

RISK ASSESSMENT

For

SAKAI Pneumatic Tyred Roller



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Applicability

Standards referenced in the preparation of this document

Risk Assessment (3 pages)

APPLICABILITY

The following Risk Assessment document is applicable to the following models of Sakai pneumatic tyres roller:

- TS160
- TZ701
- GW750

STANDARDS REFERENCED

The following Standards, Acts and Regulations were referenced in the preparation of this Risk Assessment.

- NOHSC: 1010 (1994) - National Standard for Plant
- OHS Act 2000 (NSW)
- OHS Regulation 2001 (NSW)
- Workplace Health and Safety Act 1995 (Queensland)
- Workplace Health and Safety Regulation 1997 (Queensland)
- AS4360 (2004) – Risk Management

RISK ASSESSMENT - Pneumatic Tyred Compactor (Roller)

Subject: Sakai Pneumatic Tyred Roller

HAZARD		RISK	LEVEL	CONTROL
		Detail		
1. Suitability of the type of plant for the particular task				
1.1	No risk identified if used within the capabilities outlined in the Operator Manual			
2. Actual and intended use in the workplace				
2.1	Operator crushed by roller	Death or serious injury	Low	Always park on flat level ground and remove key
2.2	Operator crushed by roller	Death or serious injury	Low	Never operate from outside of seat
2.3	Operator crushed by roller	Death or serious injury	Low	Always wear seat belt
2.4	Operator crushed by roller	Death or serious injury	Medium	Operate in areas designed for rollers
2.5	Operator crushed by roller	Death or serious injury	Medium	Never operate on slopes or near trenches/holes
2.6	Open engine cover when hot	Burns from muffler or turbo	Medium Upper	Use caution around hot components. Decal provided
2.7	Engine access cover - finger caught	Minor shear injury to finger	Low	Use caution
3. Environmental conditions and terrain in which plant is used				
3.1	Operator crushed by roller	Death or serious injury	Low	Operate in areas designed for rollers
3.2	Operator crushed by roller	Death or serious injury	Low	Never operate on slopes or near trenches/holes
4. Foreseeable abnormal situations, misuse and fluctuation of operating conditions				
4.1	Operator crushed by roller	Death or serious injury	Medium	Operate in areas designed for rollers
4.2	Operator crushed by roller	Death or serious injury	Medium	Never operate on slopes or near trenches/holes
4.3	Foot caught when rotating seat	Minor injury to foot	Medium	Use caution when turning/rotating seat
4.4	Sit on railings and fall off	Impact injury - serious	High	Never sit on rails. Decal on rails
4.5	Reverse over bystander	Death or serious injury	Low	Reverse beeper. No bystanders in work area for minimum 3 metres
4.6	Fall into ballast tank	Serious injury	Low	Decal provided. Do not leave ballast tanks open. Use caution when lid removed
5. Potential for injury due to entanglement, crushing, trapping, cutting, stabbing, puncturing, shearing, abrasion, tearing and stretching;				
5.1	Oils onto skin	skin irritation	Low	When handling new or waste oils, use gloves and wash up afterwards
5.2	Hands caught in machine body parts	crush injury	Medium	Keep hands away from pinch points. Guarding in place
5.3	Hit head on roof structure	Strike injury to head	High	Use caution. Decal - 'low headroom'. Maintain 3 points of contact
5.4	Mis-foot exit and fall	Impact ground	Medium	Use caution on exit, never jump always maintain 3 point contact and face the machine
5.5	Jump off machine to exit	Impact ground - damage ankle	High	Use caution on exit, never jump always maintain 3 point contact and face the machine
5.6	Fill hyd oil from ground and splash	Eye injury	Low	Never fill hydraulic oil from ground level
5.7	Stand on bumper/tyre to fill hyd oil	Slip and impact ground	Low	Always fill hydraulic oil from deck level or work platform
6. Generation of hazardous conditions, due to pressurised content, electricity, noise, radiation, friction, vibration, fire, explosion, temperature, moisture, vapour, gases, dust, ice, hot or cold parts				
6.1	Hose burst - burns	hydraulic oil burns	Medium	Hoses are contained - ensure no leaks are occurring on startup. Never check leaks with hand

6.2	Hose burst - slip hazard	slip injury	Medium	Always clean up oil spills immediately
6.3	Noise of operation	hearing damage	Low	Always wear appropriate hearing protection. Rubber tyred so road noise is low
6.4	Vibration	vibration injuries	Medium	Seat is padded. If discomfort is felt, take a break. Ensure machine is maintained properly
6.5	Spill hydraulic fluid onto deck when fillir	Slip injury	Low	Use extreme caution and cleanup immediately
6.6	Fill hyd oil from ground and splash	Eye injury	Low	Never fill hydraulic oil from ground level
6.7	Stand on bumper/tyre to fill hyd oil	Slip and impact ground	Low	Always fill hydraulic oil from deck level or work platform
6.8	Spill diesel fuel onto deck	Slip injury	Medium	Use extreme caution and cleanup immediately

7. Failure of the plant resulting in the loss of contents, loss of load, unintended ejection of work pieces, explosion, fragmentation or collapse of parts

7.1	Hose burst - burns	hydraulic oil burns	Medium	Hoses are contained - ensure no leaks are occurring on startup. Never check leaks with hand
7.2	Hose burst - slip hazard	slip injury	Medium	Always clean up oil spills immediately

8. Capability of the plant to lift and move people, equipment and materials and suitability of secondary back-up system to support the load

8.1	Not applicable			
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9. Control systems, including guarding and communications systems

9.1	Guarding is placed around the machine - do not remove and operate machine			
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10. Potential for falling objects and the plant roll over

10.1	Rollover when unloading from truck	Crush injury	Medium	ROPS provided, wear seatbelt. Do not unload off steep ramp.
10.2	Rollover if traversing sloping ground	Crush injury	Medium	ROPS provided, wear seatbelt. Do not use on sloping or uneven ground

11. Suitability of materials used for the plant

11.1	All materials engineered for this product			
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12. Suitability and conditions of all accessories

12.1	Not applicable			
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13. Ergonomic needs relating to installation and use

13.1	Noise of operation	hearing damage	Low	Always wear appropriate hearing protection. Rubber tyred so road noise is low
13.2	Vibration	vibration injuries	Medium	Seat is padded. If discomfort is felt, take a break. Ensure machine is maintained properly

14. Carrying out the work without the plant

14.1	Manual compactor	Manual handling injuries	High	Inadequate job will be done, even with manual compaction
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15. Location in the workplace and the impact on workplace design and layout

15.1	Roller crushes ground	No risk to life		
15.2	Roller falls through ground	Crush injuries	Medium	ROPS. Do not use unless on adequately stable ground. Do not use near trenches/holes
15.3	Reverse over bystander	Death or serious injury	Low	Reverse beeper. No bystanders in work area for minimum 3 metres

16. Suitability and stability of the plant and supports

16.1	Roller falls through ground	Crush injuries	Medium	ROPS. Do not use unless on adequately stable ground. Do not use near trenches/holes
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17. Presence of persons and other plant in the vicinity

17.1	Bystander crushed	Death	Medium	No bystanders within 3 metres. Refer to Operation Manual
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18. Potential for inadvertent movement or operation of the plant

18.1	Key start - no risk identified			Key start and vandal protection around key barrel
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19. Systems of work associated with the plant

19.1	No risk identified			Designed to work on frsh layed asphalt, with no bystanders
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20. Access and egress

20.1	Slip on access or egress	Slip injury	Medium	Always use handrailings and maintain 3 points of contact
20.2	Fall off platform at egress point	Fall injury - serious		Always connect stop chain/bar when up on machine platform. No passengers.

21. Competency of operators

21.1	All operators must be appropriately certified. This will include authorisation from the employer, and may include certification from a national body eg workcover/worksafe			
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Hierarchy of Control

1. Elimination
2. Substitution
3. Isolation
4. Engineering Control
5. Administrative Control
6. PPE