



660 SERIES WOOD CHIPPER

HAZARD EVALUATION



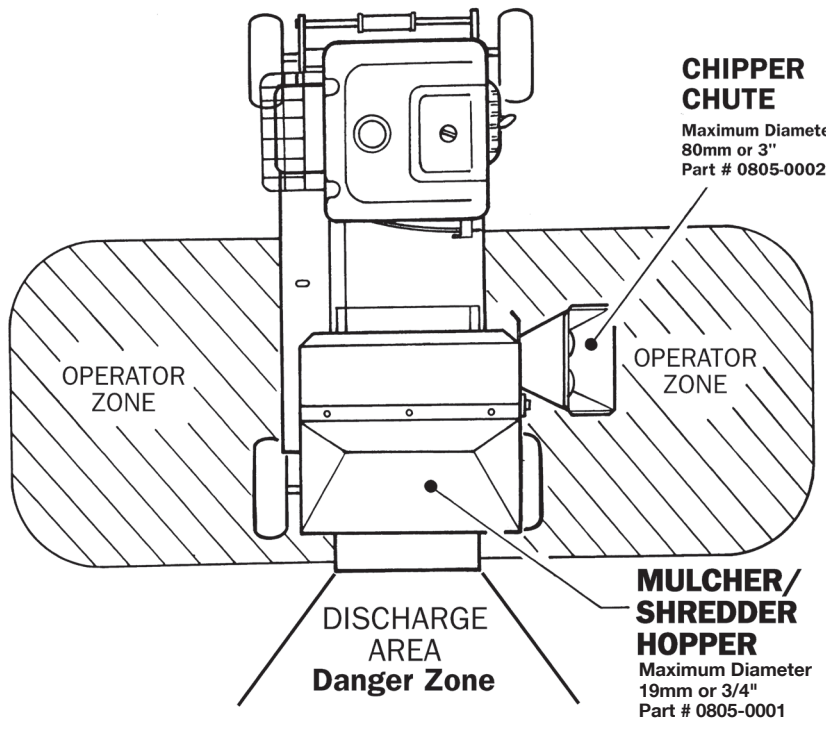
Commercial Environmental Equipment

 **YouTube - HIRE A WOOD CHIPPER**

Online Demonstration Available at: www.redroo.com/products/chipper

QUESTION? CAN A PERSON BE INJURED?	HAZARD Y OR N?	What is the Hazard?	HAZARD RATING No.	If Rating No. is 15 or less What is the 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	Rotating Parts	17	
B. CRUSHING 1. Can anyone be crushed due to				
a. Material falling off the plant?	Y	Feed Material Movement	21	
b. Uncontrolled or unexpected moving of the plant or its load?	Y	Rotating Parts	21	Use Chocks No Parking Brake
c. Lack of capacity for the plant to be slowed, stopped or immobilised?	Y	Not Chocked Hooked To Vehicle	21	Use Chocks No Parking Brake
d. The plant tipping or rolling over?	Y	Terrain Uneven Not Chocked Hooked To Vehicle	21	Use Chocks No Parking Brake
e. Part of the plant collapsing?	Y	Jockey Wheel Collapsing	21	
f. Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair?	Y	Tow Bar not in place Chute-Discharge Installation	17	
g. Being thrown off or under the plant?	Y		21	
h. Being trapped between the plant and material or fixed structures?	Y	Unhooking from Vehicle	21	
i. Other factors not mentioned? (<i>Spectators must be kept away</i>)	N			As knowledge is increased
C. CUTTING, STABBING & PUNCTURING? 1. Can anyone be cut, stabbed or punctured due to		Rotating Parts		
a. Coming in contact with sharp or flying objects?	Y	Material flying back in Mulching Hopper	17	
b. Coming in contact with moving parts of the plant during testing, inspection, operations, maintenance, cleaning or repair of the plant?	Y	Rotating Parts	17	
c. The plant, parts of the plant or work pieces disintegrating?	Y	Rotating Parts	24	
d. Work pieces being ejected?	Y	Rotating Parts	24	
e. The mobility of the plant?	Y	Not Wearing Safety Items	21	
f. Uncontrolled or unexpected movement of the plant?	Y	Developing from Vehicle	21	Use Chocks No Parking Brake
g. Other factors not mentioned? (<i>Spectators must be kept away</i>)	N			As knowledge is increased
D. SHEARING 1. Can anyone's body parts be sheared between two parts of the plant, or material handled by the plant?	Y	Rotating Parts Operator Error	17	
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?	Y	Engine Muffler	21	
F. STRIKING 1. Can anyone be struck by moving objects due to :				Use Chocks. No Parking Brake
a. Uncontrolled or unexpected movement of the plant?	Y	Developing from Vehicle	21	
b. The plant, parts of the plant or work pieces disintegrating?	Y	Rotating Parts	24	
c. Work pieces being ejected?	Y	Rotating Parts	24	Not wearing Safety Gear Flap Defective

QUESTION? CAN A PERSON BE INJURED?	HAZARD Y OR N?	What is the Hazard?	HAZARD RATING No.	If Rating No. is 15 or less What is the CONTROL?
d. The mobility of the plant?	Y	Not Wearing Safety Gear	21	
e. Other factors not mentioned (<i>Spectators must be kept away</i>)	N			As knowledge is increased
G. HIGH PRESSURE SUBSTANCES 1. Can anyone come into contact with substances under high pressure, due to plant failure or misuse of the plant?	Y	Hydraulic Fluid	21	
H. ELECTRICAL 1. Can anyone be injured by electrical shock or burnt.	Y	Electrical Circuit Failure	24	
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	Operator Inducted	24	
J. SLIPPING, TRIPPING & FALLINGS 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	Operator does not use common sense or is not wearing proper clothing or exercised proper housekeeping of Operators Zone	23	Use Chocks No Parking Brake 15 degree Limitation
b. Poor housekeeping, eg swarf in the vicinity or the plant spillage not cleaned up?	Y	See Above (a)	23	
c. Obstacles being placed in the vicinity of the plant, other factors not mentioned?	Y	See Above (a)	23	
d. Steep walking surfaces?	N	(Note: 15 degree limitation)		
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?	Y	Human Error to behave in an unsafe manner and not to use Safety Gear	25	
f. Mismatch of the plan with human traits and natural limitations?	N	See Above (a)	25	
L. SUFFOCATION 1. Can anyone be suffocated due to lack of oxygen, or atmospheric contamination?	N			
M. HIGH TEMPERATURE OR FIRE 1. Can anyone come into contact with objects at high temperature?	Y	Engine Exhaust	21	
N. OTHER HAZARDS 1. Can anyone be injured or suffer ill health from exposure to:				
a. Fumes?	Y	Engine running rich	23	
b. Dust?	Y	Using very Dry Material Excessively	20	
c. Noise?	Y	Not wearing Ear Protection	21	
d. Vibration?	Y	Not Wearing Proper Safety Equipment	23	



CALCULATION FOR RISK ASSESSMENT

For each identified hazard consider the maximum credible, not absolute worst case risk that may result and select from each of the following Lists

	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

Plot the categories selected from 'Likelihood of Occurrence' and 'Severity of Result' onto the Hazard Rating Grid to determine the Hazard Rating Number.

eg. If we plot 4 and B on the Hazard Rating Grid, the Hazard Rating number will be 14.

HAZARD RATING GRID

	A	B	C	D	E
1	1	2	4	7	11
2	3	5	8	12	16
3	6	9	13	17	23
4	10	14	18	21	23
5	15	19	22	24	25

The Hazard Rating Number calculated for the risk assessment of an identified hazard is classified as follows:

- a) Relatively High Risk 1 to 6
- b) Medium Risk 7 to 15
- c) Relatively Low Risk 16 to 25 (acceptable risk)

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safety
IS EVERYBODY'S BUSINESS
...now

You alone know the operational demands and special conditions affecting the equipment in your situation and therefore assume the responsibility for developing, carrying out, and enforcing the safety concepts which apply to your own operation to effect the greatest safety for yourself and the people around you.

RED ROOTM
Commercial Environmental Equipment

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