

HAZARD EVALUATION AND CONTROL

Description of Plant: Tamping Rammer

Model No: MT-50E - 52FW -72FW

Assessed By: Evan Miller

Company : Flextool (Aust) Pty Ltd

Date: 15/02/02

Issue: A

Hazard Description	Hazard Y/N	Plant & / or Situation	Likelihood	Severity	Risk Control
A - ENTANGLEMENT 1 Can anyone's hair, clothing, gloves necktie, jewellery, cleaning brushes, rags, or other materials become entangled with moving parts of the plant, or materials in motion?	Y	Entanglement with tamping foot	5	C	• Do not wear loose clothing that can become entangled in operating machinery.
B - CRUSHING					
1. Can anyone be crushed due to:-					
a. Material falling off the plant?	N				
b. Uncontrolled or unexpected movement of the plant or its load?	N				
c. Lack of capacity for the plant to be slowed, stopped or immobilised?	N				
d. The plant tipping or rolling over?	Y	In use on an incline	4	D	• Secure the equipment after it is in its operating position so it does not tip over, roll, slide or fall. • Always pay attention to foothold and work in easy position that allows to keep your machine in good balance.
e. Parts of the plant collapsing?	N				
f. Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair?	Y	Crushing between tamping foot & fixed object or drawing in between fixed & moving parts during maintenance..	5	C	• Keep hands and feet clear of moving parts. Do not stick hands or fingers in the equipment when operating. • Do not operate equipment without guards in place. • Disconnect spark plug wire while performing maintenance or repair on the equipment or engine. • Always replace safety devices removed during service or repair before operating.
g. Being thrown off or under the plant?	N				

• Refer to Mikasa operating instructions.

Likelihood of Occurrence
 1. Expected to Happen
 2. Common
 3. Sometimes
 4. Rarely
 5. Highly Unlikely

Severity of Result
 A. Fatality
 B. Permanent Disability
 C. Lost Time Injury
 D. Medical Treatment
 E. First Aid Injury

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h. Being trapped between the plant and material or fixed structures?	N				
i. Other factors not mentioned?	N				
C. CUTTING, STABBING & PUNCTURING?					
1. Can anyone be cut, stabbed or punctured due to:					
a. Coming in contact with sharp or flying objects?	N				
b. Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair of the plant?	N				
c. The plant, parts of the plant or work pieces disintegrating?	N				
d. Work pieces being ejected?	N				
e. The mobility of the plant?	N				
f. Uncontrolled or unexpected movement of the plant?	N				
g. Other factors not mentioned?	N				
D. SHEARING					
1. Can anyone's body parts be sheared between two parts of the plant, or material handled by the plant?					
	N				
E. FRICTION					
1. Can anyone be burnt due to contact with moving parts or surfaces of the plant, or between a part of the plant and a work piece or structure?					
	N				

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F. STRIKING					
1. Can anyone be struck by moving objects due to :					
a. Uncontrolled or unexpected movement of the plant?	Y	Plant moving while unattended	4	E	* Secure the equipment after it is in its operating position so it does not tip over, roll, slide or fall.
b. The plant, parts of the plant or work pieces disintegrating?	N				
c. Work pieces being ejected?	N				
d. Mobility of the plant?	N				
e. Other factors not mentioned?	N				
G. HIGH PRESSURE SUBSTANCES					
1. Can anyone come into contact with substances under high pressure, due to plant failure or misuse of the plant?					
	N				
H. ELECTRICAL					
1. Can anyone be injured by electrical shock or burnt due to:					
a. The plant contacting live electrical conductors?	N				
b. The plant working in close proximity to electrical conductors?	N				
c. Overload of electrical circuits?	N				
d. Damaged or poorly maintained electrical leads and cables?	N				
e. Damaged electrical switches?	N				
f. Water near electrical equipment?	N				

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g. Lack of isolation procedures?	N				
h. Other factors not mentioned?	N				
I. EXPLOSION 1. Can anyone be injured by explosion of gases, vapours, liquids, dusts or other substances, triggered by the operation of the plant or by material handled by the plant?	Y	Petrol vapour	5	B	<ul style="list-style-type: none"> • Never add fuel to tank while the engine is running. Stop engine and allow it to cool. Avoid spilling fuel. • Make sure fuel lines and fittings are tight and in good condition. • Do not smoke while refueling the engine. • Do not refuel near open flame, wipe up spilled fuel. • Store gasoline in approved container and location. • Do not operate near flammable substances.
J. SLIPPING, TRIPPING & FALLING 1. Can anyone using the plant, or in the vicinity of the plant, slip, trip or fall due to:					
a. Uneven or slippery work surfaces?	Y	Slip/Trip/Fall	3	E	<ul style="list-style-type: none"> • Always pay attention to foothold and work in easy position that allows to keep your machine in good balance.
b. Poor housekeeping, eg, swarf in the vicinity of the plant, spillage not Cleaned up?	N				
c. Obstacles being placed in the vicinity of the plant, other factors not mentioned?	Y	Slip/Trip/Fall	3	E	<ul style="list-style-type: none"> • When starting or during operation, make sure to protect safety for personnel or against any obstacle around.
2. Can anyone fall from a height due to:					
a. Lack of proper work platform?	N				
b. Lack of proper stairs or ladders?	N				

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c. Lack of guardrails or other suitable edge protection?	N				
d. Unprotected holes, penetrations or gaps?	Y	Slip/Trip/Fall	3	E	<ul style="list-style-type: none"> • Always pay attention to foothold and work in easy position that allows to keep your machine in good balance. • When starting or during operation, make sure to protect safety for personnel or against any obstacle around.
e. Poor floor or walking surfaces, such as the lack of a slip-resistant surface?	N				
f. Steep walking surfaces?	N				
g. Collapse of the supporting structure?	N				
h. Other factors not mentioned?	N				
K. ERGONOMIC					
1. Can anyone be injured due to:					
a. Poorly designated seating?	N				
b. Repetitive body movement?	N				
c. Constrained body posture or the need for excessive effort?	N				
d. Inadequate or poorly placed lighting?	N				
e. Lack of consideration given to human error or human behaviour?	N				
f. Mismatch of the plant with human traits and natural limitations?	N				
g. Other factors not mentioned?	N				

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L. SUFFOCATION 1. Can anyone be suffocated due to lack of oxygen, or atmospheric contamination?	Y	Motor exhaust fumes	4	A	Warning label on unit • Never operate in an enclosed building or area where exhaust gasses can accumulate. • Do not breath exhaust fumes when working in the area of the engine. (Exhaust gasses are odorless and deadly poison). • Never operate in a pit or sump without making provisions for exhausting the gasses.
M. HIGH TEMPERATURE OR FIRE 1. Can anyone come into contact with objects at high temperature?	Y	Motor muffler	3	E	• Be careful not to touch muffler as it becomes hot in operation. • Exhaust system parts get very hot and stay hot for sometime after shutting the engine off - do not touch
N. TEMPERATURE (THERMAL COMFORT) 1. Can anyone suffer ill health due to exposure to high or low temperatures?					
O. OTHER HAZARDS 1. Can anyone be injured or suffer ill health from exposure to:					
a. Chemicals?	N				
b. Toxic gases or vapours?	Y	Motor exhaust fumes	4	A	Warning label on unit • Never operate in an enclosed building or area where exhaust gasses can accumulate. • Do not breath exhaust fumes when working in the area of the engine. (Exhaust gasses are odorless and deadly poison). • Never operate in a pit or sump without making provisions for exhausting the gasses.
c. Fumes?	Y	Motor exhaust fumes	4	A	Warning label on unit • Never operate in an enclosed building or area where exhaust gasses can accumulate. • Do not breath exhaust fumes when working in the area of the engine. (Exhaust gasses are odorless and deadly poison). • Never operate in a pit or sump without making provisions for exhausting the gasses.
d. Dust?	N				

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e. Noise?	Y	Tamping plate and motor operation	2	B	<ul style="list-style-type: none"> Hearing protection sticker fitted to unit.
f. Vibration?	Y	Tamping plate and motor operation	4	D	Anti vibration mounts fitted to plant
g. Radiation	N				
h. Other factors not mentioned?	N	Fire, petrol vapour	4	C	<ul style="list-style-type: none"> Never add fuel to tank while the engine is running. Stop engine and allow it to cool. Avoid spilling fuel. Make sure fuel lines and fittings are tight and in good condition. Do not smoke while refueling the engine. Do not refuel near open flame, wipe up spilled fuel. Store gasoline in approved container and location. Do not operate near flammable substances.

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