures and warning labels are in place.</li> <li>• Ensure appropriate PPEs are used (e.g. protection for eyes, hearing and footwear).</li> <li>• Ensure machine is switched off before adjusting depth of tiller.</li> <li>• Ensure hold-to-run controls are provided for machine with reverse drive.</li> <li>• Do not operate on steep ground.</li> <li>• Do not lift machine to turn.</li> <li>• Ensure handles are set at the right height for the operator.</li> <li>• Ensure guards cover the entire width of the rotating tynes.</li> </ul>	Low (2D)
6. Hazards from cutting into underground utilities, eg. gas pipes and electricity cables.	C	3	High	<ul style="list-style-type: none"> <li>• Check for underground utilities before operation.</li> </ul>	Low (2D)
7. Noise	C	3	High	Ensure machines are appropriately labelled and meet the relevant State legislative requirements. Hearing protection should be used.	Low (2D)

Note: (1) Refer to Risk Matrix

(2) Residual Risk following implementation of Risk Control measures

**Plant: Tillers/ Cultivators**

Assessor/s: R. Lim

Date: July 2004

POTENTIAL HAZARDS (including sources of potential hazards)	Probability	Severity	Risk Rating (1)	RISK CONTROL MEASURES TO ELIMINATE / REDUCE RISKS AS FAR AS PRACTICABLE	Residual Risk (2)
<b><u>STOPPING</u></b>					
8. Crushing by falling machine on uneven or unstable ground.	D	3	Medium	<ul style="list-style-type: none"> <li>Ensure the machine is positioned on stable and level ground.</li> </ul>	Low (2E)
9. Burns from hot parts.	C	2	Medium	Hot parts that require access should be guarded if practicable. Hazard warning labels may be used to warn of residual risks.	Low (2D)
10. Fumes	C	2	Medium	Position in well ventilated place.	Low (2D)
<b><u>STORAGE</u></b>					
11. Fire from leaking fuel.	D	3	Medium	Ensure regular maintenance and store fuel away from ignition sources.	Low (3E)
<b><u>ATTACHMENTS</u></b>					
12. Cutting by rotating tynes during fitting of attachments.	D	3	Medium	Ensure machine is not running when fitting, adjusting or removal of attachments. Observe additional precautions from the manuals. Do not attach additional rotating tynes beyond the width of the guard.	Low (2E)

Note: (1) Refer to Risk Matrix  
(2) Residual Risk following implementation of Risk Control measures

**Plant: Tillers/ Cultivators**

Assessor/s: R. Lim

Date: July 2004

POTENTIAL HAZARDS (including sources of potential hazards)	Probability	Consequence	Risk Rating (1)	RISK CONTROL MEASURES TO ELIMINATE / REDUCE RISKS AS FAR AS PRACTICABLE	Residual Risk (2)
<b><u>MAINTENANCE</u></b>					
13. Cutting, entanglement, burns and fumes from moving and hot parts during maintenance.	D	3	Medium	<ul style="list-style-type: none"> <li>Ensure machine is switched off and remove spark plug lead.</li> <li>Follow manufacturer's recommendation.</li> <li>Ensure machine is securely mounted to minimise risk of it falling.</li> </ul>	Low (3E)
14. Burns from hot oil.	D	3	Medium	Wear appropriate PPE and follow manufacturer's recommendations. Hazard warning labels should be clearly fitted.	Low (3E)
<b><u>PROVISION OF INFORMATION</u></b>					
15. Lack of relevant operation and maintenance instructions.	C	3	High	Ensure all relevant operation and maintenance instructions are provided in accordance with the relevant State Occupational Health and Safety Plant Regulations.	Low (2D)

Note: (1) Refer to Risk Matrix  
(2) Residual Risk following implementation of Risk Control measures