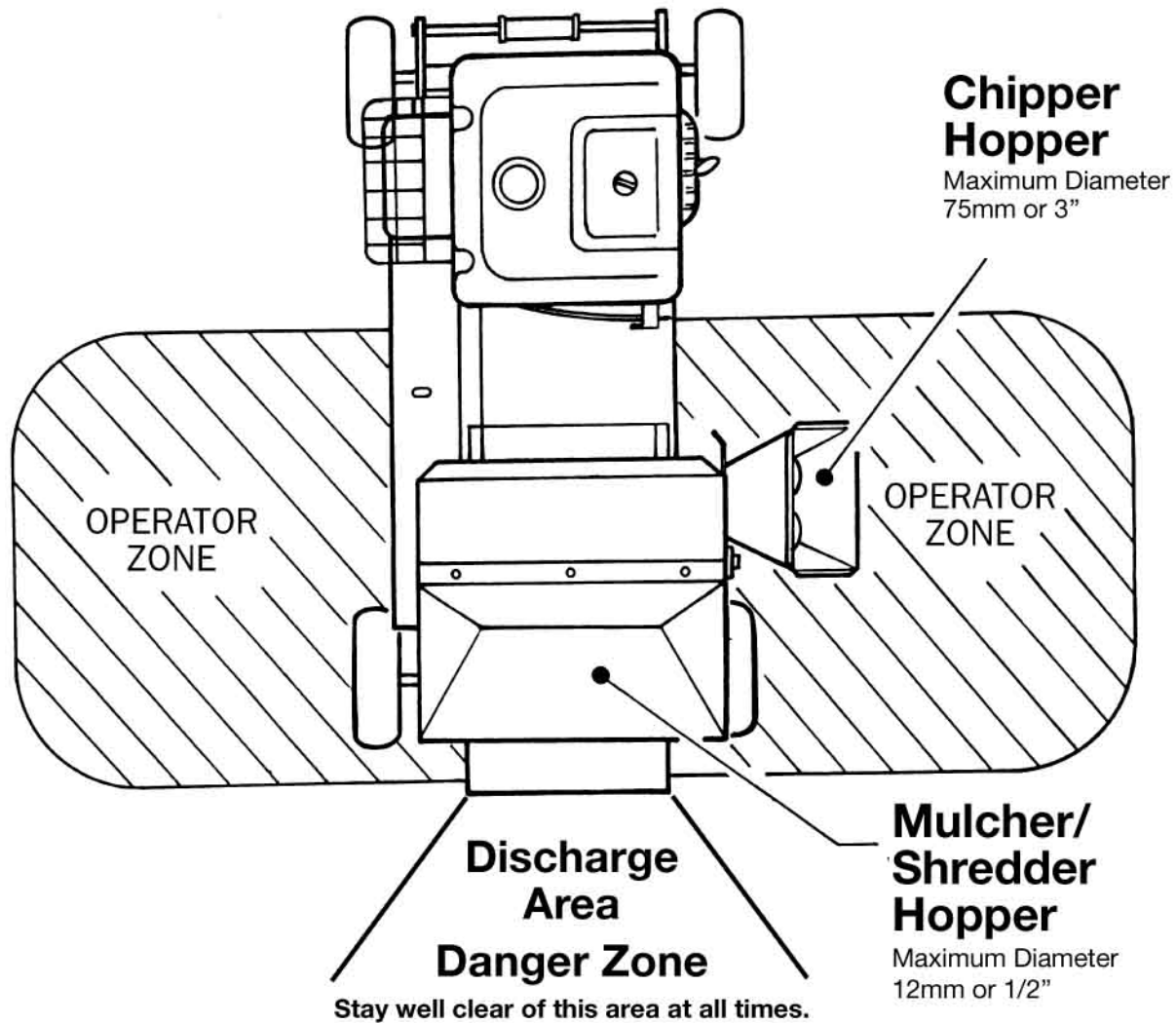




| QUESTION? CAN A PERSON BE INJURED?  | HAZARD Y OR N? | What is the Hazard?                        | HAZARD RATING No. | If Rating No. is 15 or less What is the CONTROL?                               |
|---|----------------|--|-------------------|--|
| <b>A. ENTANGLEMENT</b><br>1. Can anyone's hair, 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                             | 21                | Engine Flywheel, Small Hopper, Large Hopper, Belts, Discharge Area All Guarded |
| <b>B. CRUSHING</b><br>1. Can anyone be crushed due to   |                |  |                   |  |
| a. Material falling off the plant?  | N              |  |                   |  |
| b. Uncontrolled or unexpected moving 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?   | N              |  |                   |  |
| e. Part of the plant collapsing?  | N              |  |                   |  |
| f. Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair?   | N              |  |                   |  |
| g. Being thrown off or under the plant?   | N              |  |                   |  |
| h. Being trapped between the plant and material or fixed structures?  | N              |  |                   |  |
| i. Other factors not mentioned? ( <i>Spectators must be kept away</i> )   | N              |  |                   |  |
| <b>C. CUTTING, STABBING &amp; PUNCTURING?</b><br>1. Can anyone be cut, stabbed or punctured due to  |                |  |                   |  |
| a. Coming in contact with sharp or flying objects?  | Y              | Material flying back in Mulching Hopper    | 20                | Not Wearing Safety Gear, Flap Defective  |
| b. Coming in contact with moving parts of the plant during testing, inspection, operations, maintenance, cleaning or repair of the plant?   | Y              | Rotating Parts                             | 21                | Guard not in Place   |
| c. The plant, parts of the plant or work pieces disintegrating?   | Y              | Guards are Involved                        | 24                | Desintegration is designed to stay within case                                 |
| d. Work pieces being ejected?   | Y              | If they get into Rotor Area                | 24                | Designed to go down into the Non Operator Zone                                 |
| e. The mobility of the plant?   | N              |  |                   |  |
| f. Uncontrolled or unexpected movement of the plant?  | N              |  |                   |  |
| g. Other factors not mentioned? ( <i>Spectators must be kept away</i> )   | N              |  |                   |  |
| <b>D. SHEARING</b><br>1. Can anyone's body parts be sheared between two parts of the plant, or material handled by the plant?   | N              |  |                   |  |
| <b>E. FRICTION</b><br>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              |  |                   |  |
| <b>F. STRIKING</b><br>1. Can anyone be struck by moving objects due to :  |                |  |                   |  |
| a. Uncontrolled or unexpected movement of the plant?  | N              |  |                   |  |
| b. The plant, parts of the plant or work pieces disintegrating?   | Y              | Guards are involved                        | 24                | Desintegration is designed to stay within case                                 |
| c. Work pieces being ejected?   | Y              | Material kicking back from Mulching Hopper | 20                | Not wearing Safety Gear Flap Defective   |
| d. The mobility of the plant?   | N              |  |                   |  |
| e. Other factors not mentioned ( <i>Spectators must be kept away</i> )  |                |  |                   |  |

| 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? |
|--|----------------|--|-------------------|--|
| <b>G. HIGH PRESSURE SUBSTANCES</b><br>1. Can anyone come into contact with substances under high pressure, due to plant failure or misuse of the plant?  | N              |  |                   |  |
| <b>H. ELECTRICAL</b><br>1. Can anyone be injured by electrical shock or burnt.   | N              |  |                   |  |
| <b>I. EXPLOSION</b><br>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? | N              |  |                   |  |
| <b>J. SLIPPING, TRIPPING &amp; FALLINGS</b><br>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 house-keeping of Operators Zone | 23                |  |
| 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              |  |                   |  |
| <b>K. ERGONOMIC</b><br>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                | Take off Guards without proper Maintenance       |
| f. Mismatch of the plan with human traits and natural limitations?   | N              | See Above (e)  | 25                | Human Factor to be adequate to task              |
| <b>L. SUFFOCATION</b><br>1. Can anyone be suffocated due to lack of oxygen, or atmospheric contamination?  | N              |  |                   |  |
| <b>M. HIGH TEMPERATURE OR FIRE</b><br>1. Can anyone come into contact with objects at high temperature?  | Y              | Engine Exhaust   | 21                | Location of Hot Spots and Guarding               |
| <b>N. OTHER HAZARDS</b><br>1. Can anyone be injured or suffer ill health from exposure to:   |                |  |                   |  |
| a. Fumes?  | Y              | Engine Running Rich  | 23                | Proper Maintenance                               |
| b. Dust?   | Y              | Using very Dry Material Excessively  | 20                | Run Larger Material or Wet Material              |
| c. Noise?  | Y              | Not wearing Ear Protection   | 21                | Continuous use without a Muffler.                |
| d. Vibration?  | N              |  |                   |  |
|  |                |  |                   |  |



## 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)